

Article

## **Covid-19's Impact on The Physical Environments of People with Intellectual Disabilities: A Systematic Literature Review**

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**Abstract:** COVID-19 pandemic is a public health issue. From 2019 to 2022, 4.5 million people died from the COVID-19 epidemic. Consequently, COVID-19 has put a significant strain on every single creature in this world. COVID-19 has been associated with lockdown, thus resulting in lockdown related inequities towards most people in this world, with unanticipated consequences for people with disabilities. Building in this debate, this paper aimed to discuss on the impacts of COVID-19 on the physical health of People with Intellectual Disabilities. Based on the Prisma protocol, this systematic literature review examined 28 publications from Web Sources of Science and Scopus. The study identified three themes regarding the impact of COVID-19 on the physical environment of people with intellectual disabilities namely mental health, social isolation, severe health problems, socioeconomic and psychology. This study has significant implications in understanding how PWID are impacted by COVID 19 and urged that early preventative measures should be taken since People with Intellectual Disabilities are considered a vulnerable population, therefore it is crucial to ensure that their health status are sustained.

**Keywords:** COVID-19, health effect, mental health, biopsychology, people with disabilities, intellectual disabilities

### **Introduction**

COVID-19, also known as the novel coronavirus SARSCoV2, began spreading in late 2019 from Wuhan, China (World Health Organization, 2019) and has since then started to significantly influence our lives. According to the World Health Organization (WHO), as of April 19, 2022, there are 503,131,834 numbers of COVID-19 infections have been reported, and there have been 6,200,571 deaths recorded worldwide. Since 2019, COVID-19 has affected our lives and changed many aspects of how people go about their daily lives. By 2022, most nations had proclaimed COVID-19 to be an endemic, a term for a disease epidemic when a condition or ailment is persistent but only affects a particular area. As one of the most significant public health crises in a century (Beaton et al., 2021), the COVID-19 endemic has caused longterm disruption in people's support systems and significantly impacted every layer of society, including children, women, older people and even people with disabilities.

People with Disabilities or known as PWD, have been categorized as a part of a vulnerable group alongside with children, women and girls, and older people (GSDRC, 2021). According to WHO, in 2011 there are about 15% of the world's population lived with some form of disability. Person with Disabilities

(PWD) can be divided into different categories such as physical disability, vision impairment, hearing impairment, mental health disorder or intellectual disability. People with intellectual disabilities (PWID) can be referred to as people whose intellectual capacities, communication skills, or behaviour are determined to develop or to have developed at a slower rate or to a lesser extent than what is deemed typical (Wehmeyer et al., 2007). As PWID is a part of a vulnerable group, thus during this pandemic COVID-19 it has been difficult for people with intellectual disabilities to go through their daily routine life as it used to be. However, little is known about COVID-19's impact on people with intellectual disabilities.

In discussing the impact of covid 19 on PWID, previous studies have show that Covid-19 has resulted in significant restrictions on health care and social life especially those who had been diagnosed with learning and mental health disorder (Samboma, 2021; Wieting et al., 2021). Furthermore, according to a study by Murray et al.,(2021) shows that PWID activities and quality of life have reportedly been negatively impacted by COVID-19 and related limitations. Not just focusing on the PWID itself, it was shown that the unexpected shutdown or reduction of support and services caused by the COVID-19 epidemic had a significant negative effect on families of PWID (Wanjagua et al., 2022).

In addition, due to the rapid spread of the covid-19 pandemic, many clinical programs have adjusted their system according to these constraints causes by the pandemic (Zwaigenbaum et al., 2021). Given that the majority of previous studies focused more on the health issues faced by PWID, thus study conducted by Heslop et al., (2021) has suggested that a broader focus is needed for future research on the social determinants of health, which have a significant influence on a person's chance of dying from COVID-19. Building on this debate, thus this paper aims to conduct a systematic literature review that will discuss how PWID is impacted by pandemic COVID-19.

A systematic literature review is one kind of research that can be uses in broadly defined as a type of research synthesis to identify evidence that is relevant to a particular question that requires rigorous methods to ensure that the results are both reliable and meaningful to endusers (Munn et al., 2018). This systematic literature review was conducted based on the research question of how PWID were impacted by pandemic COVID-19. The next part of this paper will discuss how this systematic literature review was developed.

