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Evaluation of Participation and Environments for Individuals with Disabilities: An Evidence-Based Practice Project Bailey

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Evaluation of Participation and Environments
for Individuals with Disabilities:
An Evidence-Based Practice Project

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St. Catherine University

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Introduction

Evidence Based Practice

Evidence based practice is defined as the integration of knowledge from professional and clinical expertise, patient/client unique values and circumstances, and best research evidence (Straus, Richardson, Glasziou, & Haynes, 2005). The EBP courses in the St. Catherine University occupational therapy programs emphasizes skill building in finding, analyzing, and synthesizing research.

A definition of Evidence-Based Practice (EBP)



(Straus, Richardson, Glasziou & Haynes, 2005)



The EBP Project

Occupational therapy graduate students at St. Catherine University complete an EBP project in partial fulfillment of the requirements for a course on Evidence-Based Practice.

The EBP Process

- Begins with a practice dilemma
- Dilemma is framed as an EBP question and PICO
P (population/problem) I (intervention) C (comparison group) O (outcome(s) of interest)
- Background learning
- Search for the best evidence
- Initial appraisal and critical appraisal of the evidence
- Summary of themes from the evidence
- Recommendations for practice
- Next steps – implementation in practice

Six EBP Projects: Disability and Participation

1. Environmental barriers to participation
2. Attitudes of health professionals toward individuals with disabilities
3. Perspectives on participation by individuals with disabilities
4. Assessments of participation and environment
5. Interventions and programs that support social and community participation
6. Interventions and programs that support work participation

EBP Practice Dilemma: Disability and Participation***EBP Case Related to Disability and Participation***

The overall focus on disability and participation was chosen because of July 26, 2020 was the 30th anniversary of the Americans with Disabilities Act (ADA). President George H.W. Bush stated that “The American people have once again given clear expression to our most basic ideals of freedom and equality...[The ADA] promises to open up all aspects of American life to individuals with disabilities -- employment opportunities, government services, public accommodations, transportation, and telecommunications...This legislation is comprehensive because the barriers faced by individuals with disabilities are wide-ranging.” (National Archives, 1990).

Although progress has been made in many areas, there are still substantial barriers to full inclusion for individuals with disabilities. In order to advance full inclusion for individuals with disabilities, occupational therapy practitioners need evidence regarding the needs, opportunities, and barriers that remain. Disability and participation was a particularly challenging topic for the EBP projects for several reasons. First, most of the literature is interdisciplinary and so it required looking for resources outside of occupational therapy for evidence. Second, the literature on disability and participation is still emerging. There are quite a few gaps in research that still need to be addressed. Third, this topic required students to be open to critiques of healthcare and social programs. Six groups of students in the Fall 2020 Evidence-Based Practice course explored a topic related to disability and participation.

Background Information on Disability and Participation

An EBP project always begins with background learning on definitions and key characteristics. Disability has been defined as “a physical or mental impairment that substantially limits one or more major life activities, a person who has a history or record of such an impairment, or a person who is perceived by others as having such an impairment” (U.S. Department of Justice, 2020, <https://www.ada.gov/cguide.htm>) and “any condition of the body or mind (impairment) that makes it more difficult for the person with the condition to do certain activities (activity

limitation) and interact with the world around them (participation restrictions)” (Centers for Disease Control and Prevention, 2020). Disability includes impairments associated with vision, movement, thinking, remembering, learning, communicating, hearing, mental health, and social relationships (Centers for Disease Control and Prevention, 2020).

Our understanding of participation is still in the early stages. A basic definition of participation is “involvement in life situations, which includes being autonomous to some extent or being able to control [one's] own life, even if one is not actually doing things themselves” (Perenboom et al., 2003). The characteristics of participation from the perspective of individuals with disabilities include (Hammel et al., 2008):

- Meaningful engagement
- Choice and control
- Access and opportunity
- Personal and social responsibility
- Social inclusion and membership
- Having an impact

Healthy People 2030 has identified health goals for the US population. One goal is to “improve health and well-being in people with disabilities” by “helping people with disabilities get the support and services they need — at home, work, school, and in the health care system” (Office of Disease Prevention and Health Promotion, Office of the Assistant Secretary for Health, Office of the Secretary, U.S. Department of Health and Human Services., 2020).

The American Occupational Therapy Association (AOTA) and other occupational therapy organizations provide general resources on disability and participation. For example, AOTA has special interest sections (e.g., Work and Industry, Rehab and Disability), official documents (e.g., AOTA’s Societal Statement on Livable Communities, 2016), and professional networks (e.g., Network of Occupational Therapy Practitioners with Disabilities and Their Supporters), and special issues of professional journals.

Because most health professions do not have specific educational standards related to disabilities, the Alliance for Disability in Health Care Education proposed six core competency areas that all health professions should address in their curricula (Alliance for Disability in Health Care Education, 2019):

- Contextual and conceptual frameworks on disability
- Professionalism and patient-centered care
- Legal obligations and responsibilities for caring for patients with disabilities
- Teams and systems-based practice
- Clinical assessment
- Clinical care over the lifespan and during transitions

Appraisals of Best Evidence, Themes, and Recommendations

After searching and finding evidence available from library databases and alternative sources, students conducted an initial appraisal to evaluate the quality and relevance of the evidence and select the best research for further review. Then they conducted critical appraisals of the best formal reviews of primary research (e.g., systematic reviews, meta-analyses) and/or primary/original research studies. One of the steps in the CAP process is to evaluate the strength or level of the research design and the types of conclusions that are possible from each design.

Initial Appraisal

- Quality of the evidence
 - type of evidence and research design
 - investigator qualifications and journal/publication/website
 - journal/publication/website
- Relevance of the evidence

Critical Appraisal

- Appraisal of methods, results, and implications
- Classification of type of research study
 - Reviews of primary research (e.g., systematic reviews, meta-analyses)
 - Qualitative studies
 - Psychometric studies
 - Primary quantitative research studies
 - Level 1: randomized controlled trials
 - Level 2: two groups, nonrandomized/cohort and case control
 - Level 3: nonrandomized, pretest/posttest and cross-sectional
 - Level 4: single subject
 - Level 5: case report

After completing initial and critical appraisals, themes are summarized related to the EBP question and other findings that emerged from the evidence. Recommendations for practice and reflection on participating in an EBP project are identified in the conclusions.

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EBP Question

What measures are available to evaluate participation and environmental supports and barriers for individuals with disabilities and what are their psychometric properties?

Executive Summary
Minnesota Occupational Therapy Association Continuing Education Presentation

Evaluating Participation and the Environment for People With Disabilities: How the Tools Measure Up

Bailey Allen, Abby Anderson, Natalie Bruno, Sydney Grohman, Katie Martinek, Cassidy Mattson, Maddie O'Reilly, Zack Wells

EBP Question:

What measures are available to evaluate participation and environmental supports/barriers for individuals with disabilities, and what are their psychometric characteristics?

Examples of Evidence Resources

Governmental and Major Foundations

- National Council on Disability
- Americans with Disabilities Act-United States Department of Justice

OT Specific Resources: AOTA

- Supporting Community Integration and Participation for Individuals With Intellectual Disabilities - Fact Sheet
- Rehabilitation, Disability, Participation Apps

Interprofessional Journals and Databases

- Disability and Health Journal
- PubMed

Examples of Search Process

Databases Used:

- Web of Science
- PsycINFO
- CINAHL
- PubMed

Most Helpful Search Strategies:

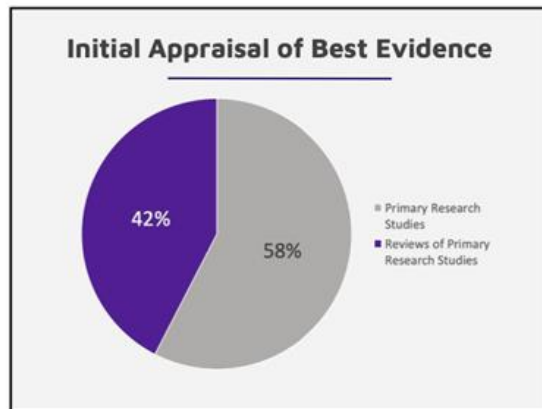
- Author or citation tracking in Google Scholar
- Rehabilitation Measures Database
- Peer-reviewed articles

Most Helpful Keywords:

- Disability, psychometric, measure, participation

Background Learning

- Barriers to participation may be related to social stigma, including factors such as self-determination and invisible disabilities (RISE, 2020)
- There are differences in the terms impairment and disability, and these do not always co-occur (Bourke et al., 2020)
- Some definitions of disability focus on an individual's limitation and/or impairment, while others focus on ability within context (Linden, 2017)
- Disability is part of the human experience, in that many individuals will experience disability over the course of the lifetime (Developmental Disability Across Cultures, 2018)



Overview of Critical Appraisals of Best Evidence

Review of Primary Research	Primary Research
Measuring Participation After a Stroke: A Review of Frequently Used Tools (Tse et al., 2013)	Psychometric Evaluation of the Participation and Environment Measure for Children and Youth (Coster et al., 2011)
A Systematic Review of Community Participation Measures for People With Intellectual Disabilities (Taylor-Roberts et al., 2019)	Psychometric Properties of the Young Children's Participation and Environment Measure (Khetani et al., 2015)
Participation Measures for Preschool Children With Autism Spectrum Disorder: A Scoping Review (Yee et al., 2017)	The Child and Adolescent Scale of the Environment: Further Validation With Youth who Have Chronic Conditions (Bedell & McDougall, 2015)
	Measuring Social Participation: Reliability of the LIFE-H in Older Adults With Disabilities (Noreau et al., 2004)
	Developing a Barriers Scale in the Context of Travel: TRIP (Cole et al., 2019)

Critical Appraisal 1 & 2

Measuring Participation After a Stroke: A Review of Frequently Used Tools (Tse et al., 2013)

- What are the current measures available for participation and their psychometric properties for individuals with stroke?
- The Life-H, ACS, and SIS are the instruments that link most to the ICF's domains of activities and participation. No measures met the set criteria for psychometric properties.

A Systematic Review of Community Participation Measures for People With Intellectual Disabilities (Taylor-Roberts et al., 2019)

- Do current participation measures for people with intellectual disabilities have strong psychometric properties?
- A systematic review of 11 measures of participation were reviewed. The psychometric properties of current measures of participation for an intellectual disability are poor.

Critical Appraisal 3 & 4

Participation Measures for Preschool Children With Autism Spectrum Disorder: A Scoping Review (Yee et al., 2017)

- What measures are available for assessing participation in preschoolers with ASD?
- Seven assessment tools exist to measure participation in preschoolers with ASD, but more research is needed to generalize to other populations.

Psychometric Evaluation of the Participation and Environment Measure for Children and Youth (Coster et al., 2011)

- Is the PEM-CY a valid measure to understand the participation and environmental factors that influence children and youth with disabilities?
- The PEM-CY is a valid and reliable measure to gauge the participation of children and youth with disabilities and identify environmental factors that influence participation.

Critical Appraisal 5 & 6

Psychometric Properties of the Young Children's Participation and Environment Measure (Khetani et al., 2015)

- What are the psychometric properties of the Young Children's Participation and Environment Measure and how does the test evaluate participation and environmental supports/barriers for children?
- This test evaluates children's participation in three different environment settings and had good internal consistency, test-retest reliability, and construct validity. There was no significant differences between age groups, however scores differed significantly by disability status.

The Child and Adolescent Scale of the Environment: Further Validation With Youth who Have Chronic Conditions (Bedell & McDougall, 2015)

- What other psychometric measures can be used to evaluate environmental factors with children with chronic conditions?
- The CASE assessment has high internal consistency and validity in evaluating environmental factors that impact participation and quality of life. CASE was shown to have good psychometric properties.

Critical Appraisal 7 & 8

Measuring Social Participation: Reliability of the LIFE-H in Older Adults With Disabilities (Noreau et al., 2004)

- What are the psychometric characteristics of the Assessment of Life Habits (LIFE-H) for adults with functional limitations?
- The findings of this study suggest that the LIFE-H has good test-retest reliability and interrater reliability for measuring social participation in adults with functional limitations.

Developing a Barriers Scale in the Context of Travel: TRIP (Cole et al., 2019)

- What measure can evaluate environmental barriers that influence travel for individuals with a disability, and what are the psychometric properties?
- TRIP is a reliable measure to evaluate barriers to travel for individuals with SCI. TRIP may be used to identify environmental barriers and ways to overcome barriers to make travel more enjoyable. TRIP was shown to have good psychometric properties.

Overview of Measures of Environment and Participation

Children	Adults
1. Participation and Environment Measure for Children and Youth (PEM-CY) (Coster et al., 2011)	1. ICF A&P (Burt et al., 2015)
2. Young Children's Participation and Environment Measure (YC-PEM) (Khetani et al., 2015)	2. Environmental Factors Items Bank (EFIB) (Heimann et al., 2016)
3. Environmental Restriction Questionnaire (ERQ) (Rosenberg et al., 2010)	3. Meaningful Activity Participation Assessment (MAPA) (Cheraghifard et al., 2020)
4. Child and Adolescent Scale of the Environment (CASE) (Bedell & McDougall, 2015)	
	Children and Adults
	1. Assessment of Life Habits (LIFE-H) (Noreau et al., 2004; Noreau et al., 2007)
	2. Electronic Quality of Life Outcomes Questionnaire (EQOL) (Jespersen et al., 2018)
	3. Craig Hospital Inventory of Environmental Factors (CHIEF) (Hun et al., 2005; McCauley et al., 2013)

Strength of Psychometric Properties

Researchers examine different psychometric properties in their measurement tools.

- Common psychometric properties studied included: Test-retest reliability, internal validity, interrater reliability, and construct validity (Brutt et al., 2015; Coster et al., 2013; Eisenberg et al., 2015; Jørgensen et al., 2018; Khetani et al., 2015; Noonan et al., 2009; Nonnau et al., 2004; Rosenberg et al., 2010; Taylor-Roberts et al., 2020; Tse et al., 2013)
- Primary research studies of measures often focused on establishing specific psychometric properties (Brutt et al., 2015; Eisenberg et al., 2015; Jørgensen et al., 2018; Khetani et al., 2015; Rosenberg et al., 2010)
- Systematic reviews of measures summarized the current status of psychometric properties and identified further studies needed to support use (Noonan et al., 2009; Taylor-Roberts et al., 2019; Tse et al., 2013)
 - A systematic review of instruments that assessed participation following a stroke concluded no measures reviewed met all psychometric criteria (Tse et al., 2013)

Voices Recognized in Measures of Environment and Participation

Many measures of environment and participation were based on the input of parents and others rather than the individuals with disabilities.

- Children's environment and participation studies lacked self-report data, instead relying on caregiver's interpretation (Bedell & McDougall, 2015; Coster et al., 2011; Khetani et al., 2015; McCauley et al., 2013)
- "Expert" panels were decision makers for creating scale items, instead of consulting a person with a disability (Cole et al., 2019; Yee et al., 2017)
- People with disabilities report that self-report measures are useful and make them feel empowered, suggesting that more measures should move in this direction (Cheeseman et al., 2013)

Weaknesses and Limitations of Current Psychometric Studies

Many of the study designs had weaknesses or limitations.

- Samples were not representative of general disability populations, race/ethnicity groups, and gender (Cole et al., 2019; Coster et al., 2011; Han et al., 2005; Khetani et al., 2015; Taylor-Roberts et al., 2019)
- Samples were potentially biased from a low response rate or convenience/snowball sampling methods (Cole et al., 2019; Khetani et al., 2015; McCauley et al., 2013)
- Studies of children focused on specific conditions such as autism spectrum disorder (ASD), cerebral palsy (CP), and developmental delays (Bedell & McDougall, 2015; Lami et al., 2017; Nonnau et al., 2007)
- For adults, the focus was on conditions such as intellectual disabilities (ID), stroke, traumatic brain injury (TBI), and spinal cord injury (SCI) (Cheraghifard et al., 2020; Heinemann et al., 2016; Taylor-Roberts et al., 2019)

Recommendations for OT and Interprofessional Programs

- Select the best quality measure for their population and setting
- Obtain self reports from people with disabilities whenever possible
- Advocate for further research on measures of environment and participation for people with disabilities
- Inform policy makers on needs for legislation and funding to support development of good measures

Summary & Reflection

- **Practice:** Evaluation of participation and environment is just as important as ADLs and person factors
- **Research:** Additional research is needed to develop strong measures of participation and environmental factors for general and specific disability populations
 - An important limitation in the current evidence is the limitation of standardized psychometric properties for research
- **Policy:** Assessments of participation and environmental supports/barriers may provide direction for development of policies, programs, and funding to support full participation of individuals with disabilities

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Themes

Introduction

Four themes were identified from the synthesis of research on measures of participation and measures of barriers and facilitators to participation for individuals with disabilities. The first theme focused on different measures available for examining participation and environment in children and adults. Some of these measures are more predominant in the literature than others. The second theme summarizes psychometric properties of participation tools used in research. The third theme examined the primary voices of participation obtained using measurement tools. The final theme examined diversity in conditions and characteristics, sampling methods, and limitations of psychometric research. There are promising measures of environment and participation for both children and adults despite limitations and gaps in the research. Although further psychometric studies are needed, these measures are an important to add to the occupational therapy toolbox for individuals with disabilities.

Overview of Measures of Environment and Participation for Children and Adults

The first theme focused on identification of available measures and summary of measures that were more prominent in the literature. For children, four measures of participation and environment were predominant in psychometric studies. The Participation and Environment Measure for Children and Youth (PEM-CY) is a measurement tool to examine the participation frequency and environment for children aged 5-17 (Coster et al., 2011). It is a parent-report measure that takes approximately 30 minutes to complete (Coster et al., 2011). The Young Children's Participation and Environment Measure (YC-PEM), modeled after the PEM-CY, is a parent-report test combining the assessment of participation and environment in a single instrument (Khetani et al., 2015). The YC-PEM uses 3 environments, 28 activity items, and 46

environmental feature items to summarize participation frequency, level of involvement, percent desire change, and environmental support for children ages 0-5 (Khetani et al., 2015). In addition, the Environmental Restriction Questionnaire (ERQ) assesses barriers to participation at home, school, and in the community for children aged 4-6 without disabilities and with moderate developmental disabilities (Rosenberg et al., 2010). It is a parent-report questionnaire with 35 items, each item rated on a 1-6 Likert scale, including an irrelevant option (Rosenberg et al., 2010). Lastly, the Child and Adolescent Scale of the Environment (CASE) is a parent report survey that measures the environmental impacts of participation on quality of life and participation for children aged 11-17 (Bedell & McDougall, 2015). It uses an 18 item survey that is rated on a 3 point scale assessing the child's home, school, and community environment (Bedell & McDougall, 2015).

For adults, three measures of participation and environment were recommended in the literature. The ICF-A&P is a self-report instrument to measure activities and social participation of individuals with mental health disorders, containing 31 items and six subscales (Brutt et al., 2015). The Environmental Factors Items Bank (EFIB) is a newly developed measure that assesses the physical environment; systems, services, and policies; social environment; and access to information and technology for individuals with stroke, spinal cord injury, and traumatic brain injury (Heinemann et al., 2016). In addition, the Meaningful Activity Participation Assessment (MAPA) is a self-report instrument designed to assess the amount of meaning someone feels from participating in 28 different activities (Cheraghifard et al., 2020). The participant expresses how much time they spend on each activity over the past few months on a 7-point Likert scale and then assess the meaning on a 5-point Likert scale (Cheraghifard et al., 2020).

