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Health and Inclusive Challenges of Youth with Disabilities During and Post COVID-19 Pandemic: A Review on their Response, Recovery and Resilience

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ABSTRACT

During the COVID-19 pandemic, remote learning gave the students a chance to self-study, but the limited resources and services hindered their quality health and education the most. Pandemic increased their health challenges to such an extent that many of the needs of children with disabilities were unmet owing to the cessation of physiotherapies, medical follow-up and rehabilitation; insufficient ambulances and public transportation resources; difficulty finding medications had detrimental effects on their broader psycho-social wellbeing. Undertaking online classes impacted their education with a decrease in their academic progress, reinforcing their existing educational and health-related inequalities. By performing meta-analysis, the studies revealed that such children lost ground academically due to the inadequate infrastructure; lack of knowledge and competency about online learning and content delivery of teachers, educators and families; economic constraints; deficit culture; limited support from the central and other governments; unavailability of inclusive learning materials made the whole learning experience difficult leading to their low academic performances. Virtual learning fell short of achieving its intended goal of bridging schooling gaps as they were rarely provided with social environments to interact with community members to nurture their academic and socio-emotional repertoires.

But despite the challenges, families, professionals and teachers working with them tried to support and maintain their morale through videoconferencing and other alternative communication strategies like telerehabilitation, telemedicine, emails, phone calls, and other assistive technologies to combat the challenges of health and education. Problem solving skills, positive peer relationships, digital infrastructure were the key recovery and resiliency strategies. Studies suggested that by providing updated information, containing fear, adopting various inclusive strategies, preparing and engaging learners in the disaster recovery process during and after pandemic can promote their inclusivity to benefit in the community.

Key Words: *Health, Inclusive education, Disabilities, Covid-19, Assistive technology, Response, Recovery, and Resilience*

INTRODUCTION

The 2030 SDGs (sustainable development goals) require countries to commit to the inclusion of people with disabilities to achieve the world's globally agreed plan for peace and prosperity for all on a healthy planet (UN, 2019). However, the COVID-19 pandemic emergence interrupted life globally, caused far-reaching vicissitudes to all aspects of people's lives like restrictive movement and social distancing to curb the spread of the virus, which eventually led countries postponing face-to-face learning affecting more than 94% of the world's learner population or around 1.6 billion children worldwide (United Nations Educational, Scientific and Cultural Organization-UNESCO, 2020). As schools experienced full closures, teachers were expected to provide an alternative means to educate children due to which deferment of learning and professional rehabilitation caused more physical, economic, and psychological harm and trauma to children with disabilities. WHO defined disability as "Impairments in body function and structure, participation, restrictions and activity limitations" (International classification of functioning, disability and health, 2001). It includes persons with Visual, Hearing, Speech & Locomotive disability, Mental Retardation, Mental Illness, Multiple Disability and any other disabilities. Moreover, they have regular medical appointments and rehabilitation sessions (physiotherapy, occupational therapy, psychological counselling, etc.), which are based on goals that are pre-determined with the children and their families. In fact, research found that COVID 19 pandemic is likely to affect more to children with disabilities than those without disabilities as they suffer lack of access to the resources they usually had through schools and habilitation or rehabilitation services; be victims of negligence and ignorance in the society; and commonly get discriminated and stigmatized resulting in inequities in access to healthcare and education services (Armitage & Nellums, 2020; Ignored and Neglected: India Remains Unfriendly To Her People With Special Needs, 2020; Lee, 2020; Berger et al. 2020). So, if they are more vulnerable and susceptible in this COVID-19 crisis, it hurt and exacerbate their medical and academic performance further, affecting more than 15% of the world's population (affecting about 2 million primary and secondary school learners in India only) due to their limited involvement in remote/virtual learning, limited educational and assistive technologies; family economic hardships, deficit culture, and lack of professional rehabilitation, leadings to their limited inclusion in education (UNESCO, 2020; UNICEF, 2020; Gewurtz et al., 2016; American Psychological Association, 2020).

