Cadernos Brasileiros de Terapia Ocupacional
Brazilian Journal of Occupational Therapy

ISSN 2526-8910

Original Article

Occupational therapy interventions for adults with learning disabilities: evaluating referrals received pre and during the height of the COVID-19 pandemic

Intervenções da terapia ocupacional para adultos com dificuldades de aprendizagem: avaliando os encaminhamentos recebidos antes e durante o pico da pandemia pelo COVID-19

Rebecca Haythorne[a], Daniel Marinho Cezar da Cruz[a], Helen Turner[b]

[a]Leeds Beckett University, Leeds, United Kingdom.
[b]Leeds and York Partnership NHS Foundation, Leeds, United Kingdom.

How to cite: Haythorne, R., Cruz, D. M. C., & Turner, H. (2022). Occupational therapy interventions for adults with learning disabilities: evaluating referrals received pre and during the height of the COVID-19 pandemic. *Cadernos Brasileiros de Terapia Ocupacional*, *30*, e3308. https://doi.org/10.1590/2526-8910.ctoAO253133082

Abstract

Introduction: The COVID-19 pandemic has significantly impacted on service provision for adults who have a learning disability, resulting in reduced occupational activities, routine, and social contact. **Objective:** To analyse referrals received for Occupational Therapy intervention for adults who have a learning disability pre-COVID-19 (2019) and during COVID-19 (2020). **Method:** This is a descriptive study conducted as a service evaluation with an NHS Trust Clinical Effectiveness Team in a city in the North of England. The data source was obtained from referral documentation. Quantitative and qualitative data were extracted from a data Performa and analysed using descriptive statistics (mean, median, mode, and standard deviation) performed by the Software Microsoft Excel. **Results:** The total number of cases used in this evaluation was 274. There was an increase in referrals during the COVID-19 pandemic, the greatest increase was for Occupational Therapy intervention focusing on engagement in meaningful occupation. Over both years the predominant referrals were for equipment reviews. **Conclusion:** Data collected captures a broad range of information regarding Occupational Therapy service provision pre and during the COVID-19 pandemic and puts this in the context of future considerations regarding the Occupational Therapy services for adults who have a learning disability.

Keywords: Learning Disabilities, Delivery of Health Care, Evaluation Study, Occupational Therapy, COVID-19.

Received on Apr. 21, 2022; 1st Revision on June 6, 2022; Accepted on July 6, 2022.

Resumo

Introdução: A pandemia de COVID-19 impactou significativamente na prestação de serviços para adultos com dificuldades de aprendizagem, resultando em atividades ocupacionais, rotina e contato social reduzidos. **Objetivo:** Analisar os encaminhamentos recebidos para intervenção de terapia ocupacional para adultos com dificuldades de aprendizagem pré-COVID-19 (2019) e durante a COVID-19 (2020). **Método:** Estudo descritivo realizado como avaliação de serviço com uma equipe de eficácia clínica do Serviço Nacional de Saúde, em uma cidade do norte da Inglaterra, Reino Unido. A fonte de dados foi obtida a partir da documentação de encaminhamentos. Os dados quantitativos e qualitativos foram extraídos de uma plataforma de dados e analisados descritivamente em média, mediana, moda e desvio padrão, por meio do Software Microsoft Excel. **Resultados:** O número total de casos utilizados nesta avaliação foi de duzentos e setenta e quatro (n=274). Identificou-se que houve um aumento de encaminhamentos durante a pandemia de COVID-19, sendo o maior para a intervenção de terapia ocupacional com foco no engajamento em ocupação significativa. Nos dois anos, os encaminhamentos predominantes foram para revisões de equipamentos. **Conclusão:** Os dados coletados capturam uma ampla gama de informações sobre a prestação de serviços de terapia ocupacional pré e durante a pandemia de COVID-19. Tais informações subsidiam considerações futuras sobre os serviços de terapia ocupacional para adultos com dificuldades de aprendizagem.

Palavras-chave: Deficiências da Aprendizagem, Atenção à Saúde, Estudo de Avaliação, Terapia Ocupacional, COVID-19.

Introduction

Approximately 930,000 adults with a learning disability live in England (Papworth Trust, 2018), with roughly 49,555 of this population accessing community day service provision (United Kingdom, 2016). In addition, a large proportion of adults with learning disabilities either live in residential care (roughly 23,215) or supported living houses (roughly 23,075 (United Kingdom, 2016). The right for adults who have a learning disability to engage in meaningful occupations is well documented in UK policy (National Health Service, 2017; United Kingdom, 2009).

A central purpose to residential, supported living and day service provision is to provide adults who have a learning disability with productive and leisure opportunities as well as maintaining personal care which enables social interaction, fulfillment, and contributes to increased quality of life (Badia et al., 2013). Engagement in opportunities that contribute towards healthy occupations was identified by the Royal College of Occupational Therapists (RCOT) in 2019 as an important aspect of service provision for Occupational Therapists working with people who have a learning disability.

