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## **Social and Community Participation Interventions for Individuals with Disabilities: An Evidence-Based Practice Project**

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Social and Community Participation Interventions for  
Individuals with Disabilities:  
An Evidence-Based Practice Project

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St. Catherine University

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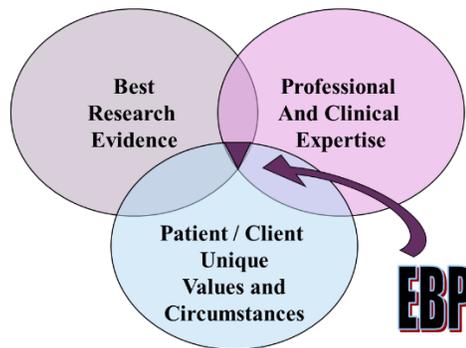
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## Introduction

### 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 30<sup>th</sup> 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

**Interventions that Support Community and Social Participation for Individuals with Disabilities**

Madisyn Anderson, Alex DeMarais, Vanj Ebel, Anna Foster, Tyler Hobson, Kaitlyn Huntley, Alli Park, and Allie Roehl

**EBP Question**

What are the characteristics of interventions, programs, and services that are effective in supporting community and social participation for individuals with disabilities?

**Examples of Evidence Resources**

**Governmental and Major Foundations**

- ADA National Network
- American Association of People with Disabilities
- National Center on Accessibility

**OT Specific Resources**

- American Occupational Therapy Association
- American Journal of Occupational Therapy
- The American Occupational Therapy Foundation

**Interprofessional Journals, Databases, Organizations**

- Disability Studies Quarterly
- Journal of Literacy and Cultural Disability Studies
- Disability and Society

**Examples of Search Process**

**Databases used**

- PubMed
- Medline via EBSCO
- CINAHL
- ScienceDirect
- National Rehabilitation Information Center
- PsycInfo
- Cochrane Library

**Most helpful search strategies**

- Within last 10 years
- Free full text availability
- Using reference lists

**Most helpful keywords**

- "Social participation"
- "Community participation"
- Program/s
- Intervention/s
- Disability/ies
- Effectiveness
- Characteristic/s

**Background Learning**

- Definition of social participation (Marijeh & Shahboubzahi, 2020)
- Remaining social participation barriers for individuals with disabilities (Ayur et al., 2018)
- Characteristics that improve intervention effectiveness (Hummel et al., 2008)
- Benefits of occupational therapy (Corrick et al., 2017)

**Initial Appraisal of Evidence**

**Type of Article**

| Type of Article          | Percentage |
|--------------------------|------------|
| Primary Research Studies | 33.47%     |
| Reviews of Research      | 66.53%     |

**Inventory of Articles by Type of Disability**

| Type of Disability | Number of Articles |
|--------------------|--------------------|
| General            | 10                 |
| Intellectual       | 10                 |
| Mobility           | 1                  |
| Physical           | 8                  |
| Developmental      | 10                 |
| Low Vision         | 1                  |

**Overview of Critical Appraisals**

**Primary Research**

- 'I could never do that before': Effectiveness of a tailored internet support interventions increase the social participation of youth with disabilities (Raghavendra et al., 2013)
- Fostering quality experiences: Qualitative perspectives from program members and providers in a community-based exercise program for adults with physical disabilities (Jackson et al., 2019)
- Personalized citizen assistance for social participation (APIC): A promising intervention for increasing mobility, accomplishment of social activities and frequency of leisure activities in older adults having disabilities (Levasseur et al., 2016)
- Initial evaluation of the effects of an environmental-focused problem-solving intervention for transition-age young people with developmental disabilities: Project TEAM (Kramer et al., 2018)

**Overview of Critical Appraisals**

**Reviews of Primary Research**

- Community participation intervention for children and adolescents with a neurodevelopmental intellectual disability: A systematic review (Andrews et al., 2013)
- Health and social care interventions which promote social participation for adults with learning disabilities: A review (Howarth et al., 2016)
- Occupational therapists' contributions to fostering older adults' social participation: A scoping review (Turcotte et al., 2018)
- Effectiveness of social skills interventions incorporating peer interactions for children with Attention Deficit Hyperactivity Disorder: A systematic review (Fox et al., 2020)

**Critical Appraisals 1 and 2**

**'I could never do that before': Effectiveness of a tailored internet support interventions increase the social participation of youth with disabilities** (Raghavendra et al., 2013)

- **Focused Question:** Does training and support with the internet benefit social participation for youth with disabilities?
- **Clinical Bottom Line:** Youth identified benefits from one-on-one technical and social support at home and training using the internet

**Fostering quality experiences: Qualitative perspective from program members and providers in a community-based exercise program for adults with physical disabilities** (Jackson et al., 2019)

- **Focused Question:** What are some common perspectives from people with disabilities participating in community-based programs for social interaction?
- **Clinical Bottom Line:** People with disabilities identified positive perspectives, including autonomy and belongingness, related to their quality experience that enhance quality of life and community program participation.

**Critical Appraisals 3 and 4**

**Personalized citizen assistance for social participation (APIC): A promising intervention for increasing mobility, accomplishment of social activities and frequency of leisure activities in older adults having disabilities** (Levasseur et al., 2016)

- **Focused Question:** Does personalized citizen assistance foster social participation in older adults with disabilities?
- **Clinical Bottom Line:** Personalized citizen assistance that supports the development of meaningful relationships and activities is personalized to the individual, lasts at least six months, and may foster social participation in older adults with disabilities.

**Initial evaluation of the effects of an environmental-focused problem-solving intervention for transition-age young people with developmental disabilities: Project TEAM** (Kramer et al., 2018)

- **Focused Question:** Does project TEAM increase knowledge and use of strategies that address environmental barriers and promote social participation for youth with developmental disabilities?
- **Clinical Bottom Line:** Project TEAM increases the ability of youth with developmental disabilities to identify and overcome environmental barriers to participation, which improves their social participation.

**Critical Appraisals 5 and 6**

**Community participation intervention for children and adolescents with a neurodevelopmental intellectual disability: A systematic review** (Andrews et al., 2013)

- **Focused Question:** What characteristics of community integration interventions are effective in promoting the successful inclusion of children and adolescents with disabilities in society?
- **Clinical Bottom Line:** The effective characteristics of interventions that promote successful inclusion are: directly involving typically developing peers, incorporating individual activity preferences, grading and adapting activities, considering unique personal and environmental factors, and being flexible.