Inclusive education is a process of addressing and responding to the diverse needs of all learners by increasing their participation in learning, and reducing exclusion within and from education UNESCO, (2005). In fact, studies suggest that wider disparities and exclusion faced by children with disabilities during the COVID-19 pandemic arose from their pre-pandemic discrimination: For decades, children with disabilities have experienced harm due to barriers related to biased cultural practices (Kiru, 2019; Ohba & Malenya, 2020); mismanagement of limited resources (Transparency International, 2020; Winters et al., 2017); disasters like droughts and floods (Ayugi et al., 2020; Willett & Sears, 2018);

infectious diseases such as cholera (Okaka & Odhiambo, 2018), and terrorism (Krause & Otenyo, 2006) which led to their ultimate social and academic exclusion in the present pandemic. Moreover, studies suggest that this pandemic aggravated their health and educational challenges to such an extent that their families faced major barriers as many of the needs of their children were unmet owing to the cessation of home-based physiotherapy; medical follow-up and rehabilitation; insufficient ambulances and public transportation resources to go to the hospital; difficulty finding medications and changes in usual care which had detrimental effects on such childrens' broader psycho-social wellbeing - higher risks of depression, lower life satisfaction and increased loneliness. Professionals who typically worked in schools, clinics, or other service delivery environments now found themselves making videoconferencing calls to children and their families, which led to a regression in children's communication ability (Fontanesi et al. 2020). On the other hand, undertaking online classes impacted their education with a dip in their academic progress, achievement and participation rates being low, which further reinforced their existing educational and health-related inequalities (Grover et al., 2020; Bezyak et al., 2019; Bettinger et al., 2017; Capozzo, 2020; Chudasama, 2020; Mateen et al., 2020; Radulovic, 2020; Zhao et al., 2020).

The swift transition of primary healthcare provision from in-person to tele-consultations, and lack of universal design and web accessibility standards in telemedicine platforms led these children with disabilities unable to access services for regular check-ups, presumably due to lack of literacy and access to appropriate technology (Bhaskar et al., 2020; Annaswamy, 2020). Moreover, the greatest difficulty reported by the parents was the mental load faced daily, which they already had to cope with the physical and mental health challenges of children with disabilities in normal times and are therefore, particularly vulnerable during the pandemic (Magliano et al., 2015; Park & Nam, 2019).Findings revealed that, no doubt, remote learning gave students with disabilities a chance to self-study in Covid-19 pandemic, but they were losing ground academically due to inadequate digital infrastructure and quality education like lack of electricity and stable Internet connection, lack of required assistive technologies (computers and their applications, Braille system, low accessibility of the Aarogya Setu App for the visually and hearing impaired children, lack of designed material), structural barriers in community; lack of assistance from formal and informal caregivers like medication regimens (Brown et al., 2020). Moreover, lack or incompetency of knowledge and training about online content delivery methods of teachers and families of such children; lack of homes or their unconducive atmosphere; lack/limited support from the central and other governments; and unavailability of inclusive designed curricula and learning materials lead to their low academic performance and high school dropouts, indicating a trail of damage that they may not fully recover from without the implementation of mitigating measures (Etherington, 2020; WHO, 2020).

In other words, this pandemic doubled the hurdles of children with disabilities due to greater risk of maltreatment and lack of child protective services; disrupted routines and sedentarism; socio-economic

strain within the family environments; limited ability to communicate; lacking access to essential services from special education teachers; inaccessible assistive technologies such as Audio-books, print materials in Braille, audio provision or graphics specialized for them, thus, leaving such children unsupervised in the homes, which led to their higher risk to truancy and demotivation (Muhumuza, 2020; Ressa, 2020; UNESCO, 2020d; Masonbrink & Hurley, 2020). Peer relationships were particularly affected, as teachers reported students with disabilities were more at risk of peer isolation, indicated that it was challenging for students with disabilities to complete their work and accept that homeschooling was a legitimate form of education. Unfortunately, for students with special needs, virtual learning fell short of achieving its intended goal of bridging schooling gaps as they were rarely provided with social environments to interact with community members to nurture their academic and socio-emotional repertoires.

