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INDIAN EDUCATIONAL REVIEW

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CONTENTS

EDITORIAL

This issue of *Indian Educational Review* carries one research review article on the theme of education of children with disabilities and two research papers.

Beginning with January 2018 issue, the *Indian Educational Review* has started bringing out survey of research of Indian studies conducted during 2000 to 2015 on a specific theme concerning school education and teacher education. The January 2018 issue carried out the research survey on the theme of environmental education. The current issue carries the analysis of Indian researches on education of children with disabilities by Ittira Poovaiah Gowramma, Elizabeth Gangmei and Laxmidhar Behera. In doing so, the authors have covered research related to special education, integrated education, special needs education and inclusive education. The review extensively covers the research related to prevalence and participation of such children in the schooling process, their early education, assessment, psycho-social dimensions, academic performance, role of family and community, effect of other marginalised conditions (such as SES, women), employment and participation in higher education, role of teacher education and teacher competence, availability of materials and policy/programme implementation. An attempt has been made to identify the research gaps and suggest areas for future research.

Two research papers have also been included in this issue. The first paper by Yukti Sharma titled *"How distant is 'inclusion'?: A study of Delhi school teachers"* explores teachers' perception about children with special needs and analyses the extent of preparedness and use of inclusive practices in the schools of Delhi. The second paper titled *"Effect of Gender, Region and Type of School on Social, Cognitive and Affective Skills of Higher Secondary School Students"* incorporates findings of a study conducted in schools in which the Chhattisgarh Right of Youth to Skill Development Act 2013 has been implemented. The study reports positive effect of different variables on skill development among tribal youth.

The *Indian Educational Review* focuses on enriching the discipline of education by disseminating findings of educational research, providing opportunities for exchanging research experience among fellow researchers, motivating academicians and providing inputs to all those involved in policy making and planning. Contributions of academicians, researchers and freelancers are cordially invited for the next issue. We seek your suggestions and views on improvement of the journal and research initiatives.

Academic Editor

INDIAN EDUCATIONAL REVIEW

The *Indian Educational Review* is a bi-annual journal, brought out by the National Council of Educational Research and Training (NCERT), New Delhi. The journal publishes articles and researches on educational policies and practices and values material that is useful to practitioners in the contemporary times. The journal also provides a forum for teachers to share their experiences and concerns about schooling processes, curriculum, textbooks, teaching-learning and assessment practices.

The views expressed by individual authors are their own and do not necessarily reflect the policies of the NCERT, or the views of the editor.

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Research Review Article

Research in Education of Children with Disabilities

ITTIRA POOVAIAH GOWRAMMA*, ELIZABETH GANGMEI**
AND LAXMIDHAR BEHERA***

ABSTRACT

The review presents a systematic and comprehensive framework concerning the state of research in the field of education of children with disability/disabilities (CwD/CwDs) from the year 2000 to 2017, with a view to identify the key areas and generate questions for future research. Published studies, doctoral dissertations and institutional research were considered for mapping the current status. The analysis indicates that the area of study is expanding reflecting tremendous growth, research percolating various aspects of disability with a focus on empowering them through education. The time following the global flagship of Education for All (EFA) with a rights based approach for disability has made significant contribution to expansion of research ideas and scope. Fostering learning through various strategies, understanding the relationship of psychosocial factors in development and learning, academic performance, impact of significant people in development, and supporting learning through material development emerged as prominent choice of researchers. However, the analysis also shows that the research still seems to be considering disability as a deficit, and the need for shifting the focus to capacity approach by magnifying personal capabilities and dignity of CwD is strongly felt. There is paucity of researches based on critical perspective, serving both informative and transformative

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role. In order to fill the void empirical studies regarding the proactive measures that students with disability/disabilities (SwD) use to maximise their potential in personal, social and academic arena needs to be taken up in the future.

The challenge of addressing diversity among the learners continues to be a major concern in education. The concern has been spelt out in major international declarations and documents where India is a signatory, such as *World Declaration for Education for All (1990)*, *UNCRPD (2006) Global Monitoring Report (2006)* and *Millennium Development Goal (2015)*. The major focus of all these documents and reports are children with 'disability'. Learners with disability continue to appal us with their special needs and unique way of learning. As such, they are vulnerable to drop out or being pushed out from the school system. As per an estimate, people with disabilities in India are enormous with 3–4 per cent, bringing the scale of problem to a conservative estimate of 40 million (Alur, 2009). What is more important is the exact incidence and prevalence of different disabilities, their placement in an educational set up in special school, inclusive school or home-based instruction, appropriate utilisation of aids and appliances, their participation in school activities, higher education options and challenges faced by teachers, parents and students themselves.

This review presents the trend analysis of research under education of children with disability. Here, research carried out under special education, integrated education, special needs education and inclusive education are considered. In India, literature on inclusive education used the term children with special needs as synonymous with children with disabilities (Singal, 2005). Salamanca statement and framework for action on special needs education (UNESCO, 1994) uses the term 'special educational needs' to include all those children whose needs arise from disabilities or learning difficulties. Moreover, all the national and international documents including the latest Rights of Persons with Disabilities Act (RPwD, 2016) uses the term 'disability'. Based on these legal documents and to specifically focus on the target population, the term disability is used throughout this chapter.

Historical Overview

In India, the marginalisation of persons with disability (PwD) is compounded by poverty, gender, caste and community.

Buckingham (2011) argues that disability is like race or gender, an analytical tool to understand oppression and disempowerment. Buckingham perceives history as a critical factor in affirming the right of Indians with disabilities to full social and economic participation. There is a need to look beyond welfare paradigm and move ahead to investigate disability as an aspect of rights. Even though the history of education of CwD in India dates back to the 1880s when schools were started for them as a charitable cause relying on voluntary agencies, the core idea of rights-based participation of PwD is yet to be achieved. Important initiative is the education of CwDs getting a mention in the national education system for the first time by the *Sargent Report* (1944), followed by the Kothari Commission or Education Commission (1964) recommending their inclusion in regular schools. Since Integrated Education of the Disabled Children (IEDC, 1974), National Policy on Education (NPE, 1986) and constitutional amendments thereafter, providing community participation at the elementary level, several policy and legislative changes have touched upon the hitherto neglected children with disabilities. A decade from 1990 to 2000 paved the way for radical changes with Rehabilitation Council of India (RCI) Act (1992), Persons with Disabilities (PwD) Act (1995), merging of IEDC with District Primary Education Programme (DPEP, 1997) and National Trust Act (1999).

The global EFA (2000) movement reciprocated in our country under *Sarva Shiksha Abhiyan* (SSA, 2002). World Conference on Special Needs Education at Salamanca (UNESCO, 1994) added momentum to the change wave by highlighting the unique learning needs of every student and education system to accommodate the wide diversity by adopting student-centred pedagogy capable of meeting these diverse needs. With this inclusive orientation to the education system, it was envisaged to build an inclusive society and achieve Universalisation of Elementary Education (UEE) as a cost effective alternative. In 2005, the Central Advisory Board on Education (CABE) observed that all children experience special needs at some point of time and it may not arise from disability only and thus the philosophy of inclusion is a gain for all. It further recommended Universalisation of Secondary Education (USE) for girls and those with disabilities on the grounds of equity and social justice. After the implementation of the flagship programme of SSA for elementary level, the centrally sponsored scheme of inclusive education of the disabled at secondary stage (IEDSS, 2009) was

merged under *Rashtriya Madhyamik Shiksha Abhiyan* (RMSA, 2009) to enable students with disabilities to continue secondary education in an inclusive environment. Another significant move at the international level, United Nations Convention on the Rights of Persons with Disabilities (UNCRPD, 2006), to which India is a signatory, mandated to implement the provisions by harmonizing Indian laws with it resulting in RPwD Act(2016). In addition, education of CwD is now an integral part of the international discourse, as noted in the Sustainable Development Goals (United Nations 2015a) and the Incheon Declaration (UNESCO, World Education Forum 2015, Ministry of Education, Republic of Korea 2015).

In the policy and programmes of the first decade and a half of the millennium, there is an indication of growing awareness for the critical need to envisage positive rights to PwD. With the landmark legislation RPwD Act (2016), it is expected that progress in education through prevention, intervention and remediation will take a turn changing the framework for education of CwD. Policies and programmes need to be experienced by the stakeholders and reach the unreached; the priorities as it stands today are multi-faceted. To strengthen policy, recommendations from contemporary scientific research are significant.

Earlier, in India, the area of children with disabilities did not attract much attention of the researchers. The third survey of educational research (1978-83) reported 12 studies in three different chapters. The fourth survey (1983-88) carried a chapter on special education reporting only 16 studies. Up to fourth survey of research in education, 60 studies were identified (Jangira and Mukhopadhay, 1991). A total of 77 studies were included in the fifth survey (1988-92). The sixth survey (Swarup 2002) from year 1993 to 2000 under the heading *Inclusive Education* reported a positive trend towards inclusion of children with disabilities from the perspective of peers, teachers and administrators. The survey covered a broad range with a focus on specific disability areas and giftedness, and covered varied target group of parents, families and community from special and integrated education. Only those studies with the title 'inclusive' were put under inclusive education. Awareness on policies and provisions for children with disability was low among educators along with several identified factors influencing the perception of teachers on feasibility of inclusive education. Another significant observation made in the sixth

survey was that most of the researches reported under inclusive education are action research. Very few studies which had been documented used the term integrated, mainstreamed and inclusive education. Research conducted during 90s is either at awareness level or exploratory nature. A need was felt for undertaking specific, precise and scientific researches. Need for large scale scientific research, material development including multimedia packages for different target groups for attitudinal change to be tried out and curriculum development were the areas identified for future studies. The administrative and management aspects of inclusive education at micro and macro level were identified as priority areas of research.

The International Perspective

Education of children with disabilities is an integral part of international discourse (Sustainable Development Goal, UN 2015a) on education. Education of CwD is not of the recent origin as evidenced in the EFA declaration that the learning needs of children with disabilities demand special attention (UNESCO, 2000). "The Right to Education for Person with Disabilities: Towards Inclusion" is a flagship effort spearheaded by UNESCO, as well as the International Disability Organisation (IDO), UNICEF, the World Bank and the Organisation for Economic Cooperation and Development (OECD).

The UN Convention on the Rights of Persons with Disabilities (2006), with a focus to ensure that PwD enjoy human rights on an equal basis with others, is the first human rights convention of 21st century and the first legally binding instrument with comprehensive protection of the rights of PwD (History of Disability and the UN, 2008). Its main goals are to ensure that the international development programmes are accessible to PwD and inclusive in nature, to facilitate cooperation in research and access to scientific and technical knowledge and to provide need based appropriate technical and economic assistance. However, as Rieser (2012) observed, though there is a flagship initiative to include CwD in EFA since 2001, it remains largely ineffective. According to *Plan International Report (2013)*, children with disabilities are 10 times more likely not to attend schools than children without disabilities. Similarly, children at risk of disability are observed to be far more likely to be denied a chance to go to school (GMR UNESCO, 2014). Tamosevski (2003) attempted to look at the reasons for out of

school CwD from the point of view of human capital theory and observed that countries see the viability commercially in terms of expenditure made and learning in the form of return.

The current focus of research in neuroscience is mainly on brain biology and environment factors responsible for the developmental disorders as well as strategies and treatments that best address them (Healey, 2009), which is highly relevant for special education. A comprehensive prevention model evolved from prevention science is emphasised in Individuals with Disabilities Education Act (IDEA Act, 2004) and was also adapted by education law in the states of the USA (Shulte, 2016). This model is based on, Response to Intervention (RtI), and follows a multi-tiered system of support that is introduced as a framework for school-wide service delivery for all students (Jimerson, et al, 2015). There is also a move towards focusing on learning rather than deficit in a student. As envisaged by Rose and Meyer (2006) through universal design of learning (UDL), in environments such as schools, individual variability is the norm, not the exception. When curricula are designed to meet the needs of all learners, pedagogy would address the reality that is the learner variability. It may, however, be noted that there are more similarities than differences in the Western countries (Chennat, 2017).

Objectives of the Review

This review was conducted with the following objectives.

1. To identify the themes of research in areas of different disabilities, the design and outcomes of research conducted during the period?
2. To study the extent to which research in the area of education of children with disabilities enhance our understanding and provide ideas for innovative and need based practices?
3. To examine whether the research trends in education of children with disabilities influence educational research as a whole, educational policy planning and implementation in particular?

Methodology

The materials, resources for the present review were collected based on the following criteria:

- Research conducted/articles published/presented during 2000–17;
- Studies/published articles related to education either directly or indirectly of children with disability;

- Only those articles/papers/abstracts having required details (year, context, complete publication details);
- PhD and MPhil dissertations;
- Institutional research reports, books, articles published in journals and documents (International and National).

Abstracts and PDF from Online sites like http://shodhganga.inflibnet.ac.in/, https://eric.ed.gov/, https://www.tandfonline.com/, http://academic.research.microsoft.com/, https://scholar.google.co.in/, https://www.ncbi.nlm.nih.gov/pubmed, http://journals.sagepub.com/, https://www.researchgate.net/, https://books.google.co.in/, https://www.sciencedirect.com/, https://doaj.org/, http://www.jurn.org, https://www.base-search.net/?l=en, http://citeseerx.ist.psu.edu/index, etc.

Prevalence and Participation of PwD in Education

The Census 2001 focussed on five categories of disabilities only. However, the number of categories increased to eight in 2011 covering those coming under PwD Act (1995) and National Trust Act (1999). Though not comparable due to variation in tool in the two censuses, there is an increase in the percentage of PwD from 2.13 per cent in 2001 to 2.21 per cent in 2011 (Table 1) compared to a decade ago was recorded at 2.12 per cent (Table 2).

Table 1

Population by Residence and Sex with Decadal Change

Group		Census 2001	Census 2011
Residence	Urban	2.21	2.24
	Rural	1.93	2.17
Sex	Male	2.37	2.41
	Female	1.87	2.01
Total		**2.13**	**2.21**

The decadal growth depicts an increase in both urban and rural population of PwD with higher proportion in rural areas and among females. It is hypothesised that the increase in incidence of disability could be due to improved diagnostic and reporting procedure, increased survival rates of infants and complications following maternal substance abuse (New and Cochran 2007). It may be further noted that the incidence of disability related to seeing, hearing, speech and movement was higher as compared to other disabilities (Table 2).

Table 2

Population by Type of Disability

Type of Disability	Population	Proportion
Seeing	5,032,463	18.8
Hearing	5,071,007	18.9
Speech	1,998,535	7.5
Movement	5,436,604	20.3
Mental Retardation	1,505,624	5.6
Mental Illness	722,826	2.7
Multiple Disability	2,116,487	7.9
Any Other	4,927,011	18.4
Total	**2,68,10,557**	**100**

Though the percentage of literacy has increased in a decade among PwD and population, the gap between literacy rate among PwD and population is widening (Table 3). This is a concern that calls for immediate attention by policy and practice. In spite of getting global attention for education of CwD, the gap in literacy rate between PwD and population was more in the 2011 census (Table 4).

Table 3

Literacy Rate among PwD vis-a-vis Population

Year	PwD	Population
2001	49%	64.83%
2011	54.52%	74.04%

Table 4

Distribution of CwD (5-19 years) with regard to Attending Educational Institute

Distribution	Residence		Sex	
	Rural	Urban	Male	Female
Attending	60	65	62	60
Attended	12	11	12	12
Never Attended	28	24	26	28

The proportion of PwD who never attended any educational institution in 2011 was found to be highest among persons with 'multiple disability' (54.4%), followed by 'mental illness' (50.3%) and 'mental retardation' (41.2%). Whereas the category of 'any other disability' (17.7%) shows the least percentage (Figure 1).

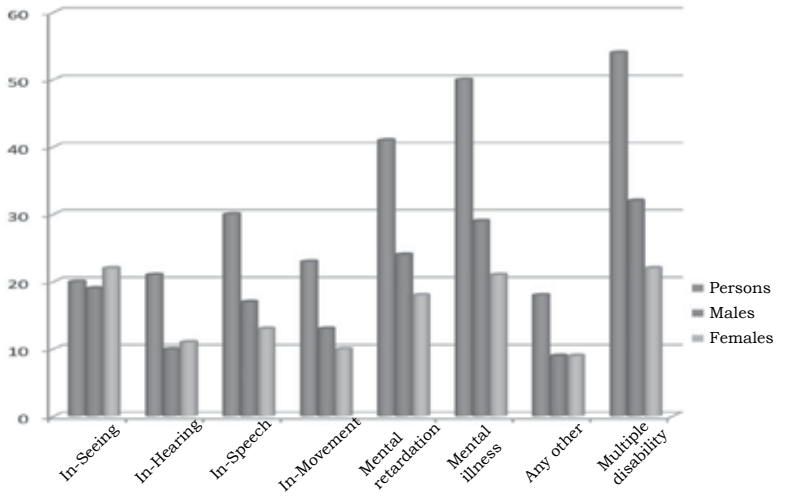

Figure 1. Disability wise Children not Enrolled in an Educational Institute (5-19 years) (**Source**: Disabled Persons in India: A Statistical Profile 2016)

Participation of CwD in Education

Of the total population of PwD, nearly a quarter is in the school going age group of 5-19 (Table 5). It is astonishing that only 7% are enrolled in regular schools. There is a need to find out the status of remaining CwD who are enrolled in special schools, vocational institutes or in the work force. The increased number of students at the secondary level as compared to elementary could be due to the flow of children from elementary level during the year of data capture. However, it is to be noted here that there is no coherence among the sources of data (Census 2011 and UDISE 2015).

Table 5

Total Population and Enrolment Status of CWSN in India

	Total **	PwD**	CwD in age group of 5-19 years**	CwD enrolled at Elementary Level***	CwD enrolled at Secondary Level***	CwD enrolled (Elementary and Secondary)***
Population	1210854977	26810557	6572999	222787	237463	460250
Percentage	-	2.21	24.52	3.38	3.61	6.99

Sources: **Census, 2011; http://www.censusindia.gov.in,
***UDISE, 2015.

The NSSO, in its endeavour to provide information on the magnitude and characteristics of the PwD, conducted the third survey of PwD in the country during July 2002 to December 2002 (NSS 58th round). Some significant findings were: for every 100,000 people, 1755 were found to be having either mental or physical disability; among the rural residents, the prevalence was 1.85 per cent; among the urban, it was 1.50 per cent. The prevalence rate in males was 2.12 per cent and 1.67 per cent while that for females was 1.56 per cent and 1.31 per cent in rural and urban areas, respectively. About 55 per cent of the PwD were illiterate and about 9 per cent completed education at secondary level and above. Surprisingly only 11 per cent of PwD in the age group of 5–18 years were enrolled in the special schools in the urban areas as compared to even less than 1 per cent in the rural areas. Out of 1000 PwD, only 15 to 35 completed vocational course and that too 74 to 80 per cent in non-engineering stream (NSSO, 2003). However, it is to be noted that there are discrepancies in the various survey reports with reference to prevalence of PwD. Given the stigma surrounding disability, severe impairment, many women and rural population being excluded from census and surveys (Jeffery and Singal, 2008) in India and the concerns that there are no clear estimates of number of PwD persists.

A retrospective study on the prevalence and socio-demographic profile of children with developmental disability (CwDD) was conducted in Odisha from secondary data source of open data from government websites (Ambareen, 2016). The five categories, namely Autism Spectrum Disorder (ASD), Cerebral Palsy (CP), Learning Disability (LD), Intellectual Disability (ID) and Multiple Disability (MD) under developmental disabilities Developmental Disability (DD) among various socio demographic population, revealed Other Backward Caste (OBC) under caste category and CP among DD category having highest prevalence. The available statistics revealed that from 2011–12 to 2015–16 there was decrease in the incidence of DD. Prevalence of children exhibiting Attention Deficit Hyperactive Disorder (ADHD) in school population are reported in separate studies depicting 6 per cent (Chadha, 2003); 4 per cent (Gupta and Mishra, 2011); and 11 per cent (Venkata and Panicker, 2013) with boys outnumbering girls in varying ratios.

Disability prevalence and its association with socio-demographic and socio-economic characteristics of Census 2011 data of disability was analysed by Saikia et al. (2016). The

analysis reported disproportionate distribution of disability across geographic regions and socio-economic groups. They recommended changing the definition of disability to generate internationally comparable estimates of disability prevalence.

In India there are serious concerns regarding the accuracy and reliability of reporting the number of PwD (Singal, 2006). These concerns are reflected in the report of the Office of the Registrar General (2006) which notes that there are serious difficulties in carrying out survey of PwD due to various reasons such as; lack of well-trained field investigators, and the families' inhibition to disclose detailed information about members with disabilities due to existence of social stigma. In India, systematic research into prevalence and determinants of disability has been scanty although it is an important public health problem as noted by Kumar and Das (2009). They further observed that disability is the best example of the iceberg phenomenon of disease because of difficulty in identifying the mild and moderate degrees of disability, which remains unrecognised by the healthcare delivery system and the survey team members. To target preventive care, it is necessary to take up epidemiological studies as it helps in identifying risk factors and develop evidence-based practices.

Early Education of CwD

While there is no second opinion about the critical outcome of beginning early intervention to reduce the impact of disability, the practice seems to be elusive. Evaluation of Integrated Child Development Services (ICDS) Scheme by the National Institute of Public Cooperation and Child Development (NIPCCD, 2009) puts on record the absence of awareness about disability among the Anganawadi Workers (AWW) and total lack of intervention and referral service. The scheme strongly recommends training of AWW on skills required for early detection of disability/children at risk and primary prevention.