For children and adults, three measures of participation and environment were recommended in the literature. The Assessment of Life Habits (LIFE-H) is a measure of social participation based on the type of assistance required and level of difficulty in social roles and daily activities (life habits) for children with disabilities aged five to 13 (Noreau et al., 2007). It is a parent-report measure, consisting of three interviews 10-14 days apart, examining 11 categories with 64 items (Noreau et al., 2007). This assessment was also used with older adults with functional limitations in which a self-report measure was used. It consisted of 12 categories of 69 life habits (Noreau et al., 2004). Additionally, the Electronic Quality of Life Outcomes Questionnaire (EQOL) is a measure of quality of life and participation consisting of 191 items used with individuals with disabilities ranging from 10 to 40 years old (Jespersen et al., 2018). The domains it evaluated were function and health, environment, social network, wellbeing, occupation, and managing strategies (Jespersen et al., 2018). This was a self-report measure but used proxy-respondents to represent those who were unable to participate (Jespersen et al., 2018). Finally, the Craig Hospital Inventory of Environmental Factors (CHIEF) is a measure for environmental factors that impact activity and participation in children with disabilities aged 2-12 years old (McCauley et al., 2013). It is a parent-report questionnaire that consists of 25 items regarding one's physical environment, social support, and attitudes (McCauley et al., 2013). CHIEF can also be used as a measure to assess environmental barriers for adults with disabilities (Han et al., 2005). In the article by Han et al. (2005), CHIEF was found to be a reliable measure for Korean older adults with or without stroke.

Table 1*Overview of Measures of Environment and Participation*

Title	Purpose	Target Populations (Ages, Dx)	Domains	Type of Measure
Assessment of Life Habits (LIFE-H) (Noreau et al., 2004; Noreau et al., 2007)	Measure of social participation measure that looks at performance in daily activities and social roles (life habits) based on assistance required and level of difficulty in performing life habit	Children with disabilities: Ages 3-15 years Disabilities: cerebral palsy, myelomeningocele, sensory-motor neuropathy, traumatic brain injury, developmental delay Older Adults with Functional Limitations	Daily Activities Social Roles	Parent-Report: 11 categories of 64 items Three Interviews with 10-14 days between testing sessions Self-Report: 10 categories of 69 life habits Test-retest: 5-10 days Interrater: 3-5 days
Children and Adolescent Scale of the Environment (CASE) (Bedell & McDougall, 2015)	Examined environmental factors impacting participation and quality of life for children and adolescents.	Children aged 11-17 with chronic conditions.	Physical, social, and attitudinal environment. Home, school, and community problems	Parent report 18 items on a 3 point scale
Craig Hospital Inventory of Environmental Factors (CHIEF) (Han et al., 2005; McCauley et al., 2013)	Measure for environmental factors that impact activity and participation	Children with disabilities: Ages 2-12 years Older adults with disability	Physical environment Social support Attitudes	For children: Parent-report questionnaire For adults: Self-report questionnaire 25 items 2 weeks
Electronic Quality of Life Outcomes (EQOL) Questionnaire (Jespersen et al., 2018)	Measure of quality of life and participation	Individuals with Disabilities: Age 10-40 Danish population*	Function and health Environment (physical and social) Social Network Wellbeing Occupation Managing Strategies	Self-Report/ Proxy-respondents represent those unable to participate 191 items No time frame reported (only one interview for each participant)
Environmental Factors Items Bank (EFIB) (Heinemann et al., 2016)	Assess perceived barriers and facilitators to participation by examining the different domains of the environment such as the physical, natural, social, and virtual environments, as well as	Adults with stroke, spinal cord injury, and traumatic brain injury.	Physical environment Systems, services, policies Social environment Access to information and technology	Self-report Covers 4 domains of barriers and facilitators Rate 18 items on a 5 point rating scale Framework that aligns with ICF

Title	Purpose	Target Populations (Ages, Dx)	Domains	Type of Measure
	systems, services, and policies.			
Environmental Restriction Questionnaire (ERQ) (Rosenberg et al., 2010)	Measures the parental perception of environmental barriers to participation in children	Children aged 4-6 with moderate developmental disabilities and without disabilities.	Physical and human environmental factors at home, school, and community	Parent report 35 items scored on a 1-6 Likert scale
ICF-Mental A&P (Brutt et al., 2015)	Measure activities and social participation of individuals who receive psychotherapy	Adults with mental health disorders	Quality of Life Interpersonal Problems Participation	Self-Report 31 items, 6 subscales Test-retest: 6 weeks
Meaningful Activity Participation Assessment (MAPA) (Cheraghifard et al., 2020)	Measure objective as well as subjective aspects to participation.	Chronic stroke survivors	Participation Values Relevance and importance	Self-Report 28 activities rated in terms of meaning; time spent on each rated using a 7-point Likert scale Test-retest: 2 weeks
Participation and Environment Measure for Children and Youth (PEM-CY) (Coster et al., 2011)	Examine the participation frequency, extent of involvement, and desire for change in activities that occur at home, school, or the community.	Children ages 5-17 with or without disabilities	Participation frequency, level of involvement, caregiver desire for change for the child's participation Home, school, and community environment	Parent-report Takes about 30 minutes Demographic questions followed by questions about participation and environment
Young Children's Participation and Environment Measure (YC-PEM) (Khetani et al., 2015)	(Modeled after the Participation and Environment Measure for Children and Youth (PEM-CY)) Combine the assessment of participation and environment in a single instrument	Children with and without developmental disabilities and delays: Ages 0-5	Environment: Home, Daycare/Preschool, Community, Participation: Frequency Level of involvement Caregiver desire for change in child's participation	Parent-Report Demographic questionnaire 4 categories (frequency, level of involvement, percent desire change, and environmental support) 3 environments, 28 activity items, 46 environmental feature items 2 - 4 weeks

Strength of Psychometric Properties

The second theme focused on differences in the psychometric properties examined in research. Common properties studied were test-retest reliability, internal validity, interrater reliability, and construct validity (Brutt et al., 2015; Coster et al., 2011; Eisenberg et al., 2015; Jespersen et al., 2018; Khetani et al., 2015; Noonan et al., 2009; Noreau et al., 2004; Rosenberg et al., 2010; Taylor-Roberts et al., 2020; Tse et al., 2013). A psychometric study that used the EQOL-Questionnaire to measure quality of life and participation in individuals with diverse disabilities ranging from 10-40 years old examined content/face validity and found poor face validity. Participants felt that many questions did not apply to them (Jespersen et al., 2018). A psychometric evaluation of the Environmental Restriction Questionnaire on children with moderate disabilities (N = 75) and children without disabilities (N = 215) was found to have good psychometric properties (Rosenberg et al., 2010). They measured internal consistency reliability and construct, convergent, and divergent validities.

Studies on specific disabilities also followed this pattern. A psychometric study of the Young Children's Participation and Environment Measure (YC-PEM) was done on children ages 0-5, with (N=93) and without (N=302) disabilities (Khetani et al., 2015). Of the 23.5% of children with disabilities, twelve different conditions were noted. This general study established strong psychometric support for use of the YC-PEM assessment. An initial evaluation of the psychometric properties of the Participation and Environment Measure-Children and Youth (PEM-CY) had good test-retest reliability and internal consistency (Coster et al., 2011). A psychometric evaluation of social participation in older adults with functional limitations using the Assessment of Life Habits had good test-retest reliability and interrater reliability (Noreau et al., 2004). A mixed method design to develop a community health inclusion measurement tool

had good interrater reliability, internal consistency, and content validity (Eisenberg et al., 2015). Participation measures had differing psychometric properties and quality for specific disability populations. Psychometric research on the ICF-Mental A&P subscale used with individuals with mental disorders found good psychometric properties for internal consistency, test-retest reliability, and construct validity (Brutt et al., 2015).

Reviews of research examined psychometric properties of different measures of the same construct. A systematic review of measures that assess participation of individuals with stroke found none of the measures met all psychometric properties including interrater reliability, internal consistency, test-retest, content/face validity, and construct validity (Tse et al., 2013). Researchers recommended additional qualitative and mixed method approach studies to increase understanding of participation. A systematic review of community participation measures for adults with intellectual disabilities found that none of the assessments met desired psychometric properties (Taylor-Roberts et al., 2019). The study used an adapted version of a quality criteria scale used by other researchers, including face validity, content validity, factor structure, internal consistency, reliability, convergent and discriminant validity, floor and ceiling effects, and interpretability (Taylor-Roberts et al., 2019). The researchers suggested further research is needed to identify quality measures of community participation as well as a universal definition of community participation (Taylor-Roberts et al., 2019). Finally, a systematic review of eleven instruments that assess participation based upon the criteria from the International Classification of Functioning, Disability, and Health found that only the World Health Organization Disability Assessment Schedule II (WHODAS II) met set psychometric criteria of reliability, validity, and responsiveness (Noonan et al., 2009).

Voices Recognized in Measures of Environment and Participation

A third theme examined the primary voices used in the development of many measures of environment and participation. The content of many measures was based on the input of parents and others rather than individuals with disabilities. An initial evaluation of the psychometric properties of the Participation and Environment Measure for Children and Youth (PEM-CY) for children ages 5-17 noted that parents or caregivers were surveyed on their child's participation and environment, instead of the child self-reporting (Coster et al., 2011). Furthermore, a psychometric study of the Young Children's Participation and Environment Measure (YC-PEM) for children ages 0-5 surveyed the caregivers of the children, including their mothers (N=379) and fathers (N=16), instead of children themselves (Khetani et al., 2015). A psychometric research study of children with disabilities age 2-12 years used a questionnaire completed by only parents to measure environmental factors that impact activity and participation (McCauley et al., 2013). The Child and Adolescent Scale of the Environment was used to evaluate environmental factors that affect quality of life for adolescents 11-17 and surveyed the parents of adolescents instead of the adolescents themselves (Bedell & McDougall, 2015).

Some studies of participation for individuals with specific disabilities had a person assist with filling out the assessment (Cole et al., 2019; Lami et al., 2017; Yee et al., 2017). A scoping review of measure that assess participation in preschoolers with Autism Spectrum Disorder (ASD) found that six instruments had a parent fill it out on the child's behalf while one instrument had a healthcare professional or educator observe the child (Yee et al., 2017). Additionally, a systematic review of instruments that assess young people with ASD found four studies had a parent or caregiver fill out the assessment (Lami et al., 2017). One study revealed that assessments do not include individuals with disabilities' input in their development. A mixed

methods study to develop a scale measuring barriers to travel for individuals with spinal cord injury used an expert panel and PhD students to make the final decision for chosen items rather than individuals with spinal cord injury (Cole et al., 2019). A qualitative research study of the self-report tool, Your Ideas about Participation and Environment (YIPE), found it was useful and meaningful because it empowered individuals to take an active role in their interactions with healthcare providers (Cheeseman et al., 2013).

Weaknesses and Limitations of Current Psychometric Studies

The final theme examined samples in many psychometric studies of environment and participation measures and found they were not representative of general and disability population characteristics, especially regarding race/ethnicity and gender. Both the Young Children's Participation and Environment Measure (YC-PEM) for children aged 0-5 and the Participation and Environment Measure for Children and Youth (PEM-CY) for children aged 5-17 had samples that were 81% White (Coster et al., 2011; Khetani et al., 2015). Diversity in gender was also occasionally an issue, as a study using a mixed methods design to develop a scale measuring barriers to travel for individuals with spinal cord injury was mostly men (73%) and white (90%) (Cole et al., 2019). This was also seen in a psychometric study examining the Korean version of the Craig Hospital Inventory of Environmental Factors (CHIEF), as it included 291 females (72.8%) and 109 males (27.3%) with and without stroke (Han et al., 2005). Reviews of research also noted limited diversity in samples. A review of participation measures for adults with intellectual disabilities found that the studies either did not have cultural and ethnic diversity reported or were not representative of a multicultural society (Taylor-Roberts et al., 2019).

Challenges in getting a representative sample also occurred. A psychometric study assessing environmental factors to participation and activity in children using the Craig Hospital Inventory of Environmental Factors (CHIEF) sent out the inventory to families and only 61/ 450 inventories were returned, representing a low response rate and homogenous sample (McCauley et al., 2013). Some studies used convenience and snowball sampling to recruit participants, which often resulted in limited diversity. A psychometric study of the Young Children's Participation and Environment Measure (YC-PEM) recruited caregivers by convenience and snowball sampling to survey children with (N=93) and without (N=302) disabilities (Khetani et al., 2015). Similarly, a mixed methods study to develop a scale measuring barriers to travel for individuals with SCI, used convenience and snowball sampling for the qualitative phase (N = 83) and convenience sampling for the quantitative phase (N=249) (Cole et al., 2019).

A review of literature revealed a focus on certain conditions in different age categories. Much of the research for children focused primarily on conditions such as autism spectrum disorder (ASD), cerebral palsy (CP), and developmental delays (Lami et al., 2017; Noreau et al., 2007; Bedell & McDougall, 2015). For example, a systematic review of instruments assessing young people with ASD found seven instruments for measuring participation (Lami et al., 2017). Another study evaluated the psychometric properties of the Assessment of Life Habits (LIFE-H) for children with CP, myelomeningocele, sensory-motor neuropathy, TBIs, or developmental delays (Noreau et al., 2007). One longitudinal study evaluated the validity of the Child and Adolescent Scale of the Environment for adolescents with multiple chronic conditions. The largest group of conditions was CP (35%) (Bedell & McDougall, 2015).

For adults, psychometric studies of measures focused on the conditions of intellectual disabilities (ID), stroke, traumatic brain injury (TBI), and spinal cord injury (SCI) (Cheraghifard

et al., 2020; Heinemann et al., 2006; Taylor-Roberts et al., 2019). For example, a systematic review of community participation assessments focused on adults with intellectual disabilities (Taylor-Roberts et al., 2019). A study of the Meaningful Activity Participation Assessment (MAPA) examined participation in chronic stroke survivors (Cheraghifard et al., 2020). A cross-sectional, observational cohort study using the Environmental Factors Items Bank (EFIB) in community-dwelling adults had inclusion criteria of stroke, spinal cord injury, and traumatic brain injury (N = 568) (Heinemann et al., 2016). A systematic review of participation measures concluded that the eleven instruments reviewed need additional research on other health conditions to advance the concept of participation and distinguish it from activity (Noonan et al., 2009).

Summary and Implications for Practice

There are growing measures of participation and barriers and facilitators to participation for individuals with disabilities, but additional research is needed. Many measures are not representative of the larger population and based on self-report of individuals with disabilities. There is limited consistency across measures and psychometric properties vary greatly. However, recent studies are beginning to explore different disability populations and contexts of participation such as pregnancy and motherhood, or barriers to travel for individuals with disabilities. These studies are promising signs of research on other aspects of participation and populations.

For professionals, a review of the background research on measures can help to understand why individuals may score the way they do. Exercising caution when using assessments in therapy is also essential. Many measures do not have research on their psychometric properties for different populations and conditions. Before using a specific assessment, it is prudent to examine completed research to ensure that psychometric properties are sufficient. It is also important for clinicians to understand the different psychometric properties that assessments should meet and limit use of assessments that do not meet psychometric criteria. Selecting measures that are representative of client populations and have strong psychometric characteristics is essential in best practice. Reliance on familiar measures may not be appropriate for all client populations. Continuing to review emerging research on assessments will enable practitioners to improve evaluation protocols for clients.

Research on participation and environment measures is needed in several areas. Current research focuses on specific populations, such as children with developmental disabilities and adults with stroke, leaving less of a focus on other populations. Further development of the

participation construct requires qualitative and mixed method approaches (Tse et al., 2013). Clarification of disability definitions may also be helpful in creating more widely applicable measures (Taylor-Roberts et al., 2019). In addition, engaging individuals with disabilities in validation of measures could be beneficial particularly for self-reports are often based on caregiver input.

Measurement of participation and environmental characteristics may inform policy makers of needs for legislation and funding to support individuals with disabilities. Public policy may look specifically at barriers in the environment to social participation such as access to transportation, education, and employment. Development of policies, programs, and funding can be given direction by assessments of participation and environmental factors.

The growing number of assessments indicate participation and environmental factors are key outcome measures for individuals with disabilities. Current measures of participation and environments have notable strengths. Many studies have a strong history of development and are based on larger sample sizes that include different age groups across the entire lifespan. Future research should address key psychometric properties that have been deemed essential in the literature. Future research needs to emphasize having people with disabilities self-report, instead of defaulting to expert opinions or secondhand accounts. Increased diversity of samples in psychometric studies will also ensure that measures are valid and reliable for a wider range of people.

Tables of EBP Resources

Table 2.

Governmental and Major Foundation Resources that Address Disability and Participation

Title/Name	Brief Description	Source
Disability Resources- U.S. Department of Labor	Outlines the different government labor agencies and ADA regulations	U.S Department of Labor https://www.dol.gov/general/topic/disability
Americans with Disabilities Act- United States Department of Justice	Provides information on the ADA regulations	https://www.ada.gov/
National Council on Disability Resources	Provides resources for Civil Rights, Education, Employment, Healthcare, Housing and other services to advocate for those with disabilities	National Council on Disability https://ncd.gov/resources
Centers for Disease Control- Disability and Health Promotion	Includes information on disability inclusion, disability health, and statistics	https://www.cdc.gov/ncbddd/disabilityandhealth/index.html
Transportation-Office of Disability Employment Policy	Guideline for transportation services for individuals with disabilities to promote employment participation	U.S Department of Labor https://www.dol.gov/agencies/odep/program-areas/employment-supports/transportation

Table 3.

Occupational Therapy Resources that Address Disability and Participation

Title/Name	Brief Description	Source
Supporting Community Integration and Participation for Individuals with Intellectual Disabilities	Provides information on supporting community integration for individuals with intellectual disabilities.	American Occupational Therapy Association https://www.aota.org/About-Occupational-Therapy/Professionals/WI/Intellectual-Disabilities.aspx
American Journal of Occupational Therapy	AJOT publishes broad research that pertains to the field of OT. Under the rehabilitation, participation, and disability category, AJOT has a collection of their published articles that fall under this topic.	https://ajot.aota.org/
Journal of Occupational Rehabilitation	The Journal of Occupational Rehabilitation is an international journal that contains peer-reviewed papers on rehabilitation, reintegration, and prevention of disability in workers. Under the environmental health subdiscipline, there are articles related to occupational therapist's roles within the community.	https://link.springer.com/journal/10926
The Open Journal of Occupational Therapy	OJOT is a peer-reviewed open-access journal that focuses on applied research, practice, and education within OT. There is a collection of articles within this OT journal that contain information about participation of people with disabilities.	https://scholarworks.wmich.edu/ojot/
American Occupational Therapy Foundation	OTJR is a journal released by the American Occupational Therapy Foundation that is focused on publishing research to advance the field of occupational therapy in topics such as participation, health, and disability.	OTJR: Occupation, Participation, and Health https://journals.sagepub.com/home/otj

Table 4.