So, online learning only served a small population that had electricity, internet, computers and other assistive technologies, and could access the required media (Edu TV Channel on YouTube). According to some surveys, less than 40% of students accessed digitally delivered content (via television, radio and mobile phones - which is discomforting) (World Bank). They engaged students through online technologies but provided fewer opportunities for them to engage in classroom-based dialogue, fewer opportunities for collaborative group work or for students to activate each other as instructional resources for one another (Hood 2020). Moreover, this limited inclusion or total exclusion of students with special needs is associated with the culture of deficit that deny them opportunities to grow and develop their self-determination qualities in ways that nondisabled peers do hindering the implementation of universal design of learning (Ahmad & Thressiakutty, 2018; Millen et al., 2019). Research suggests that children with special needs and their families are habitually excluded from recovery programs, as reflected in the governments' lack of a playbook and scarcity of information related to them during school closure (Muhumuza, 2020; United Nations Office for Disaster Risk Reduction-UNISDR, 2015). Moreover, for people with disabilities, the disruption of social and community support networks often resulted in hospitalizations without medical necessity, sometimes referred to as 'social hospitalization', or short-term stays in residential facilities, which, in turn, aggravated the risks of COVID-19 infection (Palipana, 2020). The Cerebral Palsy Rehabilitation Charter, which promotes the rights of children with disabilities in terms of shared, participation-related goals, whatever the situation may be, was not applied during the lockdown for a large proportion of children. Similarly, the concept of the ''F words'' (Function, Family, Fitness, Fun, Friends, and Future Rosenbaum & Gorter, 2012) that support the implementation of the ICF, promoted by the WHO, 2006 was not applied.

To overcome such challenges, teacher preparation programs must instill appropriate pedagogical skills in teachers to prepare them for different teaching and learning modes, including face-to-face learning, e-learning, blended learning, and flipped classroom (Thai et al., 2020) so they can provide education to all students differing in learning needs, all the time and anywhere - physical or virtual (Danforth, 2015;

Gabel & Connor, 2014). In fact, Provenzi et al., 2021 (Engaging with Families through On-line Rehabilitation for Children during the Emergency Group) reported that 80% of the parents reported child growth and development benefits, and up to 40% rated the online programmes as effective. Moreover, findings suggest that an emergency programme that provides continuity of care and support with remote rehabilitation interventions proved beneficial for both child and parental well-being with limited practical challenges (Tabuga; 2010; Sacaze et al., 2013)). Studies have also shown that such consultations can communicate closeness and help parents to understand issues, while maintaining quality of care in which Telehealth solutions have been reported to be invaluable in the context, which may also reduce the emotional burden on parents and support child rehabilitation outcomes (Farmer & Muhlenbruck, 2001; Provenzi et al., 2020). Furthermore, specialists, parents and other guardians can also use telehealth to share and co-create tools that can help to explain the pandemic to children with psychomotor delays or intellectual disabilities (Camden et al., 2019). So, investing in telehealth programmes should be a priority during COVID-19 pandemic and in future emergencies, and appropriate policy measures are needed to enable families who live a long way from hospitals and rehabilitation centres to receive adequate care through physically remote, but emotionally valid contact and support (Vismara et al., 2018). Moreover, the World Health Organization (WHO, 2020) stated that additional considerations from governments, healthcare systems, disability service providers, institutional settings, communities and actors are needed for people with disabilities. There should also be disaster education and other measures to mitigate any issues; and the Ministry of Education with local and global partners can deliver access to quality, equitable and inclusive education to all students to guarantee progressive learning before and after the pandemic. So, disability-inclusive plans to prepare for and respond to pandemic seems absolutely required, which involves people with disabilities and their advocates in their development and monitoring, enhancing interactions between students with and without special needs, which allows their learning and re-learning from each other; afford them the opportunities to learn norms and social mores; and acquire appropriate skills essential for school participation and community living to develop their survival or adaptive tools (Danforth, 2014; (Rotarou et al., 2020; Gabel & Connor, 2014).