The Lockdown and restrictions imposed by the Government in response to the COVID-19 pandemic has had a significant impact on service restrictions for people who have a learning disability (Local Government Association, 2021). Those restrictions have several consequences on people with learning disabilities that affect their care and wellbeing (Hughes & Anderson, 2020). This has reduced many aspects of their

occupational activities, routine and social contact (Local Government Association, 2021). For example, Tromans et al. (2020) found an increased loss of social circumstances and support has resulted in an increased risk of social isolation, restrictions on access to day services, loss of respite care and increased accommodation/placement breakdowns. Moreover, recent studies identify people with learning disabilities as highly vulnerable to CoviD-19 and recognised "In line with their human rights and with government policy, individuals with learning disabilities should enjoy and participate in the same activities as all citizens" (Courtenay & Cooper, 2021, p. 1).

In 2020 NHS Providers in 2020 prepared a report based on the Westminster Parliamentary briefing which focused on the effect of the covid-19 outbreak on people with learning disabilities in December 2020. The report identified that the COVID-19 pandemic has once again brought to the surface the longstanding, structural inequalities faced by people who have a learning disability. NHS Providers (2020) argue that there is a clear inequality in the development, commissioning and provision of care and support for those who have a learning disability, often leaving service users disadvantaged in terms of their health and wellbeing.

The context of our study comprises the Occupational Therapists within the given NHS Trust Community Learning Disabilities Team (CLDT) which hosted this service evaluation assess and provide interventions for adults with a learning disability who predominantly reside in a city located in the North of England. The service is separated into two teams, both of which are supported by a Clinical Lead Occupational Therapist. The East-Northeast team comprises two full time Occupational Therapists, one band six and one band five. At the time of this service evaluation, the second team based in the West and South[1] of the city included two full time and two part time band six Occupational Therapists, one band five rotational Occupational Therapist and one Clinical Academic Occupational Therapist. The Occupational Therapy team offers interventions under four pathways: engagement, functional, equipment and sensory. Overall, the pathway of this service encompasses occupation focused and based practices where common issues face by people with learning disabilities are considered such as sensory needs and skills (person), environment (assistive technology, physical and social environment as fundamental support) and occupations (meaningful occupation and occupational engagement) are addressed. These definitions that comprised the service pathways are presented below and will be further explored in the results section of this article:

1) Engagement: Review of meaningful occupation- occupations that can promote physical and mental well-being (Haythorne et al., 2021). This includes positive behavioural support (PBS), an evidence-based approach that aims to increase a person's quality of life and decrease the frequency and severity of behavioural difficulties. As well as Activity sampling, Reduced engagement, COVID-19 (loss of occupation), Physical activity to support weight loss, Skills assessment to support engagement
2) Equipment: Bathing aid, Bed review, Sling review, Complex physical health, Functional chair, Shower chair, Moving and handling, Commode, Transport, Rejected, Respite, Access and Wheelchair.

[1] At the height of the pandemic, all Occupational Therapists (bar the Clinical Lead Occupational Therapist) in the West and South Team were redeployed to other areas in the Trust.

3) Functional Skills: Skills assessment, Independent living skills, Dementia pathway, Environmental review, PBS pathway, Baseline assessment and Falls prevention.
4) Sensory: Assessing an individual's sensory processing style and developing strategies for self-regulation to enable greater engagement and participation in activities of daily living.

The aim of this research was to identify referrals received for Occupational Therapy intervention for adults who have a learning disability pre-COVID-19 (2019) and during COVID-19 (2020). The objectives were to describe information regarding Occupational Therapy service provision across all the pathways: engagement, functioning, equipment, and sensory, pre and during the COVID-19 pandemic.

Although this service evaluation was conducted in the North of England, sharing this paper with international readers aimed to serve two key purposes. Firstly, the provision of occupational therapy services within learning disability populations can vary greatly across the globe. The authors wanted to use this as an opportunity to advocate for and share the unique role and types of interventions that occupational therapists can provide for this population to reduce occupational injustices.

Secondly, COVID-19 has impacted globally, resulting in occupational injustices faced by those who have, who care for and who provide services for people who have a learning disability. It is also recognised that the population with learning disabilities probably experienced more difficulties when compared with people with other disabilities during the coronavirus pandemic (Kavanagh et al., 2022). Challenge inequalities and advocacy at different levels is essential part of the work of an occupational therapist since "[...] the work of occupational therapy in the everyday life of all people only happens if we advocate for a possible quality of life for all, considering differences and power, which bring meaning and to life" (Malfitano et al., 2020, p. 403).

Furthermore, in the field of occupational therapy, an international debate possibility is through discussion of global solutions to healthcare challenges (Carey et al., 2019), as the example of the population with learning disabilities. Readers can compare and contrast services across countries, or even utilise the model of services to create opportunities for occupational therapists where specific public services for people with learning disabilities do not exist, as it is the case of Brazil. The authors wanted to provoke and welcome further discussion around this subject matter to gain a greater understanding as to how COVID-19 has affected learning disability populations on an international level. We also believe that sharing local or regional experiences through research can contribute to evidence that can be further used to formulate world reports, policies or guidelines to address the needs of the population with learning disabilities. Compatible with a client-centred practice, research work can be one way to advocate for occupational justice (Townsend & Wilcock, 2004).