Lack of facility for CwD in different types of pre-schools is noticed by Kaul et.al. (2015). Behera and Gowramma (2016) observed that CwDs though enrolled, are not attending Anganwadi Centres (AWC) due to lack of awareness in the community regarding the facilities and importance of early intervention. Gobalakrishnan (2013) found officials and AWWs not aware of government schemes which are introduced for the welfare of the physically challenged except the financial assistance and

provision of material benefit mainly due to isolation of CwD from the mainstream. The National Early Childhood Care and Education(ECCE) Policy of Government of India (2013) reiterates for proactively addressing the discrimination and inequities based on gender, social identity and disability toward fulfilment of right to free and universal pre-primary education. When inclusion of CwD is a national mission guided by international conventions, the findings of the above studies point towards the urgent need to strengthen ICDS system to fulfil this mandate. The unique early childhood programme would be laudable if detection, referral and intervention are woven skilfully into it. In this direction the *Rashtriya Bal Swasthya Karyakram* (RBSK, 2013) is an important initiative of Ministry of Health and Family Welfare, Government of India aiming at early identification and early intervention for children from birth to 18 years to cover 4 'D's viz. defects at birth, deficiencies, diseases and development delays including disability. The scheme is aimed to cover children of 0-6 years of age in rural areas and urban slums in addition to children enrolled in classes 1st to 12th in Government and Government aided Schools. Well-conceived implementation strategies are specified as to reach the target through existing structure and system.

Limited information available on Social Emotional and Behavioural Difficulties (SEBD) is observed by D'Souza and Jament (2015), while tracing the research studies in India through a wide range of literature. They investigated the knowledge base in respect of SEBD from the perspective of kindergarten teachers in a single school. Based on interview with teachers, the useful strategies are identified, some of them in tune with existing literature. They suggest rigorous research to make the framework more robust and adaptable. Findings of a study by Nair and Gowramma (2014) also revealed that professionally qualified teachers displayed better skills in interacting with Children with Hearing Impairment (CwHI) in early intervention, though teachers with short term training demonstrated awareness and positive attitude. Research based professional programmes for preparing personnel for early identification and intervention has to be designed to overcome the lacuna in the early education of CwD.

There have been a series of studies incorporating interventions in the early stages of development to establish the advantages of early intervention. Gowramma et al. (2013) by identifying difficulties in acquisition of reading skills among pre-schoolers with

Hearing Impairment (HI) provided a systematic remedial reading programme, bringing about improvement in the basic reading skills. Suresh and Gowramma (2010) observed improvement in social participation of the pre-school CwHI with one month of planned intensive training on communication skills involving parents and siblings as partners. Janwadkar (2015) established the effectiveness of a school readiness programme among Children with Autism Spectrum Disorder (CwASD) through an intervention based on strengths and weaknesses obtained through a pre-test. Keeping the natural characteristics of the disorder unaltered, the pre-schoolers showed improvement in all the domains assessed. Based on literature study, the role of early intervention as "vaccination" in preventing LD is suggested by Mahakud (2010). While exploring the daily activities of pre-school Children with Developmental Disorders (CwDD), Venkatesan (2005) calls attention of professionals to revamp the schedule, as it was found that they spent time on sedentary activities. Parasuram (2011), while lamenting on the crucial years lost when the study identified the age of referral as 8–9 years, draws attention towards neuropsychological studies directing towards intervention to begin early to benefit by the neural plasticity.

Gowramma and Yathiraj (2016) compared the performance of pre-schoolers with and without hearing impairment on early mathematical skills. The results clearly indicated that children with HI performed at par with their hearing counterparts in number concept, but could not catch up with them in the fundamental operations indicating that the difficulty is due to lag in the process of development and not due to disability. Early identification of children with intellectual disability (CwID) in the community and providing early intervention and including them successfully into schools is reported by Samadhan (2007). Mishra and Singh (2013) conducted case study of inclusion of CwHI in pre-school and identified factors for success as parental/peer support and positive attitude of teachers. They also placed on record the reality that most of the pre-schools were not easily approachable for CwHI due to the strong belief grounded in deficit theory. Significant improvement in the language of CwHI was observed through an implementation of a structured curricular framework designed for pre-school (Prema and Dehadrai, 2012). A satisfactory trend in early identification and timely intervention ensuring commendable influence on development of communication and academic skills

as well as social integration in the educational mainstream was revealed by Malar et.al. (2013) in a survey. Rakap and Balikci (2016) noted high levels of independent performance during follow up sessions after an intervention programme of teaching functional skills to a child with autism.

Knowing the impact caused by disability to the person, family and society we need substantial studies on intervention, implementation in practical situation and identifying the challenges at the institutional level. While designing developmentally appropriate practices for this stage the diverse needs and context of CwD needs to be taken care of. Further, research on ECE of CwD especially from the socially disadvantaged section has to be prioritised to strengthen every mechanism for early identification and intervention, followed by inclusive environment in pre-school, in a collaborative approach. When compared to other stages of education, case studies on good practices and innovation on ECE of CwD are scarce. Early Childhood Education (ECE) being a basis to later educational progress, attending to the needs of CwD is beneficial to the individual and society at large.

Varied Contexts for Education of CwD

Perspectives on education of CwD have been constantly modified with increased awareness and understanding of special needs arising out of disability. Significant advancement in practices is placed on record by research and policy (Jangira, 2002). In fact, the *Sarva Shiksha Abhiyan (SSA)*, India's flagship elementary education programme, seeks to provide quality elementary education to all, focusing especially on girls' education and children with special needs. More significantly, SSA categorically brings the concerns of children with disabilities—or those termed as 'children with special needs' (CWSN) under the framework of 'inclusive education' (IE) and argues for the adoption of a 'zero rejection policy' so that no child is left out of the education system (SSA, 2007). It noted that education of children with disabilities should be promoted through a multi-option model of educational delivery, which will not only increase access but also provide these children with appropriate, need-based skills be they vocational skills, functional literacy, or simply activities of daily living in the most appropriate learning environment. Therefore, alongside mainstreaming, SSA also promotes a combination of home-based education (HBE) and alternate educational settings

in order to address the educational needs of children with severe intellectual/physical disabilities (SSA, 2007). However, there is a concern for home based education of CwD. While exploring the home based education under SSA, Julka (2010) identified the missing links of such programmes to education system. Rajeshwari (2013) observed encouraging enrolment rate and no dropout of CwD in the state of Uttarakhand, while children with severe disability not getting benefit from HBE. Sanjeev and Kumar (2007), analysing the incidence and prevalence of disability in India, argue to include CwD in all the schools, as it is morally justifiable and does not violate human rights. Srivastava (2009) noted problems in education of CwD as there have been changes over the years in the education of this group.

Special Education

Most special schools are located in urban areas with around 2500 special schools registered with RCI and financially supported by the Government (World Bank, 2007). Recently the National Centre for Disability Studies (NCDS, 2016) compiled research in the field of disability studies and allied field like disability rehabilitation and special education. Mehrotra (2016) documents the programmes, NGOs, movies and documentaries and bibliography catering to the subject of disability in India including directory of special educational services.

The results related to the effect of special schools have rather been mixed. In a study of Rao and Panda (2005) locale of special school was found to have no difference in the practice of special education for children with ID, but certain other variables like experience and general education background of teachers had an impact on classroom practices of teachers in special schools. A study of Academy for Severe Handicaps and Autism (ASHA, a special school) by Vaishnav (2016) found that providing practical skills, academic skills, therapy and pre-vocational services helped to build confidence among children which was noticed in their chain of special schools all over India. Though vocational training was imparted in the special school, it failed to lead towards any gainful employment (Randhawa, et al. 2008). Poor infrastructure, apathy of parents and inadequacy of competencies were seen as problems of teachers in special schools for children with ID (Reddy and Poornima, 2008).

A case study (Byrd, 2010) highlighting the exemplary work in a special school for ID record quality academic instruction, job readiness skills and support programmes for parents showing a positive direction for special education by attending to the unique needs of students. Case studies on two separate special schools by (Mehrotra and Vaidya, 2008) for Children with Intellectual Disability (CwID) and Autism found that special schools are opening up spaces where individuals affected by these conditions are able to avail educational service to gain autonomy and self reliance. The limited coverage of mainly urban based impairment specific special schools may result in the exclusion of CwDs who do not fit the categories of their institutions or rural areas (Yadava, 2013). Rao and Suryaprakasam (2004) assessed the impact of professional team work in special schools run by Non-Government Organisations (NGOs), interpreting the results against the background of organisational effectiveness suggesting additional research at the dynamics of the team work process for better understanding of low involvement of support staff in team work. Thirumurthy and Jayaraman (2007) while examining challenges for special education in India including the issues surrounding appropriate assessment in a multilingual country, finds social stigma of disability as well as issues of identification and teachers' lack of preparation posing problems. Vakil et. al. (2002) give an overview of special education legislation in India and the study focuses on success of one school in meeting the needs of students with moderate to profound ID through an integrated approach. They integrated a vocational component by creating two cooperative business enterprises with donations and parents' involvement and found it to be beneficial.

Integrated Education

Evaluating the programme of integrated education with respect to Children with Visual Impairment (CwVI), Punani (2002) found that integrated education has not delivered the desired results, such as enhancing coverage, promoting social integration, and qualitative progress. An investigation (Elton-Chalcraft et al., 2016) into the perceptions of effective provisions for CwD revealed that integration is not a preferred model whereas separate schools were found to be the most appropriate model for reasons of pedagogy and curriculum, lack of individualized attention for children and difficulties of social integration. The less trodden area of educational dissatisfaction expressed in a tacit, non-disruptive manner could be sometimes

the result of integration of CwD (Yan and Jament, 2008). Their study observed that inappropriate curriculum, cultural factors, and poor motivation due to lack of opportunity were barriers to the process of schooling for CwD. Owing to the fact that CwD are vulnerable for marginalization, there is a danger of suppression of their voices in the integrated setting.

Improvement of children with HI and Visual Impairment (VI) to the extent of becoming independent after the residential bridge course under Integrated Education of the Disabled (IED) was a pleasant surprise to teachers and community members in believing that CwDs are able to learn in an integrated set up (Rastogi and Batra, 2008). Higher levels of aspirations were recorded (Sharma, 2007) by SwVI in integrated set up when compared with those in excluded set up. Study by Agarwal (2004) revealed that semi-integrated setting was most effective in imparting academic skills and the visually impaired students in this particular setting were more efficient both in special academic skills like Braille reading as well as general academic skills. Sharma and Deppeler (2005) identified poverty and difficulty in modifying deeply held attitudes, dissemination of quality public education, providing adequate levels of training to key stake holders and inadequate resources as challenges to implement integrated education for CwDs. While suggesting strategies to address the challenges, they highlight the need to design innovative system of training for teachers, collaboration between different ministries and involvement of NGOs in implementation.

Examining the principle of normalization from the viewpoint of equality in educational opportunities for PwD in Indian context, Kumar (2013) found the principle has had a profound positive effect on the lives of people who were removed and segregated from the society due to their disabilities, which gave them a greater freedom and opportunities to satisfying personal needs. This clearly indicates the role of each of the evolutionary stage of education for CwD, progressing from segregation to inclusion where integration is a necessary step.

Inclusive Education (IE)

Momentum for IE has been gained from the socio-economically advantaged areas of the United States of America and Western Europe (Rose, 2016). A series containing review and analysis on the concept, terminology and implementation of IE were brought

out by Singal (2004, 2005, 2007, 2008). A review of international declarations, national legislations and a range of social, political and cultural factors revealed that the concept of inclusive education gained popularity in the new millennium. At the same time, review of literature in the Indian context revealed that the field of IE is still driven by a rather narrow and limiting perspective and conceptual differences getting weakened by methodological challenges. Moreover, the term IE is used with reference to education of CwD in India. It is therefore argued that IE must be regarded as an approach encompassing the broader education system. The key persons involved in IE need to challenge the existing values, beliefs and attitudes to ensure the full participation of all children in the curriculum and culture of school setting. Johansson (2014) in an analysis finds consensus on 'goodness' of inclusive education and being synonymous with CwD, with variation and discrepancy within policies and schools. Visible change in school is observed to be emerging but with varying consciousness of responsibility towards CwD. In a similar line, Rose (2016) has cautioned that conditions in India differ greatly from those countries. Julka (2002), while observing that the knowledge and skills related to inclusive education is missing, calls for a clearer understanding of the practices, their application, and the influences upon such a practice. It is imperative to draw attention of policy makers for rigorous policy intervention, while maintaining the importance to recognise and respect the many initiatives and innovations that already exist within Indian classrooms.

Limaye (2016) explored the broader challenge in the current education system with respect to issues of quality of education and dropout rates of primary school SwD. A number of factors that influence the accessibility of education for CwD are presented including perception of parents and their difficulties in helping them, the general attitude of society, government officials, school staff and infrastructure, inadequate levels of training of key stakeholders, invisibility of disability in community and so on. Similar concerns were raised by Shukla and Singh (2011). Though special educators, parents and peers have positive attitude towards inclusion of CwID (Pushpalatha and Pushpavalli, 2011), non availability of appropriate schooling, behavior problems of their children (Mohapatra and Balabaskar, 2005) encourage parents to make them stay away from inclusive schools. Moderate level of awareness of legislation among family members of CwD

(Kuppuswamy, et al., 2012), could also be a reason for CwD staying away from inclusive schools.

Though the concept of inclusive education has been accepted in principle, the empirical evidence that can help to promote inclusive education is still insufficient. Islam (2017) reported that though stakeholders agreed to the philosophy of IE but in practice teachers hold different moral positions with reference to type of disability. Revathi and Noami's (2016) findings concerning benefits of collaborative learning of CwD show a positive direction. For establishing the validity and sustainability of such a collaborative learning of children with all types of disability in an inclusive set up and ascertaining its utility to all children in the learning process, more studies are needed. According to Bharti (2014, 2016 a), school and teacher education institutions are not ready to meet the demands of inclusion and an effort for change is required in developing a concrete plan and implementing in a school specific inclusive education, particularly for teacher professional development for sustainability of the practice in school. Negative attitude toward disability are prevalent in many parts of India (David and Kuyini, 2012). Providing education to CwD was within the purview of family and community rather than in public sector and thus has been inclusive by its nature while suggesting need for cross cultural perspective regarding inclusion (Browning et al, 2011).

Madan and Sharma (2013) presents guidelines derived from empirical study which entailed examining prevalent practices and introducing inclusion in a regular school setting. It suggested that schools can implement IE programme if they are adequately prepared, are able to garner support of all stake holders involved in the process and have basic resources to run the programme. Success of a progressive child-centered approach to inclusive education is documented through analyzing the practice (Ram, 2002). Individualized education, parent support, opportunity of alternate curriculum, utilization of exam concessions, and professional guidance are seen to be engrained into the practice very meticulously to reach the goal. In order to respect the difference, Malhotra (2002), through a successful case study of inclusion, identified and suggested similar strategies that bring children together. Evaluation studies of inclusive education by Chadha, et al. (2005) in Jharkhand found average performance of CwD, majority of the teachers expecting extra support, short duration

of training programme and material development not being a part of such programmes. It is also revealed that teachers got on-site academic support from Block Resource Centers (BRCs) and Cluster Resource Centers (CRCs). Similar study by Venkatesh (2006) in Karnataka found all infrastructural facilities and different in-service programmes going on as per mandate to support inclusive education of CwD. Thomas and Whitten (2012) compared the education policies and accessibility of learners with disability in India and Australia. The findings show that in Indian schools, segregation was the norm with minimal learning support and charity based funding. In the Australian schools, inclusion was the norm with high demand for service and efforts at accommodation was constrained by funding criteria. In both the contexts, definition of need and the quality of teaching were significant issues. Sunish and Shankaranarayana (2011) found SwD, in particular ID, enrolled more in inclusive setting when compared to enrolment in special schools in the sample districts surveyed in Tamil Nadu. For pupils with identified disabilities, regular school placement is cent per cent (SSA, 2007). But learners whose learning needs are not identified such as those with ASD, Attention Deficit Hyperactive Disorder (ADHD), LD may be quietly dissatisfied due to their inability to fully participate in the class (Yan and Jament, 2008).

Inclusive education has to be facilitated not just as a programme but as an ideology based on human rights approach giving importance to individual, respecting the potentiality in the teaching learning process (Yadava, 2013). In order to have a thorough understanding of the challenges, practices and promote quality research in the area, it is imperative that an in-depth analysis into the education of the children with disabilities be prioritized which will give a lucid picture of the prevalence of disability in India and their participation in education. It is also imperative to consider the contribution of research to the field of education of children with disabilities. Dutta and Banerjee (2013) studied the problems of IE and presented the advantages and disadvantages as perceived by the students. Gangmei and Gowramma, (2016) studied participation of CwHI in primary schools and reported that early intervention, family and school factors play significant roles in the academic and social inclusion. Based on qualitative analysis of experiences of CwD included in schools, Das and Kattumuri (2011) elucidated the benefits and challenges of IE, suggesting recommendations for improvement in implementation.

Sanjeev and Kumar (2007) reflected on the obstacles in implementation of IE, focusing on the role of special school, teachers, parents and administrators. Naraian (2013) offers guidelines for implementation of IE by renewing the understanding of IE within the field of study of education. Exploring the process of IE, Das et al. (2013) identified barriers and facilitators and came out with a contextual working model. Evidence from Singal (2006) and Jha (2002) suggest that an awareness of a concept of inclusive education is no guarantee for ensuring that the desired teaching learning practices are in place. Changes in classroom require simultaneous development of reforms in professional development, curriculum alongside a change in attitude and beliefs as reflected in the culture of the school. Rose (2016) reiterated commendation of established records of children having entitlement to attend school. It also suggested provision for adequate initial teacher education that address elements of special and inclusive education and development of supportive resources as essential factors on the road to inclusion in the Indian context. It is cautioned that the negative impact of implementing western approaches would fail to address contextual factors (Rose et al., 2014). Until a common language is shared by policy makers, teachers and parents, it is critical for the achievement of a consistent development of procedures and practices to support special educational needs of children in inclusive setting (Unnikrishnan, 2010).

As noted by Advani (2002) the importance of individual differences has to be at the forefront for differentiating curriculum for education to be a fundamental right. It is also felt that there is limited empirical evidence supporting inclusive education due to unavailability of genuine inclusive schools. Inclusive education is not just a programme, but it is an ideology based on the principle of human rights approach wherein stress is laid on giving importance to the individual and respecting the potentiality of the student in the education process. It is high time the system moves towards inclusive education in its true spirit by supporting education of CwD in all the schools synchronised with empirical researchers.

Assessment of Disability

Assessment is a critical practice engaged for the purpose of matching instruction to the level of students' skills, monitoring student progress, modifying instruction and a commitment to enhance student competence. Educational assessment of CwD

can be challenging and, if not administered correctly, can provide misrepresented picture of the child's actual abilities. Hence assessment of disability for certification, educational decisions and research pose a huge challenge. As noted by Nizamie et al. (2005), disability assessment is essential not only to ensure better management of the person as a whole, but also for accurately deciding the quantum of social support required for the individual for better integration in the society. Sharma and Venkateshwarlu (2009), while reporting growing awareness of children with language disability, recommend that the primary task of a teacher is to successfully carry out an assessment of language problem of the children. However, it is documented that the insufficiency of trained persons in the field of special education in India makes assessment a frustrating procedure for parents (Birla, 2001; Banerjee, 2003; Shrinivasan, 2004; Times India Network, 2005, cited in Indira 2016).

Singh (2010) argued that intelligence (as measured through IQ) reflects the cognitive functions but does not express the extent of disability of an individual, especially for the purpose of certification. To certify disability, assessment of intellectual functioning and functional deficiency that determines disability with supportive evidences is required. These could be the standardised test results, doctors' prescription or observations. Expressing the genuine apprehension of possibilities of functional assessment curtailing the options of treatment, Goswami et al. (2015) argue for including medical conditions imposing a permanent disability.

As part of Obama-Singh project, Vijayan and Naomi, (2016) coordinated a research project in India on Response to Intervention (RtI). RtI is an approach of identifying students at risk for failure on a Curriculum Based Assessment (CBA) and are given individualised intervention before taking decision on special/additional service before grade level deterioration begins which is preventive in nature. The intervention given based on the assessment is found to be beneficial for children in the Indian context.

To help gather supportive evidence, a tool titled Assessment of Disability in Persons with Mental Retardation (ADPMR) is developed by Indian practitioners. This tool can be administered with limited training, and was field tested by Nizamie et al. (2005) and found to be reliable and valid for testing intellectual disability. Based on the experience with ADPMR the research team postulated that disability as a construct is different from Intelligence Quotient (IQ) and

Social Quotient (SQ).Utility of the 'Screening Checklist for Auditory Processing (SCAP)' in detecting (central) Auditory Processing Disorder (C) APD in children, which is one of the early signals of LD, was developed (Yathiraj and Mascarenhas, 2003, 2004) and field tested (Muthuselvi and Yathiraj, 2010) that could be used effectively by teachers to identify the disorder and intervene early. The Checklist to Screen Children with Reading Difficulty (CSRD) has been proved to be an effective quick screener for children with reading difficulty (Joshi and Vanaja, 2016). Assessment tool of pre-arithmetic skills was developed (Yathiraj et al. 2013) and found to be identifying the strength and weakness of children with HI so that intervention could be provided before formal schooling (Yathiraj and Gowramma 2017).