**Health and social care interventions which promote social participation for adults with learning disabilities: A review** (Howarth et al., 2016)

- **Focused Question:** What are the characteristics of effective interventions that support social participation in adults with learning disabilities?
- **Clinical Bottom Line:** Effective interventions include: person-centered planning, alteration of activity patterns, supported learning programs, and semi-structured group sessions.

**Critical Appraisals 7 and 8**

**Occupational therapists' contributions to fostering older adults' social participation: A scoping review** (Turcotte et al., 2018)

- **Focused Question:** What services and interventions can occupational therapists provide that foster older adults' social participation and community involvement?
- **Clinical Bottom Line:** The most effective occupational therapy interventions include presentations, demonstrations, peer-interactions, and real-world practice. With the proper resources, occupational therapists can foster older adults' community and social participation and improve their quality of life.

**Effectiveness of social skills interventions incorporating peer interactions for children with Attention Deficit Hyperactivity Disorder: A systematic review** (Fox et al., 2020)

- **Focused Question:** Does including peers with and without ADHD in play and school-based interventions increase social participation in children with ADHD?
- **Clinical Bottom Line:** When peers with and without ADHD are involved in play and school-based interventions for children with ADHD, social participation is increased.

**Theme 1: Characteristics of Effective Social Participation Programs**

- **Individualized goal approach** (Adair et al., 2015; Howarth et al., 2016; Levasseur et al., 2016; O'Rourke et al., 2020)
- **Community integration** (Andrews et al., 2013; Fox et al., 2020; Howarth et al., 2016; Kramer et al., 2018)
- **One-on-one support** (Anaby et al., 2018; Howarth et al., 2016; Raghavendra et al., 2013)

**Theme 2: Effectiveness of Programs that Address Community and Social Participation**

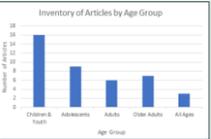
- **Improved self-efficacy** (Adair et al., 2015; Howarth et al., 2016; King et al., 2015; Kramer et al., 2018; Levasseur et al., 2016; Raghavendra et al., 2013; Thornton et al., 2016)
- **Enhanced engagement in leisure activities** (Howarth et al., 2016; Levasseur et al., 2016)
- **Increased quality and quantity of friendships** (Levasseur et al., 2016; Raghavendra et al., 2013)

**Theme 3: Common Motivators for Participants' Involvement in Social Programs**

- **Enhanced self-efficacy** (Berger et al., 2013; Howarth et al., 2016; King et al., 2015; King et al., 2020; Kramer et al., 2018)
- **Increased social network** (Andrews et al., 2013; Hardee et al., 2017; Howarth et al., 2016; Louw et al., 2019)
- **Improved social skills** (Andrews et al., 2013; Edwards et al., 2018; Jackson et al., 2019; King et al., 2020; Laugeson et al., 2012; Turcotte et al., 2018)

**Theme 4: Common Limitations in Research of Social Programs**

- **Small sample size** (Edwards et al., 2018; King et al., 2020; Levasseur et al., 2016; Raghavendra et al., 2013)
- **Lack of control groups** (Anaby et al., 2016; Fox et al., 2020; Howarth et al., 2016; Levasseur et al., 2016; Raghavendra et al., 2013)
- **Focus on children and youth** (Berger et al., 2013)
- **Unclear definitions of social participation and leisure** (Adair et al., 2015; Berger et al., 2013)



| Age Group        | Number of Articles |
|------------------|--------------------|
| Children & Youth | 58                 |
| Adolescents      | 18                 |
| Adults           | 12                 |
| Older Adults     | 10                 |
| All Ages         | 5                  |

**Summary**

- **Benefits of social participation for individual with disabilities**
  - Improved social skills
  - Increased independence
  - Greater fulfillment in occupations
  - Enhanced quality of life
- **Characteristics of effective social interventions**
  - Person-centered approach
  - Delivery method
  - Community integration

**Recommendations for Occupational Therapy and Interprofessional Programs**

- **Emphasize person-centered goals in social programs**
  - Incorporate shared decision making
- **Address occupations beyond ADLs and IADLs**
- **Implement greater social participation interventions within the realm of occupational therapy**
- **Conduct further research on the effective characteristics of social programs for individuals with disabilities**

**Reflection**

- Conduct additional research
  - Understand social occupational needs across the lifespan
  - Emphasize older adults
- Implement more social participation interventions within the realm of occupational therapy
  - Enhance the lives of individuals with disabilities

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## **Themes**

### ***Introduction***

Four main themes were identified from our research for social programs for individuals with disabilities: characteristics of effective social participation programs, effectiveness of programs that address community and social participation, common motivators for participants' involvement in social programs, and common limitations in research of social programs.

### ***Characteristics of Effective Social Programs***

The most effective characteristic of social participation programs for individuals with disabilities is having a person-centered focus within either a group setting or a one-on-one interaction. A systematic review focused on participation in rehabilitation concluded that the goals of interventions should be clearly related to what clients expect and demand from community-based participation (Cogan & Carlson, 2018). Another systematic review of participation outcomes for children with disabilities found that an individualized coaching approach to achieve goals was the most effective characteristic. Furthermore, this review stated there are five steps in an individualized approach: create a collaborative relationship with the parents of the child, set goals agreed upon by all parties, choose the most effective and appropriate therapeutic activity to meet the child's goals, educate and support the parents regarding executing the therapeutic activities, and measure the results from the intervention (Adair et al., 2015).

Social participation programs tailored to the individual's values and preferences have been shown to yield positive results. A qualitative study aimed at social inclusion of children with disabilities in recreational settings found two effective strategies: 1) children making their interests and ideas known and 2) children having the ability to choose activities independently

(Edwards et al., 2019). A scoping review explored interventions that promote social participation in adolescents and young adults with neurodisabilities and found that personalizing interventions to meet individuals' goals significantly enhanced social participation (O'Rourke et al., 2020). Moreover, individuals were more likely to participate in interventions that were catered to their needs and in which they could control their own performance outcomes because this fostered independence and personal improvement (O'Rourke et al., 2020). A systematic review centered on social programs for adults with intellectual disabilities concluded that person-centered intervention emphasizing individual needs led to increased social and community involvement (Howarth et al., 2016). A mixed-method concurrent triangulation design focused on fostering social participation in older adults with disabilities found that social participation interventions must encourage personal empowerment, develop and support significant relationships and activities of the individual, be catered to their specific needs, and be at least six months in duration (Levasseur et al., 2016).