Method

This study was conducted as a service evaluation in agreement with an NHS Trust Clinical Effectiveness Team in a city in the North of England. The data source was obtained from referrals received by the CLDT Assessment and Referrals Team (ART) and through in-team joint working requests (JWR) between 2019 (pre COVID-19) and 2020 (during the COVID-19 pandemic).

Data extraction and data collection

Quantitative and qualitative data was captured on a data Performa created by the Clinical Effectiveness Team on SmartSurvey. No patient identification data (i.e., name, NHS number, GP) were used in the service evaluation. All data was kept on a password secure computer belonging to the NHS Trust. The quantitative data fields used included text/numerical:

1. Month of referral: January (1), February (2) etc.….
2. Source of referral: ART(n=1) or JWR (n=2)
3. Referrer: GP (n=1); family member (n=2); service manager (n=3); support worker (n=4); nurse (n=5); psychologist (n=6); psychiatrist (n=7); physiotherapist (n=8); speech and language therapist (n=9), dietician (n=10); other (n=11).
4. Referral pathway: engagement (n=1); functional (n=2); equipment (n=3); sensory (n=4)

The data Performa had a qualitative section at the end "additional comments" which enabled specifics of the referral request to be documented. For example, if a referral had been made for an equipment review, it allowed for the identification and recording of the precise equipment needing review e.g., sling review, bathing equipment etc.

Data analysis

A quantitative analysis was conducted via Microsoft Excel to provide an overview of the data. This included standard descriptive statistics (mean, median, mode, and standard deviation). Data were organised in two stages: at *stage 1, d*ata were broken down to look at: a) number of referrals received per month throughout the year, b) where the referrals came from (internal or external to the team), c) who referred the case, d) referral reason (pathway). At stage 2 we analysed Pre-Post data for referrals received for engagement pre Covid-19 (2019) and during COVID-19 (2020), by month, where the referral came from and referrer. Qualitative data was utilised to document key words regarding the specifics of the referral. These words were then correlated under the pathway headings to further breakdown the reason for referral. If the referrer had provided no additional information regarding the referral request, then this was left blank.

Results

The total number of cases used in this evaluation was 274. In 2019 the Occupational Therapy team within the CLDT received 131 referrals, this increased to 140 in 2021 (See Figure 1). When comparing the number of referrals received for Occupational Therapy input between 2019 and 2020; bar the months of April and July the statistics indicate a decline in Occupational Therapy referrals in 2020 between the months of March and August compared to those received in 2019. This is particularly evident in the months of May (2019 n = 14 and 2020 n = 4) and June (2019 n = 16 and 2020 n = 9). The results show a large increase in referrals for Occupational Therapy input in February 2020 (n = 17) compared to the previous year (n = 6) and in September 2020 (n = 21) compared to 2019 (n = 9). Similar referral numbers across both years can be found in March, April, August and December.

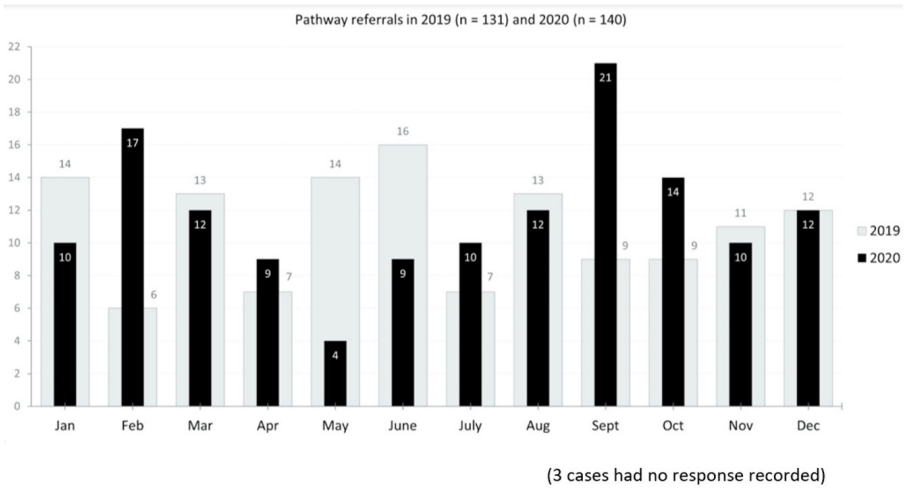

Figure 1. Month of referral.

Over both years the majority of referrals for Occupational Therapy input came from in team JWR compared to referrals received by the ART (Figure 2).