Interdisciplinary Journals, Databases, Professional Associations that Address Disability and Participation

Title/Name	Brief Description	Source
CINAHL	CINAHL is a database for journal articles about nursing, allied health, biomedicine and healthcare. Good research tool Can refine search based on keywords and ideas, advanced searching options.	https://www.ebscohost.com/nursing/products/cinahl-databases/cinahl-complete
Disability and Health Journal	The official journal of the American Association of Health and Disability	https://www.journals.elsevier.com/disability-and-health-journal
Journal of Special Education	Publishes multiple peer-reviewed articles and reviews on the education and services of those with disabilities.	https://journals.sagepub.com/home/sed
PubMed	Publishes multiple forms of biomedical literature, including journals and books. Good research tool. Has refined and advanced searching tools.	https://pubmed.ncbi.nlm.nih.gov/
Cochrane Library	Interdisciplinary reviews of different published research. Good research tool. Has different topics of research reviews to browse as well as a search tool.	Developmental, Psychosocial, and Learning Problems https://www.cochranelibrary.com/search

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Appendix A. Initial Appraisals

	Overview of Article
Type of article	Overall Type: Primary Research Study Specific Type: Longitudinal Study, psychometric analysis
APA Reference	Bedell, G., & McDougall, J. (2015). The child and adolescent scale of environment (CASE): Further validation with youth who have chronic conditions. <i>Developmental Neurorehabilitation</i> , 18(6), 375-382. https://doi.org/10.3109/17518423.2013.855273
Abstract	“ <i>Objective:</i> To further validate the Child and Adolescent Scale of Environment (CASE). <i>Methods:</i> Baseline data ($n = 430$) were analyzed from a longitudinal study on quality of life for youth with chronic conditions ages 11–17 in Ontario, Canada. Internal consistency and structure, and convergent and discriminant validity were examined via Cronbach’s alpha (α), exploratory factor analyses, correlation analyses and ANOVA. <i>Results:</i> The CASE had high internal consistency ($\alpha = 0.89$). A three-factor solution was produced with 55% variance explained: (1) Community/Home Resources, (2) School Resources and (3) Physical Design/Access). CASE total and factor scores were significantly correlated with scores from measures of impairment and participation (i.e. youth with more problematic environments had more severe impairment and more restricted participation). Significant differences in CASE scores existed for primary condition and impairment severity, but not for age or gender. <i>Conclusion:</i> Results provide additional CASE validation evidence. Further testing is needed with more diverse and representative samples” (p. 375).
Author	Credentials: Ph. D. OTR, FAOTA Position and Institution: Associate Professor at Tufts University, Medford MA Publication History in Peer-Reviewed Journals: Extensive
Publication	Type of publication: scholarly peer reviewed Publisher: Developmental Neurorehabilitation
Date and Citation History	Date of publication: 2015 Cited By: 10
Stated Purpose or Research Question	“The purpose of this study was to further examine the validity of the CASE for Canadian youth aged 11–17 years with a broad range of chronic conditions. There were four research aims: 1. To examine the internal structure of the CASE through exploratory factor analyses. 2. To examine the internal consistency of the CASE and the CASE factor subscales that were informed by the components extracted from exploratory factor analyses. 3. To examine the convergent validity of the CASE scores and CASE factor scores through correlation analyses with scores from the <i>Child and Adolescent Scale of Participation (CASP)</i> and <i>Child and Adolescent Factors Inventory (CAFI)</i> [11–14]. To examine the discriminant (known-groups) validity of the CASE total score and CASE factor scores through analyses of group differences according to primary chronic condition and impairment severity” (p. 376).
Author’s Conclusion	“The accumulation of validity evidence found in this study as well as prior research findings suggests that the CASE is a promising measure for youth with a range of chronic conditions” (p. 376).
Overall Relevance to your EBP Question	Overall Relevance of Article: <i>Good</i> Rationale: This article seems to be relevant to our EBP question. The author found that the measures are promising for evaluating children.
Overall Quality of Article	Overall Quality of Article: <i>Good</i> Rationale: The author has many articles, it is well researched, and from a reputable journal.

	Overview of Article
Type of article	Overall Type: Primary Research Study Specific Type: Psychometric Evaluation
APA Reference	Brutt, A. L., Schulz, H., & Andreas, S. (2015). Psychometric properties of an instrument to measure activities and participation according to the ICF concept in patients with mental disorders. <i>Disability and Rehabilitation</i> , 37(3), 259-267. https://doi.org/10.3109/09638288.2014.918189
Abstract	“Purpose: The International Classification of Functioning, Disability and Health (ICF) conceptualizes the bio-psycho-social model of health and illness but cannot be used as an assessment instrument in routine care. The objective of this study was to psychometrically test a self-report instrument for measuring activities and social participation (ICF-Mental-A&P) of psychotherapy patients. Methods: For the psychometric evaluation of the ICF-Mental-A&P, participants completed a questionnaire on symptoms, interpersonal problems and quality of life at admission and at discharge of in-patient treatment. A consecutive sample of 2256 patients diagnosed with at least one mental disorder was recruited from eight in-patient units in Germany. Results: After item selection, the ICF-Mental-A&P contained 31 items comprising six subscales examined by confirmatory factor analysis. Subscales had acceptable internal consistency (α /40.78–0.90) and test–retest correlations (r /40.71–0.86). There were several expected correlations (r \square 0.6) between ICF-Mental-A&P scores and measures of symptoms and interpersonal problems. Conclusions: Findings suggest that the ICF-Mental-A&P is a comprehensive, reliable measure of activities and participation according to the ICF concept for patients with mental disorders. It may therefore be an important instrument in clinical practice and could help to determine and evaluate functioning-related and patient-focused treatment outcomes” (p. 1).
Author	Credentials: Anna Levke Brutt, MSc Position and Institution: Department of Medical Psychology, Center for Psychosocial Medicine, University Medical Center Hamburg-Eppendorf, Hamburg, Germany Publication History in Peer-Reviewed Journals: Extensive
Publication	Type of publication: scholarly peer-reviewed journal Publisher: Taylor & Francis Other: international, multidisciplinary journal
Date and Citation History	Date of publication: 2015 Cited By: 9
Stated Purpose or Research Question	“The aim of this article is to report the psychometric evaluation of a newly developed self-report instrument for the assessment of activities and participation in psychotherapy patients” (p. 1).
Author’s Conclusion	“The ICF-Mental-A&P enables analyses of the course of activities and participation, which is a concept closely associated with real-life settings, and may be especially relevant when evaluating transfer in aftercare settings. Nonetheless, the conceptual background of the ICF framework helps to differentiate severity from consequent disability in terms of impairments in activity limitations and participation restrictions” (p. 6).
Overall Relevance to your EBP Question	Overall Relevance of Article: Good Rationale: This study is directly related to measures participation for individuals with disabilities, including the psychometric properties and environmental supports and barriers.
Overall Quality of Article	Overall Quality of Article: Good Rationale: Established author. Reputable journal and publisher. Publication within the last 5 years.

	Overview of Article
Type of article	Overall Type: Primary Research Study Specific Type: Mixed-Method approach - literature review, expert reviews, cognitive interviews, and field testing with rehabilitation outpatients.
APA Reference	Chang, F. H., Liou, T. H., Ni, P., Chang, K. H., & Lai, C. H. (2017). Development of the Participation Measure–3 Domains, 4 Dimensions (PM-3D4D): A new outcome measure for rehabilitation. <i>Archives of Physical Medicine and Rehabilitation</i> , 98(2), 286-294. http://dx.doi.org/10.1016/j.apmr.2016.08.462
Abstract	“Objectives: To describe the development of a participation measure that assesses 3 domains (productivity, social, and community) and 4 dimensions (frequency, diversity, desire for change, and perceived difficulty) of participation and to evaluate the initial psychometric properties in rehabilitation outpatients. Design: A mixed-method approach included a literature review, item selection, expert reviews, cognitive interviews, and field testing with rehabilitation outpatients. Confirmatory factor analysis (CFA) and Rasch analysis were used to validate the construct validity of the difficulty dimension of the instrument. Setting: Outpatient rehabilitation programs. Participants: An expert panel consisting of 12 rehabilitation and measurement experts contributed to measurement development; 20 rehabilitation outpatients participated in cognitive interviews; and a sample of rehabilitation outpatients (N=556) (average age, 61.3623.62y; 53% men) participated in field testing. Interventions: Not applicable. Main Outcome Measure: The Participation Measure–3 Domains, 4 Dimensions (PM-3D4D). Results: A scoring method for each dimension of the PM-3D4D was established. The instrument displayed good overall model fit in the CFA and unidimensionality across 3 domains after removing and collapsing locally dependent items identified from a principal component analysis. However, considering the poor personal reliability of the social subscale and its high correlation with the community subscale, we decided to merge the 2 subscales into 1. The combined subscale showed improved reliability and good construct validity by demonstrating a good model fit (comparative fit index, .985; Tucker-Lewis Index, .982, root mean square error of approximation, .061) and item fit. Conclusions: The PM-3D4D is a newly developed participation measure designed to assess multiple domains and dimensions of participation by rehabilitation patients. The psychometric analysis results supported the construct of the instrument and helped item revision. Further examination of the validity and reliability of the PM-3D4D will be conducted” (p. 286).
Author	Credentials: ScD, OTR/L Position and Institution: Graduate Institute of Injury Prevention and Control, College of Public Health and Nutrition, Taipei Medical University, Taipei City, Taiwan Publication History in Peer-Reviewed Journals: Extensive
Publication	Type of publication: Scholarly peer-reviewed journal Publisher: Elsevier Also supported by the Ministry of Science and Technology, Taiwan (grant no. MOST104-2314-B038-003)
Date and Citation History	Date of publication: 2017 Cited By: 10
Stated Purpose or Research Question	“This study describes the development and initial psychometric validation results of the PM-3D4D in community-dwelling adults who were in rehabilitation outpatient programs. The specific aims of this study include examining the construct validity, dimensionality, and item and person fit of the measure in rehabilitation patients. Results of this work provide critical foundations for the entire measurement development process” (p. 287).
Author’s Conclusion	“The PM-3D4D is a newly developed participation measure designed to assess multiple domains and dimensions of participation by rehabilitation patients. The psychometric analysis results supported the construct of the instrument and helped with item revision. Further examination of the validity and reliability of the PM-3D4D will be conducted. With this evidence, the instrument will be ready for distribution to rehabilitation practitioners and researchers and help intervention planning and service delivery in the future” (p. 292).
Overall Relevance to your EBP Question	Overall Relevance of Article: Good Rationale: I think article is really relevant to our EBP question. This seems like it could be a very important measure that addresses many domains of participation and can also be utilized as an outcome measure for therapy.
Overall Quality of Article	Overall Quality of Article: Good Rationale: Reputable journal, well established author, within the last 3 years, research study.

	Overview of Article
Type of article	Overall Type: Primary Research Study Specific Type: Survey
APA Reference	Cheeseman, D., Madden, R., & Bundy, A. (2013). Your ideas about participation and environment: A new self-report instrument. <i>Disability and Rehabilitation</i> , 35(22), 1903–1908. https://doi.org/10.3109/09638288.2013.767385
Abstract	“Purpose: To examine the meaningfulness, usefulness and acceptability of a new self-report instrument: “your ideas about participation and environment” (YIPE). Method: Cognitive interviewing was employed with 10 adults with disabilities to explore YIPE questions and formatting. Thematic content procedures were used in data analysis. The instrument was revised; participants were re-interviewed and data were re-examined. Results: Participants considered the YIPE as a helpful tool to assist with developing person-centred goals and communicating their needs to health professionals, thus establishing its meaningfulness. They believed it could be useful at various points in the intervention process (e.g. preparation, monitoring, and evaluation). Participants also endorsed the YIPE’s computer-based format, thus confirming its acceptability. Conclusions: The findings support the meaningfulness, acceptability and usefulness of the YIPE and consequently its potential for empowering service users and promoting person-centred care. Using the International Classification of Functioning, Disability and Health as the basis resulted in an instrument that was appropriate for understanding the interrelationship between participation and the supportiveness of the usual environment in which participation generally takes place. Implications for Rehabilitation: The YIPE is a useful tool to assist with developing person-centred goals, communicate needs with health professionals and it can be used at various points in a therapy process (preparation, monitoring or evaluation). The interrelationship between participation and the environment is important to consider when measuring functioning. Self-report empowers people to play an active role in interactions with health professionals and promote their own care” (p. 1903).
Author	Credentials: Limited Position and Institution: Faculty of Health Services at University of Sydney. Lidcombe Australia Publication History in Peer-Reviewed Journals: moderate
Publication	Type of publication: Scholarly Publisher: Disability and Rehabilitation
Date and Citation History	Date of publication: 2013 Cited By: 12
Stated Purpose or Research Question	“The present study aims to address two questions: (a) What is the meaningfulness and acceptability of the instrument to people with disabilities? and (b) What is the usefulness of the instrument for gathering information that represents the main views and concerns of people with a disability about their function and the supportiveness of the environment?” (p. 1905).
Author’s Conclusion	“The findings of this qualitative study revealed preliminary support for the YIPE. Participants found it to be meaningful, acceptable and useful, suggesting the importance the YIPE for promoting improved health care. Using the International Classification of Functioning, Disability and Health as the basis for the YIPE resulted in an instrument that was appropriate for understanding the interrelationship between participation and the supportiveness of the usual environment in which participation generally takes place” (p. 1907).
Overall Relevance to your EBP Question	Overall Relevance of Article: Good Rationale: This article seems to be relevant to our EBP question as it studies an instrument to measure participation the purpose of the research is important to note as it addresses qualitative variables such as experiences of the participants.
Overall Quality of Article	Overall Quality of Article: moderate Rationale: This article seems to be relevant to our EBP question as it studies an instrument to measure participation. However, the authors credentials could not be found.

	Overview of Article
Type of article	Overall Type: Primary Research Study Specific Type: Psychometric Study
APA Reference	Cheraghifard, M., Taghizadeh, G., Akbarfahimi, M., Eakmna, A. M., Hosseini, S., & Azad, A. (2020). Psychometric properties of meaningful activity participation assessment (MAPA) in chronic stroke survivors. <i>Topics in Stroke Rehabilitation</i> . Advance online publication. https://doi.org/10.1080/10749357.2020.1834275
Abstract	<p>“Background: Meaningful Activity Participation Assessment (MAPA) is an appropriate tool for assessing both objective and subjective aspects of participation.</p> <p>Objectives: This study aimed to investigate the psychometric properties of MAPA in chronic stroke survivors.</p> <p>Methods: Translation of MAPA was done according to the standard protocol of forward-backward translation. One hundred and seven chronic stroke survivors participated in this study. In addition to the MAPA, they were assessed by Satisfaction with Life Scale (SWLS), Center for Epidemiologic Studies of Depression Scale (CES-D), Life Satisfaction Index-Z (LSI-Z), Purpose in Life Test-Short Form (PIL-SF), and 36-Item Short-Form Survey (SF-36). To investigate the test-retest reliability, 37 participants were reassessed by MAPA after two weeks. Reliability, construct and known-groups validity were evaluated for MAPA.</p> <p>Results: The results showed an acceptable internal consistency (Cronbach’s $\alpha = 0.79$) and good test-retest reliability (ICC = 0.92) of MAPA. A significant moderate to high correlation was found between the MAPA and PIL-SF, CES-D, LSI-Z, SWLS, and different subscales of SF-36 ($r = 0.32-0.65$). MAPA showed good ability to differentiate between young adults (age ≤ 65 years) and older adults (age > 65 years) with chronic stroke ($P = .005$) as well as between chronic stroke survivors with different levels of disability ($P < .001$).</p> <p>Conclusions: The MAPA has appropriate reliability and validity in chronic stroke survivors and is suggested to be used in research and clinical settings” (p. 1).</p>
Author	Credentials: PhD Position and Institution: Professor, Occupational Therapy Department, Iran University of Medical Sciences Publication History in Peer-Reviewed Journals: Moderate
Publication	Type of publication: Scholarly peer-reviewed Publisher: Taylor & Francis
Date and Citation History	Date of publication: August 1, 2020 Cited By: N/A
Stated Purpose or Research Question	“...given the importance of assessing both objective and subjective aspects of participation in chronic stroke survivors, this study aimed to investigate the psychometric properties (test-retest reliability as well as construct and known-groups validity) of MAPA in chronic stroke survivors” (p. 2).
Author’s Conclusion	“The results of this study indicated that MAPA has high test-retest reliability and internal consistency as well as appropriate construct validity. The MAPA is well able to discriminate the participation in meaningful activities among chronic stroke survivors with different ages and levels of disability” (p. 8).
Overall Relevance to your EBP Question	Overall Relevance of Article: Moderate Rationale: Article directly relates to the psychometric properties associated with participation in survivors of chronic stroke. It does not apply to all disabilities, however.
Overall Quality of Article	Overall Quality of Article: Moderate Rationale: Moderately established author. Article is not cited by others. Published within this year.

	Overview of Article
Type of article	Overall Type: Primary Research Study Specific Type: Mixed Methods approach in two phases – Phase I: Qualitative interview, Phase 2: Quantitative psychometric research
APA Reference	Cole, S., Svetina, D., & Whiteneck, G. (2019). Developing a barriers scale in the context of travel: TRIP. <i>Archives of Physical Medicine and Rehabilitation</i> , 100(1), 52-59. https://doi.org/10.1016/j.apmr.2018.07.424
Abstract	“Objective: To develop an environmental-barriers scale, Travel Restrictions Influencing Participation (TRIP), in the context of travel for people living with spinal cord injury (SCI). Design: A mixed-method approach where, in the qualitative phase, items were developed and written based on results of interviewees with different stakeholder groups and, in the quantitative phase, survey data were collected to examine the psychometric properties of the scale. Setting: Home, work, and community settings. Participants: People living with SCI, caregivers/family members, therapists, and travel professionals (N=333). Interventions: None. Main Outcome Measures: A 19-item TRIP scale that measures the travel barriers encountered by people with SCI. Results: Results from 83 semi-structured in-depth interviews with 4 stakeholder groups guided the writing of items in the TRIP scale. Seven cognitive interviews and an expert panel conducted reviews for content validity of the scale, and 19 items were included in the quantitative assessment of the scale. A total of 250 patients enrolled in the Rocky Mountain Regional Spinal Injury System was systematically selected to report their experience with each travel barrier. Item-response theory–based Rasch analysis revealed that TRIP has acceptable psychometric properties. Conclusions: The 19-item TRIP scale demonstrates promising psychometric properties for the scale to be used in clinical settings to quickly identify environmental barriers individuals with SCI encounter when traveling. It has the potential to assist with developing interventions that will improve the travel experience of individuals with SCI or to assist with strategies to overcome travel barriers” (p.52).
Author	Credentials: PhD, Tourism Sciences Position and Institution: Associate Professor, Department of Recreation, Parks & Tourism Studies, Indiana University Bloomington School of Public Health Publication History in Peer-Reviewed Journals: Extensive
Publication	Type of publication: Scholarly peer-reviewed journal Publisher: Elsevier
Date and Citation History	Date of publication: 2019 Google Scholar Cited By: 3
Stated Purpose or Research Question	“This study aims to develop an SCI relevant barriers scale in the context of travel: The Travel Restrictions Influencing Participation (TRIP) scale” (p. 53).
Author’s Conclusion	“The study provided initial evidence of the ability to measure specific environmental factors in specific populations by successfully developing TRIP, a psychometrically sound measure of environmental barriers to travel after SCI. This may serve as a model for developing other measures of targeted environmental factors in specific context for specific populations” (p. 58).
Overall Relevance to your EBP Question	Overall Relevance of Article: Good Rationale: This article relates to the EBP question because it is a research study of both environmental barriers and supports and psychometric characteristics of a new measure for individuals traveling with a disability. Specifically, this article discusses SCI, but these findings could be important to incorporate as travel is an important part of many people’s lives.
Overall Quality of Article	Overall Quality of Article: Good Rationale: Other than a low number of citations, I would say that this article is of good quality. The lead author appears to have a lot of experience in this area, and the methods are sound and provide both qualitative and quantitative results. Also, reputable journal and published within the last 2 years.