Social programs incorporated into group settings have positive outcomes. This can include providing opportunities for individuals with disabilities and individuals without disabilities to interact directly with each other. A systematic review that analyzed group interventions for children with ADHD found the involvement of peers with and without ADHD in the interventions improved social participation, increased play skills, reduced undesirable social behaviors, and improved communication (Fox et al., 2020). Another systematic review examined community integration programs for children and adolescents with intellectual disabilities and affirmed that community integration interventions were highly effective in promoting successful inclusion when they directly involved typically developing peers with children with intellectual disabilities (Andrews et al., 2013). A quasi-experimental study of the

Project Teens Making Environmental and Activity Modifications (TEAM) intervention for adolescents with disabilities concluded that the group mentoring portion had positive outcomes of facilitating the participants' application of new knowledge and enhancing self-efficacy. This intervention further involved positive role models that supported each other within group sessions and peer mentors with disabilities who displayed knowledge and behavior of the Game Plan (Kramer et al., 2018). Project TEAM intervention emphasized identifying participation-related goals, providing bi-weekly Project TEAM group curriculum, and implementing peer mentor groups for the participants (Kramer et al., 2018). Additionally, a systematic review focused on adults with intellectual disabilities, including ages 18 to 64, found that social participation increased for individuals with disabilities who engaged in a skills-based intervention as compared with a control group (Howarth et al., 2016).

One-on-one interventions also have positive outcomes for social participation. A mixed-method design that examined social participation for children with disabilities using the internet stated that intensive and repeated one-on-one support, both technical and social, in the home positively affected these children (Raghavendra et al., 2013). Personal goals related to social participation were identified with collaboration of the youth and their parent(s). The one-on-one internet program subsequently ranked youth performance and satisfaction on goals on a 0-5 scale according to the Goal Attainment Scaling (GAS), with 70% of respective goals achieved (Raghavendra et al., 2013). Similarly, the one-on-one component of the Project TEAM intervention, involving mentors facilitated implementation of goals in participants' everyday lives, had positive outcomes (Kramer et al., 2018). An interrupted time-series design study on adolescents, which included four one-on-one occupational therapy sessions over 12 weeks, found

the intervention yielded positive effects in nearly every activity. All participants demonstrated a positive effect in at least one activity throughout the intervention (Anaby et al., 2018).

There is limited but growing research regarding the characteristics of effective interventions and programs that promote social and community participation in the adult population. One scoping review examined the effectiveness of occupational therapy interventions on older adults' social participation. In 32 studies including randomized controlled trials and quasi-experimental designs; they found individual interventions were more commonly used than group or community integration interventions to foster social participation (Turcotte et al., 2018). Additional research is required to draw more robust conclusions for the social participation of adults with disabilities.

### ***Effectiveness of Programs that Address Community and Social Participation***

Interventions, programs, and services that support community and social participation for individuals with disabilities enhance participants' quality of life. Generally, participants of all ages reported enhanced quality of life (Andrews et al., 2013; Berger et al., 2013; Biggeri et al., 2014; Howarth et al., 2016; Levasseur et al., 2016; Reichow et al., 2012; Thornton et al., 2016; Turcotte et al., 2018). A case-control study on the effectiveness of community-based rehabilitation programs for people with disabilities found these programs positively contributed to well-being in areas such as health, livelihoods, social participation, and disability rights (Biggeri et al., 2014). In older adults, involvement in leisure and social participation has shown improvements in quality of life (Berger et al., 2013). In studies on social participation programs, a variety of measures were used to document the effectiveness of programs and describe quality of life.

One construct of quality of life, self-efficacy, was an outcome measure in several studies of social participation programs. Many studies have shown that social programs have a positive effect on participants' self-efficacy (Adair et al., 2015; Howarth et al., 2016; Levasseur et al., 2016; Raghavendra et al., 2013; Thornton et al., 2016). One mixed-method design of youth with disabilities reported that increased social networks and connections with others were affected by self-esteem and overall mental health after a one-on-one support strategies program through internet use (Raghavendra et al., 2013). A qualitative study on the outcomes of residential immersive life skills programs for youth with disabilities concluded that participants experienced positive personal changes in life skills, self-confidence, self-understanding, and self-advocacy (King et al., 2015). They also experienced transformative changes in the understanding of their futures and life directions (King et al., 2015). Similarly, a quasi-experimental study found the Project TEAM intervention improved adolescents with developmental disabilities abilities to identify and overcome environmental barriers to participation (Kramer et al., 2018). Project TEAM was also found to improve this population's problem-solving skills, self-efficacy, and self-determination (Kramer et al., 2018). In a systematic review of social participation programs, adults with disabilities improved confidence and knowledge of opportunities (Howarth et al., 2016). A qualitative research study of a community-based exercise program for adults with physical disabilities found that "participation experiences encompass autonomy, belongingness, challenge, engagement, mastery, and meaning" (Jackson et al., 2019, p. 299). For older adults with disabilities, one study concluded that fostering supportive social relationships can have positive effects on individuals' motivation and self-confidence in seeking opportunities in the community (Levasseur et al., 2016).

Social programs for individuals with disabilities also have positive outcomes related to engagement in leisure and social connections. A review of research concluded high involvement in leisure activities leads to a higher quality of life (Howarth et al., 2016). A systematic review involving children and adolescents with ASD found evidence for effectiveness of social skills groups for this population due to improved social competence and friendship quality (Reichow et al., 2012). Another systematic review examined programs to enhance the social inclusion of young adults with intellectual disabilities and found that structured social opportunities improved social skills and ability to engage with peers (Louw et al., 2019). A third systematic review of social participation programs for adults with intellectual disabilities concluded that friendship and leisure were positive outcomes (Howarth et al., 2016). A mixed-method concurrent triangulation design was used to study APIC, a personalized citizen assistance for social participation, and found that older adults who used APIC for six months improved in functional autonomy, social participation, leisure, and quality of life (Levasseur et al., 2016).

### ***Common Motivators for Participants' Engagement in Social Programs***

The common motivating factors behind participants' engagement in social programs are enhanced self-efficacy, increased social network, and improved social skills. These motivators are shared in interviews and documented in evaluations.