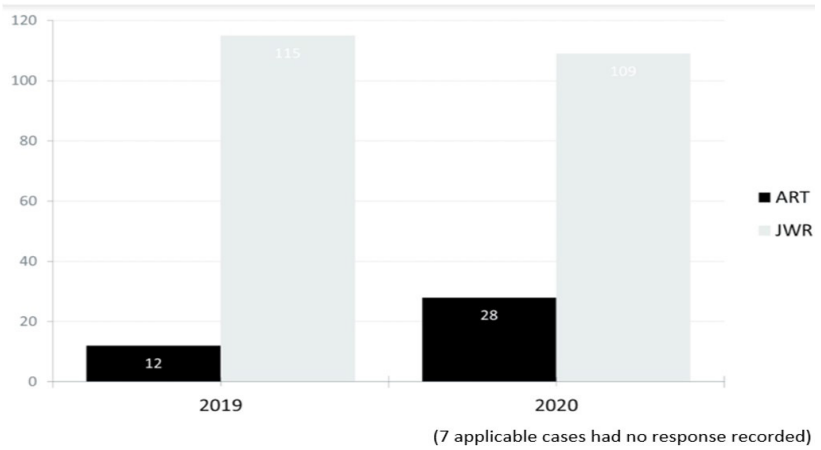

Figure 2. Breakdown of OT pathway referred for in 2019 and 2020.

Referral pathway

The most common pathway referred for in both years was the Occupational Therapy equipment pathway (n = 95). This was followed by the Occupational Therapy engagement pathway (n = 84) and then the functional skills pathway (n = 74). In the last 2 years, the sensory pathway has received 18 referrals. The largest increase in referrals between both years can be found under the engagement pathway, in 2019 the Occupational Therapy service received 32 referrals for engagement work, this increased to 52 in 2020 (Figure 3). An increase in referrals from 2019 (n = 7) to 2020 (n = 11) is also noted under the sensory pathway. A decrease in referrals for Occupational Therapy work around functional skills (2019 n = 40 and 2020 n = 32) and equipment provision (2019 n = 52 and 2020 n = 42) can be found in the year 2020 compared to the previous year of 2019.

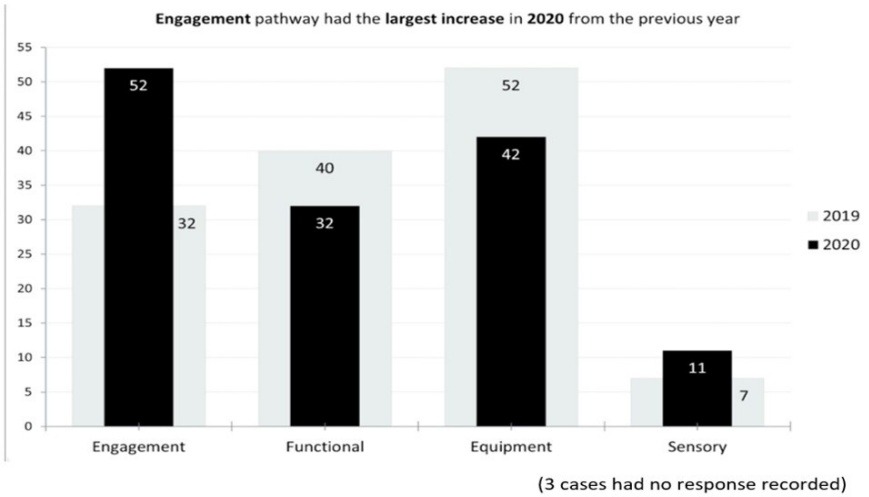

Figure 3. Breakdown of referral source over 2019 and 2020.

A combined total from both years as shown in Table 1 highlights that the majority of referrals for Occupational Therapy input came from nurses (n = 105), followed by dietetics (n = 36) and Physiotherapists (n = 28). Psychologists within the CLDT had 24 JWR accepted and psychiatrists had 19. The least number of referrals for Occupational Therapy input was made by speech and language therapists (n = 11).

Support staff in supported living/residential placements had 21 referrals agreed by the ART in relation to Occupational Therapy input. The ART team accepted 11 referrals made by the GP; these referrals were then allocated for Occupational Therapy involvement.

Eleven referrals were categorised under "other". Qualitative information gathered from the data collection tool found that these referrals included Occupational Therapy self-referrals (2 requests for a sensory practitioner and 1 referral was for a review of equipment). Three referrals were made by one team's Community Team Manager due to a change in a service user's presentation. Five requests for Occupational Therapy input were received from adult social care, 1 from the disability team, and 1 by an advanced nurse practitioner.

The majority of JWR submitted by Physiotherapists (n = 25 out of 28) focused on equipment provision. Furthermore, out of the 36 referrals submitted by dietetic colleagues, 25 of these were equipment based. This is similar to supported living staff whose roughly 50% of referrals were centred on equipment reviews.

Referrals for engagement work appeared to be a priority for nursing colleagues and made up almost 50% of their referrals for Occupational Therapy input (n = 47 out of 105). This is similar to the proportion of engagement pathway JWRs received from the teams Psychology (n = 11 out of 24) and Psychiatry service (n = 7 out of 19).

GP referrals to the ART team had a high focus on the functional skills pathway (n = 7 out of 11). Apart from the sensory pathway, the functional skill pathway was the one requested the least by other AHPs. This included only 2 referrals from dietetics and 3 each from Physiotherapists and Speech and Language Therapists (Table 1):

Table 1. Breakdown of referrer requests.