	Overview of Article
Type of article	Overall Type: Primary Research Study Specific Type: Psychometric Research Study
APA Reference	Coster, W., Bedell, G., Law, M., Khetani, M. A., Teplicky, R., Liljenquist, K., Gleason, K. & Kao, Y. C. (2011). Psychometric evaluation of the Participation and Environment Measure for Children and Youth. <i>Developmental Medicine & Child Neurology</i> , 53(11), 1030-1037. https://doi.org/10.1111/j.1469-8749.2011.04094.x
Abstract	<p>“Aim The aim of this study was to examine the psychometric properties (reliability and validity) of the Participation and Environment Measure for Children and Youth (PEM-CY).</p> <p>Method The PEM-CY examines participation frequency, extent of involvement, and desire for change in sets of activities typical for the home, school, or community. Items in the ‘Environment’ section examine perceived supports and barriers to participation within each setting. Data were collected via an online survey from caregivers of children and young people, aged 5 to 17 years, with and without a range of different disabilities, residing in the USA and Canada. Caregivers were eligible for inclusion if (1) they identified themselves as a parent or legal guardian of the child who was the focus of the survey; (2) they were able to read English; and (3) their child was between 5 and 17 years old at the time of enrolment.</p> <p>Results Data were obtained from 576 respondents. About half were parents of children with disabilities and a little more than half were from Canada. Child mean age was 11 years (SD 3.1y); 54% were male and 46% were female. Internal consistency was moderate to good (0.59 and above) across the different scales. Test–retest reliability was moderate to good (0.58 and above) across a 1- to 4-week period. There were large and significant differences between the groups with and without disabilities on all participation and environment scales. Although there were some significant age differences, they did not follow a consistent pattern.</p> <p>Interpretation Results support the use of the PEM-CY for population-level studies to gain a better understanding of the participation of children and young people and the impact of environmental factors on their participation” (p. 1030).</p>
Author	Credentials: PhD, OTR/L, FAOTA Position and Institution: Department Chair of Occupational Therapy at Boston University Publication History in Peer-Reviewed Journals: Extensive
Publication	Type of publication: Scholarly Peer-reviewed journal Publisher: Mac Keith Press
Date and Citation History	2011 Google Scholar Cited By: 199
Stated Purpose or Research Question	“This paper reports results of an initial evaluation of the psychometric properties of this new instrument. The following specific questions were addressed: (1) Are summary scores on the PEM-CY reproducible across occasions? (2) Do scores on the PEM-CY detect differences between children with and without disabilities in participation and perceived impact of the environment? (3) Are there differences in participation and environment across age groups? (4) Is there a relation between perceived supportiveness of the environment and parents’ satisfaction with (desire for change in) the child’s participation?” (p. 1031).
Author’s Conclusion	“The PEM-CY is a unique new instrument that can be used to improve our understanding of the participation of children and young people with and without disabilities aged 5 to 17 years and the environmental factors that support or hinder their participation in the home, school, and community. It is suitable for use in large-scale data collection efforts and thus can support population-level studies to examine the similarities and differences in participation across groups of children and young people, and across environments that differ in geography, resources, or organization” (p. 1036).
Overall Relevance to EBP Question	Overall Relevance to EBP Question: Good This article directly relates to our research question and hits two aspects of it – specific measures that are related to participation and environmental factors. It is only specific to children though, and not people across the lifespan.
Overall Quality of Article	Overall Quality of Article: Good This article is less than 10 years old, from a well-respected journal, and written by an author with extensive knowledge and experience in the field.

	Overview of Article
Type of article	Overall Type: Primary Research Study Specific Type: Psychometric Study
APA Reference	Eisenberg, Y., Rimmer, J. H., Mehta, T., & Fox, M. H. (2015). Development of a community health inclusion index: An evaluative tool for improving inclusion of people with disabilities in community health initiatives. <i>BMC Public Health</i> , <i>15</i> (1), 1050-1060. https://doi.org/10.1186/s12889-015-2381-2
Abstract	<p>“Background: Community health initiatives often do not provide enough supports for people with disabilities to fully participate in healthy, active living opportunities. The purpose of this study was to design an instrument that focused on integrating disability-related items into a multi-level survey tool that assessed healthy, active living initiatives.</p> <p>Methods: The development and testing of the Community Health Inclusion Index (CHII) involved four components: (a) literature review of studies that examined barriers and facilitators to healthy, active living; (b) focus groups with persons with disabilities and professionals living in geographically diverse settings; (c) expert panel to establish a final set of critical items; and (d) field testing the CHII in 164 sites across 15 communities in 5 states to assess the instrument’s reliability. Results: Results from initial analysis of these data indicated that the CHII has good reliability. Depending on the subscale, Cronbach’s alpha ranged from 0.700 to 0.965. The CHII’s inter-rater agreement showed that 14 of the 15 venues for physical activity or healthy eating throughout a community had strong agreement (0.81 – 1.00), while one venue had substantial agreement (0.61 – 0.80). Conclusion: The CHII is the first instrument to operationalize community health inclusion into a comprehensive assessment tool that can be used by public health professionals and community coalitions to examine the critical supports needed for improving healthy, active living among people with disabilities” (p. 1050).</p>
Author	<p>Credentials: PhD Position and Institution: Assistant Professor of Disability and Human Development at the University of Illinois at Chicago Publication History in Peer-Reviewed Journals: moderate</p>
Publication	<p>Type of publication: scholarly peer-reviewed journal Publisher: BMC Public Health</p>
Date and Citation History	<p>2015 Google Scholar Cited By: 13</p>
Stated Purpose or Research Question	<p>“The purpose of this study was to develop a community health inclusion measurement tool that would identify key barriers and facilitators to a broad range of community level issues that affect participation by adults and children with disabilities in healthy living initiatives. The goal was not to replace existing tools that function at the microlevel, but rather, to develop an instrument with a new purpose that would bridge the gap between more targeted, micro-level audits specifically designed for people with disabilities (AIMFREE, CHEC, HEZ-Grocery Checklist, Q-PAT) and community level tools focused on the general population (CHANGE & CHLI)” (p. 1052).</p>
Author’s Conclusion	<p>“The CHII is a multi-level, mixed-methods instrument that examines community inclusion at sites across different sectors of the community focusing on physical activity and healthy eating. At one level, the CHII assesses an organization’s programs, policies and staff training. At another level, the CHII examines the built environment and equipment from walkability and transportation near the site, to fitness equipment and facilities inside the site. The CHII takes between 1–2 h to complete depending on the number and variety of venues available at a site. Communities that use the CHII can increase their awareness and knowledge of the areas of need in promoting community health inclusion for people with disabilities” (p.1059).</p>
Overall Relevance to your EBP Question	<p>Overall Relevance to EBP Question: Good This article demonstrates that the CHII is a good instrument for assessing participation for people with disabilities, which is a key aspect of our research question. The authors answered their research question thoroughly and demonstrated why their measurement tool was valid and reliable.</p>
Overall Quality of Article	<p>Overall Quality of Article: Good This article is 5 years old, published in a well-respected journal, and written by an author with moderate experience in the field.</p>

	Overview of Article
Type of article	Overall Type: Primary Research Study Specific Type: Longitudinal Cohort Study.
APA Reference	Golos, A., & Bedell, G. (2018). Responsiveness and discriminant validity of the Child and Adolescent Scale of Participation across three years for children and youth with traumatic brain injury. <i>Developmental Neurorehabilitation</i> , 21(7), 431-438. https://doi.org/10.1080/17518423.2017.1342711
Abstract	“Purpose: To examine responsiveness and discriminant validity of the Child and Adolescent Scale of Participation (CASP) across three years. Methods: Examined longitudinal data on 515 children and youth with TBI and arm injuries. Repeated measures analyses of variance were used to examine CASP scores (pre-injury; 3, 12, 24, 36 months post-injury). Results: Scores decreased from pre-injury to 3 months, but significantly only for moderate and severe TBI groups. Scores gradually increased post-injury for all groups except severe TBI. Scores were consistently lowest for severe TBI, followed by moderate TBI, mild TBI, and arm injury across time. Severe TBI scores were significantly lower than scores for mild TBI and arm injury, but not moderate TBI. Conclusions: CASP scores were responsive to change over time at most measurements and differentiated between groups, particularly severe TBI. Further research is needed with a larger sample of children with moderate/severe TBI as they were underrepresented in this study” (p. 431).
Author	Credentials: MSc, OTR Position and Institution: School of Occupational Therapy of Hadassah and the Hebrew University, Jerusalem, Israel Publication History in Peer-Reviewed Journals: Moderate
Publication	Type of Publication: scholarly peer-reviewed journal Publisher: Taylor & Francis
Date and Citation History	2008 Google Scholar Cited by: 4
Stated Purpose or Research Question	“(1) to examine the responsiveness of CASP scores among children and youth with TBI and a comparison group of children and youth with arm injuries across a 3-year period; and (2) to examine differences in CASP scores among children and youth with mild, moderate, and severe TBI and a comparison group of children and youth with arm injuries across a 3-year period (discriminant validity)” (p. 432).
Author’s Conclusion	“The results of this study provide evidence to support the use of the CASP to assess the participation of children and youth with TBI across time and levels of severity...The results also demonstrated that the CASP scores were able to differentiate between groups, particularly for severe TBI (discriminant validity) over time in this sample” (p. 436).
Overall Relevance to your EBP Question	Overall Relevance of Article: Moderate Rationale: This article demonstrates the psychometric properties of a measurement for participation in children with a disability but does not address the environmental supports or barriers.
Overall Quality of Article	Overall Quality of Article: Good Rationale: A moderately established author, reputable journal, peer-reviewed, published within 10 years.

	Overview of Article
Type of article	Overall Type: Primary Research Study Specific Type: Survey Research (Interview and Focus Groups)
APA Reference	Gray, D. B., Hollingsworth, H. H., Stark, S. L., & Morgan, K. A. (2006). Participation survey/mobility: Psychometric properties of a measure of participation for people with mobility impairments and limitations. <i>Archives of Physical Medicine and Rehabilitation</i> , 87(2), 189-197. https://doi.org/10.1016/j.apmr.2005.09.014
Abstract	<p>“Objective: To describe the development and psychometric properties of a self-report survey of participation by people with mobility limitations, the Participation Survey/Mobility (PARTS/M). Design: The information obtained during interviews and focus groups was used to develop items for the PARTS/M. Demographics and measures of disability, health, and functioning were collected. The PARTS/M was administered twice. Setting: Primarily in the midwestern United States. Participants: Purposeful sample of 604 people with mobility limitations having a diagnosis of spinal cord injury, multiple sclerosis, cerebral palsy, stroke, or postpoliomyelitis. Interventions: Not applicable. Main Outcome Measure: PARTS/M is composed of 20 major life activities that are placed in 6 domains used in the activity/participation component of the International Classification of Functioning, Disability and Health: self-care; mobility; domestic life; interpersonal interactions and relationships; major life areas; and community, social, and civic life. For each activity, questions were asked about components of participation including frequency, health-related limitations, importance, choice, satisfaction, use of assistive technology, and use of personal assistance. Results: PARTS/M domains and components of participation had good internal consistency and stability. Composite participation scores were developed for participation components and domains. Conclusions: PARTS/M is a reliable measure of some aspects of participation in major life activities for people with mobility impairments and limitations living in community settings” (p.189).</p>
Author	Credentials: PhD Position and Institution: Occupational Therapy Professor, Department of Neurology, Washington University School of Medicine Publication History in Peer-Reviewed Journals: Extensive
Publication	Type of publication: scholarly peer review journal Publisher: Elsevier Other: Volume 87 Issue 2
Date and Citation History	Date of publication: February 2006 Cited By: 177
Stated Purpose or Research Question	“This article describes the development and psychometric properties of a self-report survey that addresses participation in major life activities by people with mobility impairments and limitations, the Participation Survey/Mobility (PARTS/M)” (p. 190).
Author’s Conclusion	“The PARTS/M can be used to test the concept that disability incorporates not only personal limitations but also the environmental factors that may restrict or facilitate participation in doing activities in lived environments. The PARTS/M provides a measure for extending beyond basic functioning (e.g., hearing, seeing, walking) and basic body functions (e.g., bowel and bladder control, dressing, grooming) to participation in major life activities (e.g., travel, parenting, intimacy, leisure, work) that could provide evidence for social policy formation and court interpretation of existing legislation (e.g., ADA, Social Security disability income, Medicare, Rehabilitation Act)” (p. 196).
Overall Relevance to your EBP Question	Overall Relevance of Article: Good Rationale: This study is related to participation measures and psychometric properties. The assessment looks beyond personal limitations to look at ways in which the environment impacts participation. However the article focuses mostly on limitations rather than disability.
Overall Quality of Article	Overall Quality of Article: Good Rationale: Established author. Reputable journal and publisher.

	Overview of Article
Type of article	Overall Type: Primary Research Study Specific Type: Psychometric Research Study
APA Reference	Gray, D. B., Hollingsworth, H. H., Stark, S., & Morgan, K. A. (2008). A subjective measure of environmental facilitators and barriers to participation for people with mobility limitations. <i>Disability and Rehabilitation</i> , 30(6), 434-457. https://doi.org/10.1080/09638280701625377
Abstract	“Purpose. The aim of this paper is to describe the development and psychometric properties of a self-report survey of environmental facilitators and barriers to participation by people with mobility impairments. Method. A measure called the Facilitators and Barriers Survey of environmental influences on participation among people with lower limb Mobility impairments and limitations (FABS/M) was developed using items based on focus groups to ensure content validity. Discriminant validity was assessed on 604 individuals who completed the FABS/M once. Internal consistency and test-retest reliabilities were based on 371 individuals who completed two surveys. Results. The FABS/M includes 61 questions, 133 items and six domains including the type of primary mobility device; built features of homes; built and natural features in the community; community destination access; community facilities access; community support network. Environmental items are scored for the frequency of encounter and the magnitude of influence on their participation. The internal consistencies and the test-retest reliabilities of the domains of the FABS/M ranged from low to moderate. The discriminant validity of domains differed for device and diagnostic groups. Conclusion. The FABS/M joins the MQE and the CHIEF as another subjective measure for use in assessing environmental features important for understanding participation. The FABS can be used to assess the influence of environmental interventions at the individual and community levels of analysis. The type of primary mobility device that is used can be related to reported environmental barriers. Community-based improvements in built features, access to destinations, access to facilities and augmented support networks can be tracked through the reports of people with mobility impairments” (p. 434).
Author	Credentials: PhD Position and Institution: professor of Neurology and Occupational Therapy at Washington University School of Medicine Publication History in Peer-Reviewed Journals: extensive
Publication	Type of publication: scholarly peer-reviewed journal Publisher: Elsevier
Date and Citation History	Date of Publication: 2008 Google Scholar Cited By: 120
Stated Purpose or Research Question	“This paper reports the methods used to develop, and the psychometric properties of, a measure of environmental features important for facilitating or restricting participation in major life activities for people with mobility impairments. The measure was developed using qualitative and quantitative methods within the general guidelines of participatory action research” (p. 435).
Author’s Conclusion	“The FABS/M can be used at the individual level to develop community participation interventions and as an outcome measure of the effectiveness of those interventions” (p. 442).
Overall Relevance to EBP Question	Overall Relevance to EBP Question: Good Rationale: This article evaluates a measure which examines the environmental facilitators and barriers for participation for people with mobility impairments. This is a great fit for our research question, but it only looks at one disability population (mobility impairment), and not all.
Overall Quality of Article	Overall Quality of Article: Good quality Rationale: Well-established author, published in a reputable journal, published in the last 15 years.

	Overview of Article
Type of article	Overall Type: Primary Research Study Specific Type: Survey, construct validity and utility, confirmatory factor analysis, structural equation modeling approach
APA Reference	Han, C. W., Yajima, Y., Lee, E. J., Nakajima, K., Meguro, M., & Kohzuki, M. (2005). Validity and utility of the Craig Hospital Inventory of Environmental Factors for Korean community-dwelling elderly with or without stroke. <i>The Tohoku Journal of Experimental Medicine</i> , 206(1), 41–49. https://doi.org/10.1620/tjem.206.41
Abstract	“The social environmental barriers are considered to be important because the “social participation” of people with impairments would be facilitated by the prevention and reduction of environmental barriers. The Craig Hospital Inventory of Environmental Factors (CHIEF) is one of the few scales to assess the environmental barriers. In this study, we developed the Korean version of CHIEF and evaluated its construct validity and utility in a sample of Korean community-dwelling elderly with or without stroke. We evaluated the construct validity of the CHIEF by testing the original five-factor structure using a confirmatory factor analysis in 400 elderly in Seoul, Korea. The utility of the CHIEF was then assessed by examining the relationships between individual characteristics, Barthel Index and perceived environmental barriers, measured by the CHIEF, using a structural equation modeling approach. The confirmatory factor analysis result demonstrated the validity of a second-order factor model of the CHIEF comprising the five factors as first-order factors. The perceived environmental barrier was a second-order factor when provided acceptable fit indices after two modifications. The structural equation modeling indicates that perceived environmental barriers are significantly related to activities of daily life but not age, gender, and the episode of stroke. The CHIEF is useful in measuring environmental factors for Korean older adults with or without stroke” (p. 41).
Author	Credentials: Unable to find anything regarding lead author, was able to find credentials for author Masahiro Kohzuki: M.D., PhD (also listed as the author to contact) Position and Institution: Department of Internal Medicine and Rehabilitation Science, Tohoku University Graduate School of Medicine Publication History in Peer-Reviewed Journals: Extensive
Publication	Type of publication: Scholarly peer-reviewed journal Publisher: Japan Science and Technology Agency Other: All articles are available to the public at no cost under open access by Japan Science and Technology Information Aggregate, Electronic (J-STAGE)
Date and Citation History	Date of publication: 2005 Cited By: 21
Stated Purpose or Research Question	“The Craig Hospital Inventory of Environmental Factors (CHIEF) is one of the few scales to assess the environmental barriers. In this study, we developed the Korean version of CHIEF and evaluated its construct validity and utility in a sample of Korean community-dwelling elderly with or without stroke” (p. 41).
Author’s Conclusion	“The structural equation modeling indicates that perceived environmental barriers are significantly related to activities of daily life but not age, gender, and the episode of stroke. The CHIEF is useful in measuring environmental factors for Korean older adults with or without stroke” (p. 41).
Overall Relevance to your EBP Question	Overall Relevance of Article: Moderate Rationale: Overall, I think this is a decent study that could potentially be very relevant to our EBP question. Definitely addresses an important measure and also how this may translate to other cultures. However, as I looked into this article, it seems like it could be confusing and would require more research into the terms used. It also only addresses Korean individuals and stroke.
Overall Quality of Article	Overall Quality of Article: Moderate Rationale: There was a lack of information regarding the lead author, however extensive information was found on another author who was very established. The article is from a reputable journal; however it is from 2005 and may be outdated.