Furthermore, Alvord and Grados (2005) identified that resilient children tend to search for control over their lives, possessing a strong desire to succeed, demonstrate persistence, set goals and were willing to accept support. Resilience is a dynamic and protective process, involving interactions between biological, psychological (internal), social and cultural (external) factors in promoting positive outcomes to overcome the effects of adverse life experiences (Broberg et al., 2009; Margalit, 2004). Resilient factors like problem solving skills, positive peer relationships, a sense of ability to identify ones successes and unique strengths, and high levels of motivation and determination have been shown to act as protective factors against internalising and externalising such problems (Frison et al., 1998; Evans and Plumridge, 2007). Similarly, physical activities, keeping oneself busy and meditation/relaxation also

emerge as relevant strategies for respondents' personal well-being and to preserve a sense of self-efficacy and control in their lives (Umucu & Lee, 2020). Evidences acknowledged six protective factors as personal growth, structure for coping, access to a confidant, effective priority setting, and a repertoire of coping strategies like pleasant and meaningful activities in everyday life that mostly rely on personal internal resources (i.e., hobbies), value-consistent actions that stimulate creativity (like cooking, painting), personal growth (like reading), proactive-orientation, self-regulation, connections and attachments, school achievement/involvement and community, and faith as a protective factors (Evans & Plumridge, 2007). Moreover, the evaluation of social support as one of the main coping strategy in dealing with the pandemic is coherent with the consideration that, in general, perceived social support and positive relationships are associated with better adjustment (Dennison et al., 2009). Furthermore, low levels of hope in mothers increased child behavioural problems, which were predictive of maternal depression, whereas higher levels of hope led to less problematic behaviours as hope based interventions have typically shown to enhance well-being and potential value among parents of children with disabilities to reduce negative states such as depression, anxiety and stress (Lloyd & Hastings, 2009; Peterson & Seligman, 2004). So the involvement of educators and students with special needs and their families in resilience and recovery programs is vital for achievement of Vision 2030, the Education for All 2030 (UNESCO, 2016), and UN 17 SDGs 2030 (UNESCO, 2020). In fact, the most rapid parental concern was the lack of regular rehabilitation during the lockdown to maintain or progress motor skills and to prevent complications that could further alter mobility and increase difficulties in day to day life like orthopedic deformities or physical deconditioning. Therefore, the interruption or modification of medical care and rehabilitation could inevitably deteriorate the child's physical status and functional ability. This can be achieved when citizens of all cadres are provided with education that helps them participate in their own development as well as that of the broader community. So, multidisciplinary teams like rehabilitation professionals, teachers, administrators, voluntary groups etc. should remain organized accordingly to activity and participation goals that co-determine with the child and the family to help them adapt to the situation and self-manage as far as possible (Huber et al., 2011). So, key to the containment and overall eradication of COVID-19 pandemic and its negative impact is the provision of disaster education and engaging communities with digital infrastructure in the recovery process is vital so that they can acquire the appropriate knowledge to function in the community now and soon in the post-pandemic period. Moreover, empowering students with disabilities depends on making education - physical and virtual - accessible to them and their families, and recognizing such students with a disability rather than disabled students is vital in their co-existence (Coccopio et al., 2020). Moreover, for visually disabled people, Smart android phone application like "Be My Eyes" was a convenient quick fix as such smart phone applications avail access to registered volunteers through audio calls and video calls for any emergency or other assistance regarding vaccination drive and hygiene routine (Wiberg, 2021). Moreover, people with visual disabilities rely on voice as a human face for