## **Methodology**

This part will discuss more on the research method, including the type of review protocol used, formulation of the research question, systematic searching strategies, data abstraction, and analysis. This study employs a systematic literature review as a technique in this study in order to identify how pandemic COVID-19 impacts PWID. A systematic literature review is a process of analyzing vast amounts of data to understand better what works and what does not (Petticrew & Roberts, 2008). The primary goal of this study was to identify any significant aspect of PWID that was being impacted by the epidemic COVID-19. This systematic literature review was constructed based on the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA).

### **1. The Review Protocols PRISMA**

Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) was developed by a team of experts as an extension of the original guideline for systematic reviews and meta-analyses of healthcare treatment assessments. PRISMA emphasizes on how researchers may ensure that systematic reviews and meta-analyses are transparent and comprehensive. A four-phase flow diagram and a 27-item checklist are included in the PRISMA recommendations that illustrates the criteria for identifying, screening, eligibility, and included reports that are relevant to the review's scope. A set of checklists also includes a guideline list that covers issues such as title, abstract, introduction, methodology, findings, and discussion. The PRISMA Protocol has the potential to improve the conduct of systematic reviews by assisting authors in establishing an a priori research road map, as suggested by earlier reporting recommendations (Moher et al., 2016) .The purpose of the PRISMA Protocol is to improve the quality of systematic review protocols and make them comparable to existing reporting standards and recommendations.

## 2. Develop Research Question

This systematic literature review starts with the process of developing research question guided by the PICO. PICO is based on the following three key concepts: problem, interest, and context. For the purpose of this research, the problem that had been identified problem is pandemic COVID-19, whereas the study interest is impact, and the context is person with intellectual disabilities. Based on these keywords, the authors have come out with one research question: what are the COVID-19s impact on the people with intellectual disabilities? After research question had been identified, the next step is to proceed with systematic searching strategy.

## 3. Systematic Searching Strategy

Systematic searching strategy is a part process in developing a systematic literature review. Systematic searching strategy made up of a few step that must be follow by author namely: identification, screening and eligibility. The illustration of the process under systematic searching strategy can be refer to (Figure 1).