One of the comprehensive studies (Chakravarthi, 2012) in assessing receptive and expressive language skills in Kannada of CwLD showed no significant deficits in phonological and semantic skills; however, individual deficits and deficits within sub-component skills of semantics were noted. Mean and individual deficits in auditory reception, aural comprehension and receptive vocabulary were noted and those in syntax and verbal expression were notably significant. The study observed that the extent of language delay increases with age and plateaus at higher ages. Considering the number of languages in India and the absence of an accepted criterion for identification or diagnosis, it is of utmost importance to understand the prevalence of language impairments and the nature of such impairments in an Indian language. Studies to develop standardized testing protocol for identification (Binaykant and Shyamala, 2004), classification (Geetha and Prema, 2007), are noteworthy in the understanding of the language specific features of language impairments. Given its implications for future research in demystifying language impairments, further research in understanding of other languages in India is called for. These tools need standardisation with larger population in varied context and translation in different languages.

Bharti (2016 b) analysed the report card format of pre-primary schools to study the existing diversity and identify the need for evolving a reporting format which facilitates planning and implementation of inclusive pedagogy and provides comprehensive and true profile of child to parents along with suggestion for parental collaboration. Error analysis as an assessment strategy for analysing the difficulty among Children with Learning Disability

(CwLD) (Gowramma, 2005; Jagathy, 2004; Raghavan, 2004; Chakravarthy, 2000) and among CwHI (Gowramma 2015; Nair, 2016) was used effectively. Many of the above studies developed and implemented intervention taking the lead from the error analysis. According to Gupta and Singal (2009), appropriate early intervention, phonological instruction and continuous and intensive support to deal with other co-occurring disorders like Central Auditory Processing Disorder and Attention Deficit Hyperactivity Disorder are essential to address the issue and assess the children in efficient learning. The longer the CwD in basic reading skill go unidentified and without intervention, the more difficult is the task of remediation, lesser the rate of success and more severe the accompanied social and behavioural deficit in those children. The co-occurring disorders hamper the healthy learning and growth, suggesting early assessment and intervention. Calling attention to similar phenomenon of variability within children with Autism Spectrum Disorder (ASD), with individual pattern of skill development, assessment and Individualised Education Plan (IEP) has been recommended. An intervention module comprising of a checklist to assess and enhance speech and language skills and activities was developed by Swapna et al. (2015), found to be reliable in identifying the baseline level and effective in developing speech language skills among CwHI and CwID. Mamgain (2016) correlates the scores on three different tests Vineland Social Maturity Scale, Stanford Binet Intelligence Scale and Bhatia's Battery, and found Vineland Social Maturity Scale and Stanford Binet Intelligence Scale having a high correlation suggesting its utility in initial assessment of the child. Rani (2016) explored the work done in the field of intelligence test construction especially for Persons with Visual Impairment (PwVI) in India as it has been a point of discussion whether the test of intelligence developed for sighted can be utilised/adapted or not to be used with PwVI, calling for an urgent need to focus the research in the area of construction of psychometric tests especially in Braille. The use of psychometric tests for CwD though is contentious but found to be useful provided they are adapted to the specific needs of children.

Psycho-Social Dimensions of CwD

Research establishes the significance of psycho-social aspects contributing to development and education of CwD. Rana (2016) reported that self concept and adjustment are two important

psychological aspects influencing the personalities of individual especially of CWSN, and high scores in self concept tend to accompany with high level of adjustment and vice versa. Some studies (Laskar et al., 2005; Kodali and Charyulu, 2011) found that psychosocial behavioural changes among the children with disabilities were statistically significant, which indicates a need for screening and identification for organizing counselling to CwD and parents, community based rehabilitation programme and their integration into the main stream education to reduce the psychosocial behavioural changes. Kumar et al. (2012) observed that PwD in the community face many social problems and suggested for a multi-sectoral approach including social integration interventions, health, education and vocational programs as rehabilitation services. Barriga et al. (2017) discussed the placement of children with disabilities in institutions and the subsequent abuses they often experience, drawing from *Human Rights Watch* research from 2013 to 2016. They noted that institutionalisation of babies harms their early brain development, can result in developmental delays and permanent disability and may have long-lasting effects on their social and emotional behaviour. It is important to know the belief system supported by the majority culture and broad social futures that impinge on the setting within which the individual with disabilities functions (Kalabula, 2006).

People with physical disability tend to have low level of self esteem and high level of depression, inferiority, fear of social ridicule, lack of self confidence and limited social participation, stress and anxiety in comparison to those without disability (Mushtaq and Akhouri, 2016; Bano, 2015). This suggests the need for a change in the attitude of the society towards disability, as well as the need for people with physical disability to change their own attitude towards themselves. Dalal (2006) reported that people with physical disability frequently suffer more due to societal prejudices than due to the physical conditions in which they live. A cross-sectional study (Lascar et al., 2010) to assess the social and financial burden on parents of Children with Physical Disability (CwPD) emphasised an urgent need for support activities for such families at national level to curb the huge economic and social burden of care-giving and suggested for making counselling to be an integral part of rehabilitation for such families.

Research (Ahuja, 2000; Sharma, 2009) reports that CwD manifest social skill deficits. Moreover, the most important

psychological characteristic found to be associated with learning disability is self concept. Given the fact that CwLD has personal deficiencies and history of failure in the mastery of academic skills, they normally experience lower self concept and low self esteem and other psychological deficiencies. Children with LD and ADHD (Aleem and Rastogi, 2007) had significantly poor adjustment than other children in all areas assessed including educational, emotional and social adjustment. In addition, a CwLD appears to exhibit emotional problems due to adjustment difficulties resulting from academic failure (Neeraja and Anuradha, 2014). The older CwLD showed a more maladaptive behavioural disposition and hyperactivity and aggression (Sridevi et al., 2015) than the younger ones, and there was a significant gender effect among CwLD (Sharma, 2004). These problems also affect their psychological growth and pattern of adjustments. Early diagnosis and intervention in CwLD makes a substantial improvement in self-confidence and social competency, which helps them in opening windows of opportunity in school and in the world of work (Sahoo et al., 2015).

Children with ASD have unique characteristics such as impairments in communication and social interaction and the impact of these characteristics constitutes a challenge to other children in the family (Thomas et al., 2016). Hussain et al. (2010) reported that behavioural problem among Children with Autism (CwA) were significantly higher than those with ID, while on social maturity front CwID were significantly better than CwA. The CwA and their family need positive support and need to know that they are respected as individuals and as human beings (Gupta and Singal, 2005). Vaidya (2008), explored the manner in which families negotiated with autism, the neuro-developmental disorder that afflicted their children and suggests that acceptance of the child's disability and conceptualizing them as complete persons are the key to successful coping, rather than class factors. As noted by Behera (2015), many people with autism are despised, abused, debarred of their basic human rights and are made literally invisible in the realm of modern society, living and lifestyle and they deserve to be accepted, loved and respected.

Kodali et al. (2016) noted that measuring and management of CwHI is still in the initial stages in developing countries such as India and called for measuring HI in terms of social and emotional functioning in a more holistic approach in resource-poor settings,

and for initial screening in large-scale studies. Sreeja (2010) also enquired about the influence of psychosocial adjustment on the academic achievement of SwHI and found that psychosocial domain has an influence in adjustment on the vocational aspirations and academic achievement at higher secondary level.

Halder and Datta (2012) found that sighted adolescents displayed high self concept as compared to their visually impaired counterparts. Another study (Satapathy, 2000) reported that CwVI with significantly less stress had positive self-esteem, fewer behaviour problems and more study-oriented behaviours than their HI counterparts. She attributed this to the residential stay of visually impaired students. Providing services to children with disabilities has been within the context of family and community rather than in the public sector and thus has been inclusive by its very nature and there is a need for adopting a cross-cultural perspective regarding inclusion (Browning et al., 2011). Inclusive school set up and its ambience exerts a positive impact on the self-concept (Rani, 2011), emotional stability (Pant and Joshi, 2016) and social behaviour of sensory and CwVI (Lakshmi, 2016) and that students placed in inclusive schools are emotionally more intelligent than their counterparts in exclusive schools. On the other hand, parents of children without disability reflected a positive attitude towards inclusion, but suggested separate classes for academics; while experts also mentioned that education was one of the basic needs for the child with special needs to become independent. Both groups believed that inclusion was beneficial to the children and to the society (Bhargava and Narumanchi, 2011).

Although all individuals with ID can experience stress due to societal stereotypes and attitudes, individuals with mild ID may confront specific stresses because they may appear normal to others and consequently limitations may not be recognised as a disability. Lack of acceptance and devaluation can result in low self-esteem and isolation, which in turn can lead to deviant behaviours or acting out. In more severe cases, a psychiatric disorder may be developed as a means of coping (Srivastava and Kumar, 2015). As per the study of Ganesh et al. (2012), ID especially at an early stage is amenable to intervention measures and psychosocial intervention brings about a decrease in the disability and increase in the quality of life of adolescents with ID. Dwivedi (2002) found that children without disability and Cw LD, VI, HH differed significantly on their mental health. The phenomenon of ill mental health was found to

be associated more with the students with disability belonging to lower SES category.

A study by Umadevi and Sukumaran (2012) revealed that, as the level of disability increases, the level of functional social skills decreases and the number of years of schooling is an insignificant factor in the development of functional social skills among CwID. This may be a reflection on the education practice and quality. Influence of social aspect is crucial because with increasing severity of intellectual disability, social development also decreases irrespective of age (Singh, 2011). Cultural and religious beliefs perpetuated negative attitudes towards disability which indicated that caregivers bore a high burden of care with little support from family or society. The study by Edwardraj et al. (2010)confirmed the presence of diverse, multiple and contradictory models of disability drawing from biomedical and local religious, social and cultural constructs suggesting for community level interventions for reducing the misconceptions and stigma related to intellectual disability in addition to culturally sensitive treatment methods to improve the attitude towards and management of intellectual disability.

According to Somashekhar et al. (2014), a wide range of psychosocial problems, i.e. social, psychological and health problems, are experienced by the parents of children with cerebral palsy. While planning a family-centred programme for such children, these problems should be considered and addressed in order to make care of the child more effective. In the study by Thomas et al. (2014) it was found that parents of Children with Duchenne Muscular Dystrophy (CwDMD) had inadequate understanding of the disease but showed a positive attitude, had a moderate family burden, and relied more on religion, focused on venting of emotions, and instrumental and emotional social support for coping. Caregivers of CwDMD would benefit from psychosocial intervention to address their understanding of and attitude toward the disease, as well as burden of dealing with it, and to help them develop their coping skills and meet their children's and their own needs. Gupta and Singal (2004) suggested on the process of coping that generates positive perceptions of parents with disabilities and the ways that these positive perceptions are used as an effective coping strategy such as formation of self-advocacy groups, social participation to reduce negative ideas associated with anxiety, insecurity, depression as also education, counselling and vocational training to develop the capabilities of

the individuals. Parents with positive perceptions can help the other parents, in the early stages of adjustment, develop positive but realistic expectations.

Children with social, emotional and behavioural difficulties (SEBD) had poor self-esteem and social skills and their confidence levels were low. Further, teachers were not well trained to recognize special educational needs in general, and SEBD in particular (D'Souza and Jament, 2015). Teachers had greater predictive power on the social status of students with disabilities in regular classrooms (David and Kuyini, 2012). Adopting a retrospective approach, Choudhuri et al. (2011) found that psychosocial rehabilitation interventions aim to help persons with psychiatric disability learn or relearn skills that would improve their long-term capabilities so that they can reintegrate into the society. Special education teachers of CwD need to be— (a) self aware of abilities and skills required for the range of the roles, responsibilities and demands of their work; (b) manage emotional reactions to specific situations and people; (c) accurately pick up on emotions in other people and react to others' emotions and be understanding others needs; and (d) socially skilled enough to use awareness of one's own emotions and the emotions of others to manage interactions successfully (Poornima, 2011). To deal with ID, areas such as self-care, work habit, time management, money management, interpersonal relationship, household activities and attending social functioning there is a need for separate therapeutic interventions along with psychopharmacology and psychosocial rehabilitation (Ponnuchamy, 2016).

Research findings indicate the vulnerability of PwD to discrimination and abuse probably due to their low self-esteem and poor social skills. The benefit from psychosocial intervention to address their social needs suitable to the context can be considered for future research. Longitudinal studies and in-depth case studies are a dearth observed that can be taken up in the area of psychosocial attributes of all disabilities. The focus could be on identifying factors contributing to develop coping skills and functional skills through intervention that would empower them lead a life with dignity.

Academic Performance of CwD

This section presents studies on academic performance which includes learning needs of CwD, curricular practices adapted

in schools and interventional studies to enhance academic achievement. Hadler (2007) stated that there is significant relation between academic achievement and intelligence of children with orthopaedic impairment, maternal education being a significant correlate for girls with orthopaedic impairment. Khan (2006) observed that educational aspirations, vocational preferences and academic success are positively and significantly correlated with each other. CwVI with high economic status were found to have maximum magnitude of aspirations. No correlation between adjustment and academic achievement was noticed among CwVI by Rajkonwar et al. (2013). Their study also revealed that boys and girls do not differ significantly in academic achievement. According to Sotha (2010) there exists a significant and positive relation of self-efficacy and academic achievement of children with orthopaedic impairment compared to their peers.

Gupta and Krishna (2002) through four case studies of children between 8-16 years with autism explored their ability. The strengths and weaknesses of the children are described along with strategies for enabling them to reach their full potential. Anuradha (2005) reported the incidence of LD in English significantly more in government school than in private school. The study revealed the effectiveness of the remediation in improving the reading accuracy of the Students with Learning Disability (SwLD). Joseph (2003) formulated a grammatical assessment tool and compared the performance of Students with Hearing Impairment (SwHI) with certain variables like the use of a hearing aid, type of management of the school, size of the class and residential vs. non-residential set-up. The results showed that regular use of a hearing aid, private schools (both aided and unaided), size of the class (up to ten students) and a non-residential set-up had a positive impact on the performance of students.

Ray (2011) in a study on curriculum preference, level of aspiration and academic achievement of children with and without disabilities reported that the much demanded subjects were computer, mathematics and English while cricket was most popular among sports. The CwVI preferred academic subjects while the CwHI showed a greater tendency towards professional subjects. Students preferred assessment to be based on both the academic and non-academic subjects instead of only annual examinations or academic performance. Sarkar (2015), in a study on science comprehension among CwVI in relation to their cognitive abilities

and learning styles, revealed that most of them were identified as having average comprehension and average cognitive abilities. Agarwal (2002) reported that Students with Visual Impairment (SwVI) going to mainstream schools both in integrated as well as semi- integrated setting were good at problem solving and reasoning skills due to greater exposure to the subjects like mathematics and science. The investigator concluded that CwVI should be admitted to mainstream schools in large numbers. Integrated setting should be promoted and strengthened. Special schools should be utilized to provide resource services as a supplement to integrated setting. Gowramma (2015) found no significant difference in arithmetic performance of primary school children with and without HI. However, the specific difficulties and errors observed were attributed to domain general phenomenon involving working memory and attention than core deficit in processing quantity and number sense. Ahmad (2015) noted that children having disability in reading accompanied with ADD are found to be having reading deficit that are more severe and more resistant to intervention.

Arun et al. (2011) in a report on prevalence of Specific Developmental Disorder of Scholastic Skill (SDDSS) in school students in Chandigarh found a prevalence of 1.58 per cent in the age range of 12 to 18 years. Specific learning disability was not identified even till later age which is a concern for their academic progress.

Multisensory approach is a frequently used intervention method for students with reading disabilities which employs two or more sensory modalities simultaneously (visual, auditory, tactile and kinaesthetic) and provides multiple pathways for helping students to learn alphabetic patterns and words more effectively than any other approach (Kamala, 2014). Classroom practices play an important role in enhancing learning outcomes. Studies report the significant impact of different approaches like remediation (Rai, 2005), collaborative learning (Revati, 2016) and multisensory approach, peer training and cooperative learning methods (Gupta and Sindhu, 2008) in improving reading among students with reading disabilities. Sharmistha (2000) explored the impact of residual hearing on concept learning among the CwHI from the primary schools and reported significant improvement. While the study revealed no significant effect of gender, family size and birth order of children, intelligence, language and total academic achievement were found positively related to concept

learning. All the stakeholders, including children, opined that the curricula followed were not relevant. The excessive textual burden and the bulk of exercises in most of the subjects were also found to be irrelevant. According to Revati (2016), collaborative cooperative learning enhances learning of both children with and without disabilities in inclusive schools. Naomi (2014 b) studied the effect of multimodal intervention for developing orientation and mobility skills in young children with CwVI and reported that it helped them to acquire orientation and mobility skills.

Computer Assisted Instruction (CAI) for remediation of arithmetic learning disability had an edge over programme instruction method (Shankar and Kumar, 2011). Children who underwent remedial teaching showed significant improvement in pre-operational and operational domains of mathematical skills (Karibasappa et al., 2008). Impact of intervention like multimedia and other academic classroom interventions have been reported among CwLD on development of their thought processes (Jhaveri et al., 2012), intellectual capacity (Santhanam, 2005), academic achievement (Anshu and Singh, 2013) and improvement in dyslexia (Indira, 2017). Children with Specific Learning Disability (SLD) who availed the special provisions showed a significant improvement in their academic performance at the Secondary School Certificate (SSC) board examination (Karande and Kulkarni, 2005). Sharma et al. (2011) reported that CAI teaching strategy enhances the ability and achievement level of children with mild ID.

Gupta and Sindhu (2008) stated that effective use of multisensory approach, peer training and cooperative learning in classroom setting enhanced academic skills among CwID as well as facilitated the use of instructional time and efficient student management. Singh (2012) noted the positive impacts of *yogasanas* on memory span of CwID in the age group of 8-15 years. It was also observed that memory span in case of edible object was maximum. Jeeva (2017) reported that the remedial programmes promoted in acquiring the ability of functional vision such as visual fixation, tracking, discrimination and motor co-ordination among children with strabismus (a condition leading to visual impairment). Revati (2017) in a study on effect of training package on developing visual skills of children with low vision reported the significant impact of visual efficiency training with the help of devices and materials on visual skills among all types of vision loss children. The children with blurred vision showed better performance in all visual skills

followed by central vision loss then peripheral vision loss. The study revealed no influence of gender, age group and grade level on the visual skills of children with low vision.

Findings of different studies show enhanced academic performance if resources are adequately provided signifying the importance of robust educational policy and procedure for students with disabilities. Studies on impact of remedial programmes and benefits of different approaches have been conducted on specific disabilities restricted to specific educational set up. This calls for conducting larger studies in the context of children with different disabilities in different educational settings.

Role of Family and Community

Family and community play a significant role in the welfare of CwD. Families affect and get affected by the presence of a member with disability at the home. Singh et al. (2002) pointed out the many stressors of families having CwD including apprehension about the child's future, burden of caring, anxiety and irritability arise due to extra work. Tremendous stress on families of CwASD due to negative experience of discrimination was noticed by Divan et al. (2012). The study by Ranta et al. (2015) pertaining to parenting stress revealed significant difference between stress of parents of CwD than their counterparts. The study highlighted the need for counselling and sensitisation in the area of nutrition, vocation and child management. Significantly fewer problems were reported by parents seeking professional help suggesting a need for counselling service especially for mothers as they were found to have more stress especially in the areas related to emotions (Singh, et al., 2002). John (2012) found clinically significant stress scores and maternal coping as a robust predictor of stress for mothers of boys with ID. Qualitative analysis indicated positive and negative maternal experiences related to self, child, family and community. Gupta et al. (2012) observed higher stress among parents of girls with disability and those engaged in lucrative and prestigious jobs wherein religion was seen to be a common coping resource. Gender connotation in parental perception is recorded: Fathers being hostile towards boys with specific learning disability (Chandramuki et al., 2012) probably due to academic expectation which is assumed to have a close connection with the future success of the child. Also, mothers require more support as Dutta and Sanyal (2016) observed a significant relationship

between family pathology and trait anxiety among mothers scoring high on anxiety as compared to fathers of children with ADHD. Parents having CwID show psychosocial impacts such as stress and concern for career of the children, the intensity of which varies with the types and severity of disability (Upadhaya and Singh, 2009; Gohel et al., 2011). The researchers suggested that family intervention programmes should be offered early and strengthen the natural support system. Parents of children with moderate level of deficiency registered more problems in all aspects compared with parents having mild deficiency. No significant difference in the level of stress and control over stress was noticed between both parents of CwHI (Gowramma, 2013) and higher level of stress correlated with delayed identification coupled with lack of professional help. Parental concern was found to be more focused towards making their children speak and fulfilling vocational requirement rather than setting the right educational goal and giving age related skills. This is a serious threat to the individual growth as the child is always underestimated for the capacity to learn school curriculum with least focus on age appropriate skill development. Venkatesan (2007) made an attempt to discover the nature, frequency and duration of professional consultations sought by parents of children with DD. Results show that parents' long drawn out itinerary of shopping for professional help was influenced by variables like severity, sex, age, diagnostic condition of the child as well as allied socio demographic variables.