One motivator for participants' engagement in social programs is a desire to increase self-efficacy. A qualitative study of residential immersive life skills programs noted that youth with disabilities generally wanted to improve self-confidence, and the program was effective in doing so (King et al., 2015). A quantitative pre- post-test intervention of participation-based friendship for youth with disabilities 'Program for the Education and Enrichment of Relational Skills (PEERS)' led to positive changes in participants' social self-efficacy and increased

confidence to engage in social behaviors (King et al., 2020). Similarly, a quasi-experimental study of Project TEAM had high reports of self-determination by participants (Kramer et al., 2018). A systematic review of social participation programs found that adults with intellectual disabilities had goals to increase their confidence and achieved these goals as part of program participation (Howarth et al., 2016). For older adults with low vision, active social participation may help clients improve self-efficacy and maintain engagement in occupations of choice (Berger et al., 2013).

Another motivating factor for engagement in social programs is developing an increased social network. Andrews et al. (2013) conducted a systematic review of community integration programs for children and adolescents with intellectual disabilities and found that increasing the number and quality of friendships is both a motivator and a positive outcome of programs. A systematic review of enhancing the social inclusion of young adults with intellectual disabilities concluded that participants experienced a heightened sense of belonging and growth in their social networks (Louw et al., 2019). Howarth et al. (2016) reviewed the individual delivery of person-centered planning related to adults' social participation and found a 52% increase in the size of social networks and a 40% increase in contact with friends. Increased involvement in community activities from pre- to post-measurement was also found (Howarth et al., 2016). A systematic review on the effect of an exercise intervention on social participation for older adults with Down syndrome concluded that physical activity, experiential learning, and group facilitation techniques all enhanced trust and team building (Hardee et al., 2017).

Improvement of social skills is a third motivating factor for engaging in social participation programs. A scoping review of the effectiveness of art-based group interventions for children with disabilities' psychosocial well-being found improved communication skills,

non-verbal communication, social engagement, awareness, and cognition (Edwards et al., 2018). A systematic review concluded that community integration programs effectively helped children and adolescents with intellectual disabilities develop stronger community engagement skills (Andrews et al., 2013). King et al. (2020) concluded, “the most effective social skills interventions use a combination of coaching, modeling, and reinforcement, and are individualized so that the intervention matches the social issues of participants” (p. 153). Programs specifically designed to improve social skills for adolescents with ASD have positive social communication, awareness, and motivation outcomes (Laugeson et al., 2012). A qualitative research design on social participation of adults with physical disabilities found belongingness to be a highly valued aspect of involvement (Jackson et al., 2019). A systematic review of occupational therapy interventions on social participation found that the most promising practices for older adults were focused on fostering individual goal setting and promoting mental well-being (Turcotte et al., 2018).

### ***Common Limitations in Research on Social Programs***

The limitations of current research include research designs having lower levels of evidence, limited research with older adults, and unclear definitions of some key terms.

In our research, we noticed many research designs would be classified as lower levels of evidence. Many studies had smaller sample sizes (Edwards et al. 2018; King et al., 2020; Levasseur et al., 2016; Raghavendra et al., 2013) which require readers to “examine the clinical significance of the findings, rather than statistical significance, thus reducing the strength of the conclusions that can be drawn” (King et al., 2020, p. 162). Many studies also lacked a control group (Anaby et al., 2016; Fox et al., 2020; Howarth et al., 2016; Levasseur et al., 2016;

Raghavendra et al., 2013). In many cases, these design limitations were warranted because the interventions were in the early stages of development.

Most intervention studies focused on children and youth with general disabilities, intellectual disabilities, physical disabilities, and developmental disabilities. Additional research on the social programs for the older adult population is needed. Limited research has explored intervention for older adults with low vision and other sensory losses. Further research is needed to examine social participation and leisure outcome measures (Berger et al., 2013). A systematic review that examined the effectiveness of current occupational therapy interventions on older adults' social participation stated their review was the first to discuss community occupational therapy practices surrounding the participation of older adults with disabilities (Turcotte et al., 2018). Similarly, a mixed-method concurrent triangulation design focused on fostering social participation for individuals with disabilities is considered the first personalized citizen assistance for social participation (APIC) intervention for this population (Levasseur et al., 2016). The study concluded that there is not enough information on social participation among older adults with disabilities (Levasseur et al., 2016).

The last limitation found in the literature is a lack of clear definitions for key terms, specifically for 'participation' and 'leisure.' One systematic review focused on the social participation outcomes of children with disabilities failed to clearly define the term participation, leaving it open for interpretation (Adair et al., 2015). A systematic review by Howarth et al. (2016) involving adults with intellectual disabilities also found the term social participation to have various definitions. For example, social participation included community integration, involvement, and social relationships (Howarth et al., 2016). A mixed-method study focusing on

social participation programs for adults with low vision concluded the definition of the term leisure needs clarification because it varies greatly among studies (Berger et al., 2013).

### **Summary and Implications for Practice**

The benefits of social participation are improved social skills, increased independence, and greater fulfillment in occupations, which all ultimately contribute to enhanced quality of life. Positive outcomes of social participation are reflected in all areas of occupation because most everyday activities can be completed through interaction with others. Social participation interventions should be considered by occupational therapy practitioners and other healthcare professionals because engagement with others is an essential component of daily life.

In developing interventions and programs to support social and community participation, occupational therapy practitioners should focus on 1) person-centered care, in both individual and group settings, 2) documenting outcomes that address improved quality of life, and 3) considering additional motivations of individuals with disabilities for participating in social programs. Occupational therapy practitioners should use a person-centered approach to promote their clients' autonomy. Clinicians and researchers should also gather input from individuals with disabilities when designing social participation programs, so they encompass the wants and needs of participants more accurately. Current evidence depicts positive outcomes for both individual and group interventions, specifically relating to enhanced quality of life, self-esteem, sense of inclusion within the community, and overall life satisfaction. It is essential to continue documenting program outcomes to ensure current participant satisfaction and efficacy of programs. Outcomes show potential participants how they can benefit from participation, which may lead to greater involvement. It is essential to implement motivating factors that encourage participation to counter the remaining barriers to social participation for individuals with disabilities.

An additional recommendation for occupational therapy practitioners is to address occupations beyond activities of daily living (ADLs) and instrumental activities of daily living (IADLs) that may be more meaningful for clients. It is essential to serve the personal goals of individuals, which may include social participation and more basic needs. Social participation is connected to improved self-efficacy, social network size, and quality of life, and can positively impact individuals' ability to engage in other significant areas of occupation.