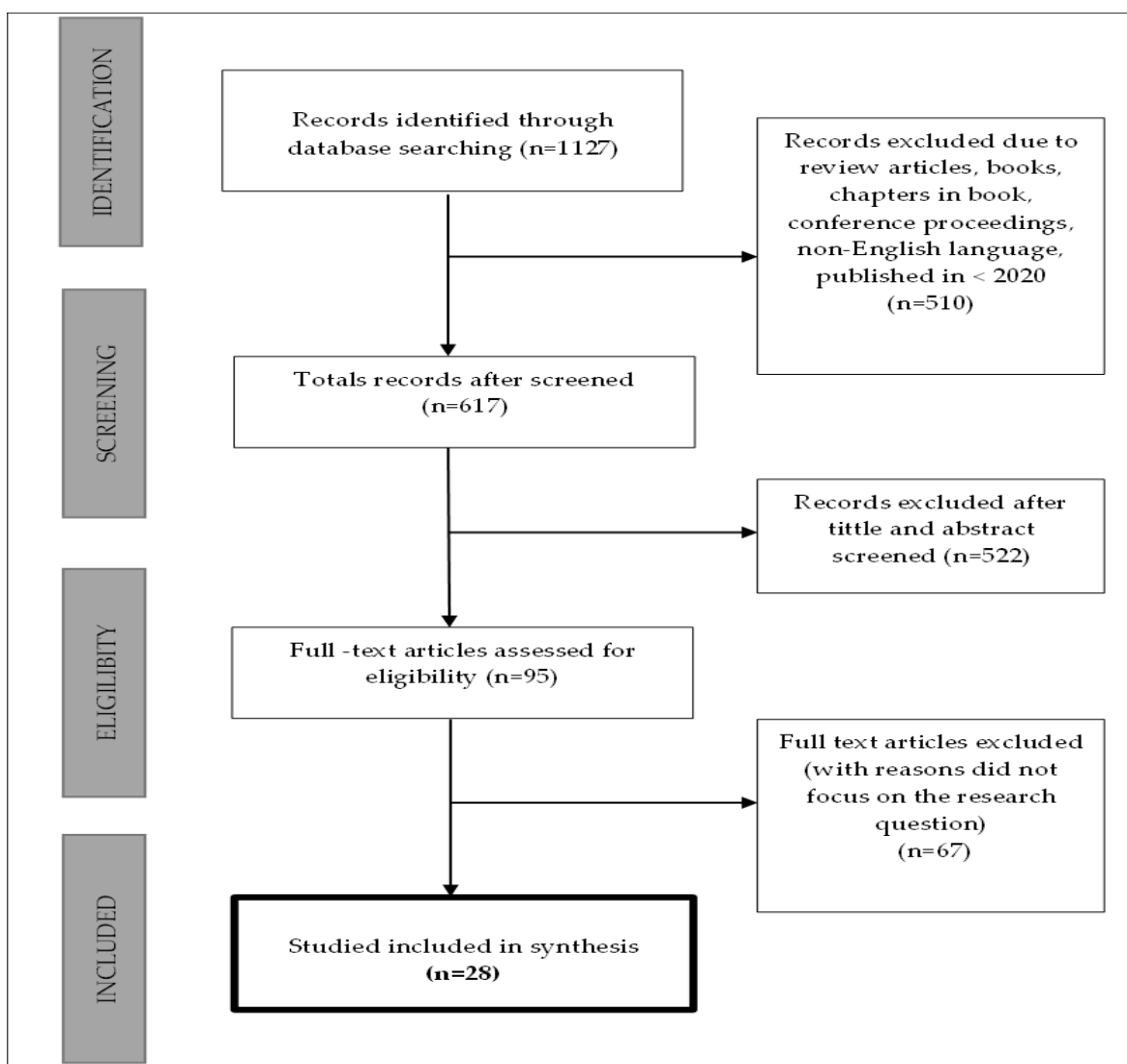


Figure 1. Flowchart of systematic literature review

As shown in figure 1, identification is the first phase in conducting systematic searching strategy. Identification is a procedure in systematic searching strategies that involves searching for synonyms, related phrases, and variations for the keywords as per identified during the research question formulation process (Mohamed Shaffril et al., 2020). For the purpose if this study three keywords had that had been identified

during the research question formulation phase namely: COVID-19, Impact and Person with Intellectual Disabilities. Thus, for the first keywords which is COVID-19 terms like Pandemic, Coronavirus disease and SARSCoV2 had been identified as relevant keywords that should be included in search string. For the second keyword which is "impact" several terms had been identify related to this keyword such as influence, significance, consequence, affect and effect. While lastly keyword of Person with Intellectual disabilities, related keywords that had been identified were learning disabilities, intellectual impairment, intellectual disorder and developmental disabilities. These relevant keywords are next being used as a part of search string (Table 1).

Table 1. Search string

Databases	Keywords used
Scopus, WoS, SAGE ApaPsynet Wiley PubMed ScinceDirect	((("COVID-19" OR Pandemic OR Coronavirus OR "Coronavirus disease" OR "SARSCoV2" OR "COVID-19" ) AND (Impact* OR Influence* OR Significance* OR Consequence* OR Effect* OR Affect* ) AND ("Intellectual disability" OR "Intellectual impairment" OR "Intellectual disorder" OR " Intellectual And Developmental Disabilities" OR "Intellectual disorder" OR "Intellectual problem" OR "Learning disorder" OR "Learning disabilities") AND (Environment OR Surrounding OR ecology OR Environmental OR environment))

The process of identification had involved seven different databases, which are Scopus and Web of Sciences, SAGE, ApaPsynet, Wiley, PubMed and ScienceDirect. The choosing these databases is based on the justification all of these articles are well known as of today's leading sources for citation data (Sanders, 2007) and cover multidisciplinary fields of research worldwide. Via the process identification, there are in total 1127 articles have been identified, and out of these 1127 articles, 510 articles were excluded from this research due to review articles, books, chapters in book, conference proceedings, non-English language, published earlier than 2020. After these identification process there are 617 articles are left and being proceed into the screening process.

The second phase in systematic search strategies is screening which is the phase where all of the irrelevant articles were eliminate from the research (Türkoğlu et al., 2021). During this phase the authors had to screen all 617 article's tittle and abstract in order to ensure that any insignificant articles were excluded from this systematic literature review. 522 irrelevant articles were identified throughout the screening procedure, and these articles are being eliminated from this study. As a result, 95 articles will then be considered for eligibility.