Studies with parents of CwID (Singh et al., 2009) showed that majority of parents, who have identified the condition of their child before the age of two years encourage them to participate in social gathering. Parents expressed their desire to have special education and vocational training for their children with an intention of making their children leading an independent life. This proactive parental behaviour favouring CwD seems to be due to the facility they had for early identification supported by professional guidance. While collecting parental perspectives on LD, Parasuram (2011) noted that children first referred for professional help at the age of 8–10 years lose crucial early years for intervention. An attempt was made to analyse the communication patterns between non-speaking children with CP and their mothers. It was found that mothers' communication strategies were dominated by instructions followed by request for information, provision of information was followed by request for attention. Instruction for speech, confirmation denial

and request for object had fewer occurrences in the communication process. Need based communication were demonstrated and mothers never instructed their children to speak during the process of interaction (Balan and Manjula, 2007). Though type of disability is a significant factor in early identification, knowing the benefits of early identification and acceptance of the condition in all types of disability, parental and community education is equally crucial. In a rare study (Grover, 2005) significant improvement in academic performance of the siblings with ID was found when planned intervention was given by their siblings.

Sustainability of a community-based model of human resource development and coordination of services for people with intellectual disabilities were reported by Narayan et al. (2017) wherein selection of PwD within the community as resource persons contributed to the success of the Community Based Rehabilitation (CBR) programme. In another CBR programme, a critical ethnography was used to inform positive changes for adolescents with disabilities using their perspectives to empower adolescents in urban slums of northern India to assume greater control over their rehabilitation with the context of local community based rehabilitation programme (Gulati et al., 2011). Edward Raj et al. (2010) confirmed the presence of diverse multiple and contradictory models of disability drawing from biomedical and local religious, social and cultural constructs while exploring people's cultural beliefs and attitudes about ID, perceived needs and burden associated with care. The study confirmed that care givers bore a high burden of care with little support from family or society. They concluded that public awareness, education and community level interventions for reducing the misconceptions and stigma related to ID are needed in addition to culturally sensitive treatment methods to improve the attitude towards management of ID. A three year project in a disadvantaged community resulted in CwD attending schools, participating in community forum and more people bringing CwD for vaccination (Dalal, 2006)

Parents were found to be strategic agents who actively negotiate a range of obstacles, resolve dilemmas and handle tensions to ensure the child's admission and continuity in school (Johansson, 2016). A phenomenological study by Dhar (2009) explored the emotional suffering faced by family members of CwDD which provided insight into the Indian socio-cultural milieu and its impact on the family. Desai et al. (2012), through narratives from parents of CwASD, gathered an understanding about the different

phases they undergo while bringing up their children. Through these narratives, both culture specific and potentially universal levels of experiences were delineated in the overall findings drawing implications for culturally sensitive research. Venkatesan (2009) identified that the barriers of caregivers of CwDD originate from their unfriendly environment such as shortage of reading materials on child care, lack of institutional facilities, inadequate teaching materials, lack of professional guidance, etc. Lack of infrastructure for dissemination of information in a society that holds negative perception of disability emerged as a common concern in a study (Kalyanpur and Gowramma, 2007) employing focus group discussion. Specific concerns of parents were seen in the area of acquisition of language for pre-schoolers, and getting an appropriate job for the adolescents. When social stigma, deep rooted traditional beliefs embedded in cultural context control the goal setting behaviours of parents of CwD, the individual is sure to miss the identity and thereby the capabilities innate in them. Heer et al. (2015) drawing from the narratives of parents suggested a four stage process that included initial acceptance of diagnosis of their child; regaining control through parenting skill training; witnessing positive change in their children and themselves and reaping personal benefits as a result of their involvement. Barriers such as extreme poverty, social policy, cultural stigma and caste system have tended to isolate people with disabilities, leading to the struggle in many children and their families to integrate into their community. Stigma prevailing in the society and lack of infrastructure and facilities were observed to be the reasons for the stark contrast in Indian and inter-country adoptions of kids with disabilities between 2013 and 2016 (Kumar, 2017).

Rajesh and Dhanesh (2016) developed a behaviour technology intervention module to establish the efficacy for enhancement of marital adjustment and to deal with parental depression of CwD, after studying the parents of children with CP, ID, Autism, MD at special school and general services of National Institute for the Empowerment of Persons with Multiple Disabilities (NIEPMD). After the intervention programme there was a considerable decrease in marital problems and depression which in turn helped improve quality of life among parents. Maternal stimulation for language and cognitive development (Chaubey et al., 2010) and cognitive package for mothers of slow learners (Saini et al, 2010) were found to be effective in enhancing cognitive abilities of children.

These studies show the importance of parents/family/mothers in the process of education of their CwD that can be focussed by professionals to reap maximum benefit. While analysing the parents' narratives, it was found that mothers were more likely than fathers to reflect on themselves and on their relationship with their child with autism. Further, it was found that parents with relatively less income focused on their child's immediate and material needs, while higher income parents were more likely to discuss their parental roles and vision for society. It was felt that understanding parents' experiences and narratives is essential for the evaluation of intervention such as child training programme, as Indian parents are incorporated into a growing global network of "parents of CwA" (Brezis et al., 2015). Sharma (2004) observed change in the behaviour of parents after trying out an intervention programme of building awareness about the disability and imparting skills of management of CwID.

A study was undertaken to find out the awareness about rights, legislations, concessions and benefits and life cycle needs relating to ID among family members. Moderate level of awareness on legislative aspects among educated respondents was found. Among the various aspects, the respondents were better aware of benefits and concessions due to the direct utility in their day to day activities (Kuppuswamy et al., 2012). Sridevi (2016) studied the level of awareness about concession, benefits and rights of their CwHI provided by central and state governments and found moderate level of awareness. Fathers showed higher awareness compared to mothers and level of education having no impact. Through interview with Parents of CwASD, Mhatre et al. (2016) found parental participation and higher maternal education associated with better outcomes with reference to speech, developing friendship and acquiring Activities of Daily Living skill (ADLS). Quality support especially for poor families was found to be for language and social development of children with ASD (Ramachandran et.al., 2011). John and Montgomery (2016), through qualitative interview with parents based on the causes, treatment approach and perceived social effect of disability came out with three models that parents adapt in dealing with their children. First model, through religion and spirituality gave positive frame to their child; the second model rejected religious notions and did not dwell on the cause of disability but rather focused on optimal rehabilitation of individual with ID; third

model was characterised by maladaptive religious attributions and rehabilitation approaches.

Chakravarti (2008) through narratives of parents highlighted the prevailing adverse conditions of the PwD and their families calling for a range of support service for successful care of a member with disability in the community. The deprivation due to deafness in the form of hearing and communication impose certain developmental needs. Case study of two adolescent girls by Limaye (2008) identifies that they emerge as self assertive and individualistic and high spirited persons. But it is necessary to find out the factors that contribute for positive attitude and enthusiasm for life among girls with HI in the future studies. Mehrotra and Vaidya (2008) in a case study of two NGOs working with the ID engaged with the notion of masculinity and the manner in which persons with ID are feminised and infantilised. In such a situation educational opportunities give families the social space for themselves and negotiate the social compulsions for normalcy and competent adulthood.

Nutrition and Disability

The importance of balanced diet in reducing the impact of disability on development is well known (Mathur et.al, 2007). Nutritional profile of children with cognitive disability from a special school revealed that many children suffered from nutritional deficiency and parental education promoted feeding balanced diet (Ramdas and Unnikrishnan, 2009). Abnormal teething and improper hand – mouth coordination is seen to reduce calorie intake by children with Down's syndrome (Laxmi and Radha, 2017). Children with cognitive disability are more likely to have difficulty in chewing and swallowing and the tendency to spit out and vomit food (Mathur et.al, 2007). However, parent counselling resulted in improving eating habits of children. Thus, it can be inferred that awareness among parents about nutritional food habit would go a long way in helping children combat the negative effect of disability. Beneficial effect of functional food in improving behavioural pattern of children with Autism has been documented (Priya and Mageshwari, 2016). Dietary intervention among CwD reduced some of the health issues (Priyanga and Ramdas, 2013). A diet which excludes casein and gluten can help in the elimination of opioid peptides from the body of autistic children thereby helping to reduce the autistic symptoms (Revathi and Mageshwari, 2010). Gluten and casein

free recipes were developed by them and its acceptability through counselling of mothers was seen and same was found to be better acceptable by children with autism as compared to the standard food. Inadequate consumption of specific micro-nutrients by certain groups of children with CD was noted by Mathur et.al, (2007) and they suggested regular assessment of nutritional status of Children with Cognitive Disability (CwCD) for correcting deficiencies. Yousafzai et.al., (2003) explored the nature, extent and probable causes of nutritional deficiency of CwD living in Dharavi slum in Mumbai and revealed no significant difference between CwD and their siblings in food consumption, suggesting no preferential treatment within the same household with regard to children with and without disability. Findings of the food patterns survey indicated that the process of eating was difficult and painful if the child had disability and felt that improved feeding would take place once the child was strong. CwD had lower mean with reference to weight/age; height/age; weight/height; triceps skin folds and haemoglobin and a higher prevalence of moderate to severe malnutrition compared to the controls.

There is no denial to the fact that family and community are the strong agencies to support the empowerment of CwD through education. There is a need to have more research on the role of parents/family/community to understand their perspectives and strengthening their involvement in the process of education for the children.

Effect of Other Marginalising Conditions

Disability itself leads to some degree of marginalisation and alienation in the society. Often it is observed and theoretically projected, that belonging to a particular community, socio-economic status, gender and locale add additional dimensions to the disadvantages faced by PwD.

A case study of students with disability of Tibetan immigrant parents was taken up in a special school to study the socio cultural attitude and educational practices and to identify areas for improvement (Barnes et. al., 2014). The special school in Karnataka was found suitable to Tibetan Buddhist belief about worth of the individual and charitable services that can benefit the children and their care givers in this life and this religious belief has its determining role in how disability is confronted. Though charitable service benefiting CwD is immediate concern for the religious

minority migrant group, the crucial issues of empowerment through education cannot be neglected. The findings pinpointed the need of teacher professional development, assessment of academic and behavioural needs of students, curriculum adaptation and improvement in planning and monitoring as actual concerns to be addressed.

A study on educational needs of children with Central Nervous System (CNS) problem in North-East India revealed increased dropout rate, as compared with same age children without CNS related problems within the sample indicating that special education is yet to produce satisfactory result for these children (Jumi and Sarmah 2012). In another study conducted in the North Eastern region, Nath and Naskar (2015) examined the relationship between seizure disorder and ID and their socio-demographic correlates to implement proper psychosocial intervention. A significant percentage (22%) of CwID had associated condition of seizure disorder which is seen to be increasing with the increase of severity of ID. An association between severity of ID and frequency of seizure disorder with rural habitation, poor parental education and poor health care services was observed. Kumar and Kar (2012) noted that the accessibility, availability and utilisation of rehabilitation services and its cost effectiveness are the major issues in rural India.

Based on a focus group interview with mothers and prospective mothers, Ghai and Johri (2008) expressed their concern towards the consequences of prenatal diagnosis as limiting the choice of birth for girl child with disability, as disability is a social construct and contextually located. A relatively unnoticed and critical angle to the Prenatal Diagnostic Techniques Act is possible legitimisation of aborting children with disabilities. The gender-based bias permeating into disability movement, though is resisted by women with disabilities, Ghai (2002) being herself one, finds the task of locating self as daunting. She observes that there is a strong emphasis on mainstreaming women for self-development in the national policy. In the document on women empowerment, the paradox of hierarchy within hierarchy is evident when such a document does not mention women with disability whereas other groups are mentioned in terms of 'welfare'. Barriga et.al., (2017) reported the conditions of government and privately run psychiatric hospitals and institutions in different countries including India where girls with disabilities, particularly with

psychosocial or intellectual disabilities, are at a heightened risk of violence, including sexual violence. Human Rights Watch (2014) recorded the forced institutionalization, denial of health care and violence and exploitation against women and girls with disabilities in India. Kalyanpur (2008) observes the additional vulnerability of girls with disabilities for reasons of safety, which in turn leads to low probability of accessing educational and vocational services. Keeping in mind the cultural differences across states and communities in India, Kalyanpur (2008a) attributes favourable rate of survival for girls with disabilities to cultural norms. Plight of women with disability is very depressing, observed Dawn (2014), as they face a triple handicap and a discrimination due to their disability, belonging to a particular community and being a girl, and suggest support through CBR. In another angle to looking at education of girls with disability, Halder (2009) lamented on the huge rate of wastage and stagnation of girls at the primary and secondary level of education and also explored constraints faced by orthopedically challenged women in their way towards higher education in Indian society. He noted the brute physical or architectural barriers, financial constraints and attitudinal barriers having significant influence on the higher education of women with disability.

Women with disabilities in India face double discrimination due to prevalence of traditional gender roles and expectations (Mehrotra, 2004). Conducting studies on the same population Mehrotra (2006, 2008) further remarked that due to the availability of special schools and vocational training in urban areas, women with disabilities living in urban area have higher chances of equipping themselves with skills of independent living and income generation. In contrast, the majority that live in rural areas, are completely dependent on parents for chances of survival and support. Based on a survey on women with disabilities, Agnihotri (2007) formulated a series of recommendations with a view to improve their life chances. The study found that there were more females than males with disability living in poverty and the number was higher among rural than urban areas. Exploring various modes through which life chances can improve, the research pointed towards providing safety from physical and emotional violence in addition to education and employment. Philip (2015), in an exhaustive study of single case, identified the possible factors that affect life chances of girls with disability from low economic homes in rural India and also observed

that they are often regarded as useless by their community. The most significant factors that seem to affect their life chances were parental hesitation, lack of opportunity and low self-esteem and confidence. It was hypothesised that awareness programme, counselling and implementation of home based education services may improve the life chances of girls with disability.

More research is needed to understand the double disadvantage inherent in the cultural and social milieu affecting CwD.

Transition, Employment and Higher Education of PwD

Passage from one condition either with reference to schools, higher education or world of work and adjusting in those situations is highly demanding. Students with disabilities in general are known to struggle with any of these transitions. Transition emerged as an important theme in parental interview – transition from one school stage to next and transition into adult life (Singal, 2014). Analysis of the in-school and post-school transition services for students with mild ID showed that inconsistent alignment existed between transition goals and achieving these goals. While documenting the experiences of SwD transitioning from high school to college, an increased attention to social skills in secondary education has been highlighted (Joshi and Bouck, 2017).

The employment rate of Indian population in 2002 was 37.6 per cent for people with disabilities and 62.5 per cent for overall population (Mitra and Sambamoorthi, 2006a). This rate actually fell from 42.7 per cent in 1991 down to 37.6 per cent, a period when the employment rate for the general population rose (World Bank, 2009). In India, 87 per cent of people with disabilities work in informal sector (Mitra and Sambamoorthi, 2006b). A paper investigating the implications of economic restructuring in the arenas of social programmes shows that while increased employment opportunities and accessibility have benefited middle class and highly skilled PwD, the majority of them have been left out of India's economic affluence (Hiranandani and Sonpal, 2010).

A case study on two adults with ID to identify the possibilities of including them in community jobs through a Community Based Vocational Training and Placement (CBVTP) model was tried out successfully (Singh et. al., 2010) that could be implemented for the larger group. Special schools though vary in offering life centred career education, the majority of SwID exhibited independent level of work readiness skills and vocational competency (Vanitha,

2014). While analysing the 2001 Census data through linear regression and spatial autoregressive models it was found that there was variation in the employment of PwD with reference to certain demographic variables (Naraharisetti and Castro, 2016). Hence poverty elevation programme designed for PwD in India should account for differences in employment by disability types and should be spatially targeted. Duration in special school and nature of vocational placement are not found to be influencing factors in deciding the work related skills among adults with ID (Mathew and Sukumaran, 2016).

Employer attitude is influenced by the type of disability and its presentation. In addition, realistic and conventional tasks are considered appropriate for employees with disabilities (Santilli et al., 2014). Sankardas and Rajanahally (2015) investigated the importance of specific skill training for young adults with disabilities in retail sector. Employers showed mixed attitude towards employing PwD. A noteworthy study to examine the impact of policies/programmes/schemes in the lives of PwD was conducted by Diversity and Equal Opportunity Centre (DEOC, 2009) enlisting the concerns with recommendations.

Reservation for PwD in higher education was viewed favourably by students with disabilities studying in university but all the students were not aware about it (Mohanty and Jena, 2016). Though availability of supportive materials was reported by students in the study, there were also voices regarding their inadequacy compared to the number of students using them. Students with disabilities face various problems in pursuing higher education though they received support from various sources such as university, family, friends and teachers and some were very categorical about their special needs in order to achieve their goals (Prema and Dehadrai 2012). The study gave an opportunity to gain an understanding into the coping strategies students themselves evolved to manage in situations arising out of their needs. While analysing various educational opportunities and facilities in higher education, gender difference was found to be non significant in the level of satisfaction among students with disabilities (Bano, Akhter and Anjum, 2013). They also found that SwD were highly adaptive and were aware about their shortcomings. While attending to a range of barriers encountered for SwHI in higher education Gathoo (2013) discussed prominent issues and suggested approaches to overcome.

An understanding into the post school outcomes experienced by PwD may lead to identification of elements that could be inculcated into the school programmes. In addition, the western models of transition that are developed as a way of meeting the needs of students as identified by research has to be adapted and validated for Indian context. Gowramma (2012) investigated the employment options and highlighted the successful models of providing employment to PwD in private sectors, suggesting the need to explore more options as discrete examples would not serve the purpose owing to the magnitude of population. A framework to understand the factors that are both favourable and unfavourable creating inclusive environment in institutions in higher education has been brought out which can be helpful for improving the support services for students with disability.

Teacher Education and Teacher Competence vis-a-vis CwD

Teacher education programme at the pre-service level is a vital space for bringing desired changes in the education of CwD. This realisation needs to be supported by research based action points to be taken at the field/classroom level. The formulation of RCI Act as well as the establishment of national institutes for PwD, Department of Special Education in Universities and several other initiatives to contribute enormously special education, integrated education and inclusive education. However, special education and related service expertise and teacher education for inclusion, is not in place to support teachers to work inclusively (Sharma et al., 2013). Special education was initiated as a social welfare activity and the flavour seems to be continuing though the shift is towards right based education in the new millennium. Some of the teacher education programmes continue to be out of the ambit of the universities and apex bodies that empower and regulate teacher education. These issues need immediate attention both from researchers and administrators. With the NCTE (2014) regulations, all the teacher education programmes including special education have increased the duration of B Ed and M Ed from one year to two years. The curriculum is revised to include inclusive education in core and pedagogy courses in addition to adding a standalone course on inclusive education. Teacher preparation for elementary level also is changing in the light of the new NCTE document. These have indeed brought new breeze into the existing teacher preparation programmes. However, the school internship and framework guidelines of NCTE (2016) is silent about the

need to develop professional competency towards diversity in the classroom, though field experience is the vital component of the teacher education programme to develop sensitivity towards CwD.

Researchers (Myreddi and Narayan, 2000; Sharma and Deppeler, 2005) believe that majority of teachers in Indian schools have inadequate training to address an increasingly diverse population. Johansson (2014a) found that there exists a varying and limited awareness of autism among school staff and asserted the need for re-assessing special educators' courses. Another related substantial challenge lies in communicating the research based intervention strategies to the would-be-teachers (Byrd 2010). Gaur (2010) noted that nearly 50% of the competencies not being transacted in pre-service training programmes. Therefore, the B.Ed. programme does not make a positive impact on knowledge and attitude of student teachers regarding inclusive education practices (Gafoor and Asaraf, 2009). Their study further revealed that attitude towards inclusion was less favourable among female student teachers. This may be because these pre-service teachers do not receive practical, real life experiences of inclusion. Lack of exposure to SwD during the pre-service programme was linked to lack of concern and negative attitude towards inclusion (Sharma et al., 2009). A study to analyse the perspective of the teachers regarding their competence to function effectively in an inclusive classroom showed that both general education and special education programmes do not equip the student teachers for teaching in an inclusive classroom (Gowramma, 2014). Singh (2014) explored research and practice through reflections of teachers and teacher educators on education of children with special needs. Several focus areas were identified and it was recommended that TE must be restructured for effective delivery of education in the inclusive mode and its focus should be around inclusive policies, cultures and practices. Having student teachers with disability in the pre-service programme is observed to have a positive impact on the attitude of prospective teachers towards inclusive education for CwD (Gowramma and Mohanty, 2017).

Assuming the entire school to be an inclusive space, demanding collaboration between regular, special and physical education teachers, for successful inclusion of children with disabilities in all activities of school life, the pre-service teacher education programmes like B.Ed., B.P. Ed. and B.Ed. Special were analysed (Bharti, 2015). The analysis revealed that some programmes of

special education have an optional paper on inclusion but inputs on inclusive teaching practice were not found. Pre- service physical teacher education programme did not sensitize student teachers about children with disabilities and how to accommodate their needs in physical education activities. The special education programme was found to prepare teachers only for special education set up. The situation may change with the NCTE (2014) regulation mandating compulsory inclusive education as a course in all the teacher education programmes. Comparing pre- and post-NCTE (2014) regulations with reference to curriculum and teaching practice along with teacher competency can be taken as priority areas for researching teacher education in the future.

For the concept of inclusion, as an ideology to be assimilated right from the classroom level, there is no doubt that the general/ regular teachers are the key players (Mani, 2016; Srivastava et al., 2015). Studies (Mishra, 2013; Srivastava et al, 2015) show an improvement in attitude and knowledge about dyslexia, intellectual disability, ASD and teaching method after an in-service training programme among regular school teachers. Teaching experience, prior training and exposure were positively correlated with knowledge of dyslexia among regular teachers (Shetty and Rai, 2014), where as teaching experience and familiarity with LD was not observed to be affecting the knowledge level of teachers in any way (Saravanabhavan and Saravanabhavan, 2010). Such contradictions in findings call for analysing associated factors relating to personal and institutional set up along with pointing towards the need for large scale studies across levels and locations. The sustainability of such in-service programmes with reference to the approach and duration needs to be discussed for validating such a programme.