Currently, there are minimal occupational therapy interventions focused on social participation, but occupational therapy practitioners can and should play a far greater role in helping people with disabilities be more involved within the community through direct intervention. This can be accomplished through the application of occupational therapy practitioners' training and clinical experience to implement social participation interventions as a primary element of practice to enhance the lives of individuals with disabilities. The complex social and functional needs of individuals with varying disabilities can be met through social participation programs if a commitment to this area is consistent. As occupational therapy students, we are currently strengthening the skills necessary to help people seek, find, and act on opportunities to participate in social and leisure occupations of interest, as it will become our responsibility to support people with disabilities to fully engage within their community and the larger society. In future practice, it will be essential to ensure that we are truly helping clients meet their social occupational and participation wants and needs.

There is room for growth and improvement of the research identifying specific characteristics that make social programs and interventions effective. Despite some promising findings, we discovered a stark dichotomy between programs and interventions that indicate effectiveness and the actual application to practice. Additionally, the majority of research

focused on fostering social participation and developing social skills in children and adolescents, and there is a lack of sufficient research regarding adults' and older adults' social participation. More research is needed within the populations of adults and older adults to better understand social and community occupational needs throughout the entire lifespan and to generalize the findings for larger populations. It is especially important to fill the gap for older adults because social isolation becomes increasingly prevalent as people age, and social participation interventions can help counter this. Future studies also need to thoroughly and consistently describe operational definitions of participation to ensure validity and generalization of the findings. If research on the topic of social interventions for individuals with disabilities is strengthened and clarified, then future researchers, clinicians, and educational professionals can better advocate for and implement best practices.

As presented through this review of the evidence, we have a greater awareness of the benefits of social participation for people with disabilities throughout the entire lifespan and what makes these interventions most effective. Occupational therapy practitioners and other healthcare providers should apply these principles to their practice to better advocate for social justice. The general public can also play a supportive role by acting against ableism - discrimination in favor of able-bodied people - through welcoming individuals with disabilities as equal members of society through social participation and community integration. Interventions that support social and community participation for individuals with disabilities are most effective when they implement person-centered care, document outcomes, and consider additional motivations, all of which guide future research and interventions.

### Tables of EBP Resources

Table 1.

#### *Governmental and Major Foundation Resources that Address Disability and Participation*

| Title/Name  | Brief Description   | Source  |
|---|---|---|
| ADA National Network  | <p>The ADA National Network provides information, guidance, and training on how to implement the Americans with Disabilities Act (ADA)</p> <p>Regional ADA specialists empower people with disabilities by making it possible for them to participate more inclusively in their environments through addressing issues like access to public programs and services, transportation, and public places</p> | <p>National Institute on Disability, Independent Living, and Rehabilitation Research</p> <p><a href="https://adata.org/">https://adata.org/</a></p>   |
| Administration for Community Living                                 | <p>Promote and maximize independence and community involvement for all, regardless of ability</p> <p>Outlines community resources for optimal participation for individuals with disabilities</p> <p>Funds and invests in research aimed toward optimizing community resources</p>  | <p>U.S. Department of Health and Human Services</p> <p><a href="https://acl.gov/about-community-living">https://acl.gov/about-community-living</a></p>  |
| American Association of People with Disabilities (AAPD)             | <p>Initiatives aim to increase the political and economic power of people with disabilities</p> <p>Advocates for community integration, education, employment, healthcare, housing, transportation, technology, and voting while also supporting veterans, public policy, and the mission of interfaith for individuals with disabilities</p>   | <p>American Association of People with Disabilities (AAPD)</p> <p><a href="https://www.aapd.com/">https://www.aapd.com/</a></p>   |
| National Center on Accessibility (NCA)                              | <p>Aims to provide universally accessible equipment and services to promote leisure and recreation among individuals with disabilities</p> <p>Prioritizes design and inclusion to enhance participation in the community: parks, programs, facilities</p>   | <p>National Center on Accessibility</p> <p><a href="https://ncaonline.org">https://ncaonline.org</a></p>  |
| American Association on Intellectual and Developmental Disabilities | <p>Examines the quality and accessibility of community resources for individuals with disabilities</p> <p>Explores the funding and workplace resources for individuals with disabilities</p>  | <p>American Association on Intellectual and Developmental Disabilities</p> <p><a href="http://www.aaid.org/">www.aaid.org/</a></p> <p>Association of University Centers on Disabilities</p> <p><a href="http://www.aucd.org">www.aucd.org</a></p> |

Table 2.

*Occupational Therapy Resources that Address Disability and Participation*

| Title/Name   | Brief Description   | Source  |
|--|---|---|
| American Journal of Occupational Therapy (AJOT)    | Official publication of the AOTA<br>Includes peer-reviewed research from OTs and OT students  | American Journal of Occupational Therapy<br><a href="https://ajot.aota.org/">https://ajot.aota.org/</a>   |
| World Federation of Occupational Therapists (WFOT) | Global voice for OTs<br>Sets the standard internationally for OT practice and promote excellence through research and education                         | World Federation of Occupational Therapists<br><a href="https://www.wfot.org/">https://www.wfot.org/</a>  |
| Canadian Journal of Occupational Therapy (CJOT)    | Peer reviewed journal with content regarding evidence-based practice and client-centered practice to promote the field of occupational therapy          | Canadian Journal of Occupational Therapy<br><a href="https://caot.ca/index.html">https://caot.ca/index.html</a>   |
| The Open Journal of Occupational Therapy (OJOT)    | A free, peer reviewed journal through Western Michigan University<br>Content includes articles on education, research and occupational therapy practice | The Open Journal of Occupational Therapy Western Michigan University<br><a href="https://scholarworks.wmich.edu/ojot/about.html">https://scholarworks.wmich.edu/ojot/about.html</a> |
| OT Seeker  | Abstracts of various types of studies that have been critically appraised for their validity  | OT Seeker<br><a href="http://www.otseeker.com/">http://www.otseeker.com/</a>  |
| The American Occupational Therapy Foundation       | Largest collection of OT Literature in the world for understanding relationships between everyday activities (occupations) and health                   | The American Occupational Therapy Foundation<br><a href="https://www.aotf.org/">https://www.aotf.org/</a>   |

Table 3.