Eligibility is the third step in systematic searching strategies. It is a process where the authors manually monitor all the remaining articles after the screening process to ensure all the articles are in line with the criteria and aims of this research. During this process, the authors had excluded 67 articles because some of these articles were not focusing on the impact of pandemic COVID-19. There are aa numbers of the articles are being excluded during this process as those articles are not focusing on people with intellectual disability but rather were focusing on people with disabilities in general. Following this eligibility process, only 28 papers were considered to be reviewed in this systematic literature review.

#### 4. Data Abstract and Analysis

After all of the relevant articles had been through the process of identification, screening and eligibility according to the systematic searching strategies procedure, the remaining 28 articles then were assessed, reviewed, and analyzed by the authors in order to figure out an outcome that aligned with the objective of this paper. The authors then conduct a thematic analysis in order to determine any relevant themes based on the patterns that emerge. This process is being called as data abstract and analysis phase. After reviewing and analyzing data, five themes concerning how PWID were impacted by the pandemic COVID-19 were identified. These themes are mental health, social isolation, health problems, socioeconomics, and psychology.

## The Findings

Table 2. Characteristics of the selected studies

Author	Year	Country	Design study	Participants
Alexander et al.	2020	UK	Qualitative	Parent of PWID
Beaton et al.	2021	UK	Qualitative In-depth interview	Stakeholders who worked for PWID
Brambilla et al.	2021	Spain, France, Croatia	Quantitative- online survey	Caregivers of patients with Dravet Syndrome
Corbett et al.	2021	USA	Quantitative- longitudinal study	Youth with autism spectrum disorder
Embregts et al.	2021	Netherlands	Qualitative-semi- structured interview	Five mothers caring for a child with an intellectual disability
Honingh et al.	2022	Netherlands	Qualitative-in depth interview	People with intellectual and visual disability and their relatives
Mupaku et al.	2021	South Africa	Qualitative- longitudinal	Young people with intellectual disabilities and/or autism
Patel et al.	2021	UK	Qualitative	Parents of adults with ID
Türkoğlu et al.	2021	Turkey	Quantitative	Children aged 4-17years diagnosed with ASD
Wanjagua et al.	2022	Kenya	Qualitative	Families of people with intellectual and developmental disabilities (IDD)
Mosbah et al.	2021	France	Quantitative	Adults with PWS
Sarti et al.	2021	Italy	Quantitative	Children with different types of special needs
Gil-Llario et al.	2021	Spain	Quantitative	People with intellectual disabilities
Sherby et al.	2022	USA	Qualitative	Children with IDD and CMC
Summers et al.	2021	USA	Quantitative	Families of children with neurodevelopmental disorders
Termine et al.	2021	Italy	Quantitative	Children and adolescents with and without Neurodevelopmental Disorders
Neece et al.	2020	USA	Qualitative	Families with young children with intellectual and developmental disabilities
Hughes et al.	2022	USA	Qualitative- interviews	Administrators of intellectual disability organization
Samboma	2021	Africa	Qualitative	People with intellectual disability
Bompard et al.	2021	Italy	Qualitative	Children with developmental delay
Spencer et al.	2021	USA	Qualitative	Student with ID and their families
Tessarollo et al.	2022	Italy	Quantitative	Parents of children with ID
Brugnaro et al.	2021	Brazil	Quantitative	Parents of children with Down syndrome
Lois Mosquera et al.	2021	Spain	Qualitative	Autistic adults
Bentenuoto et al.	2021	Italy	Quantitative	Families of children with NDD
Buono et al.	2021	Italy	Quantitative	Family of individuals with intellectual disabilities
Kim et al.	2021	South Korea	Qualitative	Adults with intellectual disabilities who lost access to service during COVID-19
Rosencrans et al.	2021	USA and Chile	Quantitative	Adults with IDD and their caregivers
Suarez-Balcazar et al.	2021	USA	Mixed method approach	Families of children with intellectual and developmental disabilities

In total, there are 29 articles were being reviewed in this systematic literature review. Table 2 shows the general information of the studies that included in this systematic literature review. The authors then had review all of these 29 articles and thematic analysis had been carried out in order to answer this research objective. As a result of the theme analysis, the study concludes that Pandemic COVID-19 has five major primary impacts on the lives of PWID. These five impacts that had been identified were mental health, social isolation, severe health problems, disadvantages by socioeconomic, and lastly toll on PWID's psychology aspect.