Referrer	No. cases (total)	Pathway	No. cases
Dietician	36	Engagement	9
		Equipment	25
		Functional	2
GP	11	Engagement	2
		Equipment	1
		Functional	7
		Sensory	1
Nurse	105	Engagement	47
		Equipment	17
		Functional	28
		Sensory	13
Physiotherapist	28	Equipment	25
		Functional	3
Psychiatrist	19	Engagement	7
		Equipment	4
		Functional	7
		Sensory	1
Psychologist	24	Engagement	11
		Equipment	2
		Functional	10
		Sensory	1
Speech and language therapist	11	Engagement	4
		Equipment	4
		Functional	3
Support worker	21	Engagement	1
		Equipment	12
		Functional	6
Other	18	Engagement	3
		Equipment	5
		Functional	8
		Sensory	2
Total	**274**		

Qualitative data gathered from the referrals enabled us to further breakdown the specifics of why each pathway was requested. Some referrals may have requested more than one pathway or multiple elements of that pathway (e.g., review of bed and comfy chair).

Breakdown of referral pathways

The qualitative data obtained (Table 2) highlights that 22% of the referrals made for engagement work centred on a review of meaningful occupation, 18% were made to support input on the PBS pathway and 17% asked for activity sampling work. Reduced engagement was cited in 14% of referrals, a further 7% specifically highlighted reduced

meaningful activity as a result of COVID-19. Meaningful physical activity to support weight management was the reason for referral in 6% of JWRs and skill assessment to support engagement in another 4%.

Table 2. Breakdown of referral requests for each pathway.

Pathway	No. cases (total)	Breakdown	No. cases %
Engagement	84	Review of meaningful occupation	28
		PBS Pathway	23
		Activity sampling	22
		Reduced engagement	8
		COVID-19 (loss of occupation)	6
		Physical activity to support weight loss	6
		Skills assessment to support engagement	4
Equipment	94	Bathing aid	21
		Bed review	20
		Sling review	16
		Complex physical health	16
		Functional chair	7
		Shower chair	5
		Moving and handling	4
		Commode	3
		Transport	3
		Rejected	2
		Respite	1
		Access	1
		Wheelchair	1
Functional Skills	90	Skills assessment	28
		Independent living skills	23
		Dementia pathway	22
		Environmental review	8
		PBS pathway	6
		Baseline assessment	6
		Falls prevention	4
Sensory	18	Sensory assessment	3
Total	**268**	(6 cases had no response recorded)	

Table 2 provides a breakdown of items requested for equipment reviews and provision. Not all referrals captured the "exact" equipment needing to be reviewed; for example, 1 referral only stated review of equipment at respite service, another 4% stated review of equipment for moving and handling and 16% requested a review of

equipment to support complex physical health. 2% of referrals (identified at ART stage) were rejected due to service users not having continuous healthcare funding. A small percentage of referrals were received for support with access (1%), transport (3%), commodes (3%) and shower chairs (5%). A high proportion of equipment provision came from referrals for: bathing aids (215); bed reviews (20%) and sling reviews (16%).

A breakdown of the functional skills pathway, highlights that a skills assessment was the most requested intervention (28%), this was followed by requests for support with independent living skills (23%) and a functional skills assessment to support with the dementia pathway (22%). A small percentage of referrals were requested under the functional skills pathway for: environmental reviews (8%); PBS pathway (6%) and the sensory pathway (4%). A baseline assessment was requested in 6% of Functional skills pathway referrals and 3% for falls.

Discussion

The aim of this study was to look at referrals received for Occupational Therapy input within the CLDT pre COVID-19 (2019) and during COVID-19 (2020). In February 2020 there was a significant increase in referrals for Occupational Therapy involvement, the month prior to Occupational Therapists being redeployed from the West and South CLDT. In the months that Occupational Therapists were redeployed from the South and West CLDT there was a decline in Occupational Therapy referrals, this is particularly evident in the months of May and June. In September 2020 there was a second significant increase of referrals which coincides with the time that Occupational Therapists were redeployed back to the CLDT following redeployment to other services across the Trust to support with the COVID-19 pandemic. This raises the hypothesis that the referrals were not being made for Occupational Therapy involvement during this period of redeployment due to the knowledge that there was no Occupational Therapist available to pick up the case.

The same rationale can hypothesise that the significant increase in referrals received for Occupational Therapy input following deployment of Occupational Therapists back to the West and South CLDT. That is, were referrers "storing" referrals during the months of Occupational Therapy redeployment and if so, what impact has this had on service users; was there an unmet Occupational Therapy need in this time; what is the impact of this on CLDT Occupational Therapy service itself? Due to the COVID-19 pandemic and redeployment of Occupational Therapists to other services one could argue that this has contributed to the inequity position put forward by NHS Providers (2020) in that some NHS Trusts ability to provide a consistent level and nature of support during this redeployment was lacking. In addition, post pre-pandemic levels Hastings et al. (2021) reports that support received by people who have a learning disability have yet to return to pre-pandemic levels. Their research highlights that one in five adults who have a learning disability report that they are getting less support than before, with a third paying for some services out of their own money and a third of people who have personal budgets are paying for services that they are not currently receiving.