communication and learning, so the innovative gadgets of talking pen and digital pen based on the multimedia print reader (MPR) for hearing the text can be helpful not only at the time of pandemic but also in general. Another cutting edge assistive technology of Braille tactile connected with laptops during online classes and the screen reader can help to smooth access of Web content for people with visual disabilities (UNICEF for Every Child. COVID-19 response: Considerations for Children and Adults with Disabilities; 2020). Likewise, RBM (Results-based management, a collaborative approach) strategies were applicable in early intervention through virtual visits in several countries (McWilliam, 2020). Further, 'My Abilities First' creates and operationalizes a rights-based approach in medical education and practice, allowing children and youth with disabilities to use their own words and opinions to describe themselves and their functional needs to sought out the matters (Presler-Marshall et al., 2020). So, these innovative educational technologies will definitely help people with disabilities to learn independently and would be a blessing for teachers if not able to provide personal attention in multi-level teaching and learning environment (Mehrotra, 2020). Provision of transcript for essential information is also beneficial.

So, the optimization of environmental factors towards improving the overall outcome of a person living with disabilities during the emergency lockdown needs collaborative works between disabled individuals, caregivers, family members, healthcare and rehabilitation professionals and other community members or volunteers to a large extent who form a 'core groups' for the support. These interactions frame the acquisition of various skills, showing the importance of seeing the child in the context of the family life (WHO, 2007). Such involvement of all stakeholders specifically, educators, students with special needs and their families will increase the government's efficiency in mitigating current and future pandemics to achieves various goals, including inclusive education like Vision 2030, the Education for All 2030 (UNESCO, 2016), and UN 17 SDGs 2030 (UNESCO, 2020). But the approach of the intervention or response teams should be inter-disciplinary to allow various practitioners, such as doctors, anthropologists, preachers, economists, police officers, educators, and other professionals, families and lay people to work with the affected community without agitating them or raising further suspicion. Moreover, developing resilient and disaster education, and involving children with disabilities and their families in such disaster recovery process is paramount to stopping COVID-19 pandemic from eroding the educational opportunities. Furthermore, improving digital infrastructure is a key to addressing pandemic by providing updated information, containing fear, providing education to all, and preparing and engaging learners with disabilities in the response, recovery and resilience processes to build defence mechanism can help reduce the personal, social and economic costs associated with health and educational challenges among such children. Such involvement will help to reduce their school dropout rates, and promote success in adulthood, thereby ensuring that they can contribute to the welfare of their communities. So, alternate means to progressive education for students with disabilities must be a top priority for the governments to ensure that

disruption to the education sector is limited to envision smooth learning in critical circumstances such as the COVID-19 pandemic to radiate in the future that students with needs do not experience low academic performance, drop out of school or lose out on real learning moments that would affect their developmental landmarks and successful post-school outcomes like employment, community living, independent living, participation in leisure and recreation (Huber et al., 2011; Costigan et al., 1997). These leverage points will, in fact, operationalized into a set of challenges and opportunities where there would be: disability-inclusive public health responses and emergency preparedness, enabling employment and tele-work opportunities, addressing the new requirements in rehabilitation service and workforce for addressing their loneliness, and the current and the future, in terms of response, resilience, employment, and distance learning so that they can acquire appropriate knowledge to function in the community now and in the post-pandemic period (Presler-Marshall et al., 2020). Therefore, a review of the impact of the COVID-19 pandemic on people with disabilities is therefore urgent to minimize long-term consequences and optimize their quality of life and social participation in respect to the Convention of the rights of persons with disabilities.

OBJECTIVES OF THE STUDY

The present study was aimed to address the following objectives:

1. To study the health challenges of youth with disabilities during COVID-19 pandemic.
2. To analyzed the inclusive challenges of youth with disabilities during COVID-19 pandemic.
3. To review the health and inclusive challenges of youth with disabilities during and post COVID-19 pandemic with reference to their response, recovery and resilience.

REVIEW OF RELATED LITERATURE

Angode & Ressa (2021) conducted a study on social learning theory, which examined the effect of COVID-19 pandemic on the education of students with special needs in Kenya. Statistical analysis revealed negative consequences of school closures on the academic performance and the level of inclusion of remote learning of students with special needs. Besides, school dropout after lockdown showed that COVID-19 significantly affected the education of students with special needs. However, the sudden change to virtual learning created accessibility difficulties that compounded the historical deficit culture-induced schooling problems students with special needs faced.