### 1. Study Characteristics

This review paper compromise of from one mixed method approach, fifteen qualitative and thirteen quantitative research. While the sample assess in this review involving multi diverse sample such a people with intellectual and developmental disabilities (IDD), parent of PWID, stakeholders who worked for PWID, caregivers of patients with Dravet Syndrome and their families' members. On the other hand, demography background of this review are mostly from USA with seven relevant papers were review, followed by Italy with six papers, and then Netherlands, Spain and UK with two papers, and each one paper from Africa, Brazil, France, Kenya, South Africa, South Korea Spain, France, Croatia and Turkey. Most of the research involve in this review are publish in 2021 with twenty-two papers, five papers in 2022 and two papers in 2020.

### 2. Mental Health

COVID-19 was found to have an impact on human mental well-being no exception to PWID. In general, there are eight types of mental health issues that most people encounter namely: stress, anxiety, depression, schizophrenia, psychosis, obsessive compulsive disorder, eating disorder, and alcohol/drug (Sanders, 2007). The pandemic COVID-19 has also been demonstrated to have a significant deleterious influence on mental health, particularly in children [11].

The COVID-19 epidemic appears to be having an impact on the mental health of PWID, particularly in terms of stress. The pandemic COVID-19 is seem to have been linked to psychological impact on PWID including high levels of stress either toward PWID itself or their families (Termine et al., 2021). This is due to significant changes in PWID's lifestyles and daily activities. As we are all aware, most of schools all over the world were closed during the initial phase of the epidemic and this situation resulted into a profound impact on the stressful lives of PWID (Vereijken et al., 2022) . When PWID itself had to go through a stressful live thus it can bring a negative impact to their families. Thus with this, another problem that should not be overlooked is parental stress as a data showed that parental stress was higher during the lockout than it had been previously (Bentenuto et al., 2021) as this matter will have a simultaneously impact PWID itself.

In the midst of the numerous unknowns surrounding the COVID-19 pandemic, the negative consequences on mental health, particularly an increase in anxiety (Corbett et al., 2021) In some circumstances, PWID may confront acute anxiety, for example autistic adults described living on the edge with worries, where their daily social contacts are dreaded, feeling so exposed owing to stigmatizing experiences by society, and a lack of support during lockdown (Lois Mosquera et al., 2021). Furthermore, school closures are always connected with anxiety among children with ID. Due to the pandemic COVID-19, a number of children, particularly those with ASD, may develop anxiety as a result of diminished social engagement (Summers et al., 2021).

In addition, school closures due to pandemic COVID-19 may have a greater impact on children with intellectual disabilities than on other children and may result into depression. School closures seems to have a more negative impact on children with intellectual disabilities than on other children (Hughes et al., 2022). There are some of these intellectually disabled children might not being able to keep on tab with other student in the process of online learning due to their physical school is being closed. Thus, as a result children with intellectual disability could not participate in online learning as other children might faced another form of depression. There are some parents discussing on their concerns about the long-term impact of the pandemic on their children's emotional health and could resulted into depression (Neece et al., 2020). Caregivers talked on how the epidemic affected their mental health and wellbeing, as well as the mental health of their children. The majority of parents were concerned about their children's mental health, owing to a lack of social

interaction as a result of the pandemic lockdown (Suarez-Balcazar et al., 2021). It is estimated that school and educational structure closures have touched 94 percent of the world's student population; hence, some children have responded to the missing of their friends and school life (Termine et al., 2021). There have been reports of youngsters missing their friends as a result of the COVID-19 lockdown. Some persons with ID live in care facilities, but according to COVID-19 health standards, institutions have ceased paying visits to ID centres, and this seclusion is likely to lead to depression (Samboma, 2021).

Lockdown due to pandemic COVID-19 have resulted into eating disorder of PWID. It was discovered that social distance had effect on those with ASD, as it appeared to have a negative impact on those with ID, leading to higher possibility in facing with eating disorders (bulimia) (Buono et al., 2021). During the lockdown era, social relationships were occasionally replaced by excessive use of social media, which led in eating problems. The pandemic's influence on PWID's mental health is also obvious as there is evident in Kenya and India where misuse, excessive alcohol consumption, and relationship breakdowns have been reported (Wanjagua et al., 2022).