Similarly, a recent study of Flynn et al. (2021) identified a reduction related to access and use of learning disability services in health and social care in the UK in the period

March 2020 – to February 2021, where several people did not receive any services. For future directions, these authors suggest the need for a plan to guarantee that essential services for adults with learning disabilities and their carers should be provided.

In addition, our evaluation found that there was a significant increase in referrals for the Occupational Therapy engagement pathway between 2019 and 2020. Qualitative data gathered from the referral forms identified that on several occasions the referral was being made due to an increase in challenging behaviour due to loss of meaningful activity as a result of COVID-19 restrictions. This lack of meaningful occupations can be discussed using the concept of occupational deprivation since the block of access to health care (institutional environment) can lead to a decrease in health and social participation and it is an issue of occupational injustice (Townsend & Wilcock, 2004; Hocking, 2017; Polatajko et al., 2007).

At a micro-level, our findings raise the hypothesis that the lack of occupational therapy provision reflects occupational deprivation for service users with learning disabilities since the most common pathway referred for in both years during Covid-19 was the assistive devices (equipment), engagement (occupations) and skills (person) pathways. These findings suggest the need of more occupational therapists in learning disabilities services to promote occupational justice outcomes such as: engagement in meaningful occupations, possibilities of choice, occupational participation and balance through occupations (Townsend, 2012).

At a meso level, the Royal College of Occupational Therapists (2019) document "leading fulfilled lives" states that as Occupational Therapists it is our duty to continue working towards ensuring that people with learning disabilities can have the opportunity to engage in occupations that promote health. These opportunities can be promoted through recreative occupations. However, a "[...] positive therapeutic relationship between people with learning disabilities and carers/coaches is essential to facilitate access and effective participation in recreational activities" (Haythorne et al., 2021, p. 11). The document "leading fulfilled lives" from the Royal College of Occupational Therapists (2019) also recognises that meaningful occupation should be core business for Occupational Therapists who work with those who have a learning disability. At times, other pathways have had to be prioritised (e.g., equipment provision) over this core business to manage service user risk. A piece of work is already underway by the Occupational Therapy CLDT Clinical Lead which is looking at how the service can bring core business back to engagement in meaningful occupations for adults who have a learning disability and the need to advocate for their essential occupational rights of meaning, choice, participation, and diversity of its participation as described by Townsend & Wilcock (2004).

At a macro level, we understand that there is a need to advocate to people with learning disabilities and their needs under the perspective of human rights. This perspective is compatible with the Position Statement of the World Federation of Occupational Therapists that states: "Occupational therapists around the world are obligated to promote occupational rights as the actualisation of human rights. This obligation encompasses addressing occupational injustices" (World Federation of Occupational Therapists, 2019, p. 1). Actions in macro level require discussions amongst occupational therapists to mapping and addressing occupational rights of the population with learning disabilities worldwide.

Moreover, providing assessment and intervention around meaningful and varied occupations is part of the CLDT Occupational Therapy team's core business and as noted above, due to COVID-19 this could be important now more than ever for our service with a significant increase in referrals for the Occupational Therapy engagement pathway. Despite this, a leading number of referrals are received for the equipment pathway and due to the often-urgent nature of these referrals they have to be prioritised over other pathway interventions. This may mean that other referrals such as those requesting the engagement pathway could be placed on a waiting list, causing delays to engagement Occupational Therapy intervention work resulting in continued occupational deprivation to service users and their carers.

Concerning the engagement pathway, the study and application of sensory integration approaches is still a developing area (Watling & Hauer, 2015) and in recent years interventions utilising sensory approaches within learning disability services have begun to build up steam (Mc Gill & Breen, 2020), this is evident within our findings which show a rise in referrals for sensory interventions from 2019 to 2020. This being said, there is still controversy surrounding the benefit of sensory integration practices (Miller et al., 2007) and is an area that is still under-researched amongst adults with learning disability (May-Benson & Kinnealey, 2012).

Strengths and limitations

This Service Evaluation provides a snapshot of Occupational Therapy referrals received both externally and internally pre COVID-19 and during COVID-19. The quantitative data enabled us to identify spikes and dips in referrals throughout both years and pinpoint the referral pathway requested and by whom. The qualitative data allowed us to breakdown each of the pathways further and identify what was more specifically being requested in each Occupational Therapy intervention. Findings from this Service Evaluation could be used to shape and provide rationale for future service provision.

Consideration needs to be given for human error in the number of referrals documented on the data gathering tool. For example, the host CLDT changed the way they recorded JWR between 2019 and 2020; thus, some documentation may not have been filtered through onto the platform used to gather data for this project. In addition, data gathered from referral logs did not always clearly state what Occupational Therapy pathway was being referred for. Due to the parameters of the service evaluation RH and HT did not access service user's clinical notes to ascertain this information.