Boyle et al., 2021 conducted a literature review about the transition from adolescence to adulthood for young people living with cerebral palsy. Studies showed that there is little consideration of disability as a human rights issue nor is there any significant public involvement in research design, and rehabilitation professions are not sufficiently including the voices of disabled people themselves.

Cacioppo et al., 2021 studied the potential healthcare issues relating to the wellbeing of disabled children, their continuity of rehabilitation and medical care, and parental concerns during the lockdown. Online survey, addressed to the parents of children with physical disabilities aged 0 to 18 years, revealed that lockdown had negative effects on morale (44% of children), behaviour (55% of children) and social

interactions (55% no contact with other children). Overall, 44% of children stopped physical activities; 76% were educated at home; 22% maintained medical follow-up, and 48% and 27% continued physiotherapy and occupational therapy respectively. For more than 60% of children, parents performed the therapy. The main parental concern was rehabilitation (72%) and their main difficulty was the mental load (50%); and parents complained of lack of help and support (60%).

Dianito et al., 2020 enquired into the lived experiences and challenges faced by PWD students towards online learning amidst COVID-19 pandemic, specifically their experiences, challenges faced, and coping mechanisms. Findings suggested that they experienced social exclusions primarily in the rise of online learning, were challenged by the limitations of assistive technologies and internet connectivity, but remained resilient because of having a healthy support system behind them.

Donisi et al., 2021 aimed to explore the psychological impact of the pandemic and of the subsequent healthcare service changes on young adults with Multiple Sclerosis, and to examine their coping strategies and preferences regarding psychological support in the aftermath of the pandemic. Qualitative and quantitative studies were indicated that participants felt more worried, confused, sad, and vulnerable because of the COVID-19 in comparison to their self-evaluation of the period "before" the outbreak. Moreover, their perception of control over MS decreased "during" the pandemic in comparison to the retrospective evaluation of the period "before" the COVID-19. Canceled/postponed visits/exams were listed the most frequent MS management changes with modified/postponed pharmacological treatment representing the most stressful changes. Psychological support in dealing with pandemic-related fears and improving MS acceptance and well-being was considered extremely important by almost 40% of the respondents. Different coping strategies were social support, hobbies, and keeping busy being the most frequent ones.

Ertugrul & Soylemez (2020) inquired about the explosion in hearing aid demands after Covid-19 outbreak. Research with the hospital database found that the stay at home' policy pursued by the government caused communication problems with family members of those who had hearing loss but do not use hearing aids may have increased the awareness of all family members on this issue. But with the disappearance of the curfew for individuals aged 65, there was an explosion in applications to clinics with the hearing aid request as the lack of lip movements due to the facial mask may have increased the difficulties experienced by individuals with hearing loss.

Faccioli et al., 2020 administered a cross-sectional survey to adolescents with disability and their parents to describe their experience during lockdown, and their concerns or expectations about rehabilitation. While 53.6% of the parents reported no positive effects of the lockdown, 92.5% of the adolescents expressed favorable consequences. The increased time spent with family members was judged positively by 27.2% of parents and by 64.2% of adolescents. Concern for their child's disability was expressed by 47.3% of parents, while 73.6% of adolescents expressed concerns regarding the ban on meeting friends. Parents liked even more remote support from school and healthcare professionals.

Thus, socioeconomic support, assistive technology and telerehabilitation strategies help families with disabilities during a lockdown.

Jesus et al., 2020 examined the effects of COVID-19 and identified the challenges and opportunities within the fields of disability, telework, and rehabilitation. The various opportunities revealed by the study were: developing disability-inclusive public health responses and emergency preparedness; enabling employment and telework opportunities for people with disabilities; addressing the new requirements in rehabilitation service provision, including participating as essential team members in the care of people with infectious diseases such as COVID-19; embracing the added emphasis on, and capacity for, telehealth; and developing greater resilience, distance learning, and employability among the rehabilitation workforce.