	Overview of Article
Type of article	Overall Type: Primary Research Study Specific Type: Cross-Sectional, Observational Cohort
APA Reference	Heinemann, A. W., Miskovic, A., Semik, P., Wong, A., Dashner, J., Baum, C., Magasi, S., Hammel, J., Tulsy, D. S., Garcia, S. F., Jerousek, S., Lai, J., Carlozzi, N. E., & Gray, D. B. (2016). Measuring environmental factors: Unique and overlapping International Classification of Functioning, Disability and Health coverage of 5 instruments. <i>Archives of Physical Medicine and Rehabilitation</i> , 97(12), 2113-2122. https://doi.org/10.1016/j.apmr.2016.05.021
Abstract	“Objectives: To describe the unique and overlapping content of the newly developed Environmental Factors Item Banks (EFIB) and 7 legacy environmental factor instruments, and to evaluate the EFIB’s construct validity by examining associations with legacy instruments. Design: Cross-sectional, observational cohort. Setting: Community. Participants: A sample of community-dwelling adults with stroke, spinal cord injury, and traumatic brain injury (N=568). Interventions: None. Main Outcome Measures: EFIB covering domains of the built and natural environment; systems, services, and policies; social environment; and access to information and technology; the Craig Hospital Inventory of Environmental Factors (CHIEF) short form; the Facilitators and Barriers Survey/Mobility (FABS/M) short form; the Home and Community Environment Instrument (HACE); the Measure of the Quality of the Environment (MQE) short form; and 3 of the Patient Reported Outcomes Measurement Information System’s (PROMIS) Quality of Social Support measures. Results: The EFIB and legacy instruments assess most of the International Classification of Functioning, Disability and Health (ICF) environmental factors chapters, including chapter 1 (products and technology; 75 items corresponding to 11 codes), chapter 2 (natural environment and human-made changes; 31 items corresponding to 7 codes), chapter 3 (support and relationships; 74 items corresponding to 7 codes), chapter 4 (attitudes; 83 items corresponding to 8 codes), and chapter 5 (services, systems, and policies; 72 items corresponding to 16 codes). Construct validity is provided by moderate correlations between EFIB measures and the CHIEF, MQE barriers, HACE technology mobility, FABS/M community built features, and PROMIS item banks and by small correlations with other legacy instruments. Only 5 of the 66 legacy instrument correlation coefficients are moderate, suggesting they measure unique aspects of the environment, whereas all intra-EFIB correlations were at least moderate. Conclusions: The EFIB measures provide a brief and focused assessment of ICF environmental factor chapters. The pattern of correlations with legacy instruments provides initial evidence of construct validity” (pp. 2113-2114).
Author	Credentials: PhD Position and Institution: Center for Rehabilitation Outcomes Research, Rehabilitation Institute of Chicago, Chicago, IL. Department of Physical Medicine and Rehabilitation, Feinberg School of Medicine, Northwestern University, Chicago, IL. Publication History in Peer-Reviewed Journals: Extensive
Publication	Type of publication: Scholarly peer-reviewed journal Publisher: Elsevier This research was also supported by the National Institute on Disability, Independent Living, and Rehabilitation Research through a Rehabilitation Research and Training Center on Improving Measurement of Medical Rehabilitation Outcomes grant (grant no. H133B090024); the National Institute on Disability and Rehabilitation Research (grant no. H133F140037); and the Craig H. Neilsen Foundation (grant no. 290474).
Date and Citation History	Date of publication: 2016 Cited By: 10
Stated Purpose or Research Question	“The aim of this study is to describe the content coverage of the ICF framework represented by the EFIB and legacy environmental factors instruments, and to evaluate construct validity” (p. 2115).
Author’s Conclusion	“Use of EFIB measures allows clinicians and investigators to evaluate the extent to which their interventions reduce environmental barriers and enhance environmental facilitators, therefore promoting greater levels of participation” (p. 2121).
Overall Relevance to your EBP Question	Overall Relevance of Article: Good Rationale: This article appears to be very relevant to our EBP question. It compares several different measures of environmental supports and barriers for individuals with disabilities and how this can help improve participation. Also examines the validity of the EFIB.
Overall Quality of Article	Overall Quality of Article: Good Rationale: Reputable journal, well established author, within the last 5 years, research study on relevant measures.

	Overview of Article
Type of article	Overall Type: Primary Research Study Specific Type: Survey
APA Reference	Heinemann, A. W., Lai, J. S., Magasi, S., Corrigan, J. D., Bogner, J. A., & Whiteneck, G. (2011). Measuring participation enfranchisement. <i>Archives of Physical Medicine and Rehabilitation</i> , 92(4), 564-571. http://doi.org/10.1016/j.apmr.2010.07.220
Abstract	“Objective: To reflect the perspectives of rehabilitation stakeholders in a measure of participation enfranchisement that can be used by people with and without disabilities. Design: Survey. Setting: Community settings. Participants: We pilot-tested a draft instrument with 326 adults who had sustained stroke, spinal cord injury, traumatic brain injury, or other disabling condition, as well as a general population sample. We administered a revised version of the instrument to a statewide sample drawn from the 2006 Colorado Behavioral Risk Factors Surveillance System that included persons with (N461) and without (N451) self-identified activity limitations. Interventions: None. Main Outcome Measure: Participation enfranchisement. Results: We used multidimensional scaling, exploratory factor analysis (EFA) and confirmatory factor analysis (CFA), followed by rating scale analysis to evaluate the psychometric properties of the instrument. EFA identified 3 participation enfranchisement factors that describe perceived choice and control, contributing to one’s community, and feeling valued; the factors were supported marginally by CFA. Rating scale analysis revealed marginal person separation and no misfitting items. Conclusions: Participation enfranchisement constitutes a new, previously unmeasured aspect of participation—one that addresses subjective perceptions rather than objective performance—with items that are clearly distinct from more generalized satisfaction with participation. The 19 enfranchisement items describe aspects of participation that may prove useful in characterizing longer-term rehabilitation outcomes” (p. 564).
Author	Credentials: PhD Position and Institution: Professor, Physical Medicine and Rehabilitation, Emergency Medicine, and Medical Social Sciences, Northwestern University Publication History in Peer-Reviewed Journals: Extensive
Publication	Type of publication: scholarly peer-reviewed journals Publisher: American Congress of Rehabilitation Medicine Other: Presented to the American Psychological Association
Date and Citation History	Date of publication: April, 2011 Cited By: 81
Stated Purpose or Research Question	“This study evaluated the psychometric properties of participation enfranchisement items with diverse disability and general population samples, reflecting the population for which the instrument is intended” (p. 565).
Author’s Conclusion	“This study developed participation enfranchisement items using the perspectives of rehabilitation stakeholders that may be useful to monitor longer-term rehabilitation outcomes. Additional items are needed to evaluate the factor structure of the construct” (p. 570).
Overall Relevance to your EBP Question	Overall Relevance of Article: Good Rationale: Reviews the psychometric properties of the instrument. Looks into multiple populations of disability and their right to participate in activities, such as voting.
Overall Quality of Article	Overall Quality of Article: Moderate Rationale: Published within the past 10 years. Established author. Based on a survey, however.

	Overview of Article
Type of article	Overall Type: Primary Research Study Specific Type: Psychometric Study
APA Reference	Jespersen, L. N., Michelsen, S. I., Holstein, B. E., Tjørnhøj-Thomsen, T., & Due, P. (2018). Conceptualization, operationalization, and content validity of the EQOL-questionnaire measuring quality of life and participation for persons with disabilities. <i>Health & Quality of Life Outcomes</i> , 16(1), 199. https://doi.org/10.1186/s12955-018-1024-6
Abstract	<p>“Background: Measurement of quality of life demands thoroughly developed and validated instruments. The development steps from theory to concepts and from empirical data to items are sparsely described in the literature of questionnaire development. Furthermore, there seems to be a need for an instrument measuring quality of life and participation in a population with diverse disabilities. The aim of this paper was to present and discuss the initial steps in the development of the Electronic Quality of Life questionnaire (EQOL).</p> <p>Methods: The development of EQOL included six steps: 1) Establishing conceptual understanding; 2) Development of interview guides which build on the conceptual understanding; 3) Qualitative interviews of 55 participants (10–40 years old) with different types and severities of disabilities; 4) Conceptualization of domains identified in the qualitative data through thematic analysis; 5) Operationalization of the identified domains into items and; 6) Evaluation of content validity of the first version of the EQOL-measure. Content validity was examined by cognitive interviews with participants in the target group as well as by continuous feedback from an advisory board.</p> <p>Results: We identified six domains (function and health, environment (physical and social), social network, wellbeing, occupation, and managing strategies) based on themes derived from the qualitative interviews and on conceptual discussions within the author group. These domains were incorporated in a conceptual model and items were generated to measure the content of each domain. Participants expressed satisfaction with EQOL but most participants felt that there were too many items.</p> <p>Conclusions: In total, 191 items were included in the questionnaire. Participants felt that the EQOL-questionnaire was relevant to their quality of life and participation. We have shown that it is possible to include quality of life and participation for people with various disabilities in one instrument. Although capturing less detail than a condition specific instrument, EQOL includes aspects perceived important for people with disabilities who are not included in general surveys. This is relevant when for example evaluating environmental adaptations and when comparing populations with various disabilities” (p.1).</p>
Author	Credentials: PhD Position and Institution: Postdoctoral researcher, National Institute of Public Health, University of Southern Denmark Publication History in Peer-Reviewed Journals: Moderate
Publication	Type of publication: scholarly peer-reviewed journals Publisher: SpringerLink
Date and Citation History	Date of publication: October 11, 2018 Cited By: 3
Stated Purpose or Research Question	“The aim of this paper was therefore to present and discuss the initial development of the Electronic Quality of Life (EQOL) questionnaire (Fig. 1) attempting to measure quality of life and participation across people with diverse disabilities” (p. 3).
Author’s Conclusion	“Although evaluation of the psychometric properties is needed, we have shown, that it is possible to assess quality of life and participation in people with various diagnoses and functional limitations with a chronic generic questionnaire. Although capturing less detail than a condition specific questionnaire EQOL includes aspects perceived important for people with disabilities that are not included in general surveys” (p. 14).
Overall Relevance to your EBP Question	Overall Relevance of Article: Strong Rationale: This study is relevant to our question, because it looks at an assessment used to measure participation for individuals with disabilities. However, it lacks complete psychometric properties.
Overall Quality of Article	Overall Quality of Article: Moderate Rationale: This article is only cited in three other peer-reviewed publications. Established author. Published within the last 10 years.

	Overview of Article
Type of article	Overall Type: Primary Research Study Specific Type: Psychometric study
APA Reference	Khetani, M. A., Graham, J. E., Davies, P. L., Law, M. C., & Simeonsson, R. J. (2015). Psychometric properties of the Young Children's Participation and Environment Measure. <i>Archives of Physical Medicine and Rehabilitation</i> , 96(2). http://doi.10.1016/j.apmr.2014.09.031
Abstract	<p>“Objective: To evaluate the psychometric properties of the newly developed Young Children's Participation and Environment Measure (YC-PEM). Design: Cross-sectional study. Setting: Data were collected online and by telephone. Participants: Convenience and snowball sampling methods were used to survey caregivers of children (N=395, comprising children with [n=93] and without [n=302] developmental disabilities and delays) between the ages of 0 and 5 years (mean age \pm SD, 35.33\pm20.29mo) and residing in North America. Interventions: Not applicable. Main Outcome Measures: The YC-PEM includes 3 participation scales and 1 environment scale. Each scale is assessed across 3 settings: home, daycare/preschool, and community. Data were analyzed to derive estimates of internal consistency, test-retest reliability, and construct validity. Results: Internal consistency ranged from .68 to .96 and .92 to .96 for the participation and environment scales, respectively. Test-retest reliability (2–4wk) ranged from .31 to .93 for participation scales and from .91 to .94 for the environment scale. One of 3 participation scales and the environment scale demonstrated significant group differences by disability status across all 3 settings, and all 4 scales discriminated between disability groups for the daycare/preschool setting. The participation scales exhibited small to moderate positive associations with functional performance scores. Conclusions: Results lend initial support for the use of the YC-PEM in research to assess the participation of young children with disabilities and delays in terms of (1) home, daycare/preschool, and community participation patterns; (2) perceived environmental supports and barriers to participation; and (3) activity-specific parent strategies to promote participation” (p. 307).</p>
Author	Credentials: Mary A. Khetani, ScD Position and Institution: Department of Occupational Therapy, Colorado State University, Fort Collins, CO Publication History in Peer-Reviewed Journals: Extensive
Publication	Type of publication: scholarly peer-reviewed journal Publisher: American Congress of Rehabilitation Medicine
Date and Citation History	Date of Publication: 2015 Google Scholar Cited By: 78
Stated Purpose or Research Question	“The purpose of this study was to evaluate the internal consistency, <u>test-retest reliability</u> , and construct validity of the YC-PEM” (pg. 308).
Author's Conclusion	<p>“Results of this study lend initial <u>psychometric</u> support for use of the YC-PEM to document participation of 0- to 5-year-old children in large-sample research.” (pg. 314) “The YC-PEM provided consistent and stable estimates of (1) a young child's participation along multiple dimensions (i.e., frequency, level of involvement, desire for change), and (2) perceived environmental support for participation across the 0- to 5-year age range.” “Our findings suggest that all 4 YC-PEM scales may be used to derive reliable estimates when conducting studies about young children's participation in the home environment” (pg. 312).</p>
Overall Relevance to your EBP Question	Overall Relevance to EBP Question: Moderate Relevance The study is directly related to the psychometric properties of the YC-PEM assessment and results showed success however this assessment is only applicable to ages 0-5.
Overall Quality of Article	Overall Quality of Article: Good Quality Established author. Reputable journal and publisher. Publication within last 5 years

	Overview of Article
Type of article	Overall Type: Primary Research Study Specific Type: Psychometric Research Study (questionnaire)
APA Reference	McCauley, D., Gorter, J. W., Russell, D. J., Rosenbaum, P., Law, M., & Kertoy, M. (2013). Assessment of environmental factors in disabled children 2-12 years: Development and reliability of the Craig Hospital Inventory of Environmental Factors (CHIEF) for children-parent version. <i>Child: Care, Health & Development</i> , 39(3), 337–344. https://doi.org/10.1111/j.1365-2214.2012.01388.x
Abstract	<p>“Background Children with disabilities and their families experience environmental barriers in the school and community environments. There is a need to understand and appropriately measure environmental factors that influence activity and participation for disabled children. The purpose of this paper is to describe the adaptation process of the Craig Hospital Inventory of Environmental Factors (CHIEF) to make it suitable as a parent proxy measure for disabled children aged 2–12 years.</p> <p>Methods: The adaptation process consisted of four steps using data from previous research conducted at CanChild: (i) analysis of item–total correlations from all items on the CHIEF; (ii) frequency of endorsement; (iii) determination of the representativeness of the questions; and (iv) correlations on selected items. Once the items were selected, a test–retest reliability study was conducted.</p> <p>Results: The internal consistencies (a) for the time 1 and time 2 administrations were 0.76 and 0.78, respectively. Test–retest reliability of the questionnaire was ICC = 0.73 for the total product score.</p> <p>Conclusion The 10-item CHIEF for Children–Parent Version is an acceptable, easy-to-complete and reliable measure of perceived environmental barriers for disabled children 2–12 years of age” (p. 337).</p>
Author	<p>Credentials: MSc in Health Research Methodology</p> <p>Position and Institution: Research Development Officer at CanChild Centre for Childhood Disability Research, went to McMaster University.</p> <p>Publication History in Peer-Reviewed Journals: Moderate</p>
Publication	<p>Type of publication: scholarly peer-reviewed journal</p> <p>Publisher: Blackwell Publishing Ltd, Child: Care, Health and Development</p> <p>Other: Volume 39 Issue 3</p>
Date and Citation History	<p>Date of publication: June 8, 2012</p> <p>Cited By: 23</p>
Stated Purpose or Research Question	<p>“The purpose of this paper is to: (i) conduct secondary data analysis to determine which items are suitable for use as a parent-completed proxy measure for disabled children and (ii) collect data to determine reliability and utility of the CHIEF for Children–Parent Version. The goal was to create an acceptable, easy-to-complete and psychometrically sound version of the CHIEF that could be completed by parents of a disabled child as part of a larger outcome measurement system” (p. 338).</p>
Author’s Conclusion	<p>“The internal consistency and test–retest reliability from data collected in the current study for the CHIEF for Children– Parent Version yielded acceptable results” (p. 341).</p>
Overall Relevance to your EBP Question	<p>Overall Relevance of Article: Good</p> <p>Rationale: This study related to participation measures in regard to environmental barriers and its psychometric properties.</p>
Overall Quality of Article	<p>Overall Quality of Article: Moderate</p> <p>Rationale: Somewhat established author. One major limitation is that only 61/450 packages were mailed back by families. Published within the last 10 years.</p>

	Overview of Article
Type of article	Overall Type: Primary Research Study Specific Type: Psychometric Research Study
APA Reference	Noreau, L., Desrosiers, J., Robichaud, L., Fougereyrollas, P., Rochette, A., & Viscogliosi, C. (2004). Measuring social participation: Reliability of the LIFE-H in older adults with disabilities. <i>Disability & Rehabilitation</i> , 26(6), 346–352. https://doi.org/10.1080/09638280410001658649
Abstract	<p>“Purpose: Much more attention should be paid to instruments documenting social participation as this area is increasingly considered a pivotal outcome of a successful rehabilitation. The purpose of this study was to document the reliability of a participation measure, the Assessment of Life Habits (LIFEH), in older adults with functional limitations.</p> <p>Methods: Eighty-four individuals with physical disabilities living in three different environments were assessed twice with the LIFE-H, an instrument that documents the quality of social participation by assessing a person’s performance in daily activities and social roles (life habits).</p> <p>Results: The intraclass correlation coefficients (ICC) computed for intrarater reliability exceeded 0.75 for seven out of the 10 life habits categories. For interrater reliability, the total score and daily activities subscore are highly reliable (ICC 0.89), and the social roles subscore is moderately reliable (ICC = 0.64). ‘Personal care’ is the category with the highest ICC, and for five other categories ICCs are moderate to high (0.60).</p> <p>Conclusion: LIFE-H is a valuable addition to instruments that mostly emphasize the concepts of function or functional independence. It is particularly meaningful to evaluate the participation of older adults in significant social role domains such as recreation and community life. It may be considered among the instruments having the best fit with the ICF definition of participation (the person’s involvement in a life situation) and a majority of its related domains” (p. 346).</p>
Author	<p>Credentials: PhD</p> <p>Position and Institution: Professor in Rehabilitation Department at Laval University (Quebec City), Faculty of Medicine, Scientific Director at Center for Interdisciplinary Research in Rehabilitation and Social Integration</p> <p>Publication History in Peer-Reviewed Journals: Extensive</p>
Publication	<p>Type of publications: scholarly peer-reviewed journal</p> <p>Publisher: Taylor & Francis</p> <p>Other: Volume 26 Issue 6</p>
Date and Citation History	<p>Date of publication: 2004</p> <p>Cited By: 249</p>
Stated Purpose or Research Question	“Therefore, the purpose of this study was to document the test-retest and interrater reliability of the LIFE-H in older adults with functional limitations” (p. 347).
Author’s Conclusion	“In conclusion, the ICCs of most LIFE-H categories may be described as good to excellent, suggesting a reliability level comparable to that of other instruments used with older adults, such as the Functional Autonomy Measurement System16 or the Functional Independence Measure24 for similar participation domains” (p. 351).
Overall Relevance to your EBP Question	<p>Overall Relevance of Article: Good</p> <p>Rationale: This study is directly related to participation measures and psychometric properties. This measure suggests reliability levels similar to that of other measures for adults.</p>
Overall Quality of Article	<p>Overall Quality of Article: Good</p> <p>Rationale: Established author. Reputable journal and publisher.</p>

	Overview of Article
Type of article	Overall Type: Primary Research Study Specific Type: Psychometric Research Study
APA Reference	Noreau, L., Lepage, C., Boissiere, L., Picard, R., Fougeryrollas, P., Mathieu, J., Desmarais, G. & Nadeau, L. (2007). Measuring participation in children with disabilities using the Assessment of Life Habits. <i>Developmental Medicine & Child Neurology</i> , 49(9), 666-671. https://doi.org/10.1111/j.1469-8749.2007.00666.x
Abstract	“The objectives of this study were: (1) to examine the psychometric properties of the Assessment of Life Habits (LIFE-H) for children; and (2) to draw a profile of the level of participation among children of 5 to 13 years of age with various impairments. The research team adapted the adult version of the LIFE-H in order to render it more appropriate for the daily life experiences of children. Content validity was verified by an expert panel of 29 people, made up of parents, paediatric clinicians, and researchers. Reliability and construct validity of the LIFE-H for children (interview-administered form) was tested during an experiment that comprised three sessions of interviews with a group of 94 parents of children with disabilities (36 males, 58 females; mean age 8y 10mo [SD 2y 6 mo]; diagnostic groups: cerebral palsy, myelomeningocele, sensory-motor neuropathy, traumatic brain injury, and developmental delay). Overall, the LIFE-H showed high intrarater reliability with intraclass correlation coefficient values of 0.78 or higher for 10 out of 11 categories. The correlations between the LIFE-H and the tools used in pediatric rehabilitation varied, and categories with similar constructs generally led to higher correlations. The psychometric properties of the LIFE-H are appropriate and its content allows a complete description of participation among children with disabilities” (p. 666).
Author	Credentials: PhD Professor in Rehabilitation Department at Laval University (Quebec City), Faculty of Medicine, Scientific Director at Center for Interdisciplinary Research in Rehabilitation and Social Integration Publication History in Peer-Reviewed Journals: extensive
Publication	Type of publication: scholarly peer-reviewed journal Publisher: Wiley Online Library Other: Volume 49 Issue 2
Date and Citation History	Date of publication: August 20, 2007 Cited By: 175
Stated Purpose or Research Question	“...the study objectives were to establish the psychometric properties of the LIFE-H for children (reliability and construct validity) and to draw a profile of participation of children with various impairments” (p. 666).
Author’s Conclusion	“In conclusion, the psychometric properties of the LIFE-H are comparable to several tools used in paediatric rehabilitation and meet the usual methodological standards” (p. 670).
Overall Relevance to your EBP Question	Overall Relevance of Article: Good Rationale: This study relates to both participation measures and psychometric properties. The purpose of this article is to establish psychometric properties of a participation assessment for children, which directly relates to the EBP question.
Overall Quality of Article	Overall Quality of Article: Good Rationale: Established author. Reputable journal and publication.