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

| Title/Name   | Brief Description   | Source   |
|--|---|--|
| Disability Studies Quarterly (DSQ): The First Journal in the Field of Disability Studies | Multidisciplinary and international journal which contains methods, epistemologies, perspectives, of disabilities studies   | Disability Studies Quarterly (DSQ): The First Journal in the Field of Disability Studies<br><a href="https://dsq-sds.org">https://dsq-sds.org</a>  |
| Disability & Society   | Peer reviewed journal focused on disability studies with an emphasis on inclusion<br>Focuses on issues revolving around human rights, discrimination, definitions, and policy and practices                           | Disability & Society<br><a href="https://www.tandfonline.com/toc/cdso20/current">https://www.tandfonline.com/toc/cdso20/current</a>  |
| TASH   | International organization that works to advance inclusive communities<br>Provides research and information for professional development, policy, information and resources for parents, families, and self-advocates | TASH<br><a href="https://tash.org/">https://tash.org/</a>  |
| Journal of Literacy and Cultural Disability Studies                                      | Publishes a wide variety of textual analyses that are informed by disability theory<br>Focus on essential disability studies journal for scholars whose work concentrates on the portrayal of disability              | Journal of Literacy and Cultural Disability Studies<br><a href="https://www.liverpooluniversitypress.co.uk/journals/id/61">https://www.liverpooluniversitypress.co.uk/journals/id/61</a>   |
| JournalTOCs  | Collection of scholarly journal Tables of Contents (TOC) for learning disability practice<br>Contains articles' metadata of TOCs  | JournalTOCs<br><a href="http://www.journaltoCs.ac.uk/index.php?action=browse&amp;subAction=subjects&amp;publisherID=49&amp;journalID=29005&amp;page=1&amp;userQueryID=&amp;sort=&amp;local_page=1&amp;sortBy=&amp;sortByCol=1">http://www.journaltoCs.ac.uk/index.php?action=browse&amp;subAction=subjects&amp;publisherID=49&amp;journalID=29005&amp;page=1&amp;userQueryID=&amp;sort=&amp;local_page=1&amp;sortBy=&amp;sortByCol=1</a> |

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**Appendix A. Initial Appraisals**

|  | <b>Overview of Article</b>  |
|--|---|
| Type of article                        | Overall Type: Primary Research Study<br>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.<br><a href="https://doi.org/10.3109/17518423.2013.855273">https://doi.org/10.3109/17518423.2013.855273</a>  |
| Abstract                               | “Objective: To further validate the Child and Adolescent Scale of Environment (CASE). Methods: 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. Results: The CASE had high internal consistency (α = 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. Conclusion: Results provide additional CASE validation evidence. Further testing is needed with more diverse and representative samples” (p. 375). |
| Author                                 | Credentials: Ph. D. OTR, FAOTA<br>Position and Institution: Associate Professor at Tufts University, Medford MA<br>Publication History in Peer-Reviewed Journals: Extensive   |
| Publication                            | Type of publication: scholarly peer reviewed<br>Publisher: Developmental Neurorehabilitation  |
| Date and Citation History              | Date of publication: 2015<br>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:<br>1. To examine the internal structure of the CASE through exploratory factor analyses.<br>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.<br>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].<br>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><br>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><br>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<br>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. <a href="https://doi.org/10.3109/09638288.2014.918189">https://doi.org/10.3109/09638288.2014.918189</a>   |
| 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 ( $\alpha$ /40.78–0.90) and test–retest correlations ( $r$ /40.71–0.86). There were several expected correlations ( $r$ □ 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<br>Position and Institution: Department of Medical Psychology, Center for Psychosocial Medicine, University Medical Center Hamburg-Eppendorf, Hamburg, Germany<br>Publication History in Peer-Reviewed Journals: Extensive   |
| Publication                            | Type of publication: scholarly peer-reviewed journal<br>Publisher: Taylor & Francis<br>Other: international, multidisciplinary journal  |
| Date and Citation History              | Date of publication: 2015<br>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<br>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<br>Rationale: Established author. Reputable journal and publisher. Publication within the last 5 years.  |

|  | Overview of Article  |
|--|--|
| Type of article                        | Overall Type: Primary Research Study<br>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, 98</i> (2), 286-294. <a href="http://dx.doi.org/10.1016/j.apmr.2016.08.462">http://dx.doi.org/10.1016/j.apmr.2016.08.462</a>  |
| 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<br>Position and Institution: Graduate Institute of Injury Prevention and Control, College of Public Health and Nutrition, Taipei Medical University, Taipei City, Taiwan<br>Publication History in Peer-Reviewed Journals: Extensive   |
| Publication                            | Type of publication: Scholarly peer-reviewed journal<br>Publisher: Elsevier<br>Also supported by the Ministry of Science and Technology, Taiwan (grant no. MOST104-2314-B038-003)  |
| Date and Citation History              | Date of publication: 2017<br>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<br>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<br>Rationale: Reputable journal, well established author, within the last 3 years, research study.  |

|  | Overview of Article   |
|--|---|
| Type of article                        | Overall Type: Primary Research Study<br>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. <a href="https://doi.org/10.3109/09638288.2013.767385">https://doi.org/10.3109/09638288.2013.767385</a>  |
| 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<br>Position and Institution: Faculty of Health Services at University of Sydney. Lidcombe Australia<br>Publication History in Peer-Reviewed Journals: moderate   |
| Publication                            | Type of publication: Scholarly<br>Publisher: Disability and Rehabilitation  |
| Date and Citation History              | Date of publication: 2013<br>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<br>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<br>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.   |

|  | <b>Overview of Article</b>   |
|--|--|
| Type of article                        | Overall Type: Primary Research Study<br>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. <a href="https://doi.org/10.1080/10749357.2020.1834275">https://doi.org/10.1080/10749357.2020.1834275</a>  |
| 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 <math>\alpha = 0.79</math>) 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 (<math>r = 0.32-0.65</math>). MAPA showed good ability to differentiate between young adults (age <math>\leq 65</math> years) and older adults (age <math>&gt; 65</math> years) with chronic stroke (<math>P = .005</math>) as well as between chronic stroke survivors with different levels of disability (<math>P &lt; .001</math>).</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<br>Position and Institution: Professor, Occupational Therapy Department, Iran University of Medical Sciences<br>Publication History in Peer-Reviewed Journals: Moderate   |
| Publication                            | Type of publication: Scholarly peer-reviewed<br>Publisher: Taylor & Francis  |
| Date and Citation History              | Date of publication: August 1, 2020<br>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<br>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<br>Rationale: Moderately established author. Article is not cited by others. Published within this year.  |