Parween and Dheesha (2016) felt the need to provide cross disability training for the special educators working at inclusive schools in order to equip them in different disability areas. Study by Das et.al. (2012) found that teachers are not adequately prepared for the implementation of inclusive education and many teacher educators in India have not witnessed the true functioning model of inclusion in which the needs of all children are met within regular education classrooms. The study also emphasised on the professional development programme planners to consider a 'bottom-up' strategy rather than a 'top-down' process for the determination of training programme content and format to

reduce teacher isolation as well as making the programme more meaningful and relevant for the participants. Also, due to the large teacher population and the limited availability of fiscal resources in India, it is further proposed that the training programmes for these teachers should be carried out using the 'train-the-trainer' model.

Teacher Competency

A key factor in the success of IE is teachers' professional competence to work with CwD as it is at the heart of initiatives for inclusive practices in schools. After reviewing the research literature, Sarkar (2015) observed that teachers' self-efficacy, attitude and concern should be given due emphasis for successful inclusion of children with special needs in school education. For teaching in an inclusive classroom teachers need to possess skills and knowledge that help them to plan and implement strategies that provide wider access to regular classroom (Nagpal and Sangeeta, 2012). Based on an analysis of inclusive practices in schools, Kusuma and Ramadevi (2013) opined that with more confident and skilled teachers the inclusive education programme will have a positive impact on the awareness of the community. In a case study of a school, Kaur (2010) found principals show a favourable attitude towards inclusion of SwD. However, as pointed out by Pandey (2009), their lack of knowledge on provisions in implementing IE. Moreover, mathematics teachers with professional qualifications were found to be using teaching strategies that are supportive to inclusive education (Reddy and Rangan, 2001; Sharma, 2009). *The* study by Subramanian and Manickaraj (2017) indicated a significant correlation between knowledge about children with special educational needs and attitudes towards disability and teacher efficacy for inclusive practices. Teachers teaching CwD do face challenges and are not able to practice even the simple principles of teaching like repeating their explanations, instructions or questions etc. and they need awareness building programme and specialised trainings (Beniwal, 2014). If inclusive education is truly to become effective, then there is a requirement for teachers to gain more knowledge and understanding of how inclusion can be defined and operationalized within the context of the Indian educational system (Hodkinson and Devarakonda, 2009) and managing disruptive behaviours were likely be more efficacious.

Singh (2016) found that teacher's initiatives in the mainstream classroom helped the students with mild and moderate disability

in understanding difficult content and ensure their participation in curricular activities. Moreover, the attitudinal changes of teachers helped in making integration of children with mild and moderate disabilities successful. While analyzing the teachers' preparedness to address social and academic needs of SwD, Singh (2007) found that SwD are not stigmatized in school but pedagogical process was abysmal with complete absence of accommodations. The inter-group contact and teachers' classroom practices influenced the social status of students with disabilities in regular classrooms (David and Kuyini, 2012). The implication of these findings are that teachers can make a difference in the social inclusion experiences of students and that such inclusion may also allow for better school outcomes that are associated with increased peer interaction amongst students with and without disabilities.

Studies (Das et al., 2013; Gowramma 2014; Shah et al., 2013; Singal 2013) have documented that both primary and secondary school teachers rated themselves as having limited or low competence for working with SwD. A study by Maheshwari and Shapurkar (2015) revealed that teachers had an inadequate amount of information on disabilities and inclusive education. Disability to most teachers meant "an inability to do something". Although, maximum number of teachers held a moderately positive attitude towards inclusive education, a large percentage felt that being in inclusive set up would be very challenging for both children with special needs and without special needs. In this regard, as shown by Das et al. (2012), there is a need for developing additional competencies like professional knowledge, classroom management, collaboration, assessment and evaluation, instructional technology, individual/adaptive instruction and assistive technology for successful teaching in inclusive classroom. An exalted attention should to be given to reconnoiter proper strategies for ensuring implementation of the inclusive education for children with special needs in a pragmatic and systematic manner keeping in mind the diverse need and varied confronting issues of the country (Sarkar, 2017). According to Nagpal (2015), majority of the teachers were found to have high degree of concern about inadequate special education instructional material and teaching aids but they do not have knowledge and skills required to teach students with disabilities. Poornima and Reddy (2009) observed that teachers working in the special schools with good

infrastructure facilities were experiencing low level of stress than those working with poor infrastructure facilities.

Several studies (Astha et.al, 2011; Bansal, 2013; Bhakta and Shit, 2016; Billing, 2017; Mehra, 2016; Parasuram, 2006; Sahu, 2005; Singh, 2001) have been conducted to find out the effect of different variables on the attitude of teachers towards inclusive education of SwD, such as teachers' gender, locale, qualifications, experience, training, age, acquaintance with PwD, medium and type of school, etc. The results indicated no coherence in the pattern observed. In general, female teachers possessed more positive attitude than male teachers. A study by Sharma et al. (2009) found that large majority of pre-service teachers did not have ongoing contact with persons with disabilities. Such contact, if systematically designed, can significantly improve pre-service teachers' attitudes and, subsequently, their behaviour in the class.

The attitude of the teachers toward children with disabilities was strongly influenced by the nature of disabilities (Sharma, 2002). Teachers showed positive attitude toward visual and hearing impairments and least positive toward the ID and those with behavioural problems. Kakkar (2014) reviewed various factors affecting the attitude of teachers towards inclusive education such as provision of more resources and support, flexible and accessible curriculum, pre-service and in-service training. The heads of schools and regular teachers in the secondary schools were found to have different levels of attitude (i.e., favourable and unfavourable) towards Inclusive Education Programme for Children with HI (Ramakrishna and Rajeswari, 2016). Shetty and Rai (2014) study assessed the knowledge of dyslexia in elementary school teachers and the variables influencing the knowledge. Teaching experience, prior training and exposure were positively correlated with knowledge.

Bhatnagar and Das (2014 a, 2014 b), Shah et al. (2016) identified concerns and barriers perceived by regular school teachers regarding inclusion of students with disabilities. Concerns include poor infrastructure, financial limitations, large class size and barriers such as lack of trained teachers, lack of inclusion policy, lack of differentiation in instruction, parental pressure, teacher anxiety and negative attitudes were reported. Bhatnagar and Das (2013) also found that the teachers in Delhi had a moderate level of concern for implementing inclusive education in their schools and were not concerned about increase in their workload due

to inclusion. They further indicated that they had not received training in special education. In many context and situations, special teachers teaching CwD continued to face problems regarding non-cooperation of government officials which have the responsibility of inclusive education under SSA. Another issue is in terms of job insecurity and associated pressure due to heavy workload. All these problems adversely affect the implementation of inclusive education under SSA (Dubey and Pandey, 2012).

As the body of knowledge and experience about inclusive education grows, schools must be ready to adapt to reflect the ever-changing needs of teachers. Williams et al. (2013) found that learning package improves the competency of primary school teachers regarding learning disabilities. Similar packages to develop teacher competency in all areas of disabilities are to be explored and tried out. To fill the gap, in depth and long term studies of the process of learning of CwD in the context of inclusive classroom/school needs to be documented. Recording the best practices with specific focus on teacher competency and attitude can generate ideas and also serve as resource for teacher professional development.

In conclusion, the studies provide valuable insights into teachers' readiness to implement inclusive education programmes. The journey of teacher preparation has to start with the assertion to prepare teachers with a view to integrate their in the classroom. Future research would need to consider other methods of identifying teachers' readiness such as personal or focus group interviews and classroom observations. Responses from other stakeholders including administrators, teacher educators, special education teachers and parents of students with disabilities would also be helpful in validating the responses obtained from the regular school teachers.

Development of Materials Supporting Education of CwD

It is recognised that disability is the outcome of the interaction between a child with impairment and an environment with barriers that hinder their participation on an equal basis with others (WHO, 2015). Material development to support education of CwD is an indispensable component of research as it goes a long way in overcoming the barriers. Hence adapted learning resources, packages for teacher professional development and a host of Information and Communication Technologies (ICT) based materials can reduce or eliminate such barriers. Adapted textbooks

at primary level (NCERT, 2014) and upper primary level (NCERT, 2015), a reading series for all to give equal access to reading with inbuilt features that facilitates every child to read (Ahuja, 2016) are some efforts in this direction. Awareness packages (Julka, 2003) and manuals (Julka, 2007) have been designed and tried out for professionals dealing with education of CwD. Cornelius and Balakrishana (2012), observing the challenges of CwID, suggested model curriculum emphasizing the removal of grade placement underpinning learning in CwID. Considering the challenges of education of children with multiple disabilities, Selvi (2009) developed and validated curriculum for CwVI and CwID. While providing a package to enhance Braille reading techniques among students with VI, Geetha and Roy (2012) found that vast majority of blind students who are employed are Braille readers suggesting the crucial role it plays in giving them complete independence and self-reliance.

Access to assistive technology is a precondition for achieving equal opportunities, enjoying human rights and living in dignity (WHO, 2015). In this direction, several assistive devices have been developed and validated by some of the institutes pioneering in the area of education of CwD. Technology to support independent living and learning were developed by Subashini (2017) such as Smart Walking Device, and GPS based University Navigation System that enables PwVI to move independently; E-campus, IVR Banking Software and Barcode scanner-based book identification system to improve self-reliance capacity of PwVI; and Web-based program, E-campus system to provide specific access to various students' related services. Furthermore, barcode scanner based Book Identification system to enable SwVI to identify and locate desired book in library is also available.

Students with certain disabilities often have difficulty in acquiring skills such as reading, listening or writing. To reduce the problems faced by CwLD, Subashini (2017) has developed Talk 'N' Learn based English phonic software, Digital Talking Book (DTB), Fixture App, and Talking Book Application (TBA). 'Learning Tool for Autism Spectrum Disorder Students' to facilitate a comprehensive learning environment for the students with ASD has been developed.

A unique e-learning framework 'e-Saadhya' that adopts special education pedagogies, curriculum, teaching and learning methods digitally for persons with ASD and PwID has been developed by

Centre for Development of Advanced Computing (C-DAC) and National Institute for Mentally Handicapped (NIMH). It supports learning materials in various formats such as pictures, songs, videos, audio stored in repository and accessible over internet via computer or android mobile devices, which may be chosen as per the learning need of students. The learning material is designed on evidence-based scientific methods for students with ASD and ID such as visual schedules, discrete trial learning and applied behaviour analysis. The findings of training conducted for 100 special educators by C-DAC Bengaluru in collaboration with NIMH and use of 'e-Saadhya' in 21 locations across India show that these are most useful in training and educating students with ASD and ID (Rao and Markham, 2014). These modules are embedded with evidence-based pedagogies of Discrete Trial Learning (DTL), Visual Schedules, Social Stories, Videos, Games and Prototype Lessons, which can be customized according to the needs of CwASD and CwID. A tailor made mobile application SWAR – "Speak for Me" developed by C-DAC (http://learnwithme.cdac.in) for improving verbal communication among children with ASD improves communication considerably (Markham et. al., 2014). It is a mobile-based communicator device that adopts methodology of Picture Exchange Communication System (PECS) that converts the typed texts to speech. Customised e-content in the form of video, games and rhymes was seen to enhance learning functional skill among students with intellectual disability having autism (Markham, 2016).

Local languages, lack of good OCR software, non-adherence to Unicode are identified as hindrance for the effective use of technology in schools (TNN, 2016). Digital Accessible Information System (DAISY) is an international standard for print that can be read in Braille and large print on a computer or mobile phone. Textbooks of the several states have been converted into DAISY format and textbooks of other states are in the process. There is a need for a clear accessibility policy that can be applied in all school system (Manocha, 2016).

Though materials are developed through research and field-testing, validation to ascertain its sustainability in the field through further research is necessary. Support through research based resource materials in the form of print and/or technology is one of the key elements to advancing inclusion of children with disabilities. An educated child with a disability supported

by assistive technology will have greater opportunities for employment, resulting in less dependence on welfare and social security measures, and their greater contribution to the country's economy. Technology developers may need to think more about how to integrate accessibility into applications early in the process as assistive technology has been a missing link in the chain of pre-requisite that enable CwD to lead a life where they can enjoy and exercise their rights (WHO, 2015).

Research Related to Other Disabilities

This section encompasses studies that are mainly interdisciplinary and focus on less known disabilities like seizure, cleft lip/palate. Witnessing the performance by persons/children with disabilities had the potential to increase disability awareness in the mainstream classroom and challenge negative disability stereotypes that influence how people with disabilities are made known in society. A portrayal of disability in textbooks was analysed by Kaur (2015).

Ranjan (2013) analysed the response of CwLD, CwASD and CwID for sensory stimuli in inclusive classroom. Significant difference was observed between the mean scores of the children in three groups wherein with the visual-auditory stimulus emerging as the most preferred by CwLD and CwID. The CwASD were found to prefer visual and vestibular stimuli. Chandrashekar et al. (2010) identified the challenges faced by PwD and found stigma attached to disability, fear of misuse of disability certificates, discomfort in approaching government hospital, time constraint, negative thinking about legal issues, denial of disability and 'outside' pressure to issue disability certificate, as major challenges. The study recommends that the PwD should demand benefit, their voice need to be recognised by the government, strong encouragement and assistance should be given to persons with mental disability, support for formation of an organisation, drive for attitude change, monitoring of disability services, periodic review of lacuna in mental health law and interdisciplinary studies in disability associated and psychiatric disorders.

Need for systematic and dedicated programmes towards creating awareness regarding cleft lip and palate among children was highlighted by Thammaiah et al.(2011), which revealed that parents of children with cleft palate and lip rely more on myth rather than on treatment for a disorder arising from cleft lip and palate. Kaur et al. (2013) assessed the oral hygiene and periodontal

status of mentally and physically challenged people living in a specialised institution and noticed that they paid least attention to oral hygiene. The worst oral hygiene was found among mentally challenged, suggesting the need of collaboration between social services, public health authorities and dental professionals in India as this important area remains neglected. Kannappan and Laxmibai (2008) studied maladjustment behaviour in deviant school boys observed significant change after yoga-cognitive training and human relationship training. Compared to the general population the seizures disorder is seen more among Children with Communication Disorders (CwCD), (Mahesh and Geetha, 2010) and the researchers suggested measures to control seizures disorder among CwCD.

Sen and Geetha (2011) studied the pattern of language deficits among both monolingual and bilingual CwA and concluded that bilingualism does not affect language abilities in CwA. Giving an overview of studies carried out in India regarding management of Auditory Processing Disorder (APD) which is deficit specific, Yathiraj (2015) suggested compensatory and coping strategies to help individuals with APD. A medical emergency condition, if delayed in early rehabilitation, negatively affects the functional ability of a child with CP and hence Thomas et al. (2015) recommend focusing on the team management as an effective rehabilitation strategy.

A screening programme of primary school children for communication disorder, observed that around 11.5% had some form of communication disorder, with language disorder leading the list and boys being more vulnerable to communication disorder as compared to girls (Shanbal et al., 2015). The study highlighted the importance of early identification of communication disorders for better social and academic life. Deshmukh and Sovani (2016) examined the efficacy of combined skills training and Cognitive Behaviour Therapy in the treatment of stuttering and found that significant improvement occurred while dealing with situation anxiety, attitude to communication, assertiveness, self esteem and fluency.

Halder and Talukdar (2013) studied different contributory and causative factors of locomotor disability including the disease status and the significance of poverty in relation to disability in the eastern part of India. The study revealed that various diseases which results in locomotor disability were someway related to poverty such as malnutrition and hygiene during prenatal and postnatal

period, illiteracy and socio cultural issues as well as carelessness of the medical practitioners. A similar study by Padhyegurjar and Padhyegurjar (2012) analysed the treatment seeking behaviour for locomotor disability through community based cross sectional observations and revealed very few percentage of PwLD approaching speciality rehabilitative services due to low literacy level and poor awareness of facilities. Upadhyay (2010) analysed the print media (news, articles and advertisements) coverage on disability in order to find out its role in creating educational awareness on disability and found that locomotor impairment enjoy maximum coverage followed by disability in general.

Research in Policy and Programme Implementation

Policy changes in case of education of CwD in India are driven by growing international attention on disability, development of education broadly and changing discourse around disability (Singal, 2016 a). The National Sample Survey Organisation (NSSO, 2003) revealed that despite the efforts, about 94% of CwD did not receive any educational services and marginalised groups such as children from rural areas and girls with disabilities and individuals with Intellectual Disabilities (ID) were further underrepresented. Studies indicated fragmented implementation (Alur, 2002, Jangira 2002), uncertainty about the concept of inclusion (Singal 2005, 2006), inadequate resources and unfair dissemination (Jha 2001, 2004; Mohapatra 2004) indicating a lack of quality programming.

Julka (2002), while giving a regional perspective of inclusive education in South Asian Association for Regional Cooperation (SAARC) countries, said though children with disabilities are the main focus in all the initiatives, all categories are yet to be covered. The dominant approach towards care for these children still exists. Status of implementation of *Right of Children to Free and Compulsory Education Act* (RTE, Act 2009) with reference to CwD (Soni, 2013) brought out the disparities existing in different states. The sample states were found to be poor visionaries to implement the Act. An evaluation study of a pilot project on inclusive education (IE) by Chadha (2007) brought to focus the need for more work and research to concretise, diversify and improve pedagogical, educational and social strategies to promote the best interest of CwD. Arya (2013) found that the dual delivery system of special and mainstream education entails different settings, curricula and services wherein affirming the rights of the CwD at par with other

children is a huge challenge. In a similar evaluation study, Julka (2013) observed increase in enrolment of SwD at secondary level is not recorded in all the states under IEDSS scheme. However, the desire of students with disabilities to attend school can be viewed as success of the scheme. Reviewing the literature on inclusive education in India, Singal (2005) noted that the term 'children with special needs' is used synonymously with that of CwD. Working with people with disabilities in the Indian context, Pinto and Sahur (2001) observed that many families are reluctant to record disability, particularly in view of the prevailing negative attitude in most community. PwD living in society and engaged in soliciting money might lead to the general perception about them as someone to be pitied, shunned or supported by charity. Parents cannot envision viable future for their children with disability and fear of social isolation themselves.

In a research paper based on secondary sources Kamble (2016) argued that efforts aimed at the education of CwD in India have been largely framed by the distributive concept of social justice, where the focus has been on equality in terms of access and provision of resources. It is observed that working with such a conception of justice is rather limiting and identifies two basic flaws. First, it is too individualistic in its perspective and locates the problem within the child. Secondly, it takes attention away from questioning how social structures and institutions uphold patterns of injustice. The SSA categorically brings the concerns of CwD as it terms children with special needs (CWSN) under the framework of IE so that no child is left out of the education system (SSA 2006). It further extends the range of options from special and mainstream/regular schools to Education Guarantee Scheme and Alternative and Innovative Education (EGS/AIE) and Home Based Education (HBE). Thus the model proposed by SSA does not support the implicit assumption that inclusion should strengthen or enable mainstream educational participation of CwD. Understating the need for nurturing individual competencies among all learners, the learning outcomes (NCERT 2017) outlines process based specific learning indicators taking into account the specific needs of children across disability at elementary stage. However, the wider implication has to be ascertained taking into account the reality with reference to specific disability in different regions of the country.

Conclusion

Enough ground has emerged to theorise that CwD are not able to achieve their potentials due to lack of opportunity coupled with negative attitude based on traditional thinking. The study by Singh and Ghai (2009) points out the unremitting hope and potential of CwD is often silenced by over arching "negativism" that surrounds "disability". They observed immense variation and fluidity in children's understanding of "disability". The disabled children desire to appear similar to "non-disabled" children, attributing disability to existential causes. As we move forward, the development of a more coherent agenda must be based on rigorous research findings. More importantly, such evidence-gathering must involve people with disabilities, as it is ultimately by listening to these voices that we can begin to respond to their lived realities (Singal, 2016 b). In an article, Ramaa (2016) stressed the need to fill the research gap of hearing children's voice especially from those with disabilities to make a significant contribution to a sustainable, adaptable process of change.

Research clearly shows the benefits of early identification and intervention. Hence the challenge of prevention, early identification, medical rehabilitation, therapeutic services need to be researched to guide practice. It is not only fiscally wise for the society to invest in early intervention programme as they require less service in the future but also due to the fact that neural plasticity almost gets sealed by the end of early childhood. Hence prevention and early intervention in the best interest of parent, child and the society has to be taken up by researchers on priority basis. Experimental studies focusing on treatment invariably has shown desired effects. However, the challenges to conduct such studies owing to the inter- and intra-individual factors interplaying in measuring effects has to be borne in mind. As the experimental studies have strong potential leading to application, their robustness and reliability need to be maintained. While assessing treatment efficacy, predictors of treatment outcome have to be identified so that it may be custom made to suit individual. Clinical judgements made based on deep understanding and principles of development and experience are of strong support to professional practice in the education of CwD. Engaging in appropriate treatments that are based on sound theoretical principles from cognitive and behavioural psychology that yield reliable outcomes remain an untapped corner. Large scale studies on the evidences from

clinical studies in school set up needs to be taken up to benefit the majority of children. More studies based on clearly defined topics, conducted with high degree of rigor, set forth in the evidence based standards are clearly needed and as conditions in society continue to change the questions addressed will require occasional revising to ensure that previously established knowledge still applied in the same way it had in the past.