Jesus et al., 2021 investigated on the lockdown-related disparities experienced by people with disabilities during the COVID-19 pandemic. Scoping review identified 10 primary and 2 central themes which were: disrupted access to healthcare; reduced physical activity leading to health and functional decline; physical distance and inactivity to social isolation and loneliness; disruption of personal assistance and community support networks; disproportionally affected by school closures; psychological consequences of disrupted routines, activities, and support; family and informal caregiver burden and stress; risks of maltreatment, violence, and self-harm; reduced employment and/or income exacerbating disparities; and digital divide in access to health, education, and support services.

Krishna & Rajaraman (2019) investigated on the impact of COVID-19 on inclusive education in India. Study revealed that a combination of short and long-term strategies must be adopted to retain CWD in the educational system, and ensure that there is a productive and meaningful engagement with teachers and therapists until the effects of the pandemic can be brought under control.

Kuper et al., 2020 studied the disability-inclusive COVID-19 response, and revealed that the Disabled people are at greater risk of morbidity and mortality if they contract the virus, and have ongoing healthcare needs during the pandemic. Examples emerged for meeting these challenges is: guidance for healthcare professionals on treating people with dementia, which need to be scaled up further and adapted for other settings.

Lebrasseur et al., 2021 reviewed the impact of COVID-19 pandemic, and associated isolation and protective measures among people with physical disabilities. Various impacts on daily functioning such as a decrease in access to healthcare have been noted during the outbreak. Changes in social and lifestyle habits, mood changes and decreased levels of physical activity were also noted.

Mathias et al., 2020 did the qualitative study to examine the acute mental health impacts of the COVID-19 crisis as well as coping strategies employed by disadvantaged or vulnerable members in North India. Studies revealed that the participants with compounded disadvantage had almost no access to mobile phones, health messaging or health care and experienced extreme mental distress and despair, alongside hunger and loss of income like feeling overwhelmed and bewildered, distressed and

despairing, socially isolated, increased events of bothering and discrimination, and experiencing intersectional disadvantage. Coping strategies adopted them were: finding sense and meaning, connecting with others, looking for positive ways forward, innovating with new practices, supporting others individually and collectively, and engaging with the natural world.

Provenzi et al., 2020 conducted study on telehealth family-centred rehabilitation programme for children with disability during COVID-19 lockdown. More than 80% of the parents reported child growth and development benefits, and upto 40% rated the online programme as effective or more effective than the usual care provided. The majority reported increased feelings of engagement, self-relevance, perceived support and recognition of their role in child care, but the reported challenges were Internet connection issues (19%), web literacy gaps (17%) and difficulties in following the instructions given by the therapist (22%). The emotional burden faced by parents involved fears being alone and caring for children with special healthcare needs without specialist support.

Page et al., 2021 conducted a qualitative study to identify the key challenges and approaches for fostering school connectedness when students with special educational needs are suddenly required to be educated at distance. Study suggested that despite the efforts of educators, students with special educational needs can slip between the cracks and are at great risk of losing connection both academically and emotionally. Studies further indicated that though practitioners worked with parents to provide the structures for curricula to be addressed, teachers working at distance could enhance school connectedness through fostering teacher and student, and student and student relationships.

Parida & Sinha (2021) reviewed the situation faced by individuals with disabilities, and its technological remedies. Accessibility must be universal, accommodate all, and encourage inclusivity, and subsequently going by the demands of time, we should contribute towards the universal design approach to reduce the impact of the pandemic.

Raghavan & Griffin (2017) reviewed on resilience in children and young people with intellectual disabilities, and revealed that increased risk factors are associated with disabilities, and the role of personal attributes on resilience, family and resilience, schooling and resilience, and cultural factors enhance resilience among children with disabilities.

Rotas & Cahapay (2021) discussed the specific factors and key actions in managing the mental health of persons with disabilities amid COVID-19 outbreak. The specific factors such as inadequate information, negative social perceptions, and inaccessible medical services exacerbate the situation. The key actions such as policy review, stakeholder participation, continued support, and inclusive approach are cogently identified as strategies to manage their health.