In the breakdown of the Occupational Therapy referral pathways, RH only used language/descriptions of referral reasons that were present on the referral form. Consideration should be given that some referrers may have been requesting the same intervention but called it something else. This has potentially broken the reason for referral down into further subunits; thus, there may be a misrepresentation of some data. For example, under the functional skills pathway a "skills assessment" and a "baseline assessment" could have been the same request or a referral for the "sensory pathway" may have been linked to the "PBS pathway" or "environmental review".

Recommendations for the service

Based on the findings of this service analysis study, we highlight some actions to improve the service provided:

- **A standardised and periodical data collection**: there would be value in the CLDT to complete a similar data set exploring 2021 statistics so any changes, spikes or dips in referrals can continue to be documented to identify the needs of service users who have a learning disability.
- **Referral's follow-up to identify priorities**: further evaluation work could explore which referrals still came through, which referrals were accepted and why and which referrals were allocated or put on the Occupational Therapists waiting list.

Conclusion

This service evaluation provides an overview of Occupational Therapy referrals received pre COVID-19 and during COVID-19 in a CLDT NHS service based in the North of England. This evaluation found a significant increase in referrals for the Occupational Therapy engagement pathway during COVID-19. Despite this, the predominant referral pathway still remains that for equipment. There was a gap in the West and South CLDT Occupational Therapy service provision due to redeployment between the months of April to October 2020. This appears to be reflected in the decline in referrals received during these months which was followed by a significant increase in referrals upon Occupational Therapists return to the CLDT. To maintain a consistent approach to Occupational Therapy service provision across the CLDT at times of business continuity it is recommended that the impact of this reduced Occupational Therapy clinical input as well as the identification of the referrals that were still being accepted at this time be explored by the Trust in more detail so that the service can provide appropriate allocation of resources to meet the continued service demand. Finally, our findings suggest actions in a micro, meso and macro level to promote occupational justice for the population with learning disabilities.

References

Badia, M., Longo, E., Orgaz, M. B., & Gómez-Vela, M. (2013). The influence of participation in leisure activities on quality of life in Spanish children and adolescents with Cerebral Palsy. *Research in Developmental Disabilities*, *34*(9), 2864-2871. http://dx.doi.org/10.1016/j.ridd.2013.06.017.

Carey, H., Cruz, D. M. C., & Layne, K. (2019). Proposing possibilities for an international debate in occupational therapy. *Cadernos Brasileiros de Terapia Ocupacional*, *27*(3), 463-466. http://dx.doi.org/10.4322/2526-8910.ctoED2703.

Courtenay, K., & Cooper, V. (2021). Covid 19: people with learning disabilities are highly vulnerable. *BMJ (Clinical Research Ed.)*, *374*, 1-2. http://dx.doi.org/10.1136/bmj.n1701.

Flynn, S., Hatton, C., Hastings, R., Abbott, D., Beyer, S., Bradshaw, J., Caton, S., Flynn, S., Gillooly, A., Gore, N., Heslop, P., Jahoda, A., Maguire, R., Marriott, A., Oloidi, E., Mulhall, P., Scior, K., Taggart, L., & Todd, S. (2021). Health and social care access for adults with learning disabilities across the UK during the COVID-19 pandemic in 2020. *Tizard Learning Disability Review*, *26*(3), 174-179. http://dx.doi.org/10.1108/TLDR-06-2021-0014.

Hastings, C., Hastings, R., & Project Team. (2021). *The impact of the COVID-19 pandemic on people with learning disabilities and factors associated with better outcomes.* Retrieved in 2022, 13 April, from https://ltccovid.org/2021/09/23/the-impact-of-the-covid-19-pandemic-on-people-with-learning-disabilities-across-the-uk-latest-findings-from-wave-3/

Haythorne, R., Gega, L., Knapp, P., & Crawford, H. (2021). What are the barriers and facilitators to participation in active recreation for people with learning disabilities? A scoping review. *British Journal of Learning Disabilities*. In press. http://dx.doi.org/10.1111/bld.12407.

Hocking, C. (2017). Occupational justice as social justice: the moral claim for inclusion. *Journal of Occupational Science*, *24*(1), 29-42. http://dx.doi.org/10.1080/14427591.2017.1294016.

Hughes, N., & Anderson, G. (2020). The experience of the COVID-19 pandemic in a UK learning disability service: lost in a sea of ever changing variables - a perspective. *International Journal of Developmental Disabilities*, *68*(3), 374-377. http://dx.doi.org/10.1080/20473869.2020.1773711.

Kavanagh, A., Hatton, C., Stancliffe, R. J., Aitken, Z., King, T., Hastings, R., Totsika, V., Llewellyn, G., & Emerson, E. (2022). Health and healthcare for people with disabilities in the UK during the COVID-19 pandemic. *Disability and Health Journal*, *15*(1), 1-8. http://dx.doi.org/10.1016/j.dhjo.2021.101171.