Finally, another mental health condition that may occur as a result of pandemic COVID-19 is obsessive compulsive disorder (OCD). As we all know, during this lockdown period, the majority of us spend the vast amounts of time gazing at screens. There is evidence that screen culture had a bigger influence on children with ADHD, since high frequency use increased the likelihood of emotional and behavioural problems associated with ADHD [24]. On top of that, the use of technology tools and the widespread usage of screens has resulted in a rise in attention deficit and restlessness. These situations might have had an impact on the quality of life of people with ID and may cause them to depend more on their guardians, whether parents in the family unit or professionals in residential centers (Gil-Llario et al., 2021).

### 3. Social Isolation

It was hard for PWID to adapt with the new normal due to pandemic COVID-19. The pandemic COVID-19 appears to be increasing isolation and negatively impacting the quality of life of persons with IDs (Alexander et al., 2020). The "new normal" catchphrase, which was commonly used during this pandemic period, is speculated to have resulted in more social inclusion for children with learning difficulties (Beaton et al., 2021). New normal also being associated with the use of facemask in most of our daily activities. The failure to keep the facemasks was a significant concern for people with intellectual disability, since it hindered their ability to participate in community activities when they were accessible (Brambilla et al., 2021).

As social distancing rule had been practice in most of country in order to combat pandemic COVID-19, thus it had cause a limitation in physical contact among people with intellectual disabilities. Most people with disabilities are reported missed seeing, feeling and hugging their loved one and doing activities through which connections can be strengthened and memories can be built (Honingh et al., 2022). As a result if limitation in physical contact this situation may cause to increase irritability, which is as sociated with poor flexibility, inhibitory control, problem solving, and abstract reasoning among person with learning disabilities (Türkoğlu et al., 2021). Some parents were concerned about their children's social isolation and the subsequent effects on their developmental and intellectual skills due to the interruption of regular, face-to-face school and therapy appointments, as well as extracurricular activities (Suarez-Balcazar et al., 2021).

Prior to the pandemic COVID-19, most PWID enjoyed regular leisure activities in the centre such as barrister training, baking, dancing, or outdoor activities; but, after COVID-19, they really went out because the fear of COVID-19 limited their movement. Changes or limitation in social involvement make PWID feel like they were imprisoned and frustrated since they are unable to participate in outside activities as they used to (Kim et al., 2021). Isolation, loss of leisure and social contacts, and a reduction or absence of services and assistance all have negative effects on wellbeing (Chadwick et al., 2022).

As PWID always being refer as marginalized group, to make it worst pandemic COVID-19 have cause PWID are becoming more marginalized. There have been a concerns reported that the pandemic's impact has resulted in people with learning disabilities being increasingly marginalized from wider society (Beaton et al., 2021). It is undeniable that most of the rule or SOP that had been introduced due to pandemic COVID-19 had put family support system toward people with intellectual disabilities are becoming at risk. Reduced family support, worsened by social isolation, does have an impact on families caring for persons with intellectual

disabilities (Wanjagua et al., 2022). The pandemic's social isolation and lack of relationship support likely contributed to children's feelings of isolation and lack of relational support from their family, which had an impact on their emotional and wellbeing experiences, particularly owing to the lack of a scholastic environment (Sarti et al., 2021). There was a link discovered between a child's socioemotional problems symptoms and physical activity practice, as well as parents' happiness with their child's degree of engagement at home (Brugnaro et al., 2021).

#### 4. Severe Health Problems

As PWID itself they always being associated with multiple health issue and multimorbidity that could affect their daily routines. On top of that pandemic COVID-19 may put PWID at a very high risk of severe illness due to infection (Alexander et al., 2020). The inability to maintain the facemasks was a significant concern for people with intellectual disabilities since it hindered their ability to participate in community activities. The failure to keep the facemask on was another concerns as given the frequency of status epilepticus caused by fever and febrile illness is still the most common cause of death in individuals who have lower level of antibody system [27]. People with intellectual disabilities, particularly those with a lower antibody system, are more likely to become infected with COVID-19 and are badly affected by the infection's complex health consequences (Miller & van Heumen, 2021). The majority of patients had stable epilepsy throughout lockdown, while almost onethird of patients' behaviour difficulties worsened (Brambilla et al., 2021). People with IDD of all ages are more than twice as likely to be diagnosed with COVID-19 than their peers, owing to their cognitive impairment and mobility issues, which may make it more difficult to follow safety protocols such as distancing, masking, and sanitization. As a result, people with IDDs of all ages are more than twice as likely to be diagnosed with COVID-19 than their peers (Sherby et al., 2022).