Ressa, T. (2020) studied the consequences and its recovery during COVID-19 Pandemic, and the implementation of Disaster Education and Management in the Schooling of Children with Disabilities. Situational analysis on education of primary and secondary school-age individuals from March 2020 to Dec 2020 revealed that the educational opportunities for learners with disabilities remained

unpredictable as the disease ravaged communities to the end of the year. Learners with disabilities fell behind academically after school closure and COVID-19 related biases predisposed them to academic failure and failed adulthood. Then, the implementation of disaster education and recovery plans are overdue and must intentionally target education of children and youth with disabilities.

Schiariti & McWilliam (2021) studied the adoption of two innovative strategies for Tele-Intervention: applying the principles of the Routines-Based Model beyond the early years of development, and to adopt My Abilities First - a novel educational tool promoting an abilities-oriented approach in healthcare encounters. Results revealed that the principles of the Routines-Based Model and My Abilities First are universal and facilitate collaborative, empathic, family-centered Tele-Intervention strategies for youth with disabilities during and post the COVID-19 lockdown.

Senjam, (2020) studied the impact of COVID-19 pandemic on people living with visual disabilities. Investigation revealed that people with visual disabilities/impairment are more likely vulnerable to get contracted from the severe acute coronavirus-2, and even endangers their lives in the long run. It suggests that the serious impact, including challenges in healthcare access, can be minimized through inclusive service approaches, involving caregivers, family members, and healthcare providers, along with the community to a large extent, and finally, support to improve the overall outcomes. Moreover, impacts due to the pandemic and lockdown can be reduced substantially if planning and policy are in place before any emergency happened in the future.

Tso et al., 2020 studied the vulnerability and resilience in children with disabilities in COVID-19 pandemic. Online survey revealed that the risk of child psychosocial problems was higher in children with special needs, mothers with mental illness, single-parent families, and low-income families. Delayed bedtime and/or inadequate sleep or exercise duration, extended use of electronic devices were associated with significantly higher parental stress and more psychosocial problems among pre-schoolers. So, strengthening the family coherence, adequate sleep and exercise, and responsible use of electronic devices in promoting psychosocial wellbeing during the COVID-19 pandemic is vital.

Taneja-johansson & singal, 2021 examined how education systems globally need to do more in order to incorporate the principles of inclusive education. Study revealed that as we re-imagine schooling, we need to position schools as vital spaces for nurturing children's formal learning, physical and socio-emotional well-being, and all these aspects need to be made explicit in the provision of quality education for all children.

Conclusion

It is being concluded that the impact of the COVID-19 pandemic on health and inclusive education of youth with disabilities revealed negative consequences of school closures. Although, remote learning gave the students a chance to educate themselves, but the ceiling on resources and services hindered their quality health and education the most. This COVI-9 pandemic increased their health challenges

to an extent that many of the needs of them went unmet owing to the ceasing of physiotherapies, medical follow-up, rehabilitation and limited medications, which led detrimental effects on their broader psycho-social wellbeing. Undertaking online classes impacted their education with a decrease in their academic progress, reinforcing their existing educational and health-related inequalities. Studies revealed that children lost ground academically due to the inadequate infrastructure; ceiling of knowledge about online content delivery of teachers; economic constraints; deficit culture; limited support from the governments; and unavailability of inclusive learning materials made the whole learning experience difficult.

But despite such challenges, families, professionals, administrators and teachers working with such children tried to support and enhance their morale by videoconferencing and other alternative strategies like telerehabilitation, telemedicine, emails, phone calls, and other assistive technologies to combat the challenges of health and education. Problem solving skills, positive peer relationships, digital infrastructure were the other key recovery and resiliency strategies. Moreover, updated information, containing fear, adopting various inclusive strategies, preparing and engaging learners in the disaster recovery process during and after pandemic can promote their inclusivity to benefit in the community at large.

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