|  | <b>Overview of Article</b>   |
|--|--|
| Type of article                        | Overall Type: Primary Research Study<br>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. <a href="https://doi.org/10.1016/j.apmr.2018.07.424">https://doi.org/10.1016/j.apmr.2018.07.424</a>  |
| 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<br>Position and Institution: Associate Professor, Department of Recreation, Parks & Tourism Studies, Indiana University Bloomington School of Public Health<br>Publication History in Peer-Reviewed Journals: Extensive   |
| Publication                            | Type of publication: Scholarly peer-reviewed journal<br>Publisher: Elsevier  |
| Date and Citation History              | Date of publication: 2019<br>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<br>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<br>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<br>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 &amp; Child Neurology</i> , 53(11), 1030-1037. <a href="https://doi.org/10.1111/j.1469-8749.2011.04094.x">https://doi.org/10.1111/j.1469-8749.2011.04094.x</a>  |
| 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                              | <p>Credentials: PhD, OTR/L, FAOTA<br/>Position and Institution: Department Chair of Occupational Therapy at Boston University<br/>Publication History in Peer-Reviewed Journals: Extensive</p>  |
| Publication                         | <p>Type of publication: Scholarly Peer-reviewed journal<br/>Publisher: Mac Keith Press</p>  |
| Date and Citation History           | <p>2011<br/>Google Scholar Cited By: 199</p>  |
| Stated Purpose or Research Question | <p>“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).</p>  |
| Author’s Conclusion                 | <p>“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).</p>   |
| Overall Relevance to EBP Question   | <p>Overall Relevance to EBP Question: Good<br/>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.</p>   |
| Overall Quality of Article          | <p>Overall Quality of Article: Good<br/>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.</p>   |

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|  | <b>Overview of Article</b>  |
| Type of article                        | Overall Type: Primary Research Study<br>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. <a href="https://doi.org/10.1186/s12889-015-2381-2">https://doi.org/10.1186/s12889-015-2381-2</a>   |
| 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<br/>Position and Institution: Assistant Professor of Disability and Human Development at the University of Illinois at Chicago<br/>Publication History in Peer-Reviewed Journals: moderate</p>  |
| Publication                            | <p>Type of publication: scholarly peer-reviewed journal<br/>Publisher: BMC Public Health</p>  |
| Date and Citation History              | <p>2015<br/>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 &amp; 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<br/>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<br/>This article is 5 years old, published in a well-respected journal, and written by an author with moderate experience in the field.</p>   |

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| Type of article                        | Overall Type: Primary Research Study<br>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. <a href="https://doi.org/10.1080/17518423.2017.1342711">https://doi.org/10.1080/17518423.2017.1342711</a>   |
| 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<br>Position and Institution: School of Occupational Therapy of Hadassah and the Hebrew University, Jerusalem, Israel<br>Publication History in Peer-Reviewed Journals: Moderate   |
| Publication                            | Type of Publication: scholarly peer-reviewed journal<br>Publisher: Taylor & Francis   |
| Date and Citation History              | 2008<br>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<br>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<br>Rationale: A moderately established author, reputable journal, peer-reviewed, published within 10 years.  |

|  | <b>Overview of Article</b>  |
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| Type of article                        | Overall Type: Primary Research Study<br>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. <a href="https://doi.org/10.1016/j.apmr.2005.09.014">https://doi.org/10.1016/j.apmr.2005.09.014</a>   |
| 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).<br/>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.<br/>Setting: Primarily in the midwestern United States.<br/>Participants: Purposeful sample of 604 people with mobility limitations having a diagnosis of spinal cord injury, multiple sclerosis, cerebral palsy, stroke, or postpoliomyelitis.<br/>Interventions: Not applicable.<br/>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.<br/>Results: PARTS/M domains and components of participation had good internal consistency and stability. Composite participation scores were developed for participation components and domains.<br/>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<br>Position and Institution: Occupational Therapy Professor, Department of Neurology, Washington University School of Medicine<br>Publication History in Peer-Reviewed Journals: Extensive   |
| Publication                            | Type of publication: scholarly peer review journal<br>Publisher: Elsevier<br>Other: Volume 87 Issue 2   |
| Date and Citation History              | Date of publication: February 2006<br>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<br>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<br>Rationale: Established author. Reputable journal and publisher.   |

|                                     | <b>Overview of Article</b>   |
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| Type of article                     | Overall Type: Primary Research Study<br>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. <a href="https://doi.org/10.1080/09638280701625377">https://doi.org/10.1080/09638280701625377</a>  |
| 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<br>Position and Institution: professor of Neurology and Occupational Therapy at Washington University School of Medicine<br>Publication History in Peer-Reviewed Journals: extensive  |
| Publication                         | Type of publication: scholarly peer-reviewed journal<br>Publisher: Elsevier  |
| Date and Citation History           | Date of Publication: 2008<br>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<br>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<br>Rationale: Well-established author, published in a reputable journal, published in the last 15 years.  |

|  | <b>Overview of Article</b>  |
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| Type of article                        | Overall Type: Primary Research Study<br>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. <a href="https://doi.org/10.1620/tjem.206.41">https://doi.org/10.1620/tjem.206.41</a>   |
| 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)<br>Position and Institution: Department of Internal Medicine and Rehabilitation Science, Tohoku University Graduate School of Medicine<br>Publication History in Peer-Reviewed Journals: Extensive   |
| Publication                            | Type of publication: Scholarly peer-reviewed journal<br>Publisher: Japan Science and Technology Agency<br>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<br>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<br>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<br>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.   |

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|  | <b>Overview of Article</b>  |
| Type of article                        | Overall Type: Primary Research Study<br>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. <a href="https://doi.org/10.1016/j.apmr.2016.05.021">https://doi.org/10.1016/j.apmr.2016.05.021</a>   |
| 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<br>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.<br>Publication History in Peer-Reviewed Journals: Extensive   |
| Publication                            | Type of publication: Scholarly peer-reviewed journal<br>Publisher: Elsevier<br>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<br>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<br>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<br>Rationale: Reputable journal, well established author, within the last 5 years, research study on relevant measures.  |

|  | <b>Overview of Article</b>  |
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| Type of article                        | Overall Type: Primary Research Study<br>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.<br><a href="http://doi.org/10.1016/j.apmr.2010.07.220">http://doi.org/10.1016/j.apmr.2010.07.220</a>   |
| 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<br>Position and Institution: Professor, Physical Medicine and Rehabilitation, Emergency Medicine, and Medical Social Sciences, Northwestern University<br>Publication History in Peer-Reviewed Journals: Extensive   |
| Publication                            | Type of publication: scholarly peer-reviewed journals<br>Publisher: American Congress of Rehabilitation Medicine<br>Other: Presented to the American Psychological Association  |
| Date and Citation History              | Date of publication: April, 2011<br>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<br>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<br>Rationale: Published within the past 10 years. Established author. Based on a survey, however.  |

|  | <b>Overview of Article</b>  |
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| Type of article                        | Overall Type: Primary Research Study<br>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 &amp; Quality of Life Outcomes</i> , 16(1), 199. <a href="https://doi.org/10.1186/s12955-018-1024-6">https://doi.org/10.1186/s12955-018-1024-6</a>  |
| 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<br>Position and Institution: Postdoctoral researcher, National Institute of Public Health, University of Southern Denmark<br>Publication History in Peer-Reviewed Journals: Moderate   |
| Publication                            | Type of publication: scholarly peer-reviewed journals<br>Publisher: SpringerLink  |
| Date and Citation History              | Date of publication: October 11, 2018<br>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<br>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<br>Rationale: This article is only cited in three other peer-reviewed publications. Established author. Published within the last 10 years.  |