To support such an endeavour, early screening checklists that are highly accurate are to be developed through scientific research and field tested in a large scale. Focus on awareness building among parents, community can bring in the much needed positive angle to viewing disability. However, it has been agreed that access to a free and quality education is a basic human right, it is time that all children regardless of disability receive what is due to them. Policy that is well informed by current scientific research seems to be the vehicle needed for such a change. Many researchers have recognised by now that their observations could not remain in the realm of science, they have the potential to impact other disciplines and better the lives of those that have been afflicted. As a result, many studies now contain policy recommendations and suggestions for teaching strategies.

After reviewing the research conducted in the past five years, Ramaa (2016) concluded that the main area of concerns were; a lack of well thought out policy, scanty resources, and limited understanding of inclusion. She also remarked that some studies were exemplary but not extensive, thus providing a scope to replicate, with all types of disabilities and in various educational settings. As educationists, constant endeavour should be made to seek mechanisms through which these associations can be truncated without being apologetic about focusing on a particular dimension of marginalisation (Singal, 2011).

The situation in our country with diversity peeping from every corner has to be borne in mind where providing education to all is taking precedence to meeting the needs of children with disabilities which is making the process painfully slow (Yadava 2013). However, recent studies, such as that by Lamichhane and Sawada (2013), have clearly noted that failure to invest in education of CwD has a significant negative impact on national, economic and social development. An effective option left is to begin the transformation process in school through inclusive education.

In the evolutionary process of education of the CwD there is a progressive trend moving from welfare paradigm to empowerment.

The international trend shows a shift towards more inclusive environment in schools ignoring labels and preventing failures. This is a positive direction to move towards the rights based approach focusing on individual scaffolding. This trend needs to be replicated in the Indian context with rigor to bring the ripple of change that may reach the ground in the near future.

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Research Papers

How Distant is 'Inclusion'?: A Study of Delhi School Teachers

YUKTI SHARMA*

ABSTRACT

This research paper is based on the study of perceptions of school teachers undertaken as a research project. The study explored teachers' perception about the children with special needs and as the representation of such children in their respective schools. Also, the perception of teachers regarding inclusive spaces, practices and provisions found in their respective schools were studied. In this process, the teachers' attitudes towards as well as preparedness for inclusion in schools were analyzed. In the light of teachers' responses, the paper makes an attempt to present the reflections of extent of preparedness and inclusive practices in schools in the present times.*

Introduction

All children, including Children with Special Needs (CWSN), do have education as a legal right since the enactment of *The Right of Children to Free and Compulsory Education Act* (RTE 2009) in India that specifies the various modalities for implementing it for every child. The overall aim of education is to enable all children, in accordance with their abilities, to live full and independent lives so that they can contribute to their communities, cooperate with other people and continue to learn throughout their lives. The legal mandate in the form of RTE Act, 2009 resulted in the recognition of the rights of CWSN including the right to be educated in 'regular' schools. As stated by Bhattacharya (2010), "a careful deliberation of

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the RTE provides a legal framework for implementing an inclusive educational environment for children with disability" (p. 23). This has given an explicit space to the CWSN in the Act which is in consonance with India being a signatory of the UNESCO Salamanca Statement (1994). The Salamanca Statement and Framework for Action on Special Needs Education (UNESCO, 1994) played a crucial role as it focused on the children with special educational needs but within the wider agenda of *Education for all* (EFA) on the premises that education should be seen as a human right which is fundamental in achieving other essential rights. It further emphasized that all children should be educated within an inclusive education system. Also, reminding of several other United Nations policies that have voiced the idea of inclusion and reiterated that the rights of all children to be valued equally, treated with respect and children to be provided with equal opportunities within the general system of education. These include the UN Convention on the Rights of the Child (1989), the UN Standard Rules for the Equalization of Opportunities for Persons with Disabilities (1993) and the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD, 2006) in which the Article 24 (2) specifies that the state shall ensure access to inclusive education stating, "Persons with disabilities can access an inclusive, quality and free primary education and secondary education on an equal basis with others in the communities in which they live". It also refers to the support that is required by the persons with disabilities to be provided within the general system of education, thus indicating that provisioning was an important aspect of inclusive education.

In the Indian context, the philosophy of inclusion has its reflection in many ways in various Acts/Schemes and rights in relation to education that included children with disabilities at par with the other children. Since the 1970s, various schemes of the Government of India, especially those concerned with Universalization of Elementary Education (UEE) have been advocated for the inclusion of children with disabilities (CwD) into the mainstream educational system. These schemes include the Integrated Education for Disabled Children Scheme, 1974; the District Primary Education Programme (DPEP), 1994: the National Policy on Education, 1986; the Project Integrated Education for the Disabled, 1987; the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995; the National Trust for the Welfare of Persons with Autism, Cerebral Retardation

and Multiple Disability, 1999; the Sarva Shiksha Abhiyan (SSA, 2000); the 86thAmendment to the Constitution in 2002 that made education a fundamental right for those in the 6-14 age group; the Right of Children to Free and Compulsory Education (RTE) Act 2009; andthe Rights of Persons with Disabilities (RPWD) Act, 2016 that is the revised Persons with Disabilities (PWD)Act, 1995. The RPWD Act (2016) in its chapter 1, point 2(m)defines inclusive education as, "*inclusive education means a system of education wherein students with and without disability learn together and the system of teaching and learning is suitably adapted to meet the learning needs of different types of students with disabilities*" (p. 3).

In the light of above, it can be said that the various policies and initiatives at the national and international levels have advocated for the inclusion of children with special needs in the regular schools. Also, the idea of inclusion as can be understood from various policies and initiatives emphasizes the shift of onus of education of all children onto the state; that is, to its institutions or the schools. Another significant understanding about inclusion common amongst these initiatives is that it means making provision for a barrier free and non-discriminatory environment for all children and at the same time ensuring their full participation in education. It is implicit that this requires a humongous preparation on the part of the schools in terms of creating environment, developing curricular practices and providing resources that are universal in nature for implementing inclusion in its true spirit.

While claiming that RTE Act can work for inclusion of children with disabilities Bhattacharya (2010), proposed six inclusive practices that are workable and are covered within the various sections of the Act. These are:(a) accessibility of physical space as well as social, communicative, attitudinal and educational accessibility; (b) curriculum; (c) services and training including special training for children with disability (who are beginning the education late or returning back to school system) and teacher training for encouraging inclusive practices that are learner centered; (d) assessment and evaluation specifying the duty of the teacher to assess the learning ability of each child for supplementing additional instructions and ensuring comprehensive and continuous evaluation; (e) preventing the use and abuse of disablist language; and (f) the 'others' which includes issues such as employment of PWD in schools and transfer of knowledge across disabilities and institutions. This operationalises

the RTE act by offering a framework emerging from it for making inclusion implementable in the context of schools. In the context of India, Singal (2014) gave a framework of 3E's that is based on the premises that the inclusive education for all children irrespective of their disability should be encouraged and empowered, apart from offering a mere access to such children. She proposes three dimensions to inclusion: (a) entry that is an access to a barrier free and safe living environment; (b) engagement that is offering curriculum which is culturally relevant along with teachers trained to meaningfully transact it using locally available materials and (c) empowerment that is it should foster agency so that individuals are able to convert available rights, resources and opportunities for becoming independent in making choices and decisions (p.204).

It is evident from the above discussion that inclusion is not only about providing physical space to the children with disability but to offering them a conducive, safe environment, involving them in meaningful educational experiences along with provisioning of special instructions/resources as per their need and preparing as well as expecting from them as we do from other children. In this process the teachers play a key role not only in planning learning experiences for them using the available resources but also by creating an environment that positions children with disability at par with other children. However, it is a fact that the teachers are already operating in environments that have discursive contexts primarily dominated by the medical perspective of disability that perceives the children with special needs being less powerful/capable than other children in school (Collins, 2003; Reid and Valle, 2004). Also, the teachers have their own perceptions about children with disabilities that have been formed by their previous experiences by being a member of the society or any of its institutions. Their perceptions and beliefs strongly influence their day to day practices, their language as well as teaching. The teachers can challenge the dominant discourse of medical model (Kang, 2009) and work towards a socio-cultural perspective that values children with disability for their differences/variations as diversity within the human community (Stiker, 1999). This requires that teachers are informed by the socio-cultural perspective of disability and are prepared to create accepting contexts that values their strengths (Kang, 2009). They need to be supported with the other resources and materials that they may require for organizing inclusive practices in their schools. Therefore, teachers'

perceptions about inclusion as well as its various dimensions as operating in schools are important for understanding the place of children with special needs.

Delhi, being the capital city of India, any new Policy or Act is expected to have major influence on the schools located in the city. The teachers being major stakeholders in the school system inevitably become a part of any change expected therein. Teachers are closely engaged with the children on a regular basis and children spend most of the time in school with their teachers. Hence, Delhi teachers' perception about the inclusion of CWSN in their respective schools was studied to understand teachers' ideas about the issue. Also, teachers' ideas about various dimensions of inclusion discussed above were studied.

Objectives of the Study

The research was undertaken with the following objectives:

- To study the teacher's perception of representation of children with special needs in their schools and provisioning for children with special needs in their schools.
- To examine the teachers' experiences with CWSN in their schools and the challenges perceived by them in this regard.

Method

The present study is part of a research project that involved a constant engagement with a group of 15 primary teachers belonging to different schools of Delhi. Around 25 teachers were randomly approached, out of which 15 gave consent to participate in the study as it required a continuous involvement. Out of 15 teachers, 10 belonged to various government schools including MCD and Sarvodaya Vidyalaya whereas 5 were from private schools. The questionnaire was developed for collecting data for understanding teachers' perceptions of representation of CWSN in their respective schools and their needs. It involved majorly descriptive questions based on vital issues and concerns related to inclusion in schools such as presence of CWSN in schools and categories generally present; identification, engagement and provisioning for CWSN and regular teachers' experience with CWSN. The data were collected by organising an interaction with the teachers where they were oriented towards the purpose of the research followed by filling up of the questionnaires by them. The analysis of questionnaire

required further clarification on teachers' responses. Hence, this was followed by interacting with the teachers individually to probe their responses further.

Results

The responses of teachers gathered through questionnaire and during interactions with the teachers were analysed qualitatively using open coding. In this process, the responses were categorised into various themes that emerged during the analysis of the data. Some themes required another level of categorisation for which subthemes were created for a detailed and comprehensive analysis as well as interpretation of the data. The responses under each theme and subtheme were grouped into specific categories and their respective scores were calculated representing the frequency of their occurrence in the data to some extent. The theme-wise analysis is presented below.

Theme 1: Teachers' understanding of Children with Special Needs

Teachers' Awareness about the Diversity Existing amongst CWSN

Figure 1 shows that the highest number of categories known to a teacher was as high as 12 and least number of categories known to a teacher was 4. This implies that most teachers were aware of the categories found amongst the CWSN, with varying number. This indicated that teachers were aware of the diversity existing amongst the children with special needs.

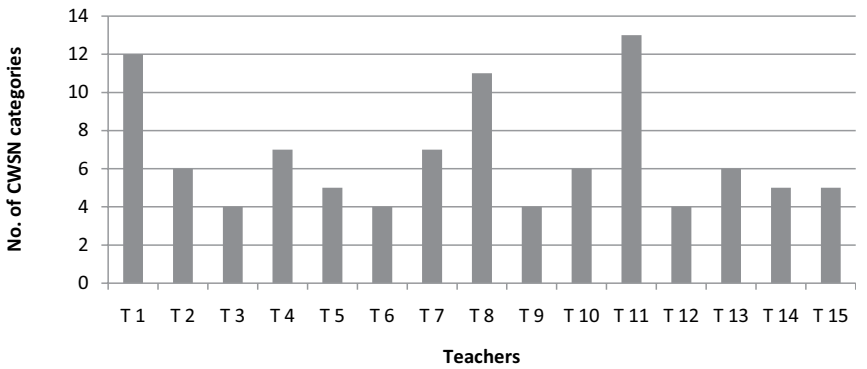

Figure 1. Awareness amongst teachers about number of CWSN categories

Teachers' Awareness about Presence of CWSN in Schools

Table 1 shows that most of the teachers were aware about the presence of learning disability, physical handicap, hearing impairment and visual impairment. This implies that children with above mentioned disabilities might be present in most of the schools.

Table 1

Categories of CWSN as reported by Teachers

S. N.	Name of the Category	Frequency (Number of Teachers)
1.	Learning Disability	15
2.	Learning difficulty	1
3.	Gifted Students	4
4.	Cognitive Impairment	8
5.	Developmental Delay	2
6.	AD and ADHD	6
7.	Physically Handicapped	12
8.	Hearing Impairment	9
9.	Visual Impairment	9
10.	Down Syndrome	1
11.	Creative	1
12.	Children with behavioural needs	1
13.	Children with organizational needs	1
14.	Children belonging to EWS Category	2
15.	Children from poor education background	1
16.	Children with different understanding ability	1
17.	Autism	6
18.	Speech Impairment	4
19.	Children with emotional needs	2
20.	Cerebral Palsy	1
21.	Brain Injury	2
22.	Muscular Dystrophy	1
23.	Sensory Disabilities	1
24.	Slow Learners	3
25.	Multiple Disabilities	1
26.	Neural Disorder	1

As gathered from the responses of teachers, children with learning disability, learning difficulty, physical impairment and visual impairment were present in most of the schools (Table 2). Out of 15 classes about which the teachers responded, six classes had children with learning disability, six had children with visual impairment (including children with low vision) and five had children with physical impairment. These responses correspond with the responses of question which intended to study the category to which most of the CWSN belonged that were present in schools generally. Results to this question show that the presence of children with learning disability and visual impairment was more in schools of Delhi as compared to other children with special needs.

Table 2

Categories of CWSN Present in Each School

Teacher	Number of categories present in classroom	Name of categories	Children in each category
T 1	6	Developmental delay	1
		Learning Disability	2
		Learning Difficulty	1
		Socially Gifted	4
		Attention Deficit	2
		Visual Impairment	2
T 2	4	Learning Disability	10-12
		Gifted	1
		ADHD	4
		EWS	3-4
T 3	3	EWS children	10
		Different abilities	10-15
		Visual impairment	2-3
		Hearing impairment	2-3
T 4	Not answered		
T 5	3	Developmental delay	2
		Speech impairment	1
		Cognitive impairment	2
T 6	3	Visual impairment	1
		Physical impairment	2-5
		Cognitive impairment	2

T 7	3	Emotional needs Speech impairment Learning disability	2 1 4
T 8	1	Visual impairment	1
T 9	1	Learning disability	1
T 10	1	Learning difficulty	2-3
T 11	3	Orthopaedic impairment Speech impairment Learning disability	1 1 3-4
T 12	4	Socially gifted Physical impairment Learning disability Cognitive impairment	3 1 7-9 2
T 13	1	Low vision	1
T 14	1	Low vision	1
T 15	1	Cognitive impairment	1

Theme 2: Teachers' Classroom Experiences with Children with Special Needs (CWSN)

Procedure Followed for the Identification of CWSN

Most schools used observations and tests for identification of CWSN (Figure 2). The teachers also acknowledged the role of their own observations as well as the role of parents, and child's participation in different activities, etc. for identification of CWSN.

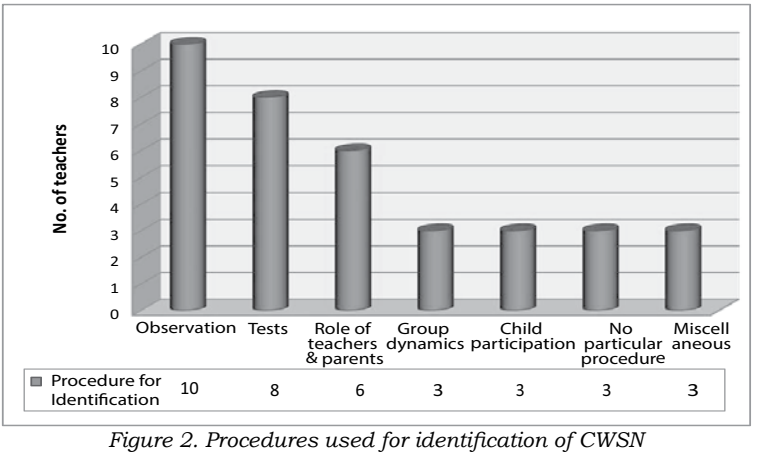

Figure 2. Procedures used for identification of CWSN

Criteria Used by Teachers for Identification of CWSN

Figure 3 shows that most of the teachers used behavior of the child in the class as well as their learning styles or patterns as the criteria for identification of the children with special needs, though few have also mentioned assessment by the special educator as one of the criteria. Very few have also acknowledged children's behavior outside the classroom and their participation as criteria for their identification. This indicates that the teachers depend more on their classroom observations for identification of CWSN.

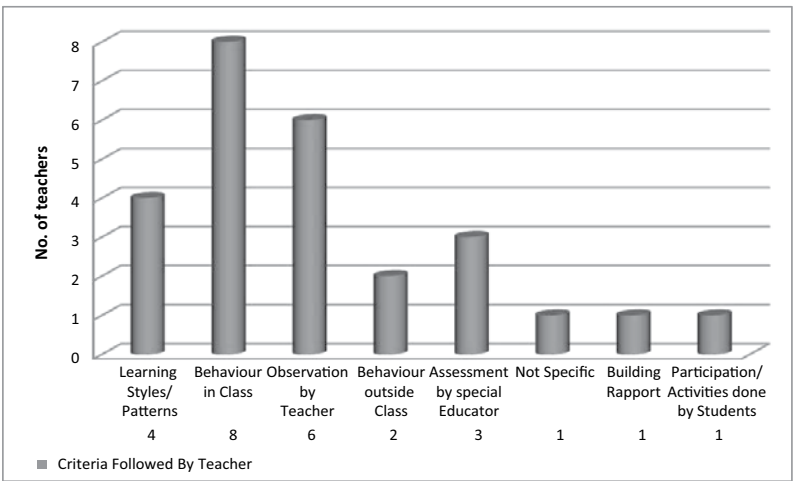

Figure 3. Criteria followed by teachers for identification of CWSN

Engaging CWSN in the Class

When asked about the modality of engaging CWSN in the class, majority of teachers (73.3%) responded that they help them to develop at their own pace (Figure 4). This includes providing individual attention and extra time in the classes. About 13.30 per cent teachers reported that they catered to their needs by providing them support. Similar percentage was seen in next category 'assistance by special educator', which shows that about 13.30 per cent teachers took help from special educators for designing appropriate task for them. About 40 per cent teachers also emphasized the importance of classroom adaptations for children with special needs. Some of the examples of classroom adaptations quoted by teachers included providing front seats to students with low vision, reading the text written on black board and arranging hands on activities.

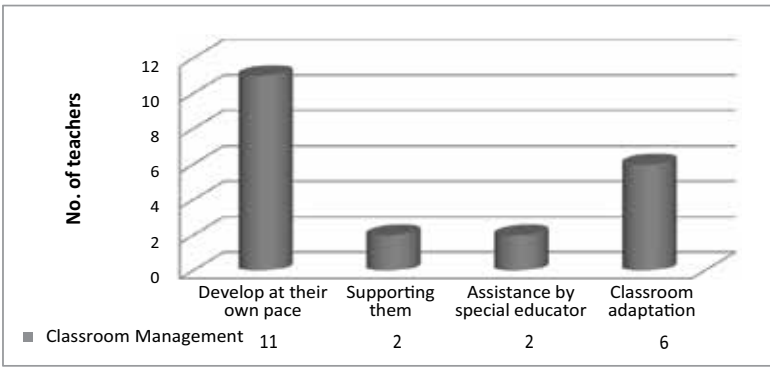

Figure 4. Engaging CWSN in Class

Theme 3: Challenges Faced by the Teachers

The large classroom strength and work load were considered major challenges by the teachers in managing children with special needs (Figure 5). About 80 per cent teachers highlighted that due to huge classroom strength they failed to provide individual attention to children with special needs and thus their needs mostly went unattended. Two government teachers mentioned that in their schools the class strength exceeded to 60 which made it impossible for them to look into the individual needs of students. Behavioural issues such as securing and maintaining their attention, adjustment with the class and behavioral outburst because of the family problems were reported by about 40 per cent teachers. Lack of training (26.6%), infrastructural issues (13.3%), and lack of parental support (6%) were also reported.