	Overview of Article
Type of article	Overall Type: Primary Research Study Specific Type: Semi-structured interview and questionnaire
APA Reference	Panuccio, F., Berardi, A., Auxiliadora Marquez, M., Patrizia Messina, M., Valente, D., Tofani, M., & Galeoto, G. (2020). Development of the Pregnancy and Motherhood Evaluation Questionnaire (PMEQ) for evaluating and measuring the impact of physical disability on pregnancy and the management of motherhood: A pilot study. <i>Disability and Rehabilitation</i> , 1-7. https://doi.org/10.1080/09638288.2020.1802520
Abstract	“Purpose: The aim of this study was to develop a questionnaire that allows researchers to investigate and measure the impact of physical disability on pregnancy and the management of motherhood. Such a questionnaire requires good internal consistency. METHODS: The tool was developed following a study conducted in 2013 in the United States consisting of a semi-structured interview with open-ended questions. A team of three experts drafted and refined the questions, generating 31 retrospective, self-rated, and predefined questions (answered using a 5-point Likert scale). A statistical analysis of the instrument was also included, to assess its reliability and internal consistency. RESULTS: The Pregnancy and Motherhood Evaluation Questionnaire (PMEQ) was prepared. It is a self-administered questionnaire consisting of an initial section and three subscales. In this phase of the study, 35 women with different pathologies leading to physical disability were recruited and completed the questionnaire. The PMEQ was found to have a good internal consistency. Cronbach’s α was 0.812 ($p > 0.05$). CONCLUSION: The PMEQ has proven to be a valid, reliable, and rapid administrative tool useful for investigating and measuring the impact of physical disability on the management of pregnancy and motherhood. This study provides researchers and clinicians a new tool for the evaluation of motherhood and pregnancy in women with physical disabilities. The PMEQ has proven to be a valid, reliable, and rapid administrative tool (10 min) useful for investigating and measuring the impact of physical disability on the management of pregnancy and motherhood. It is a new tool useful in both clinical and research practice to underline the importance of carrying out preventive and woman-centered assistance interventions. This tool is useful for promoting the autonomous management of pregnancy and motherhood in women with physical disabilities, and improving these women’s quality of life and sense of satisfaction and competence in managing maternal tasks” (p. 1).
Author	Credentials: None listed for lead author, credentials found for author Giovanni Galeoto, DPT Position and Institution: Sapienza University of Rome, Rome, Italy. Department of Public Health and Infectious Diseases. Publication History in Peer-Reviewed Journals: For lead author Francesca Roberta Panuccio: Moderate
Publication	Type of publication: Scholarly peer-reviewed journal Publisher: Taylor & Francis Group Other: International company originating in England that publishes books and academic journals
Date and Citation History	Date of publication: 2020 Cited By: 1
Stated Purpose or Research Question	“The aim of this study was to develop a questionnaire that allows researchers to investigate and measure the impact of physical disability on pregnancy and the management of motherhood. The questionnaire must have good internal consistency” (p. 2).
Author’s Conclusion	“The PMEQ has proven to be a valid, reliable, and rapid administrative tool (10 min) useful for investigating and measuring the impact of physical disability on the management of pregnancy and motherhood. It is a new tool useful in both clinical and research practice to underline the importance of carrying out preventive and woman-centered assistance interventions, useful for promoting the autonomous management of pregnancy and motherhood in women with physical disabilities, and improving these women’s quality of life and sense of satisfaction and competence toward maternal tasks” (p. 5).
Overall Relevance to your EBP Question	Overall Relevance of Article: Moderate Rationale: Overall, I think this is a really interesting article that could be a good addition for our project. It discussed a more specific, yet important, topic (pregnancy, motherhood, and disability) that could be good to acknowledge in our project. On the other hand, it could also be a little too specific in terms of population. It was also conducted in Rome, Italy.
Overall Quality of Article	Overall Quality of Article: Moderate Rationale: This article came out this year so it is very new and relevant, however there was a small sample size and has not been cited many times. It was also extremely difficult to find any credentials or information on the lead author.

	Overview of Article
Type of article	Overall Type: Primary Research Study Specific Type: Psychometric research study.
APA Reference	Rosenberg, L., Ratzon, N. Z., Jarus, T., & Bart, O. (2010). Development and initial validation of the Environmental Restriction Questionnaire (ERQ). <i>Research in Developmental Disabilities, 31</i> (6), 1323-1331. https://doi.org/10.1016/j.ridd.2010.07.009
Abstract	“The purpose of this manuscript was to develop and test the psychometric properties of the Environmental Restriction Questionnaire (ERQ) a parent-reported questionnaire for measuring perceived environmental restrictions for young children participation. Reliability and homogeneity were tested by Cronbach's alpha and inter-item correlations. Construct validity was computed by factor analysis and known group differences analysis. Convergent and divergent validities were calculated by correlation with the Children Participation Questionnaire (CPQ). Participants were 290 children and their parent. Seventy-five children who were referred to occupational therapy evaluation as consequence of moderate developmental disabilities and 215 children without any disability (mean age \pm standard deviation for total sample, 5 y, 3 mo \pm .65 y; range, 3 y, 11 mo to 6 y, 10 mo). The ERQ has good internal reliability. Cronbach's alpha for the ERQ measures ranged between .75 and .91, indicating adequate homogeneity. Factor analysis yielded three factors that explained almost 48% of the total variance. Significant differences were found between known groups. Convergent and divergent validity were supported by various correlations with the Children Participation Questionnaire (CPQ). The ERQ has demonstrated good psychometric properties and can be used as a reliable and valid measure to assess perceived environmental restriction at the age of 4–6 y” (p. 1323).
Author	Credentials: OTR Position and Institution: Department of Occupational Therapy, School of Health Professions, Sackler Faculty of medicine, Tel Aviv University Publication History in Peer-Reviewed Journals: extensive
Publication	Type of Publication: scholarly peer-reviewed journal Publisher: Elsevier
Date and Citation History	Date of Publication: 2010 Google Scholar Cited by: 16
Stated Purpose or Research Question	“we hypothesized that the ERQ will be internally reliable and valid...the ERQ will be able to differentiate between groups of children with diverse levels of participation, and between children from families with different income levels...that construct validity will be supported by factor analysis” (p. 1324).
Author's Conclusion	“the ERQ can be used as a reliable and valid measure to assess parental perceptions of environmental restrictions on the participation of their 4–6 y old children” (p. 1329).
Overall Relevance to your EBP Question	Overall Relevance of Article: moderate Rationale: This article has psychometric properties of a measurement of environmental supports and barriers, but not participation.
Overall Quality of Article	Overall Quality of Article: good Rationale: Established author, reputable journal, published within the last 10 years

	Overview of Article
Type of article	Overall Type: Primary Research Study Specific Type: Cross-Sectional Study.
APA Reference	Tsai, I. H., Graves, D. E., Chan, W., Darkoh, C., Lee, M. S., & Pompeii, L. A. (2017). Environmental barriers and social participation in individuals with spinal cord injury. <i>Rehabilitation Psychology</i> , 62(1), 36-44. https://doi.org/10.1037/rep0000117
Abstract	“Objective: The study aimed to examine the relationship between environmental barriers and social participation among individuals with spinal cord injury (SCI). Method: Individuals admitted to regional centers of the Model Spinal Cord Injury System in the United States due to traumatic SCI were interviewed and included in the National Spinal Cord Injury Database. This cross-sectional study applied a secondary analysis with a mixed effect model on the data from 3,162 individuals who received interviews from 2000 through 2005. Five dimensions of environmental barriers were estimated using the short form of the Craig Hospital Inventory of Environmental Factors—Short Form (CHIEF-SF). Social participation was measured with the short form of the Craig Handicap Assessment and Reporting Technique—Short Form (CHART-SF) and their employment status. Results: Subscales of environmental barriers were negatively associated with the social participation measures. Each 1 point increase in CHIEF-SF total score (indicated greater environmental barriers) was associated with a 0.82 point reduction in CHART-SF total score (95% CI: -1.07, -0.57) (decreased social participation) and 4% reduction in the odds of being employed. Among the 5 CHIEF-SF dimensions, assistance barriers exhibited the strongest negative association with CHART-SF social participation score when compared to other dimensions, while work/school dimension demonstrated the weakest association with CHART-SF. Conclusions: Environmental barriers are negatively associated with social participation in the SCI population. Working toward eliminating environmental barriers, especially assistance/service barriers, may help enhance social participation for people with SCI” (p. 36).
Author	Credentials: PhD, MD Position and Institution: School of Public Health, National Defense Medical Center, Taipei, Taiwan, and School of Medicine, National Taiwan University Hospital, Chu-Tung Branch Publication History in Peer-Reviewed Journals: extensive
Publication	Type of Publication: scholarly peer-reviewed journal Publisher: American Psychological Association
Date and Citation History	Date of Publication: 2017 Google Scholar Cited by: 23
Stated Purpose or Research Question	“The purpose of our study was to reexamine the NSCID data (from 2000 to 2005), which includes CHIEF-SF and CHART-SF for measurement” (p. 37).
Author’s Conclusion	“Environmental barriers are negatively associated with social participation in the SCI population” (p. 43).
Overall Relevance to your EBP Question	Overall Relevance of Article: good Rationale: This article examines a measurement of participation and environmental supports and barriers in individuals with a disability
Overall Quality of Article	Overall Quality of Article: good Rationale: established author, reputable journal, published within the last 10 years

	Overview of Article
Type of article	Overall Type: Primary Research Study Specific Type: New Instrument Development
APA Reference	Whiteneck, G. G., Harrison-Felix, C. L., Mellick, D. C., Brooks, C. A., Charlifue, S. B., & Gerhart, K. A. (2004). Quantifying environmental factors: A measure of physical, attitudinal, service, productivity, and policy barriers. <i>Archives of Physical Medicine and Rehabilitation</i> , 85(8), 1324–1335. https://doi.org/10.1016/j.apmr.2003.09.027
Abstract	“Objective: To develop and test a new instrument to assess environmental barriers encountered by people with and without disabilities by using a questionnaire format. Design: New instrument development. Setting: A rehabilitation hospital and community. Participants: Two convenience samples: (1) 97 subjects, 50 with disabilities and 47 without disability, and (2) 409 subjects with disabilities from spinal cord injury, traumatic brain injury, multiple sclerosis, amputation, or auditory or visual impairments. In addition, a population-based sample in Colorado of 2269 people (mean age, 44y; 57% men) with and without disabilities. Interventions: Not applicable. Main Outcome Measures: Item development; factor structure; test-retest, subject-proxy and internal consistency reliability; content, construct, and discriminant validity; and subscale and abbreviated version development. Results: Panels of experts on disability developed items for the Craig Hospital Inventory of Environmental Factors (CHIEF). The instrument measured the frequency and magnitude of environmental barriers reported by individuals. Five subscales were derived from factor analysis measuring (1) attitudes and support, (2) services and assistance, (3) physical and structural, (4) policy, and (5) work and school environmental barriers. The CHIEF total score had high test-retest reliability (intraclass correlation coefficient [ICC],.93) and high internal consistency (Cronbach .93), but lower participant-proxy agreement (ICC.62). Significant differences were found in CHIEF scores among groups of people with known differences in disability levels and disability categories. Conclusions: The CHIEF has good test-retest and internal consistency reliability with evidence of content, construct, and discriminant validity resulting from its development strategy and psychometric assessments in samples of the general population and among people with a variety of disabilities” (p. 1324).
Author	Credentials: Gale G Whiteneck, PhD, OTR Position and Institution: Research Department, Craig Hospital, Englewood, CO, USA Publication History in Peer-Reviewed Journals: extensive
Publication	Type of publication: scholarly peer-reviewed journal Publisher: American Congress of Rehabilitation Medicine
Date and Citation History	2004 Google scholar cited by: 321
Stated Purpose or Research Question	“To develop and test a new instrument to assess environmental barriers encountered by people with and without disabilities by using a questionnaire format” (pg. 1324)
Author’s Conclusion	“This research can be a step toward improving the lives of people with disability by turning environmental barriers into environmental facilitators” (pg. 1330). “The CHIEF has good test-retest and internal consistency reliability with evidence of content, construct, and discriminant validity resulting from its development strategy and psychometric assessments in samples of the general population and among people with a variety of disabilities” (pg. 1324).
Overall Relevance to your EBP Question	Overall Relevance to EBP Question: Moderate Relevance The study assessed a test and had positive results including psychometric assessments. This study also used samples of the general population and not one specific age group or disability. One downside is that the samples were chosen out of convenience and not random.
Overall Quality of Article	Overall Quality of Article: Good Quality Established author. Reputable journal and publisher. Publication within last 20 years. Cited by many other articles.

	Overview of Article
Type of article	Overall Type: Primary Research Study Specific Type: Mixed Methods.
APA Reference	Wilk, N., Tiberi, M., Lepiane, D., Patel, D., & Anaby, D. (2019). Capturing participation patterns with the aday-app: Perspectives of youth with disabilities. <i>Annals of International Occupational Therapy</i> , 2(3), 104–114. https://doi.org/10.3928/24761222-20190403-02
Abstract	“Introduction: Transition-aged youth with disabilities experience restrictions in participation. To support youth participation, occupational therapists need to understand these daily patterns. Objective: The goal of this study was to examine the perspectives of youth with physical disabilities on the usefulness of the Aday-App (App) in capturing participation patterns. Methods: Participants in this mixed-methods study included 12 youth with physical disabilities who were 15 to 23 years old. Participants used the App to complete a 24-hour activity log over the course of 2 typical days. Graphs describing daily patterns were created (QUAN) to facilitate self-reflection through individual interviews that were analyzed thematically (QUAL). The usability of the App was measured with the Usefulness, Satisfaction, and Ease of use questionnaire, and the results were analyzed descriptively (QUAN). Results: The findings indicated that the App was easy to learn and use. Six themes emerged to describe an array of occupations and applicability of the App, including directing attention to participation, determinants of participation, social engagement, and future desires. Conclusion: This small-scale study provided initial support for the usefulness of the Aday-App and the information it generates in observing real-life participation patterns and identifying current and future occupations. Further studies are needed to examine the utility of the App in setting goals and planning interventions to promote participation-based occupational therapy practice” (p. 104).
Author	Credentials: MScOT Position and Institution: Student at the School of Occupational and Occupational Therapy McGill University Montreal, Quebec, Canada Publication History in Peer-Reviewed Journals: Limited
Publication	Type of publication: Scholarly peer reviewed Publisher: Annals of International Occupational Therapy
Date and Citation History	Date of publication: 2019 Cited By: not listed
Stated Purpose or Research Question	“The goal of this study was to examine the perspectives of youth with physical disabilities on the usefulness of the Aday-App (App) in capturing participation patterns” (p. 105).
Author’s Conclusion	“This small-scale study provided initial support for the usefulness of the Aday-App and the information it generates in observing real-life participation patterns and identifying current and future occupations. Further studies are needed to examine the utility of the App in setting goals and planning interventions to promote participation-based occupational therapy practice” (p. 112).
Overall Relevance to your EBP Question	Overall Relevance of Article: Moderate Rationale: This study is relevant to our research question. It specifically addresses older aged youth with disabilities. It discusses participation patterns and the app that analyzes these patterns.
Overall Quality of Article	Overall Quality of Article: Moderate Rationale: While the study is well researched with many references it has not been cited numerous times, the author is a newer researcher

	Overview of Article
Type of article	Overall Type: Review of Research Study Specific Type: Systematic Review
APA Reference	Ballert, C. S., Hopfe, M., Kus, S., Mader, L., & Prodinge, B. (2019). Using the refined ICF linking rules to compare the content of existing instruments and assessments: A systematic review and exemplary analysis of instruments measuring participation. <i>Disability & Rehabilitation</i> , 41(5), 584–600. https://doi.org/10.1080/09638288.2016.1198433
Abstract	“Background: Existing instruments measuring participation may vary with respect to various aspects. This study aimed to examine the comparability of existing instruments measuring participation based on the International Classification of Functioning, Disability and Health (ICF) by considering aspects of content, the perspective adopted and the categorization of response options. Methods: A systematic literature review was conducted to identify instruments that have been commonly used to measure participation. Concepts of identified instruments were then linked to the ICF following the refined ICF Linking Rules. Aspects of content, perspective adopted and categorization of response options were documented. Results: Out of 315 instruments identified in the full-text screening, 41 instruments were included. Concepts of six instruments were linked entirely to the ICF component Activities and Participation; of 10 instruments still 80% of their concepts. A descriptive perspective was adopted in most items across instruments (75%), mostly in combination with an intensity rating. An appraisal perspective was found in 18% and questions from a need or dependency perspective were least frequent (7%). Conclusion: Accounting for aspects of content, perspective and categorization of responses in the linking of instruments to the ICF provides detailed information for the comparison of instruments and guidance on narrowing down the choices of suitable instruments from a content point of view. Implications for Rehabilitation: For clinicians and researchers who need to identify a specific instrument for a given purpose, the findings of this review can serve as a screening tool for instruments measuring participation in terms of the following: Their content covered based on the ICF, The perspective adopted in the instrument (e.g., descriptive, need/dependency or appraisal), The categorization of their response options (e.g., intensity or frequency)” (p. 584).
Author	Credentials: Carolina S. Ballert MSc Position and Institution: Swiss Paraplegic Research, ICF Unit, Nottwil, Switzerland; Department of Health Sciences and Health Policy, University of Lucerne, Lucerne, Switzerland Publication History in Peer-Reviewed Journals: Extensive
Publication	Type of publication: scholarly peer-reviewed journal Publisher: Taylor & Francis Other: International, multidisciplinary journal
Date and Citation History	Date of publication: 2019 Cited By: 13
Stated Purpose or Research Question	“the main object of this review was to examine the comparability of existing instruments measuring participation based on the ICF by considering aspects of the content, the perspective adopted and the categorization of response options” (p. 585).
Author’s Conclusion	“Based on the findings of this review, the refinements of the ICF Linking Rules provide a more detailed insight into similarities and differences in comparing instruments. Such detailed linking results can be useful for clinicians and researchers who need to identify an instrument to measure outcome or to assess the resources and restrictions of a person in various participation domains to specify intervention goals” (p. 600).
Overall Relevance to your EBP Question	Overall Relevance of Article: Moderate Rationale: This study is directly related to measurements of participation for individuals with disabilities. However, it does not discuss environmental supports and barriers
Overall Quality of Article	Overall Quality of Article: Good Rationale: Established author. Reputable journal and publisher. Publication within the last year.