Local Government Association. (2021). *Health inequalities: learning disabilities and COVID-19*. Retrieved in 2022, 13 April, from https://www.local.gov.uk/our-support/safer-and-more-sustainable-communities/health-inequalities-hub/health-inequalities-1

Malfitano, A. P. S., Cruz, D. M. C., & Lopes, R. E. (2020). Occupational therapy in times of pandemic: social security and guaranties of possible everyday life for all. *Cadernos Brasileiros de Terapia Ocupacional*, *28*(2), 401-404. http://dx.doi.org/10.4322/2526-8910.ctoED22802.

May-Benson, T. A., & Kinnealey, M. (2012). An approach to assessment of and intervention for adults with sensory processing disorders. *OT Practice*, *17*(17), 1-8.

Mc Gill, C., & Breen, C. J. (2020). Can sensory integration have a role in multi-element behavioural intervention? An evaluation of factors associated with the management of challenging behaviour in community adult learning disability services. *British Journal of Learning Disabilities*, *48*(2), 142-153. http://dx.doi.org/10.1111/bld.12308.

Miller, L. J., Schoen, S. A., James, K., & Schaaf, R. C. (2007). Lessons learned: a pilot study on occupational therapy effectiveness for children with sensory modulation disorder. *The American Occupational Therapy Association*, *61*(2), 161-169. http://dx.doi.org/10.5014/ajot.61.2.161.

National Health Service – NHS. (2017). *Transforming care: Model Service Specifications: supporting implementation of the service model.* Retrieved in 2022, 13 April, from https://www.england.nhs.uk/publication/transforming-care-service-model-specification-january-2017/

NHS Providers. (2020). *Parliamentary briefing: effect of the covid-19 outbreak on people with learning disabilities.* Retrieved in 2022, 13 April, from https://nhsproviders.org/resources/briefings/parliamentary-briefing-effect-of-the-covid-19-outbreak-on-people-with-learning-disabilities

Papworth Trust. (2018). *Facts and figures 2018: disability in the United Kingdom.* Retrieved in 2022, 13 April, from https://www.papworthtrust.org.uk/about-us/publications/papworth-trust-disability-facts-and-figures-2018.pdf

Polatajko, H., Molke, D., Baptiste, S., Doble, S., Santha, J. C., Kirsh, B., Beagan, B., Kumas-Tan, Z., lwama, M., Rudman, D. L., Thibeault, R., & Stadnyk, R. (2007). Occupational science: imperatives for occupational therapy. In E. A. Townsend & H. Polatajko (Eds.), *Enabling occupation II: advancing an occupational therapy vision for health, well-being & justice through occupation* (pp. 63-82). Canada: CAOT.

Royal College of Occupational Therapists – RCOT. (2019). *Leading fulfilled lives: occupational therapy supporting people with learning disabilities*. Retrieved in 2022, 13 April, from https://www.rcot.co.uk/files/leading-fulfilled-lives-occupational-therapy-supporting-people-learning-disabilities

Townsend, E. (2012). Boundaries and bridges to adult mental health: critical occupational and capabilities perspectives of justice. *Journal of Occupational Science*, *19*(1), 8-24. http://dx.doi.org/10.1080/14427591.2011.639723.

Townsend, E., & Wilcock, A. A. (2004). Occupational justice and client-centred practice: a dialogue in progress. *Canadian Journal of Occupational Therapy*, *71*(2), 75-87. http://dx.doi.org/10.1177/000841740407100203.

Tromans, S., Kinney, M., Chester, V., Alexander, R., Roy, A., Sander, J. W., Dudson, H., & Shankar, R. (2020). Priority concerns for people with intellectual and developmental disabilities during the COVID-19 pandemic. *BJPsych Open*, *6*(6), 1-6. http://dx.doi.org/10.1192/bjo.2020.122.

United Kingdom. Department of Health. (2009). *Valuing people now*. Retrieved in 2022, 13 April, from https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/215891/dh_122387.pdf

United Kingdom. (2016). *People with learning disabilities in England 2015.* Retrieved in 2022, 20 July, from https://www.gov.uk/government/publications/people-with-learning-disabilities-in-england-2015

Watling, R., & Hauer, S. (2015). Effectiveness of Ayres sensory integration and sensory-based interventions for people with autism spectrum disorder: a systematic review. *The American Journal of Occupational Therapy*, *69*(5), 1-12. http://dx.doi.org/10.5014/ajot.2015.018051.

World Federation of Occupational Therapists – WFOT. (2019). *Occupational therapy and human rights: position statement*. Retrieved in 2022, 13 April, from https://wfot.org/resources/occupational-therapy-and-human-rights

Author's Contributions

This text is part of the service evaluation of Leeds and York Partnership NHS Foundation Trust, Leeds United Kingdom. Rebecca Haythorne and Helen Turner are responsible for the study design, organization, and writing of the manuscript. Daniel Cezar da Cruz was responsible for revising, writing, and final draft for submission. All authors approved the final version of the text.

Corresponding author

Rebecca Haythorne
e-mail: r.haythorne@leedsbeckett.ac.uk

Section editor

Profa. Dra. Ana Paula Serrata Malfitano