Materials/Methods: This systematic review followed the Preferred Reporting for Systematic review and Meta-Analysis (PRISMA) guidelines. The following seven databases were consulted between 2000 and 2020: CINHAL; EMBASE (Elsevier); Cochrane Database of Systematic Review; Physiotherapy Evidence Database (PEDro); MEDLINE; PubMed; Scopus. The research strategy was conducted with a combination of the following keywords: (1) cerebral palsy, (2) children OR pediatric OR paediatric, (3) Lokomat OR Robot-assisted gait training OR RAGT. Methodological quality was assessed using the PEDro Scale.
Results: The initial search yielded 495 studies. After removing duplicates, a total of 297 full-text articles was reviewed, of which 25 studies met the inclusion criteria. A total of 626 participants with CP aged from 4 to 20 years old was identified. With PEDro Scale, 5 articles have been identified as high, 12 as intermediate and 8 as low level of validity. Sixteen studies reported improvement in mobility and two in balance static and dynamic after using Lokomat as a therapeutic tool. In combination with virtual reality, four studies have shown a significant impact on gait performance due to higher motivation and feeling of pleasure during treatments.
Conclusions/Significance: Lokomat training may improve locomotor function in children with CP. However, more robust studies (e.g. larger randomized controlled trials in different age group and with different level of impairments) is necessary to elucidate a conclusive remark. Moreover, the absence of guidelines requires further research to determine the optimal standardized protocol allowing an individualization of therapy.

SP71

Environmental factors and their association with participation outcomes in children with cerebral palsy

J VAN DER KEMP[1], M KETELAAR[2], J GORTER[3]
[1]*Diakonessenhuis Utrecht, Utrecht, Netherlands;* [2]*Center of Excellence for Rehabilitation Medicine, UMC Utrecht Brain Center, University Medical Center Utrecht, Utrecht University and De Hoogstraat Rehabilitation, Utrecht, the Netherlands;* [3]*CanChild Centre for Childhood Disability Research, Department of Pediatrics, McMaster University, Hamilton, ON, Canada*

Background and Objective(s): Participation is essential in children's development and is related to their quality of life. Environmental variables, such as the family, physical environment and social attitudes, play an important role in opportunities for participation. It is known that children and youth with cerebral palsy (CP) experience more participation restrictions than their peers without CP. To improve participation outcomes in children with CP there is a need to synthesize our existing knowledge regarding various environmental factors in relation to participation. Recently, the 'family of participation-related constructs' was developed to differentiate between participation (i.e., attendance and involvement) and participation-related constructs (activity competence, sense of self, and preferences). The aim of this synthesis is to provide an overview of environmental factors associated with participation and participation-related constructs in children and youth with CP.
Study Design: Rapid literature review.
Study Participants & Setting: Not applicable.
Materials/Methods: A rapid review following the principles from scoping methodology was performed with a literature search in September 2019. The CINAHL, Embase, Ovid MEDLINE, PsychINFO, Web of Science and Sociological Abstracts databases were searched to identify original articles which addressed environmental factors in relation to participation in children and youth (aged 0–18y) with CP.
Results: In total 9511 unique articles were identified, of which 34 met all inclusion criteria. Many different measures for environmental factors, participation and participation-related constructs were used. Most common environmental factors associated with participation attendance were family ecology and type of school. Data on participation involvement was scarce, but associations were found with family ecology and parental stress. Activity competence was the most addressed participation-related construct, and was frequently found to be associated with parental stress and the physical environment. One study that assessed sense of self described a relation to parental stress. Three studies addressing participation preferences reported no significant associations with environmental factors.
Conclusions/Significance: From our review we conclude that family factors, community factors and social attitudes are found to be associated with participation attendance and activity competence in children with CP. Therefore, more attention should be given to the role of environmental factors in promoting participation outcomes. We also identified a lack of research on environmental factors in relation to both participation involvement and participation-related constructs other than activity competence. Future research should involve structured assessments of the environment with a focus on modifiable factors, in order to help service providers develop treatment paradigms needed for meaningful participation outcomes.

SP72

Reported effects of the SARS-CoV2 pandemic on the activities of people with cerebral palsy in Portugal

D VIRELLA[1], A CADETE[2], T FOLHA[1], J ALVARELHÃO[3], C DIAS[4]
[1]*Programa de Vigilância Nacional da Paralisia Cerebral, Departamento de Epidemiologia, Instituto Nacional de Saúde Doutor Ricardo Jorge, Lisboa, Portugal;* [2]*Programa de Vigilância Nacional da Paralisia Cerebral, Centro de Reabilitação de Paralisia Cerebral Calouste Gulbenkian, Santa Casa da Misericórdia de Lisboa, Lisboa, Portugal;* [3]*Escola Superior de Saúde da Universidade de Aveiro, Aveiro, Portugal;* [4]*Departamento de Epidemiologia, Instituto Nacional de Saúde Doutor Ricardo Jorge, Lisboa, Portugal*

Background and Objective(s): People with conditions affecting their health and their ability to be autonomous and socially included are particularly sensitive to sudden, severe disturbances of the social environment, especially if they also affect formal and informal caregivers and their infrastructures of support. The voices of these individuals are seldom heard, their needs unattended. People living with cerebral palsy (CP) are paradigmatic of the potentially difficult situation presented by the SARS-CoV2 pandemic.
Study Design: Project "Barómetro COVID-19 e Paralisia Cerebral" monitors how the SARS-CoV2 pandemic affects people living with CP, hearing their own voices, through a web-based self-applied, anonymous, mixed-responses survey of people with CP, their relatives, caregivers and cohabitants. It has a common core of questions with "Barómetro COVID-19: Opinião Social" (NOVA National School of Public Health). As a dynamic tool, questions can be added as indicated by the periodical, intermediate analyses.