	Overview of Article
Type of article	Overall Type: Review of Research Study Specific Type: Systematic Review
APA Reference	Chang, F. H., Coster, & W. J., Helfrich, C. A. (2013). Community participation measures for people with disabilities: A systematic review of content from an International Classification of Functioning, Disability and Health perspective. <i>Archives of Physical Medicine and Rehabilitation</i> , 94(4)771-781. https://doi.org/10.1016/j.apmr.2012.10.031
Abstract	<p>“Objective: To identify instruments that measure community participation in people with disabilities and to evaluate which domains, to what extent, and how precisely they address this construct. The review aims to provide information to guide the selection of community participation instruments and to identify limitations of existing measures. Data Sources: A systematic search was performed in PubMed, CINAHL, and PsychINFO in February and March 2012. The latest systematic reviews and references of searched articles were also reviewed to check for measures that were not identified in the initial search.</p> <p>Study Selection: Instruments were included if they (1) were a self-report questionnaire; (2) measured community participation, participation, or community integration; (3) measured actual participation (rather than subjective experience); (4) had available information on the instrument content and measurement properties; (5) were designed for adults; and (6) were applicable for all disabled populations. Data Extraction: Instruments were obtained from identified full-text articles, reference lists, or websites. Two researchers independently reviewed each selected instrument to determine which of their items measure community participation. These items were then classified using 9 community participation domains from the <i>International Classification of Functioning, Disability and Health</i> to reflect each instrument's domain coverage. Data Synthesis: Seventeen instruments were identified as containing community participation items, 2 of which were 100% composed of community participation items. The rest of the instruments included 8.7% to 73.1% items measuring community participation. The domain coverage varied from 3 to 8 domains across the instruments. Conclusions: None of the 17 instruments covered the full breadth of community participation domains, but each addressed community participation to some extent. New instruments that evaluate community participation more comprehensively will be needed in the future” (p. 771).</p>
Author	Credentials: MPH OTR, Position and Institution: Boston University of Health and Rehabilitation Sciences Publication History in Peer-Reviewed Journals: Extensive
Publication	Type of publication: Scholarly peer reviewed Publisher: Archives of Physical Medicine and Rehabilitation
Date and Citation History	Date of publication: 2013 Cited By: 99
Stated Purpose or Research Question	“(1) identifying and describing instruments that measure community participation, (2) examining to what extent the overall concept of community participation is represented in these instruments, and (3) examining how extensively and frequently the community participation domains identified within the ICF are addressed by these instruments. The results can provide rich information about the features and limitations of existing measures and guide selection of instruments for the practitioners and researchers who plan to measure community participation” (p. 772).
Author's Conclusion	“Results of this systematic review identified 17 instruments that assess community participation. However, no single instrument was fully satisfactory for measuring community participation. Most of the instruments address community participation to a limited extent and do not cover the full breadth of community participation domains” (p. 778).
Overall Relevance to your EBP Question	Overall Relevance of Article: Moderate Rationale: This article relates to our EBP because it reviews various tools to assess participation in the community. This study does well in contributing to the scope of research available that measures community participation.
Overall Quality of Article	Overall Quality of Article: Good Rationale: This article has been cited many times. It is well written and does well addressing the limitations of the study. The author has an extensive other works.

	Overview of Article
Type of article	Overall Type: Review of Research Study Specific Type: Systematic Review
APA Reference	Chien, C., Rodger, S., Copley, J., & Skorka, K. (2014). Comparative content review of children's participation measures using the international classification of functioning, disability and health- children and youth. <i>Archives of Physical Medicine and Rehabilitation</i> , 95(1), 141-152. https://doi.org/10.1016/j.apmr.2013.06.027
Abstract	<p>“Objective: To evaluate to what extent instruments that intend to measure children’s participation actually do so, and to what extent their items can be classified according to the International Classification of Functioning, Disability and Health- Children and Youth (ICF-CY).</p> <p>Data Sources: A systematic search was conducted in MEDLINE, CINAHL, PsycINFO, ERIC, and EMBASE and was limited to the period between January 2000 and May 2011. The search terms of participation, outcome measure, and children were used to identify potential children’s participation measures.</p> <p>Data Selection: Instruments were included if they (1) evaluated children’s participation based on assessment purpose; (2) were suitable for use with children aged 2 to 12 years; (3) were generic assessments that could be used with a range of disabilities; and (4) involved self-report, proxy report, or interview administrations.</p> <p>Data Extraction: Instruments were obtained from identified full-text articles and were evaluated for inclusion through group discussion. Two researchers further independently reviewed each included instrument to determine which of the items measured participation based on a contemporary definition. These items were also classified using the ICF-CY linking rules to reflect each instrument’s content coverage.</p> <p>Data Synthesis: Sixteen instruments were identified with 11 found to have more than half of their items measuring participation, but only the School Function Assessment Participation section comprised 100% participation items. The participation items in each instrument captured between 3 and 9 ICF-CY Activities and Participation domains. Only the Child and Adolescent Scale of Participation and the Participation and Environment Measure for Children and Youth covered all domains. Among the ICF-CY Activities and Participation domains, the interpersonal interactions and relationships domain was addressed the least.</p> <p>Conclusions: This review revealed differences in the inclusion of participation items in existing children’s participation measures and their classification according to the ICF-CY. These differences need to be considered when selecting an instrument” (p. 141).</p>
Author	<p>Credentials: PhD</p> <p>Position and Institution: Professor, Occupational Therapy Division, School of Health and Rehabilitation Sciences, The University of Queensland</p> <p>Publication History in Peer-Reviewed Journals: Extensive</p>
Publication	<p>Type of publication: Scholarly peer-reviewed journal</p> <p>Publisher: American Congress of Rehabilitation Medicine</p>
Date and Citation History	<p>Date of publication: 2014</p> <p>Cited By: 96</p>
Stated Purpose or Research Question	<p>“Therefore, the purpose of the current content review was to evaluate and compare (1) to what extent instruments that intend to measure children’s participation actually do so according to Coster and Khetani’s definition of participation; and (2) to what extent the item content of those instruments can be classified using the ICF-CY framework” (p. 142).</p>
Author’s Conclusion	<p>“This content review concludes that the items from 11 of the 16 included instruments indeed measure children’s participation to a moderate extent, with the SFA-P comprising 100% participation items” (p. 148).</p>
Overall Relevance to your EBP Question	<p>Overall Relevance of Article: Good Relevance</p> <p>Rationale: This study is directly related to participation measures and their psychometric properties. It highlights multiple measures as well, which is helpful in determining what is available.</p>
Overall Quality of Article	<p>Overall Quality of Article: Good Quality</p> <p>Rationale: Established author. Publication within the last 10 years.</p>

	Overview of Article
Type of article	Overall Type: Review of Research Study Specific Type: Systemic Review
APA Reference	Eyssen, I., Steultjens, M. P., Dekker, J., & Terwee, C. B. (2011). A systematic review of instruments assessing participation: Challenges in defining participation. <i>Archives of Physical Medicine and Rehabilitation</i> . 92(6) 983-997. https://doi.org/10.1016/j.apmr.2011.01.006
Abstract	<p>“Objectives: To evaluate: (1) whether instruments which intend to measure participation actually do and (2) how frequently specific aspects and domains of participation are addressed. Data Sources: A systematic search was performed in PubMed.</p> <p>Study Selection Included were patient-reported instruments that primarily aim to measure participation. Data Extraction: The full-text instruments were extracted from the articles or obtained from the authors. Two reviewers independently rated each item of the included instruments as measuring participation (yes, no, or undetermined). For each item, the specific aspect and domain of participation were categorized. Data Synthesis: Included were 103 instruments (2445 items). Of the included items, 619 items concerned participation and 217 concerned undetermined items. In total, 68 instruments contained at least 1 (sub)scale with 50% or more participation or undetermined items. The participation items referred to the participation aspects: participation problems (53%), participation accomplishment (31%), and satisfaction with participation (9%). The domains of the participation items concerned: work/study (27%), social life (27%), general participation (19%), and home (11%). The undetermined items mainly referred to domains about leisure (43%), transport (26%), and shopping (12%). Conclusions: According to our working definition of participation, most instruments that aim to measure participation do so only to a limited extent. These instruments mainly assess aspects of participation problems and participation accomplishment. The domains of participation covered by these instruments primarily include work/study, social life, general participation, home, leisure, transport, and shopping” (p. 983).</p>
Author	<p>Credentials: OT</p> <p>Position and Institution: Dept of Rehabilitation Medicine, VU University Medical Center Amsterdam, The Netherlands</p> <p>Publication History in Peer-Reviewed Journals: Extensive</p>
Publication	<p>Type of publication: Scholarly peer reviewed</p> <p>Publisher: <i>Archives of Physical Medicine and Rehabilitation</i></p>
Date and Citation History	<p>Date of publication: 2011</p> <p>Cited By: 141</p>
Stated Purpose or Research Question	<p>“The present review evaluates: (1) to what extent instruments that intend to measure participation actually do so according to our working definition of participation (based on the key elements and general ideas in literature); and (2) how frequently specific aspects and domains of participation are addressed by these instruments. Problems and potential solutions related to the operationalization of participation are discussed” (p. 984).</p>
Author’s Conclusion	<p>“Our review shows that, according to our working definition of participation, most instruments that aim to measure participation do so only to a limited extent. Instruments differ in their content and operationalization of the concept participation. Most participation domains concerned the domains of work/study, social life, general participation, and home; fewer items concerned the domains family life and financial participation. Participation items mostly refer to participation problems and participation accomplishment and much less to satisfaction with participation” (p. 992).</p>
Overall Relevance to your EBP Question	<p>Overall Relevance of Article: Good</p> <p>Rationale: This article outlines the importance of a quality instrument to assess participation. The author concludes that the instruments often measure participation in a limited way, forgetting family and financial participation.</p>
Overall Quality of Article	<p>Overall Quality of Article: Moderate</p> <p>Rationale: This article has been cited many times and has many references. It is an older study by the author is well-researched.</p>

	Overview of Article
Type of article	Overall Type: Review of Research Study Specific Type: Systematic Review
APA Reference	Goujon, N., Devine, A., Baker, S. M., Sprunt, B., Edmonds, T. J., Booth, J. K., & Keeffe, J. E. (2014). A comparative review of measurement instruments to inform and evaluate effectiveness of disability inclusive development. <i>Disability and Rehabilitation</i> , 36(10), 804–812. https://doi.org/10.3109/09638288.2013.821178
Abstract	<p>“Purpose: A review of existing measurement instruments was conducted to examine their suitability to measure disability prevalence and assess quality of life, protection of disability rights and community participation by people with disabilities, specifically within the context of development programs in low and middle-income countries. Methods: From a search of PubMed and the grey literature, potentially relevant measurement instruments were identified and examined for their content and psychometric properties, where possible. Criteria for inclusion were: based on the WHO’s International Classification of Functioning Disability and Health (ICF), used quantitative methods, suitable for population-based studies of disability inclusive development in English and published after 1990. Characteristics of existing instruments were analysed according to components of the ICF and quality of life domains. Results: Ten instruments were identified and reviewed according to the criteria listed above. Each version of instruments was analysed separately. Only three instruments included a component on quality of life. Domains from the ICF that were addressed by some but not all instruments included the environment, technology and communication. Conclusion: The measurement instruments reviewed covered the range of elements required to measure disability-inclusion within development contexts. However, no single measurement instrument has the capacity to measure both disability prevalence and changes in quality of life according to contemporary disability paradigms. The review of measurement instruments supports the need for developing an instrument specifically intended to measure disability inclusive practice within development programs. Implications for Rehabilitation Surveys and tools are needed to plan disability inclusive development. Existing measurement tools to determine prevalence of disability, wellbeing, rights and access to the community were reviewed. No single validated tool exists for population-based studies, uses quantitative methods and the components of the ICF to measure prevalence of disability, well-being of people with disability and their access to their communities. A measurement tool that reflects the UNCRPD and addresses all components of the ICF is needed to assist in disability inclusive development, especially in low and mid resource countries” (p. 804).</p>
Author	Credentials: Nicolas Goujon, Post-doctoral Fellow Position and Institution: University of the Basque Country UPV/EHU Publication History in Peer-Reviewed Journals: moderate
Publication	Type of publication: scholarly peer-reviewed journal Publisher: Informa Healthcare
Date and Citation History	Date of publication: 2008 Google Scholar Cited By: 26
Stated Purpose or Research Question	“The aim of this paper is therefore to review the ability of existing measurement instruments to contribute to these objectives; that is, identify people with disabilities, and measure whether development programmes improve their lives, using a rights-based paradigm” (p. 805).
Author’s Conclusion	“This review demonstrates that while these measurement instruments [WCG short set, WCG long set, ICF Checklist/Questionnaire, WHO DAS II 12 Items, WHO DAS II 36 Items, ALS/PRS, NDSA Screening Set, NDSA Health Set, NDSA Extensive Set, Participation Scale, WHOQOL-BREF, CHIEF Short set, CHIEF Long set, UNICEF 10Q, PedsQLTM 4.0] have valuable qualities according to the context for which they were intended, no single instrument has the necessary characteristics to both measure disability prevalence and support the design, implementation and measurement of effectiveness of disability inclusive development programs” (p. 810).
Overall Relevance to your EBP Question	Overall Relevance to EBP Question: Moderate Relevance The study evaluated many different instruments for measuring disability prevalence, quality of life, protection of disability rights and community participation. This future study could be useful to discuss in our own conclusion.
Overall Quality of Article	Overall Quality of Article: Good Quality Established author. Reputable journal and publisher. Many references. Publication within last 10 years

	Overview of Article
Type of article	Overall Type: Review of Research Study Specific Type: Content Analysis
APA Reference	Gray, J. A., Zimmerman, J. L., & Rimmer, J. H. (2012). Built environment instruments for walkability, bikeability, and recreation: Disability and universal design relevant? <i>Disability and Health Journal</i> , 5(2), 87-101. https://doi.org/10.1016/j.dhjo.2011.12.002
Abstract	<p>“Background: Despite a plethora of instruments that measure the built environment with respect to its effect on potential physical activity, little is known about how relevant these instruments are for people with disabilities (PWDs).</p> <p>Objective: This review comprises an in-depth review of instruments related to the built environment and physical activity, as well as an examination of such instruments to determine their applicability for PWDs.</p> <p>Methods: In this paper, the term “built environment” refers to human-made structures (e.g., urban and rural design characteristics, recreational structures) that may facilitate or impede an individual’s ability to be physically active. A content analysis was conducted on 95 instruments measuring walkability, bikeability, and recreation with respect to disability and universal design (UD) relevance. Instruments were also cataloged according to other dimensions, including psychometric properties, data collection modalities, and impact or use.</p> <p>Results: Roughly one third of all instruments include some disability-specific items, and only a few UD principles are consistently demonstrated across all instruments. Psychometric information is available for approximately one half of the instruments. Most instruments use objective/audit methods of data collection, with less using subjective/perceived and Geographic Information System (GIS) methods. With respect to instrument impact/use, just over one half of the instruments have articles cited in the peer-reviewed literature.</p> <p>Conclusions: Recommendations for new and revised built environment instruments include more focus on specific disability populations, incorporation of all UD principles, as well as attention to psychometric quality and measurement specificity” (p. 87).</p>
Author	<p>Credentials: PhD, MPP</p> <p>Position and Institution: Associate Professor at Northern Illinois University, College of Health and Human Sciences</p> <p>Publication History in Peer-Reviewed Journals: moderate</p>
Publication	<p>Type of publication: Scholarly peer-reviewed journal</p> <p>Publisher: Elsevier</p> <p>Other: Official journal of the American Association of Health and Disability</p>
Date and Citation History	<p>2012</p> <p>Google Scholar Cited By: 74</p>
Stated Purpose or Research Question	“In this paper, we review published built environment instruments specific to walking, bicycling, and recreation to determine their disability and UD relevance. We provide additional information on instrument detail, instrument impact in the field to inform instrument development or revision” (p. 88).
Author’s Conclusion	“Our analysis of 95 instruments provides information on the gaps in disability, UD principles, and other issues in current built environment instrumentation related to walkability, bikeability, and recreation. More focus on various populations and topics, such as disability issues, as well as UD principle incorporation, psychometric analysis, and measurement specificity is needed. Such instruments will yield more detailed information on environmental accessibility for people with a variety of disabilities [25], and can help build communities that allow for PWDs and the population-at-large to lead healthy, active lives” (p. 98).
Overall Relevance to EBP Question	<p>Overall Relevance to EBP Question: moderate</p> <p>While this article has relevant information for our question, it had disappointing results since it determined that many of the available instruments are not sufficient and calls for new instruments to be created.</p>
Overall Quality of Article	<p>Overall Quality of Article: Good</p> <p>This article was published in a respected peer-reviewed journal less than eight years ago by an author with moderate experience in the field.</p>

	Overview of Article
Type of article	Overall Type: Review of Research Study Specific Type: Scoping Review
APA Reference	Hand, C., Law, M. C., McColl, M. A., Hanna, S., & Elliott, S. J. (2012). Neighborhood influences on participation among older adults with chronic health conditions: A scoping review. <i>OTJR: Occupation, Participation and Health</i> , 32(3), 95–109. https://doi.org/10.3928/15394492-20111222-02
Abstract	“Older adults with chronic health conditions face difficulties participating in everyday occupations but may gain support to do so from neighborhood environments. This article describes research regarding neighborhood influences on participation in this population. A scoping review identified 689 articles, of which 15 met the selection criteria. Findings indicate that neighborhood economic status, services/resources, mobility resources/barriers, physical problems, cohesion, and safety are linked to participation in older adults and older adults with chronic conditions. Most studies measured participation frequency or limitations and did not consider social support as a covariate. These findings can guide research to examine a range of neighborhood characteristics while considering the effects of the individual’s characteristics and social support. Longitudinal and qualitative research can also help to understand this complex area of study” (p. 95).
Author	Credentials: Carri Hand, PhD, BSc(OT) Position and Institution: Assistant Clinical Professor (part-time), McMaster University, Hamilton, Ontario, Canada Publication History in Peer-Reviewed Journals: extensive
Publication	Type of publication: scholarly peer-reviewed journal Publisher: Elsevier
Date and Citation History	Date of Publication: 2012 Google Scholar Cited By: 8
Stated Purpose or Research Question	“The purpose of this study was to perform a scoping review to describe and synthesize research regarding the influence of neighborhood characteristics on participation among older adults with chronic conditions. The specific objectives were to identify the neighborhood characteristics that appear to be related to participation and characterize the literature and identify gaps in terms of study design, sample, measurement of concepts, and complexity of factors that predict participation” (p. 96). “What is the extent, nature, and results of research regarding the influence of neighborhood characteristics on participation among older adults with chronic health conditions?” (p. 96)
Author’s Conclusion	“This scoping review showed that neighborhood economic status, services and resources, mobility resources and barriers, physical problems, cohesion, and safety are linked to participation in older adults with chronic conditions” (p. 101).
Overall Relevance to your EBP Question	Overall Relevance to EBP Question: Moderate Relevance This study had good information and evidence on the effects of economic status, services and resources, mobility, and safety concerns in the environment that link to older adult participation. This study was limited to the following health conditions: “arthritis, diabetes mellitus, heart disease, chronic obstructive pulmonary disorder, or depression” (p. 97).
Overall Quality of Article	Overall Quality of Article: Good Quality Established author. Reputable journal and publisher. Publication within last 10 years