We are all aware of this, the COVID-19 pandemic has thrown every country's public health system into disarray. Thus as a result a lot of appointment at the hospital with patient had to be rescheduled. Simultaneously, this circumstance may result in certain crucial PWID cases being left neglected for an extended length of time (Brambilla et al., 2021; Mupaku et al., 2021). Many children, including many CMC who require pulmonary care, access not only educational services in their school setting, but also social services, speech and physical therapy, psychological interventions, nutritional support, and medical care during this pandemic period, increasing their risk of infection from aerosolized particles (Sherby et al., 2022).

The epidemic COVID-19 prompted lockdown, which resulted in the loss of healthy routine for the majority of persons with disabilities. Although some persons with intellectual disabilities claimed to have sought to retain a living pattern similar to before COVID-19, the majority claimed to have lost their daily routine and alterations in eating habits as a result of their lack of appetite as a result of being alone and lonely (Kim et al., 2021). Despite the fact that some of the changes were favourable, others were not. For example, when money was tight, some people reported having to rely on food banks or other sources of food, resulting in less control over the quality of the food they ate and having to make do with what was available (Suarez-Balcazar et al., 2021).

#### 5. Disadvantages by Socioeconomic

The pandemic also had caused most students to adjust to new ways of studying, such as using an online distance learning system. Most schools are now running online, thanks to COVID-19's drive for all sectors to operate online. This epidemic has brought to light longstanding digital disparities (Hughes et al., 2022). Although the benefits of online distance learning are still unknown, one study found that none of the children in the study benefited from online special education (Türkoğlu et al., 2021). This condition will eventually cause some of these students to fall behind, particularly in terms of academics.

Some family members were concerned that the absence of other social interactions might harm their children with ID's social development, since lengthy lockdowns were thought to risk the regression of social skills acquired previous to the pandemic by persons with IDD (Wanjagua et al., 2022). It has now started to be argued that many children and adults with an IDD are also socially and economically vulnerable due to lack of representation in policymaking in handling COVID-19 (McNally et al., 2021).



Lockdowns have a significant negative impact on people's life by reducing employment and incomes (Samboma, 2021). Pandemic COVID-19 may have a negative impact on the families with lower socioeconomic background (Termine et al., 2021). Some parents expressed concern about how the epidemic and stay at home order will affect their family in the long run, citing concerns about how they would pay for rent, automobiles, and food without much revenue (Neece et al., 2020). Individuals with intellectual disabilities, on the other hand, have lost employment or training opportunities as a result of the shutdown of numerous local companies to address the epidemic COVID-19 (Hughes et al., 2022). People with intellectual disabilities may have fewer options for working remotely at this time, making it more difficult for them to obtain job owing to business closures and social distancing conventions that need fewer people at a workplace unless they are regarded vital employees (Spencer et al., 2021). Some PWID who are already enrolled in a job training programme claim they are also facing financial difficulties since they went from working five days a week to having their employment suspended (Kim et al., 2021).

Economic uncertainty was a major source of anxiety for families; for example, unfavourable economic shifts were seen to be a major source of stress for parents. Social distancing measures, as well as their social and economic consequences, may worsen the mental health of PWID (Samboma, 2021). Despite the tough economic circumstances that families faced, expensive health care treatments for those with ID and Autism were forced to be waived (Wanjagua et al., 2022).

## 6. Psychology

Aside from social separation and facemasks, the usage of personal protective equipment (PPE) is a new phrase that is always linked with pandemic COVID-19. PPE may seem second nature to those who work in public health, but it is a completely new world for PWID. The use of personal protective equipment (PPE) is expected to have a significant influence on some persons with IDs, as it will negatively affect some nonverbal communication by covering a part of facial expression, which are essential for effective communication. Aside from that, mask wearing has shown to be particularly difficult partly due to sensory difficulties, drooling, chewing on the mask, influence on respiratory capacity (Hughes et al., 2022). In such contexts, personal protective equipment (PPE) (Alexander et al., 2020) and mask wearing (Hughes et al., 2022) may lead to anxiety in some people with intellectual disabilities and as a result it may altering the character and behavior of PWID.