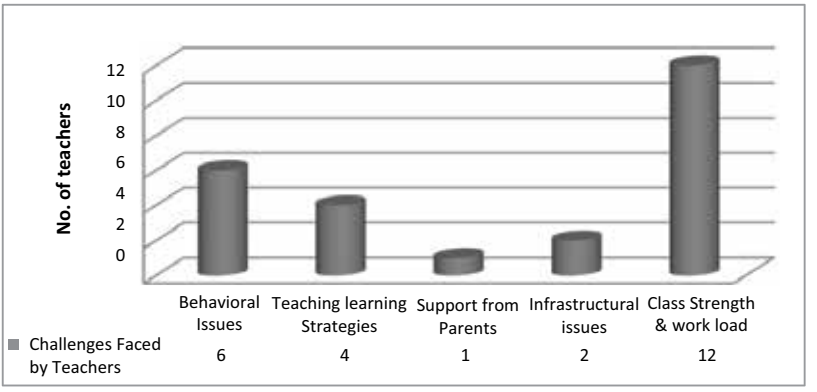

Figure 5. Challenges faced by the teachers

Theme 4: Aids/Provisioning for CWSN in schools

Aids/Provisioning for CWSN provided by the government or other higher authorities

Figure 6 shows that some of the teachers i.e. 33.3% teachers perceived that the government and other school higher authorities have provided an inclusive infrastructure for schools and classrooms which is a favourable facility for children with special needs. The teachers responded that ramps in school, toilets for special needs children and other audio-visual aids made things convenient for some percentage of children. 13.3% teachers shared that the appointment of special educator and school counselor helped them understand children with special needs and devise activities for them. The special educators also helped in assessments which helped them interpret their special needs. Similar percentage of teachers responded that the in-service programs arranged by government or higher authorities helped them gain knowledge about various disabilities and other childhood problems and issues which assisted them in managing their classrooms. 20% teachers mentioned that setting up of resource rooms for children with special needs was also one of the provisions. 20% of the teachers also mentioned that special aids and provisions for children with visual impairment and children with hearing impairment helped these children in classroom activities and examinations such as facility of a writer and scribe, hearing aids etc. The facility of free camps and medical checkups were also considered by 20% teachers as an important facility provided by schools. Teachers responded that these checkups helped assess students' physical and mental health from time to time. Only 13.3% and 6.6% teachers mentioned about scholarships and exercise equipment respectively as a facility provided by government and higher authority for CWSN. On the other hand, 26.6% teachers responded that there were no such aids or provisions provided by the government for children with special needs while 20% teachers mentioned that they were not aware of any aids or provisions. The teachers' responses showed that most of the teachers are aware of the various aids provided by the government in their schools. The diversity in their responses shows that different schools received different kinds of aids or provisions that the teachers have mentioned in their responses.

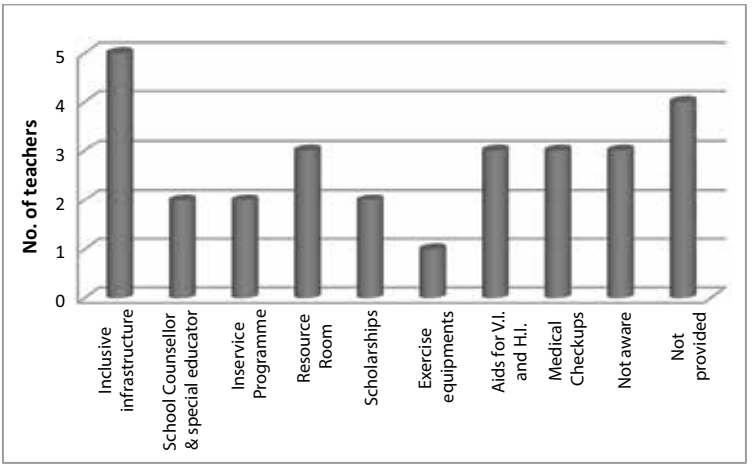

Figure 6. Aids/Provisions Provided by Government or higher Authorities

Provisions for CWSN provided by the schools

Based on responses, it was found that significant number of teachers (40%) perceived that their schools have inclusive infrastructure to cater to the needs of children with special needs (Figure 7). Teachers in their responses mentioned about various provisions such as, railings, ramps, provisions to have classes in ground floor etc. Next category which has significant number (33.33%) of responses is role of special educator and counselor. But teachers' responses indicated that the provision of special educator was not the same in all the schools. Such as one of the government school teachers responded as "a special educator is there for CWSN but not aware of his work and procedure". On the other hand, the teacher from another government school responded as "special educator per grade is allocated in our school to help CWSN in primary department. They help us with strategies and also take remedial of those, who need it. Pull-out program also helps in including all." Teachers' workshops organized by schools, providing appropriate teaching equipment to teachers and provisions of resource room for teachers and students was reflected equally in the responses of teachers of both schools (i.e., 20%). 13.33% of teachers mentioned about parent teacher meetings when asked about the provisions provided by schools to CWSN. According to teachers, in these meetings awareness about various provisions provided by government were discussed with parents. Few teachers (6.66%) also highlighted

the relaxation in evaluation procedure to CWSN, providing study material to students and making an inclusive environment in schools. The teachers' responses showed that the teachers viewed provisioning in different ways and were able to report various provisions available for CWSN in their schools. As most teachers have responded in terms of inclusive infrastructure, it implies that infrastructural provisioning is most prevalent in schools. Similarly, presence of a special educator or counselor also is one of the most common provisions mentioned by the teachers. Other provisions significantly mentioned in the responses of teachers were teachers' workshops, resources rooms, study material and parent teacher meetings.

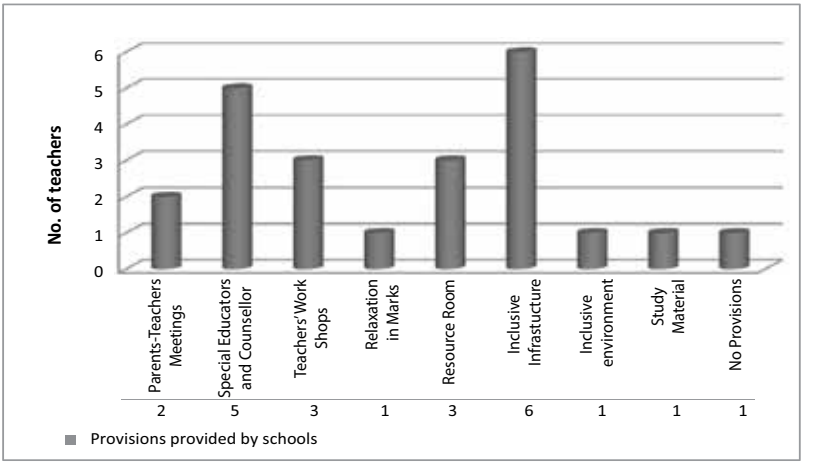

Figure 7. Provisions for CWSN Provided by Schools

Appropriateness of provisions for CWSN prescribed by the government or other authorities from teachers' perception

In response to the question on appropriateness of provided provisions, a majority of teachers i.e. 53.3% teachers responded that the provided provisions are not appropriate (Figure 8). One of the teachers reasoned that the provisions were not appropriate as different policies give provisions for children with different needs. As a result, some groups of children got ignored and were not included most of the time. Another teacher responded that mere providing provisions was not enough and there was a need to prepare regular teachers to understand the needs of each child. Thus, the provisions should be able to sensitise teachers and make

them equipped with strategies to engage children with special needs in meaningful ways. She stressed that since the provisions fail to do so they were not appropriate. 20% of the teachers responded in favor of the question and mentioned that the provided provisions were appropriate, but they have not given the reasons for the same. 13.3% teachers considered that the provided provisions were appropriate to some extent. One of the teachers shared that while NCF 2005 had stressed the concept of inclusive education, it was not being applied in the schools in its full sense. A moderately high percentage of teachers i.e. 13.3% teachers answered that they were not in a position to respond to this question. The teachers' responses show that most teachers perceived that the provisioning was not appropriately done for inclusion.

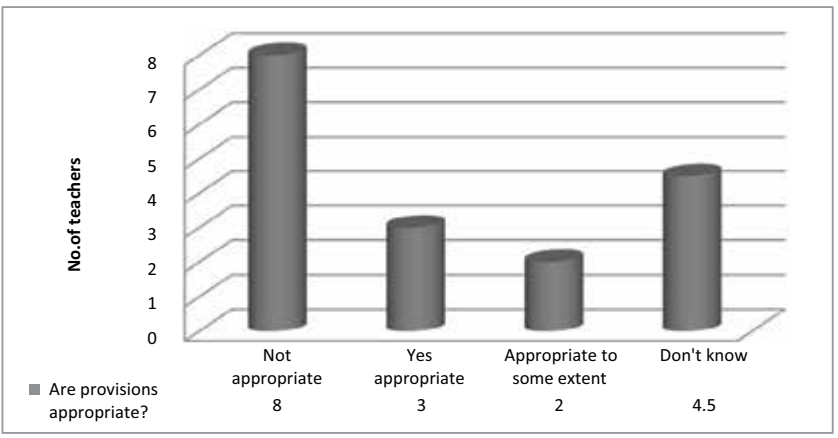

Figure 8. Are Provisions Appropriate?

Provisions and aids used by teachers to engage CWSN in their classes

This sub-theme intended to capture the types of aids and provisions used by the teachers to cater to the needs of children with special needs in their classroom (Figure 9). Out of various responses, significant numbers of teachers (46.6%) used differential teaching strategies to cater effectively towards the needs of children with special needs (as per their understanding). One of the teacher from inclusive school responded about differential teaching that "….according to varied different levels of our learners either I give them extra task or higher challenge or lower down the difficulty of task, by providing some more visual aids and reducing

expectations." This showed that most of the teachers gave importance to differentiating teaching strategies and classroom adaptations for including CWSN children in their classroom. The responses to this question validated the other responses as it showed that the provisioning done by most teachers was in terms of the modifications in teaching which was done at their level only. Other provisions and aids were yet to reach to schools and finally to teachers so that they could be effectively used for engaging children with special needs meaningfully.

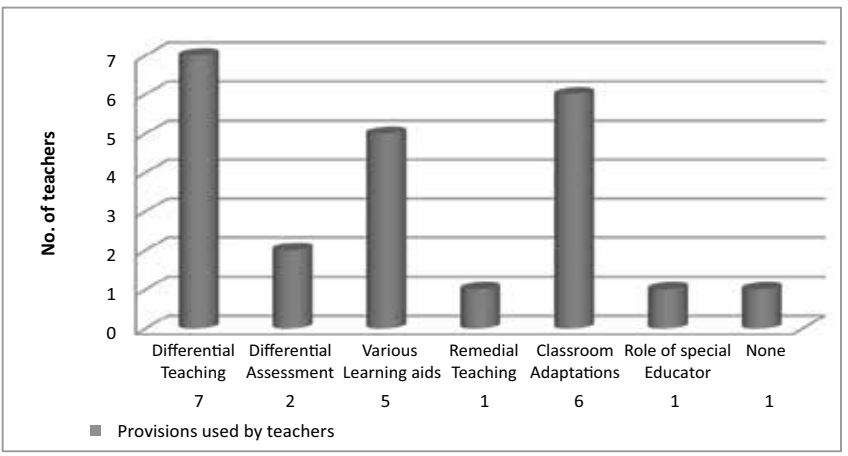

Figure 9. Provisions/Aids Used by Teachers

Discussion and Implications of the Study

The responses of teachers show that only CWSN belonging to few categories are present in most of the schools. This could be children with visual or hearing impairment or children with loco motor handicaps and those with learning disability have been considered for mains streaming in the policy which is merely on the basis of IQ and nature of impairment (Dev et. al, 2017) implying that not children from all categories have been included. Thus, the categorisation or labelling not only separates them but also creates a hierarchy within them which is based on some pre-deterministic criteria related to their ability to learn. Precisely, these are amongst some of the categories that are listed in the MHRD document (2003) as list of disabilities that 'can be integrated in the normal school system' which shows the impact of policy treaties on the school system. These deterministic assumptions

about children in the policy discourses are being questioned as they not only influence the major decisions such as placement of the child in special or regular school but also keep raising the questions such as 'where or whether the child could be educated?' (Dev, et. al, 2017; Singal, 2014).

One key factor that surfaced during the study is the submission by the teachers regarding their unpreparedness to engage with CWSN which indicates the need of appropriately conceptualized teacher education programmes. The unpreparedness of teachers has also got reflected in their responses where they have shared that whether it is identification of the CWSN or engaging them in the classroom, the teachers were managing on their own based on their 'limited understanding' gathered during their teacher education programs. The phrase 'limited understanding' used by them implies that they expect more from the teacher education programs with respect to preparing themselves for inclusion. Bharti (2016) in her study, by analysing each course of the three pre-service teacher education programs that were taken in her study has critically discussed that the pre-service teacher education programs were not geared towards inclusion. One of her concluding remarks are read as, *Pre-service teacher training degree courses were not engineered to train for teaching in inclusive classroom, despite the same being strongly advocated in the National Curriculum Framework for Teacher Educators (NCFTE) 2010 prepared by NCTE. The content of pedagogy related courses in general education programme, were found to lack required emphasis on addressing the special educational needs in the inclusive classrooms* (Pg. 272). Also, several studies (Gunjal, 2017; Bhatnagar and Das 2014; Di Gennaro et. al. 2014; Shaukat et. al. 2013) have tried to study teachers' attitudes towards inclusion as it is a vital precursor for planning teacher education programs (Graham and Scott, 2016). Thus, teacher education programmes not only should have inclusion as one of the compulsory courses, but all other courses need to be aligned with the idea so that an attitudinal change can be brought in the teachers (Harrup et. al.). As Rouse (2008) says that teacher preparation should not only involve equipping them with certain practices/strategies but to enable them to challenge their attitudes towards inclusive education. Hence, the idea of inclusion cannot get reflected in school practices until a deliberate effort is being made by the teachers to bring a change in their attitudes and also understand the social contexts of learners in

their classroom that requires that teacher education programs provide experiences of diverse contexts of learners for developing sensitivity amongst future teachers. Although, most teachers have shared that the special educator was available in their schools, yet the teachers' responses did not reflect the contribution, or the role attributed to the special educators in their respective schools. This shows that more effective collaboration was required between teachers and special educators so that it has meaningful influences on the school practices. Also, for both societal and school changes, it is essential that teachers work effectively in collaboration with special educators (Simpson, et.al., 2003). This, as an experience, should also be part of the teacher education programs.

Conclusion

In the light of teachers' perceptions studied, it can be said that the Delhi schools are preparing themselves for inclusion in terms of enrolling children with special needs, providing infrastructural facilities that are inclusive to certain extent and provision of a special educator to each or a cluster of schools. But, the present study shows that certain categories of children are present in more numbers in the schools than the other categories that is the enrollment is yet not representative of the diversity that exists amongst children with special needs. Thus, we must go a long way to bring children with all kinds of disabilities find place in regular schools. As per teachers' responses in the study, the long prevailing issue of high student-teacher ratio in Indian context seems to be acting as one of the major barriers in this process. Also, as echoed by teachers the responsibilities other than teaching given to them in schools, leaves them with very less time for focusing on the specific needs of children. Although, the teachers are making efforts on their part to understand the needs of their children but as evident from their responses, it is based on their limited understanding about the children with special needs. For identification as well as for planning adaptations or modifications in classroom processes, they are mostly managing on their own. The availability of the special educator also needs to be taken up as an important part of provisioning for the children as well as for supporting teachers. Similarly, the teacher education pre-service as well as in-service programs have to be geared up towards inclusion so that the teachers develop conviction and feel better prepared to manage and engage all children in their class meaningfully. Needless to say

that various other provisions and aids are yet to reach the teachers and subsequently to their students that can empower them towards becoming independent members of the society. It requires creation of a collaborative mechanism in schools where teachers, parents, special educators and other concerned school personnel work together towards establishing practices in schools that are beneficial for children according to their diverse yet specific needs.

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Effect of Gender, Region and Type of School on Social, Cognitive and Affective Skills of Higher Secondary School Students

SHABANA* AND KHALIDA ALAM**

ABSTRACT

The present study examined the inter-relationship between the social, cognitive and affective skills of higher secondary schools students in selected districts of Chhattisgarh employing a descriptive survey research. By adopting stratified disproportionate random sampling technique, 420 students were selected from three districts of Chhattisgarh namely Durg, Rajnandgoan and Kabirdham (Kawardha). Data collection was completed in five months by administrating self-constructed life skill assessment scale, which comprised of three dimensions, namely social, cognitive and affective Skills. Social skills comprised of communication skills, empathy, interpersonal skills and resisting peer pressure. Cognitive skills included problem solving, creativity, decision making and critical thinking. Included among affective skills were items related to coping with stress, managing emotions and self-awareness. Initially 190 items were prepared. Content and face validity reduced the items to 133. Inter item validity was computed using 't' test. Final scale comprised of 75 items. Reliability coefficient computed by test-retest method was found to be 0.85. Statistical analysis of the data was done by computing three way ANOVA and t-test. Results indicated significant impact of gender, region and type of schools on social, cognitive and affective skills of higher secondary school students.

Key words: *Social skills, Cognitive skills, Affective skills*

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Introduction

It has been reiterated from time to time that the present education system tends to be bookish and is detached from real life. Most of the education seems to focus on cognitive skills only, which revolve around rote learning of the content. Life skills such as critical thinking, ability to interpret, reflecting on thoughts and actions, communication, interpersonal skills and above all, learning and relearning to adopt to ever changing new situations in life are hardly dealt with. Life skills refer to non-academic abilities, knowledge, attitude and behaviour that must be learned for success in society (Junge, Manglallon and Raskauskar, 2003). Life skills can be utilised in many areas such as the prevention of drug and substance abuse, sexual violence, teenage pregnancy, HIV/AIDS/STDs prevention, suicide prevention etc. It is further noted that life skill education programmes can also be effective in preventing school dropout and violence among young people and can lay the foundation for skills demanded in today's job market. Significant positive effect of life skills have been demonstrated on health behaviour such as smoking and substance abuse (Botvin and Griffin, 2005), home and school adjustment (Alpert Gills, Pedro Carroll and Cowan, 1989), increased social competence and decreased psychopathology (Elias, Bruene- Butler, Blum and Schuyler, 2000).

There is considerable difference between the upbringing, experiences, emotional competencies and the psychological development trajectories of rural and urban Indian adolescents. The adversities faced, challenges undertaken and conflicts experienced are different for the rural and urban adolescents. The risk factors for the average Indian urban adolescents are extreme academic competitiveness, peer pressure etc. that erode the mental health of the urban Indian teenager. Rural adolescents face unique stressors which include geographic isolation, loneliness, barriers to health services and economic instability. A significant number of Indian youth is contributing to the global pool of education, business and information technology, whereas the youth of rural India are not so equipped and skilled to deal with competitiveness and the stress to perform.

The skills that relate to thinking are termed as cognitive or thinking skills comprising of problem solving, critical thinking, decision making and self-awareness. Significant correlation exists between cognitive skills and academic performance of students

(Blair and Razza, 2007; Alloway and Alloway, 2010; Alloway and Passolunghi, 2011). Skills related to dealing with others are termed as social skills which includes communication skills, interpersonal skills, empathy etc. Affective skill relates to growth in feelings or emotional areas, behaviour and attitudes that students need to learn in order to be effective in their personal and professional lives. Some specific affective skills are coping with stress, emotional management, etc. Bloom emphasized the importance of affective, social, cultural and environmental factors in individual development (Anderson and Benjamin, 2003).

The Government of Chhattisgarh started the livelihood college in Dantewada district in 2010, which was the first initiative in skill development. These livelihood colleges are now functioning in 27 districts. In Chhattisgarh, it is the right of the youth to get skill development training. *Chhattisgarh Right of Youth to Skill Development Act, 2013* aims to provide for right to opportunities for skill development to every youth, residing in the state of Chhattisgarh, in any vocation of his or her choice consistent with eligibility and aptitude. Tribal population living in remote areas with Naxalite conflicts, has been deprived of many basic human rights for a long time. Tribal youth had a lot of untapped potential. The Chhattisgarh government is using skill development initiatives not only to ensure employment for poor youngsters but to wean away the young from *Maoist* rebels. Livelihood colleges have been established, not only to teach the tribals some employable skills but also give them exposure to the world so that they do not join the Maoists. Livelihood colleges are residential training facilities for under privileged youngsters to impart technical skills and soft skills that make them ready for labour market.

Many organisations like ITBP (Indo Tibetan Border Police) imparts sports training in archery, judo, karate and other sports to tribal children and youth to tackle the problem of under development and lack of resources in the area. Developing language skills amongst tribal youth are also essential as that will help them access new opportunities in education and employment. The National University Students Skill Development Programme (NUSSD) was initiated as a pilot project in 2013 and is currently being tested in eleven universities across 9 states. Chhattisgarh is one of the selected states. It aims at increasing the employability of university students by imparting knowledge and skills through cutting edge teaching and learning methods, as well as practical

work experience through internships and community projects. These organisations and universities cater to the rural youth and such initiatives are expected to bring about a change for the betterment of the lives of students by making them employable.

Under the *Samagra Shiksha Abhiyan*, vocational education programme is to be introduced as an integral part of general education at secondary and higher secondary level as per guidelines of vocationalisation of education scheme. The Centrally Sponsored Scheme of Vocationalisation of Secondary and Higher Secondary Education (CSSVS and HSE) is aimed at enhancing the employability of the students and at the same time provide diversification of opportunities in career and higher education. The scheme, so far, has created infrastructure in 9619 schools and is developing skills among about 10 lakh students at the senior secondary level. The schools following vocational curriculum under the National Skill Qualification Framework (NSQF) would not only achieve seamless integration with higher education, but also would be able to develop youth for employment. Life skill education is a value added programme which aims to provide students with strategies to make healthy choice that contribute to meaningful life. It helps adolescents to understand their self and to assess their skills, abilities and areas of development. It also helps adolescents to get along with other people and adjust with their environment and making responsible decision.