	Overview of Article
Type of article	Overall Type: Review of Research Study Specific Type: Systematic Review
APA Reference	Lami, F., Egberts, K., Ure, A., Conroy, R., & Williams, K. (2017). Measurement properties of instruments that assess participation in young people with autism spectrum disorder: a systematic review. <i>Developmental Medicine & Child Neurology</i> , 60(3), 230-243. http://doi.org/10.1111/dmcn.13631
Abstract	<p>“Aim: To systematically review the measurement properties of instruments assessing participation in young people with autism spectrum disorder (ASD). Method: A search was performed in MEDLINE, PsycINFO, and PubMed combining three constructs (‘ASD’, ‘test of participation’, ‘measurement properties’). Results were restricted to articles including people aged 6 to 29 years. The 2539 identified articles were independently screened by two reviewers. For the included articles, data were extracted using standard forms and their risk of bias was assessed. Results: Nine studies (8 cross-sectional) met the inclusion criteria, providing information on seven different instruments. The total sample included 634 participants, with sex available for 600 (males=494; females=106) and age available for 570, with mean age for these participants 140.58 months (SD=9.11; range=36–624). Included instruments were the school function assessment, vocational index, children’s assessment of participation and enjoyment/preferences for activities of children, experience sampling method, Pediatric Evaluation of Disability Inventory, Computer Adaptive Test, adolescent and young adult activity card sort, and Patient-Reported Outcomes Measurement Information System parent-proxy peer relationships. Seven studies assessed reliability and validity; good properties were reported for half of the instruments considered. Most studies ($n=6$) had high risk of bias. Overall the quality of the evidence for each tool was limited. Interpretation: Validation of these instruments, or others that comprehensively assess participation, is needed. Future studies should follow recommended methodological standards. What this paper adds</p> <ul style="list-style-type: none"> • Seven instruments have been used to assess participation in young people with autism. • One instrument, with excellent measurement properties in one study, does not comprehensively assess participation. • Studies of three instruments that incorporate a more comprehensive assessment of participation have methodological limitations. • Overall, limited evidence exists regarding measurement properties of participation assessments for young people with autism” (p. 230).
Author	<p>Credentials: Francesca Lami PhD Position and Institution: Department of Paediatrics, Faculty of MDHS, The University of Melbourne, Melbourne Victoria; Developmental Disability and Rehabilitation Research, Murdoch Children’s Research Institute, Melbourne, Victoria. Publication History in Peer-Reviewed Journals: Extensive</p>
Publication	<p>Type of publication: Scholarly, peer-reviewed journal Publisher: Mac Keith Press Other: Peer-reviewed academic journal</p>
Date and Citation History	<p>Date of publication: 2017 Cited By: 4</p>
Stated Purpose or Research Question	“Aim: To systematically review the measurement properties of instruments assessing participation in young people with autism spectrum disorder (ASD)” (p. 230).
Author’s Conclusion	“Existing tools that were evaluated in this population fall short of what is needed for a comprehensive assessment of participation. Evidence about their measurement properties is also incomplete and most studies had a high risk of bias. To assess participation in a way that could benefit young people with ASD we need instruments that fulfill requirements described by experts in the field and remain relevant to the ICF framework” (p. 241).
Overall Relevance to your EBP Question	<p>Overall Relevance of Article: Good Rationale: This study is directly related to measurements of participation for individuals with disabilities, specifically ASD.</p>
Overall Quality of Article	<p>Overall Quality of Article: Moderate Rationale: Established Author, Moderately credible journal and publisher. Published in the last 3 years.</p>

	Overview of Article
Type of article	Overall Type: Review of Research Study Specific Type: Systematic Review
APA Reference	Noonan, V. K., Miller W. C., & Noreau L. (2009). A review of instruments assessing participation in persons with spinal cord injury. <i>Spinal Cord</i> , 47(6), 435-446. https://doi.org/10.1038/sc.2008.171
Abstract	“Objectives: To critically review instruments that assess participation in persons with spinal cord injury (SCI). Setting: Vancouver, British Columbia. Methods: Four electronic databases (MEDLINE/PubMed, CINAHL, EMBASE and PsychInfo) were searched for studies published between 1980 and March 2008. Instruments were included if information was published in English in at least one peer-reviewed journal on its measurement properties (reliability, validity and responsiveness) in a sample that included adults with SCI. Instruments were evaluated using criteria proposed for disability outcome measures. Results: Six instruments were included: Craig Handicap Assessment and Reporting Technique (CHART); Impact on Participation and Autonomy Questionnaire (IPA); Assessment of Life Habits Scale (Life-H); Occupational Performance History Interview; Physical Activity Recall Assessment for People with Spinal Cord Injury; and Reintegration to Normal Living Index. Evidence supporting the reliability of the instruments was reported for four of the six instruments and was adequate. Validity was assessed in all the instruments. Only the Life-H and CHART have been compared with each other. No evidence on responsiveness was available. Conclusion: The instruments differ in how participation is operationalized. Currently, the CHART that measures objective aspects of participation has the most evidence supporting its measurement properties. More evidence is becoming available for instruments such as the IPA, which consider the person’s perspective. It is important to determine what information about participation is required before selecting an instrument” (p. 435).
Author	Credentials: Vanessa K Noonan, MSc, PT Position and Institution: Division of Spine, Department of Orthopaedics, University of British Columbia, Vancouver, British Columbia, Canada; School of Population and Public Health University of British Columbia, Vancouver, British Columbia, Canada Publication History in Peer-Reviewed Journals: Extensive
Publication	Type of publication: Scholarly, peer-reviewed journal Publisher: Taylor & Francis Other: International, multidisciplinary journal
Date and Citation History	Date of publication: 2009 Cited By: 57
Stated Purpose or Research Question	“The purpose of this paper is to provide an overview of participation instruments assessed in persons with SCI and to critically evaluate their measurement properties (p. 436).
Author’s Conclusion	“Future study determining the role of modern measurement methods such as item response theory (including Rasch) as well as more research assessing the measurement properties of participation instruments in persons with SCI is needed. Projects such as Spinal Cord Injury Rehabilitation Evidence (SCIRE) can assist clinicians and researchers in selecting appropriate instruments” (p. 444).
Overall Relevance to your EBP Question	Overall Relevance of Article: Good Rationale: This study is directly related to measurements of participation for people with spinal cord injury.
Overall Quality of Article	Overall Quality of Article: Good Rationale: Established author. Reputable journal and publisher. Published in last 11 years

Type of article	Overall Type: Review of Research Study Specific Type: Systematic Review
APA Reference	Noonan, V. K., Kopec, J. A., Noreau, L., Singer, J., & Dvorak, M. F. (2009). A review of participation instruments based on the International Classification of Functioning, Disability and Health. <i>Disability and Rehabilitation</i> , 31(23), 1883-1901. https://doi.org/10.1080/09638280902846947
Abstract	<p>“Purpose. To identify and review instruments which assess participation as defined by the International Classification of Functioning, Disability and Health (ICF).</p> <p>Methods. A systematic search of the literature was conducted. Data related to the content, administration, scoring, reliability, validity and responsiveness was abstracted.</p> <p>Results. Eleven instruments met the inclusion criteria. Seven instruments include questions with content from Chapters 4 to 9 in the ICF activities and participation component. Four instruments exclude Chapter 5 (self-care). Most of the instruments assess subjective aspects of participation. Evidence on reliability was available for 10 instruments and the majority met the criteria for group level comparisons for internal consistency and reproducibility in the health conditions assessed. In terms of validity, dimensionality was assessed in eight instruments, with six using modern measurement methods. Participation instruments have been compared with various generic and/or disease-specific instruments, but they have not been compared with each other. Evidence on responsiveness was only available for four instruments.</p> <p>Conclusions. There has been considerable interest in developing instruments to measure participation. To date, the World Health Organization Disability Assessment Schedule II has undergone the most psychometric testing. Future research must continue to assess these instruments in persons with various health conditions to advance the conceptualization and measurement of participation” (p. 1883).</p>
Author	<p>Credentials: BSCC PT, MSC, PhD</p> <p>Position and Institution: Director of Research and Best Practice Implementation, Rick Hansen Institute, professor at the University of British Columbia</p> <p>Publication History in Peer-Reviewed Journals: extensive</p>
Publication	<p>Type of publication: Scholarly peer-reviewed journal</p> <p>Publisher: Disability and Rehabilitation</p>
Date and Citation History	<p>2009</p> <p>Google Scholar Cited By: 87</p>
Stated Purpose or Research Question	<p>“Therefore, the purpose of this review was to: identify instruments developed to assess participation; describe how participation has been operationalised; and summarise the measurement properties of the instruments in various health conditions. This review may assist clinicians and researchers in selecting a participation instrument and identify areas for future research” (p. 1884).</p>
Author’s Conclusion	<p>“In summary, this article reviewed 11 instruments developed to assess participation based on the ICF, with seven of the 11 instruments being published in the past 2 years. Conceptually, participation needs to be distinguished from the ICF concept of activity and its relationship with quality of life should also be determined [81]. The WHODAS II has the greatest body of research supporting its use; however instruments such as the IPA are increasingly being administered. Future research should empirically assess these participation instruments in various health conditions to determine if they provide similar findings” (p. 1897).</p>
Overall Relevance to EBP Question	<p>Overall Relevance to EBP Question: Good</p> <p>This article relates directly to our research question and provides a thorough review of various different participation measures for people with disabilities and the quality of these measures.</p>
Overall Quality of Article	<p>Overall Quality of Article: Good</p> <p>The article was published in the last 15 years in a well-respected journal by an author who has extensive experience in the field.</p>

	Overview of Article
Type of article	Overall Type: Review of Research Study Specific Type: Scoping Review and Content Analysis
APA Reference	Seekins, T., Shunkamolah, W., Bertsche, M., Cowart, C., Summers, J. A., Reichard, A., & White, G. (2012). A systematic scoping review of measures of participation in disability and rehabilitation research: A preliminary report of findings. <i>Disability and Health Journal</i> , 5(2012), 224-232. http://dx.doi.10.1016/j.dhjo.2012.05.002
Abstract	“Purpose/objective: The concept of participation is emerging as a gold-standard of outcome measurement in disability and rehabilitation. We aimed to assess the status of methods to measure this new concept. Method/design: We conducted a scoping review and a content analysis to assess the literature on participation. Results: We identified 586 articles addressing participation. Seventy-two articles passed all exclusion criteria. Twenty-four articles cited the International Classification of Function as their conceptual foundation. Most studies included individuals with a broad range of impairments (cross disability). Most instruments relied on self-report in a cross-sectional design. We noted three levels of measurement (static, interactional, and dynamic). Few studies reported collecting data on the environment along with participation. Subjective aspects of participation emerged as an important consideration but few articles reported measuring it. Conclusions: The concept of participation represents more than a “shift from negative to more positive language.” It represents a transformational concept that requires new, dynamic measures collected in context” (p. 224).
Author	Credentials: PhD Position and Institution: Professor, University of Montana, Missoula Publication History in Peer-Reviewed Journals: Extensive
Publication	Type of publication: Peer-reviewed journals Publisher: Elsevier
Date and Citation History	Date of publication: 2012 Cited By: 31
Stated Purpose or Research Question	“...there is a need to consolidate existing knowledge in the literature to better understand its status and to help set an agenda for further research” (p. 224).
Author’s Conclusion	“We observed three approaches to measuring participation; static, interactive, and dynamic. There are benefits and drawbacks to each of the three methods... standard methods or approaches to developing measures do not easily apply to participation because they tend to be context free” (p. 231).
Overall Relevance to your EBP Question	Overall Relevance of Article: Moderate Rationale: Assesses the current methods for assessing participation for those with a disability and their relevance. Does not look into the psychometric methods associated with all of the studies, however.
Overall Quality of Article	Overall Quality of Article: Moderate Rationale: Reputable author. Published within the past 10 years.

	Overview of Article
Type of article	Overall Type: Review of Research Study Specific Type: Systematic Review
APA Reference	Taylor-Roberts, L., Strohmaier, S., & Jones, F. (2019). A systematic review of community participation measures for people with intellectual disabilities. <i>Journal of Applied Research in Intellectual Disabilities</i> , 32(3), 706-71. http://doi.org/10.1111/jar.12565
Abstract	“Background: Community participation is considered a fundamental aspect of quality of life and one of the essential goals of services for people with intellectual disabilities, yet there is no agreed way of measuring community participation. Method: Two systematic searches were performed across eight electronic databases to identify measures of community participation and identify validation studies for each measure. Measures were included if they were developed for adults with intellectual disability, measured extent of participation and had published information regarding content and psychometric properties. Each measure was evaluated on the basis of psychometric properties and in relation to coverage of nine domains of community participation from the <i>International Classification of Functioning, Disability and Health</i> (ICF). Results: Eleven measures were selected with the quality rating scores varying substantially ranging from 2 to 11 of a possible 16. Conclusions: The majority of measures were not sufficiently psychometrically tested. Findings suggest a need for the development of a psychometrically robust instrument” (p. 706).
Author	Credentials: Clinical Psychologist Position and Institution: Professor, Solomons Institute for Applied Psychology, Canterbury Christ Church University Publication History in Peer-Reviewed Journals: Limited
Publication	Type of publication: scholarly peer-reviewed journals Publisher: Wiley
Date and Citation History	Date of publication: January 28, 2019 Cited By: 2
Stated Purpose or Research Question	“It will identify and critically evaluate the available measures of community participation designed for adults with intellectual disability, examine the content and psychometric properties, highlight limitations and provide guidance on the selection of community participation measures” (p. 707).
Author’s Conclusion	“Currently, no valid psychometrically robust measure of level of community participation exists for adults with intellectual disability” (p. 717).
Overall Relevance to your EBP Question	Overall Relevance of Article: Good Rationale: Identifies multiple measures for community participation in people with an intellectual disability. The researchers searched the literature two times to find all relevant measures and their psychometric methods, helping to eliminate any studies that were not relevant to this population.
Overall Quality of Article	Overall Quality of Article: Moderate Rationale: Author is not well-established. Published within the past 5 years.

	Overview of Article
Type of article	Overall Type: Review of Research Study Specific Type: Systematic Review
APA Reference	Tse, T., Douglas, J., Lentin, P., & Carey, L. (2013). Measuring participation after stroke: A review of frequently used tools. <i>Archives of Physical Medicine and Rehabilitation</i> , 94(1), 177-192. https://doi.org/10.1016/j.apmr.2012.09.002
Abstract	<p>“Objective: To identify and critique the measures currently used to assess participation in clinical stroke studies. Data Sources: Relevant articles published between January 2001 and April 2012 identified through Medline, CINAHL, and ProQuest Central databases.</p> <p>Study Selection: Published articles involving poststroke assessment of participation. Case studies, cohort studies, and randomized controlled trials were included.</p> <p>Data Extraction: The most frequently used measures were identified, and the psychometric properties evaluated. Three raters independently evaluated each measure relative to the first and second coding levels of the International Classification of Functioning, Disability and Health (ICF) Activities and Participation domain categories. Data Synthesis: Thirty-six measures were identified. The Stroke Impact Scale(SIS), London Handicap Scale, Assessment of Life Habits(LIFE-H), Frenchay Activities Index, and Activity Card Sort (ACS) were used most frequently. No single measure met criteria across all psychometric indices, and not one covered all 9 of the ICF Activities and Participation domains. The SIS, LIFE-H, and ACS covered the widest range. The domains covered most frequently were Community, Social and Civic Life, Domestic Life, and Mobility. Learning and Applying Knowledge, General Tasks and Demands, and Communication were the domains less frequently covered.</p> <p>Conclusions: This review identified and evaluated the most frequently used participation measures in clinical stroke studies. The SIS, LIFE-H, and ACS covered the ICF Activities and Participation domain categories most comprehensively. However, none of the measures covered all the ICF Activities and Participation domain categories. The information provided in this systematic review can be used to guide the selection of participation measures to meet specific clinical and research purposes” (p. 177).</p>
Author	<p>Credentials: Tamara Tse OTR/L, PhD</p> <p>Position and Institution: Florey Institute of Neuroscience and Mental Health, Neurorehabilitation and Recovery, Stroke Division, Heidelberg, Victoria; Departments of Occupational Therapy and Human Communication Sciences, La Trobe University, La Trobe University, Bundoora, Victoria.</p> <p>Publication History in Peer-Reviewed Journals: Extensive</p>
Publication	<p>Type of publication: Scholarly, peer-reviewed journal</p> <p>Publisher: American Congress for Rehabilitation Medicine</p>
Date and Citation History	<p>Date of publication: 2013</p> <p>Cited By: 101</p>
Stated Purpose or Research Question	<p>“We conducted this systematic review to identify and critique the tools frequently used to measure participation in clinical stroke studies, and to identify the ICF Activities and Participation domains sampled within these most frequently used participation measures. It is envisaged that the outcomes of this review may be used to guide the selection of the most appropriate tool for specific clinical and research purposes” (p.178).</p>
Author’s Conclusion	<p>“Although none of the reviewed participation measures fully covered all the ICF domains of Activities and Participation, the information provided in this systematic review can be used to guide the selection of the most appropriate participation measures to meet specific clinical and research purposes” (p. 187).</p>
Overall Relevance to your EBP Question	<p>Overall Relevance of Article: Good</p> <p>Rationale: This study is directly related to psychometric measurements of participation for individuals with disabilities, specifically those following a stroke.</p>
Overall Quality of Article	<p>Overall Quality of Article: Good</p> <p>Rationale: Established author. Reputable journal and publisher. Publication within the last seven years.</p>

	Overview of Article
Type of article	Overall Type: Review of Research Study Specific Type: Scoping Review.
APA Reference	Yee, T., Magill-Evans, J., Zwaigenbaum, L., Sacrey, L. A. R., Askari, S., & Anaby, D. (2017). Participation measures for preschool children with autism spectrum disorder: A scoping review. <i>Review Journal of Autism and Developmental Disorders</i> , 4(2), 132-141. https://doi.org/10.1007/s40489-017-0102-8
Abstract	“The purpose of this scoping review was to identify participation measures for preschool children with autism spectrum disorder (ASD). A comprehensive search strategy was employed across several electronic databases with hand searching of reference lists. Seven measures of participation were identified; five measures had standardization samples that included preschool children with ASD and three provided both validity and reliability data. Each assessment reported psychometric properties and covered a range of developmentally appropriate activities and environments. Parents and professionals can use the identified participation measures to describe participation challenges that exist. However, professionals may need to elicit additional information regarding the impact of repetitive and restrictive interests, interpersonal abilities and novel environments on participation to capture the core challenges of ASD” (p. 132).
Author	Credentials: PhD Position and Institution: Autism Research Centre and Department of Pediatrics, University of Alberta Publication History in Peer-Reviewed Journals: moderate
Publication	Type of Publication: scholarly peer-reviewed journal Publisher: Springer Nature B.V.
Date and Citation History	2017 Google Scholar Cited by: 2
Stated Purpose or Research Question	“The aim of the scoping review was to determine what participation measures are available for use with preschool children with ASD” (p. 133).
Author’s Conclusion	“The findings of this review add to the research currently available on participation measures available to measure socially validated outcomes for preschool children with ASD, as well as explore barriers and facilitators that exist in a child’s ability to participate in the community” (p. 140).
Overall Relevance to your EBP Question	Overall Relevance of Article: moderate Rationale: This article provides a lot of information of measurements of participation for individuals with autism but does not touch on environmental supports or barriers.
Overall Quality of Article	Overall Quality of Article: good Rationale: moderately established author, reputable journal, published within the last 10 years.