There had been a report regarding on how some PWID fear any disruption in their daily routine as a result of the pandemic COVID-19. Residents in the Netherlands, for example, faced an abrupt shift in their daily routine as a result of the rules imposed by the care organization, which were based on government COVID-19 policies (Honingh et al., 2022). Residents were concerned about the repercussions of COVID-19 and the restrictions because they were afraid of losing their freedom if they had to adjust their daily routine. The people with intellectual disabilities were caught off guard by the situation unexpected adoption of a strict national lockdown, and the abrupt shift in routine had an impact on young people who were perplexed by the changes in their routine (Mupaku et al., 2021).

Some persons with intellectual impairments have stated that they feel helpless and powerless as a result of the COVID-19. As said by disclosures from people with intellectual disabilities, lockdown made them feel helpless and less in control than they were used to be. PWIDs aren't the only ones who feel helpless; their relatives are in the same boat. There have been instances where a PWID's mother felt compelled to appear in control for the benefit of her son and his siblings (Patel et al., 2021). The lack of control was also reported to have directly impacted their child with intellectual disabilities.

During the COVID-19 epidemic and lockdown phase it had been reported that irritation levels among people also soared. Irritability should not be ignored since it may be an indication that the child's behavioural, emotional, and social functions are deteriorating, hurting both the family and the child [11]. Anger and impulsive exacerbations were much greater in psychiatric patients than in healthy controls (Mosbah et al., 2021).

Apart from that, whether we realize it or not, the COVID-19 pandemic has led to a decline in sexual desire among PWIDs. One recent study came up with the conclusion that the lockdown has an impact on sexual desire. The differences were more obvious depending on age, with younger individuals seeing a big increase and older persons experiencing a considerable decrease (Tessarollo et al., 2022).

## Discussion

The data show that the COVID-19 epidemic has had a significant influence on the daily lives of people with intellectual disability. During a pandemic crisis, organisations could provide highly secured environments that, to the best degree feasible, normalise the lives of people with intellectual disabilities, such as by providing chances for skill development and socializing. Eventhough most people do not prefer living at a social distance from everyone else, but we do want to ensure that lessons may be drawn from this particular point in time (Beaton et al., 2021). Providing technological tools for remote learning that are accessible to people with intellectual impairments of various capacities is a critical first step. Furthermore, rather than reverting to processed food alternatives, offering nutritious, fresh meals and organising safe, frequent physical activities in indoor and outdoor settings for maximum wellbeing might assist preserve wellness and establish a habit (Hughes et al., 2022).

It has been claimed that families might have preferred more remote discussions with their medical teams (Gil-Llario et al., 2021). Healthcare and disability-specific organisations should explore tailoring services to promote mental health functioning and community access (Rosencrans et al., 2021). They had been separated from their only pals since the plague struck. Participants missed their professors and friends at the centre and wondered how they were doing (Kim et al., 2021). On top of that as mental health aspect of PWID had been identified as one of the aspect that had been badly impact due to the pandemic COVID-19 transmission. Thus, it is proposed that preventive measures should be taken immediately in an effort to ensure the that the mental health aspect for PWID is preserved. In connection with that, Public Health England ns recommended to categorize someone as high risk of severe illness due to COVID-19 should also include mental health and challenging behavior. Corresponding with the influence of reduced regular treatment on child externalising behaviours, it is important to promote a telemedicine strategy to assist parents and children when traditional in-person therapies are not possible (Bentenuto et al., 2021). Possible links between social anxiety and loneliness/social isolation Their mental health depends on carefully designed behavioural and environmental supports, as well as consistent and predictable routines and expectations (Summers et al., 2021).

## Conclusion

This article is a type of systematic review on the impact of pandemic covid 19 on the psychical environment of person with intellectual disabilities. As stated, before those who had been diagnosed with COVID-19 are at risk of being impacted ether by physical mental or emotionally. As person with an intellectual disability itself as being at vulnerable group thus pandemic COVID-19 had made the situation is getting more worse. In conclusion, this present systematic literature review had identified five elements that PWID impacted by pandemic COVID-19 namely mental health, social isolation, severe health problems, socioeconomic and psychology. As the main focus of this paper solely on the interest of person with intellectual disability itself, thus the result is more compress on how PWID impacted by pandemic covid-19. Therefore, it proposed that for future researcher to broaden the scope of the study on person with disabilities in general.

**Acknowledgement:** Authors would like to acknowledge Ministry of Higher Education Malaysia for providing support through Fundamental Research Grant Scheme with Project Code FRGS/1/2020/SS0/UKM/02/8.

**Conflicts of Interest:** The authors declare no conflict of interest.

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