The adolescent years are an especially sensitive and critical period of social, cognitive and affective development (Steinberg 2005, Chaudhury, Blakemore and Charman, 2006). Socially skilled adolescents are able to express their feelings and desires, can manage to control their impulses and alter emotions and thoughts. Individuals with good social skills have a low chance of developing depression and being lonely and socially anxious (Segrin and Flora, 2000). Socially skilled behaviour is seen as favourable for the development of strategies when faced with adverse situations, reducing vulnerability and enhancing resilience. Variables, such as gender, age, marital status, family configuration, profession, education, personal and family gains and living in rural or urban areas, among others are considered important for the development of social skills (Caballo, 2003). The effectiveness of social behaviour depends to a large extent on the quality of the individual's social skills. The richer the skills set, the greater is an individual's chances that he or she can use the most appropriate skills to handle a

given situation (Nagy, 2007; Stephens, 1992). Children with good social skills are more successful than their less competent peers in developing positive attitudes towards school and in adjusting to school (Odom, Zercher, Ligs, Marquart, Sandall, and Braun, 2006; Semrud Clikeman, 2007). Research has also shown that social skills are associated with academic achievement (Alexander, Doris, Entwisle, and Douber, 2003; Ladd, Birch and Buhs, 1999). Children with good social skills get better grades and perform better (Birch and Ladd, 1997; Diener, Isabella and Behunin, 2008; Websterstratton and Reid, 2004; Zsolnai, Lesznyak and Kasik, 2007).

The affective domain reflects the world of feelings, values, appreciation, motivation and attitudes, factors which are more difficult to understand and assess. Yeager and Walton (2011) demonstrated that not only affective domain impact success, but they are also malleable and can be changed. The affective domain directly impact success and allows interventions that can make changes in student behaviour. Efforts have emerged to apply various dimensions of the affective domain like grit (i.e. perseverance and passion for long term goals) (Duckworth, Peterson, Matthews and Kelly, 2007), character (Tough, 2013) and hope (Snyder, 2000). New research often refers to the affective domain, with terms such as non-cognitive factors, psychosocial skills or soft skills. The present study focuses on social, cognitive and affective skills of higher secondary school students studying in government and private schools of urban and rural areas of selected districts of Chhattisgarh, namely Durg, Rajnandgaon and Kabirdham (Kawardha).

Objectives

The objectives of the study are as follows:

1. To study the effect of region, type of school and gender on social skills of higher secondary school students.
2. To study the effect of region, type of schools and gender on cognitive skills of higher secondary school students.
3. To study the effect of region, type of schools and gender on affective skills of higher secondary school students.

Method

Sample

By adopting stratified disproportionate random sampling technique, 420 higher secondary school students were selected

from six government and six private higher secondary schools of rural and urban areas of three districts of Chhattisgarh.

Measure

Life skills of the students were measured by self constructed Life skill scale. The life skill assessment scale is of Likert type consisting of 75 items in the form of statements in built with five point scale for the respondent to give appropriate response from the option of always, very often, occasionally, rarely and never. The life skill assessment scale measures three dimensions of life skills namely social skills, cognitive skills and affective skills. Item validity was computed by t-test. The items for the final scale were selected taking the 't' value between high and low groups of the items and having a significance of 0.01 level. This indicates the high items validity. The items having a range of 4.76 to 12.52 of t-values were selected. Final scale comprises of 75 items, 25 items for each dimension. An extensive exercise was done to establish face and content validity of life skill assessment scale in the initial stage of the tool construction with the help of subject experts. Reliability coefficient was 0.85, computed by test-retest method.

Statistical Analysis

Statistical analysis of the data was done by computing three way ANOVA, t-test and correlation.

Results and Discussion

Table 1 shows the main effect of Gender (G), Region (R) and Type of school (TOS) on social, cognitive and affective skills of higher secondary school students.

Table 1

Analysis of Variance for Gender, Region and Type of Schools

S.No.	Dimension	Variable/ Factor	N	Mean	SD	F	Level of Significance
1.	Social	Gender Male	210	68.06	14.78	5.59	0.01
		Female	210	64.82	14.55		
		Region Rural	210	62.82	14.42	27.91	0.01
		Urban	210	70.08	14.19		

		TOS Govt.	210	64.48	15.03	8.201	0.01
		Private	210	68.40	14.21		
2.	Cognitive	Gender Male	210	65.91	14.52	5.129	0.01
		Female	210	68.96	14.03		
		Region Rural	210	65.07	13.74	12.31	0.01
		Urban	210	69.79	14.57		
		TOS Govt.	210	65.49	14.73	8.35	0.01
		Private	210	69.38	13.70		
3.	Affective	Gender Male	210	66.35	14.41	14.41	0.01
		Female	210	71.43	13.53		
		Region Rural	210	66.24	14.24	15.68	0.01
		Urban	210	71.54	14.06		
		TOS Govt.	210	67.20	14.43	6.35	0.01
		Private	210	70.58	14.17		

Table 1 reveals significant main effect of gender, region and type of school on social skills of higher secondary school students. Mean values indicates that boys scored significantly higher on social skills as compared of girls. [F (1, 412) = 5.593, $p<0.01$]. Further the social skills of urban students is greater than rural students [F (1,412) = 27.91, $p<0.01$]. Mean values also makes clear that private school students scored significantly higher on social skills as compared to their counterparts in government schools. [F (1, 412) = 8.201, $p<0.01$]

Significant main effects of gender, region and type of schools were found on cognitive skills of higher secondary schools students. Mean values indicated that girls scored significantly higher on cognitive skills than boys [*F* (1, 412) = 5.129, $p<0.01$]. Likewise, urban students scored significantly higher than rural students on cognitive skills [*F* (1, 412) =12.31, $p<0.01$]. Mean values further indicated that private school students scored significantly higher than government school students [*F* (1, 412) = 8.201, $p<0.01$].

It is also clear from Table 1 that gender, region and type of schools had significant mean effects on affective skills of higher secondary schools students. Mean values clearly indicated that girls scored significantly higher on affective skill than boys [$F(1, 412) = 14.41, p<0.01$]. Mean value further indicated that urban students scored significantly higher on affective skills than rural students [F (1, 412) = 15.68, $p<0.01$]. Mean value also indicated that private schools students were more skilled than government school students [F (1, 412) = 6.35, $p<0.01$].

First order interaction effect of gender, region and type of schools on social, cognitive and affective skills was studied using two-way analysis of variance. Results are summarized in Table 2.

Table 2

Analysis of variance for Interaction Showing Effect of Gender, Region and Type of School

Dimension	Model	Gender	Region	N	Mean	SD	F	Level of Sig.
Social	G x R	Male	Rural	104	62.28	13.86		
			Urban	106	67.36	14.84	2.4	NS
		Female	Rural	104	63.37	15.01		
			Urban	106	72.74	13.03		
Cognitive	G x R	Male	Rural	104	64.84	14.24		
			Urban	105	66.97	14.79		
		Female	Rural	104	65.30	13.29	3.71	0.05
			Urban	105	72.62	13.86		
Affective	G x R	Male	Rural	104	63.58	14.46		
			Urban	105	69.12	14.68	1.03	NS
		Female	Rural	104	68.90	13.59		
			Urban	105	73.96	13.04		
Social	G x TOS	Male	Govt.	106	63.08	14.52		
			Pvt.	104	66.56	14.44	2.10	NS
		Female	Govt.	106	65.88	15.47		
			Pvt.	104	70.23	13.81		
Cognitive	G x TOS	Male	Govt.	106	64.116	14.20	2.05	NS
			Pvt.	104	67.70	14.68		
		Female	Govt.	106	66.86	15.20		
			Pvt.	104	71.05	12.51		

Affective	G x TOS	Male	Govt.	106	64.53	14.54		
			Pvt.	104	68.17	14.90	1.04	NS
		Female	Govt.	106	69.88	13.89		
			Pvt.	104	72.98	13.05		
Social	R x TOS	Rural	Govt.	104	59.35	12.72		
			Pvt.	106	66.30	15.20	4.901	0.05
		Urban	Govt.	104	69.61	15.44		
			Pvt.	106	70.50	12.84		
Cognitive	R x TOS	Rural	Govt.	104	61.41	12.01		
			Pvt.	106	68.73	14.40	4.496	0.01
		Urban	Govt.	104	69.56	16.04		
			Pvt.	106	70.02	12.98		
Affective	R x TOS	Rural	Govt.	104	62.62	12.34		
			Pvt.	106	69.86	15.11	8.38	0.01
		Urban	Govt.	104	71.79	14.93		
			Pvt.	106	71.29	13.17		

Table 2 shows that significant interaction effect of gender x region was not observed on social skills and affective skills of higher secondary schools students but significant interaction effect was observed on cognitive skills [F (1, 412) = 3.712, p<0.05]. Mean values indicated that both male and female students of urban schools scored significantly higher on cognitive skills than their counter parts in rural areas. Further Table 2 clearly reveals that there exists no significant interaction effect of gender x type of schools on social, cognitive and affective skills of higher secondary schools students.

It is clear from Table 2 that region x type of schools has significant interaction effect on social skills of higher secondary schools students [F(1, 412) = 4.901, p<0.05]. Mean values indicated significant difference in the social skills of private and government schools students of urban and rural areas. In both rural and urban areas, private students scored significantly higher on social skills than government school students. The significant interaction effect of region x type of school was found on cognitive skills of student [F (1, 412) = 4.496, p<0.01]. Mean value showed that private school students of rural and urban areas scored significantly higher on cognitive skills than their counterparts of government schools. Further, significant interaction effect of region x type of schools was

observed on affective skills of students [F (1, 412) = 8.38, p<0.01]. Mean value showed that in affective skills of government schools students of urban area scored higher than private school students. Further private school students scored significantly higher on affective skills than government schools students in rural areas.

Second order interaction effects of gender, region and type of schools on social, cognitive and affective skills were studied using three-way analysis of variance. Results are summarized in Table 3.

Table 3

Summary of Analysis of Variance of Social, Cognitive and Affective skills by Gender, Region and Type of Schools.

Dimension	Model	Gender	Region	TOS	N	Mean	SD	F	Level of sig.
Social Skill	G x R x TOS	Female	Urban	Pvt.	53	74.45	9.90	2.238	NS
				Govt.	52	71.03	15.49		
			Rural	Pvt.	53	66.01	15.83		
				Govt.	52	60.73	13.75		
		Male	Urban	Pvt.	53	66.54	14.33		
				Govt.	52	68.18	15.40		
			Rural	Pvt.	53	66.58	14.67		
				Govt.	52	57.98	11.57		
Cognitive Skill	G x R x TOS	Female	Urban	Pvt.	53	74.54	9.57	5.285	0.01
				Govt.	52	70.69	17.05		
			Rural	Pvt.	53	67.56	14.13		
				Govt.	52	63.03	12.08		
		Male	Urban	Pvt.	53	65.51	14.46		
				Govt.	52	68.44	15.08		
			Rural	Pvt.	53	69.90	14.71		
				Govt.	52	59.78	11.83		
Affective Skills	G x R x TOS	Female	Urban	Pvt.	53	75.09	10.17	5.177	0.01
				Govt.	52	72.83	15.45		
			Rural	Pvt.	53	70.87	15.20		
				Govt.	52	66.94	11.53		
		Male	Urban	Pvt.	53	67.49	14.83		
				Govt.	52	70.76	14.49		
			Rural	Pvt.	53	68.87	15.09		
				Govt.	52	58.31	11.69		

No significant interaction effect of gender x region x type of schools was observed on social skills of higher secondary schools students but significant second order interaction was observed on cognitive skills of students [F (1, 412) = 5.285, p<0.01]. Mean value indicated that girls of urban private schools scored significantly higher on cognitive skills than their counterparts of government schools of urban area. Similar findings were observed for girls of government and private schools of rural areas. Likewise, rural boys of private schools scored significantly higher on cognitive skills than boys of government schools of rural area.

It is clear from Table 3 that significant interaction effect of gender x region x type of schools was observed on affective skills of higher secondary schools students [F (1, 412) = 5.177, p<0.01]. Mean values indicated that girl students of private schools of urban area scored significantly higher on affective skills than girl students of government schools of urban area. Further girl students of private school scored significantly higher than girl student of government school in rural area. Mean values also indicate that boys of government schools of urban area scored significantly higher on affective skills than their counterparts in private schools of urban area.

Conclusion and Implications

The finding that gender has significant impact of social skill is supported by the findings of Pearson and Hall (2006). Boys scoring higher in social skills than girls are in contradiction with the findings of Abdi (2010). Girls scored higher on affective skills than boys. In patriarchal form of society, females face emotional challenges at home and society and they tend to use more emotion focused coping (Olah, 1995), which in turn strengthen their affective skills like managing emotions, coping with stress etc. Further, girls scored higher in cognitive skills than boys. The changing trends of technology, indulgence, participation in outdoor activities, rising education and job opportunities for girls have brought drastic enhancement in skills.

Region has significant impact on social skills. The urban students possessed higher social skills than the rural students. It is in conformity with the findings of Kahn (1945). Students of urban schools are more socially skilled than rural students. Affective skills of urban students are greater than rural students. Urban students get opportunity to socially interact and face challenges

and competitions in academics. Rural adolescents experience more isolation and loneliness. Likewise, urban students scored higher on cognitive skills in comparison to rural students.

Type of school has significant impact on social skills. Private school students are more skilled socially than government school students. Extracurricular activities, field trips, interactive projects, and school environment play important role in the life of students. Affective skills of private school students are better than government school students. The school environment and classroom activities had direct impact on the development of soft skill development among students. Further, government school students scored higher on cognitive skills than private school students. Findings are in conformity with the findings of Amy et.al (2013) that schools have significant impact on cognitive skills. It has become necessary to organize life skills oriented seminars, workshops, training programmes etc. in schools for students.

Significant interaction effect of gender and region was found on cognitive skills. Both male and female students of urban schools scored higher in cognitive skills than their counterparts in rural areas. Significant interaction effect of region and type of school was observed on social skills of students. In both rural and urban areas, private students were found to be more socially skilled than government school students. Similarly, significant interaction effect of region and type of school was observed on cognitive skills. The private schools students of rural and urban areas were better in cognitive skills than government school students. These finding are in conformity with Lex Borghans, Bart, Golstein and Zolitz (2015) that there exists relation between school quality and the development of cognitive skills.

Further significant interaction effect of region and type of school was found on affective skills of students. The government school students scored higher on affective skills in comparison to private school students of urban areas but in rural areas private schools students scored more than government school students in rural areas. Intervention programmes in private schools and encouragement of students to participate and experience varied activities help in building affective skills.

No significant interaction effect of gender, region and type of schools was observed on social skills of higher secondary school students but significant interaction effect of these dimensions was observed on cognitive skills. Girls of urban private schools were

better in cognitive skills than girls of urban government schools. Similar findings were found for girls of rural schools. It is assumed that it is probably not the material differences that make the private schools more effective but it has more to do with their organisational structure (Hanushek, 2003). In rural private schools, boys scored higher on cognitive skills than government school boys. The reason may be that private schools are more technically efficient, producing higher achievement level, appropriate students-teacher ratio, lower teacher absenteeism (Tookey, James and Paula Dixon, 2006, Muralidharan and Kremer, 2006). Boys of government schools of rural area scored higher on cognitive skills than boys of private schools.

Significant interaction effect of gender, region and type of school was found on affective skills of higher secondary school students. Boys of government schools of urban area scored higher on affective skills than boys of private schools. Further boys of private schools in rural areas scored higher than boys of government schools. Probably frequent organisation of soft skill development seminars, workshops etc in private schools have positive impact on coping with stress, problem solving ability, critical thinking, creative thinking and empathy. Findings further indicate girls of private schools of urban area scored higher than girls of government schools. Likewise girls of private school of rural area scored higher than girls of government schools. Based on this, it can be said that life skill intervention for rural adolescent girls can improve their ability to cope with stress, problem solving ability, critical thinking etc.

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Appendix

DR. SHABANA

Consumable booklet
Of
LIFE SKILL SCALE

Fill The Following Details—

Name: _____

Father's Name: _____

Class: _____

City/Village: _____

Date Of Birth: _____ Age: _____

Gender: _____

Urban/Rural: _____

Educational Qualification: _____

Others (If any): _____

Appendix

Instructions

In the following pages 75 statements related to life skills are given. Read each statement carefully and give your response in options provided. You are required to give your response by ticking one of the five boxes (✓) against a particular statement. The opinions are 'Always, Often, Occasionally, Rarely and Never, Take care that only one box is to be ticked for each statement. Yours response will be kept confidential. Make sure you give your response for each and every statement.

Score Table

Item No.	Response				
	Always	Often	Occasionally	Rarely	Never
	4	3	2	1	0

S.No.	Sub- dimensions	Dimensions	Raw Score	Intrepretation
i	Communication skill	Social skill		
ii	Empathy	"		
iii	Interpersonal skill	"		
iv	Resisting peer pressure	"		
v	Critical thinking	Cognitive skill		
vi	Problem solving	"		
vii	Decision making	"		
viii	Creative think	"		
ix	Coping with stress	Affective skill		
x	Managing emotions	"		
xi	Self awareness	"		
Total Raw Score				

Social Skills

S. No.	Content	Response					Obtained
		Always	Often	Occasionally	Rarely	Never	
1.	In case of arguments I freely express my views.						
2.	I feel comfortable to share my feelings with others.						
3.	I talk after assuring the facial expression of other person.						
4.	I respect interpersonal commitment.						
5.	I easily understand the barriers while communicating.						
6.	I can predict the expectations of others from me.						
7.	I seek the correctness of grammatical mistakes in communication.						
8.	I actively participate in group and social activities.						
9.	I avoid situations or group where bad choices are more common.						
10.	I feel efficient in removing barriers of communication.						
11.	I appreciate other view point even if I don't agree with it.						
12.	I involve myself in positive activities.						
13.	I talk to myself in tough situation.						
14.	I tend to focus on listeners emotion while conversing.						

Appendix

S. No.	Content	Response					Obtained
		Always	Often	Occasionally	Rarely	Never	
15.	I involve myself in group having healthier influences.						
16.	I respect different opinions people have about same thing.						
17.	I try to feel good about being myself.						
18.	I easily form social bonds.						
19.	I respect different opinions people have about same thing.						
20.	I use strong voice and take stand when required.						
21.	I have understanding to perceive the feelings of other person.						
22.	When I see sufferings, it makes me sad.						
23.	I found an outlet to express my emotions.						
24.	People feel free to share their experiences to me.						
25.	I make people realize what and how I feel.						

Cognitive Skills

S. No.	Content	Response					Obtained
		Always	Often	Occasionally	Rarely	Never	
1.	I carefully consider and organize ideas before taking decision.						
2.	I develop an implementation plan after selecting a solution.						

Appendix

S. No.	Content	Response					Obtained
		Always	Often	Occasionally	Rarely	Never	
3.	I Analyse the situation/problem before seeking solution.						
4.	I review my decisions based on detailed analysis of factual information.						
5.	I become more innovative when I have a purpose.						
6.	I try to develop new patterns and connections.						
7.	I evaluate the pros and cons of each option.						
8.	I Prefer to view things from many point of views.						
9.	I identify and choose alternatives based on my values and preferences.						
10.	I see problems as an opportunity rather than as issues.						
11.	I ask different questions about the nature of the problem.						
12.	I Can figure out how to use ideas to solve problem.						
13.	I seek stake holders help to generate solution.						
14.	I evaluate potential solutions against predefined standards.						

Appendix

S. No.	Content	Response					Obtained
		Always	Often	Occasionally	Rarely	Never	
15.	I can draw logical conclusions that reflect my ideas.						
16.	I feel a logical step by step method is best for solving problem.						
17.	I can predict complex relationship among ideas.						
18.	I create an implementation plan before communicating my decision.						
19.	When solving problem I rethink about issue to develop deeper insight.						
20.	I implement the decision on solution irrespective of any opposition.						
21.	I can anticipate the implication of various ways to solve problem.						
22.	I use a well defined process to structure and implement my decision.						
23.	Making a decision is the end of my problem solving process.						
24.	I seek informational, tangible and emotional support in difficult situation.						
25.	It is more important for me to feel that the decision is right than to have a rational reason for it.						

Affective Skills

S. No.	Content	Response					Obtained
		Always	Often	Occasionally	Rarely	Never	
1.	I am aware of my strengths and limitations.						
2.	I try to accurately identify my feelings and its source.						
3.	I adopt analytical approach to solve the problem.						
4.	I am a decisive and practical problem solver.						
5.	I am a balanced and positive person.						
6.	I try to understand the underlying issue that needs to be addressed.						
7.	I avoid blaming others, self criticism, emotional suppression and social withdrawal.						
8.	I have strong self image and self respect.						
9.	I think about something that triggers a positive feeling.						
10.	I detach myself to minimize the significance of the saturation.						
11.	I think of something which can be learnt from the situation.						
12.	I develop few strategies to avoid the source of stress.						

Appendix

S. No.	Content	Response					Obtained
		Always	Often	Occasionally	Rarely	Never	
13.	I give emphasis on self satisfaction while doing work.						
14.	Redefining the problem minimizes negative emotions.						
15.	I try to be open and accept what is going on around.						
16.	I do self control by regulating my feelings and actions.						
17.	I reach out to a friend or family member for counseling.						
18.	I acknowledge my role and try to put things right.						
19.	I am conscious of the impact of my behavior on me and other.						
20.	I boost my emotional self awareness.						
21.	I try to maintain positive attitude.						
22.	My decisions and actions directly reflect my values.						
23.	I try to focus on positive things rather than negative things.						
24.	I am a doer rather than thinker.						
25.	I identify the problems and help others with the resources.						

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