Study Participants & Setting: People living with CP were invited to participate by the Federation of Portuguese Associations for Cerebral Palsy and the Portuguese Surveillance of Cerebral Palsy. The survey is available and ongoing from April 6th 2020. Data from responders self-identified as having CP and data related to them, reported by relatives, cohabitants, caregivers and technicians were considered for this analysis. Data reported until December 26th 2020 were considered. The period includes different legal settings or social restrictions and ends with the beginning of vaccination for Covid-19 in the European Union.

Materials/Methods: Descriptive statistics were applied.

Results: Data on the daily life of people having CP were retrieved from 765 surveys (112 filled by individuals with CP and 234 by relatives, caregivers and cohabitants of individuals with CP). Most of the respondents (96%) reported substantial changes in daily routines: school, day-center, and/or activity center were suspended (50%), working conditions changed (24%), and 21% had been quarantined or on social isolation; 87% of individuals with CP avoided being out of their home (59% did not leave their homes for at least 2 weeks). People with CP had face-to-face rehabilitation and health care sessions cancelled (29%) or choose to cancel them (21%); they had home-based basic health care services cancelled (23%) or choose to cancel them (18%). There was reported difficulty on obtaining drugs or health care related devices (20%) and primary goods (9%); 8% reported loss in income. The perception of own general health was reported as good/very good by 71% and of mental health by 69%.

Conclusions/Significance: The pandemic seriously affected participation and maintenance of required care and assistance, potentially endangering abilities, competences, wellbeing and quality of life.

SP73

A qualitative analysis of therapists perspectives on the clinical implementation of the general movements assessment

M WENDLAND[1], G JIAN[2]

[1]*Cleveland State University, Youngstown State University, Brecksville, OH, USA;* [2]*Cleveland State University, Cleveland, OH, USA*

Background and Objective(s): Advancements over the past 150 years have led to improved abilities for early, accurate diagnosis of neurodevelopmental disorders, including cerebral palsy (CP). However, adoption of evidence-based practices has been inconsistent, which is reflected in a lack of implementation of the GMA in the clinical setting, particularly in the United States. The objectives of this presentation are to describe: (1) How have GMA trained therapists adapted their knowledge and skills for successful implementation of the GMA that 'fits' within their local context/organization? (2) What are the perceived catalysts or barriers at the individual, organizational and/or systems level that impact the adoption of the practices that relate to early detection and treatment of neurobehavioral impairments?

Study Design: Using a participatory action research approach, the goal of this study was to understand the perceived catalysts or barriers at the individual and/or institutional level that impact the adoption of practices that could enhance early detection and treatment of neurobehavioral impairments, including the implementation of the GMA. Purposive, convenience sampling was used to recruit participants to share their insight during a semi-structured interview.

Study Participants & Setting: The participants included 8 pediatric occupational and physical therapists who were certified GMA assessors and actively administering the GMA in the clinic. All interviews were completed virtually using Zoom.

Materials/Methods: Transcripts were imported into NVivo for organization, coding, and analysis. Open, thematic coding was used to analyze data through an iterative process.

Results: Participants were able to provide a depth and breadth of information about their own personal experiences related to learning about and implementing the GMA which were categorized using five primary themes: (1) Current Structure/Foundation to Build Upon, (2) Vehicle for Uptake, (3) Spread and Scale Roadblocks, (4) Vehicle for Adoption, and (5) Paving a new Path.

Conclusions/Significance: Bridging what is known in research to what is done in the clinical setting can be a haphazard and disorganized process, with patients often not receiving the best possible care or accessing treatment that has been proven beneficial. Innovative healthcare products and processes (such as the use of the GMA to accurately detect neurobehavioral impairments in infants less than 6 months of age) have the potential to solve numerous public health problems, strengthen healthcare systems, improve patient outcomes, and reduce healthcare spending. However, despite the GMA being recognized as a valid and reliable tool that can be used for early detection of neurobehavioral impairments, it has not been widely adopted in clinical settings in the United States. This obstacle can be met with opportunities for improvement, including tasking GMA-trained assessors to work within interprofessional teams to provide patient-centered care while emphasizing efforts that will result in quality improvement by implementing up-to-date, evidence-based practices and promote the routine use and adoption of the GMA to detect neurobehavioral impairments.

SP74

Feasibility study of a complex Spine collaboration for the care of children with medical complexity and neuromuscular scoliosis

J LIN[1], M KUNKEL[2], N MURPHY[3]

[1]*University of Utah School of Medicine, Salt Lake City, UT, USA;* [2]*Primary Children's Hospital, Salt Lake City, UT, USA;* [3]*University of Utah Health Sciences Center, Salt Lake City, UT, USA*

Background and Objective(s): Many children with neuromuscular scoliosis (NMS) are also children with medical complexity (CMC). CMC often require care by coordinated multi-subspecialist teams to optimize outcomes.

Study Design: To improve shared surgical decision-making and outcomes that align with the families' goals of care, we conducted a feasibility study of a Complex Spine Collaboration (CSC), a program that purposefully assesses and potentially reduces surgical risks for CMC being considered for spinal fusions.

Study Participants & Setting: We recruited participants from a single tertiary children's hospital. We assembled a CSC, comprised of subspecialty providers who care for medically complex children with NMS. The core CSC includes: 2 orthopedic spine surgeons, a physiatrist for children with medical complexity (NM), a pulmonologist, a critical care pediatrician, 2 hospitalists (JL), and an anesthesiologist; this group is led by an APC from orthopedics (MK). We also had ad hoc participation from cardiology, gastroenterology, neurosurgery and neurology. We included all