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|  | <b>Overview of Article</b>  |
| Type of article                        | Overall Type: Primary Research Study<br>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, 96</i> (2). <a href="http://doi.10.1016/j.apmr.2014.09.031">http://doi.10.1016/j.apmr.2014.09.031</a>   |
| Abstract                               | <p>“Objective: To evaluate the psychometric properties of the newly developed Young Children's Participation and Environment Measure (YC-PEM).<br/>Design: Cross-sectional study.<br/>Setting: Data were collected online and by telephone.<br/>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 ± SD, 35.33±20.29mo) and residing in North America.<br/>Interventions: Not applicable.<br/>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.<br/>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.<br/>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<br>Position and Institution: Department of Occupational Therapy, Colorado State University, Fort Collins, CO<br>Publication History in Peer-Reviewed Journals: Extensive  |
| Publication                            | Type of publication: scholarly peer-reviewed journal<br>Publisher: American Congress of Rehabilitation Medicine   |
| Date and Citation History              | Date of Publication: 2015<br>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)<br/>         “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<br>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<br>Established author. Reputable journal and publisher. Publication within last 5 years  |

|  | Overview of Article  |
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| Type of article                        | Overall Type: Primary Research Study<br>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 &amp; Development</i> , 39(3), 337-344. <a href="https://doi.org/10.1111/j.1365-2214.2012.01388.x">https://doi.org/10.1111/j.1365-2214.2012.01388.x</a>  |
| 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>   |

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|  | <b>Overview of Article</b>  |
| Type of article                        | Overall Type: Primary Research Study<br>Specific Type: Psychometric Research Study  |
| APA Reference                          | Noreau, L., Desrosiers, J., Robichaud, L., Fougere, P., Rochette, A., & Viscoglioni, C. (2004). Measuring social participation: Reliability of the LIFE-H in older adults with disabilities. <i>Disability &amp; Rehabilitation, 26</i> (6), 346–352. <a href="https://doi.org/10.1080/09638280410001658649">https://doi.org/10.1080/09638280410001658649</a>   |
| 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 &amp; 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>  |

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|  | <b>Overview of Article</b>  |
| Type of article                        | Overall Type: Primary Research Study<br>Specific Type: Psychometric Research Study  |
| APA Reference                          | Noreau, L., Lepage, C., Boissiere, L., Picard, R., Fougeyrollas, P., Mathieu, J., Desmarais, G. & Nadeau, L. (2007). Measuring participation in children with disabilities using the Assessment of Life Habits. <i>Developmental Medicine &amp; Child Neurology</i> , 49(9), 666-671. <a href="https://doi.org/10.1111/j.1469-8749.2007.00666.x">https://doi.org/10.1111/j.1469-8749.2007.00666.x</a>   |
| 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<br>Professor in Rehabilitation Department at Laval University (Quebec City), Faculty of Medicine, Scientific Director at Center for Interdisciplinary Research in Rehabilitation and Social Integration<br>Publication History in Peer-Reviewed Journals: extensive  |
| Publication                            | Type of publication: scholarly peer-reviewed journal<br>Publisher: Wiley Online Library<br>Other: Volume 49 Issue 2   |
| Date and Citation History              | Date of publication: August 20, 2007<br>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<br>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<br>Rationale: Established author. Reputable journal and publication.   |

|  | Overview of Article  |
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| Type of article                        | Overall Type: Primary Research Study<br>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. <a href="https://doi.org/10.1080/09638288.2020.1802520">https://doi.org/10.1080/09638288.2020.1802520</a>  |
| 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 $\alpha$ 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<br>Position and Institution: Sapienza University of Rome, Rome, Italy. Department of Public Health and Infectious Diseases.<br>Publication History in Peer-Reviewed Journals: For lead author Francesca Roberta Panuccio: Moderate  |
| Publication                            | Type of publication: Scholarly peer-reviewed journal<br>Publisher: Taylor & Francis Group<br>Other: International company originating in England that publishes books and academic journals  |
| Date and Citation History              | Date of publication: 2020<br>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<br>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<br>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.   |

|  | <b>Overview of Article</b>  |
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| Type of article                        | Overall Type: Primary Research Study<br>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.<br><a href="https://doi.org/10.1016/j.ridd.2010.07.009">https://doi.org/10.1016/j.ridd.2010.07.009</a>   |
| 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 ± standard deviation for total sample, 5 y, 3 mo ± .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<br>Position and Institution: Department of Occupational Therapy, School of Health Professions, Sackler Faculty of medicine, Tel Aviv University<br>Publication History in Peer-Reviewed Journals: extensive  |
| Publication                            | Type of Publication: scholarly peer-reviewed journal<br>Publisher: Elsevier   |
| Date and Citation History              | Date of Publication: 2010<br>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<br>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<br>Rationale: Established author, reputable journal, published within the last 10 years  |

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|  | <b>Overview of Article</b>   |
| Type of article                        | Overall Type: Primary Research Study<br>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, 62</i> (1), 36-44.<br><a href="https://doi.org/10.1037/rep0000117">https://doi.org/10.1037/rep0000117</a>   |
| 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<br>Position and Institution: School of Public Health, National Defense Medical Center, Taipei, Taiwan, and School of Medicine, National Taiwan University Hospital, Chu-Tung Branch<br>Publication History in Peer-Reviewed Journals: extensive   |
| Publication                            | Type of Publication: scholarly peer-reviewed journal<br>Publisher: American Psychological Association  |
| Date and Citation History              | Date of Publication: 2017<br>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<br>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<br>Rationale: established author, reputable journal, published within the last 10 years   |

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|  | <b>Overview of Article</b>  |
| Type of article                        | Overall Type: Primary Research Study<br>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. <a href="https://doi.org/10.1016/j.apmr.2003.09.027">https://doi.org/10.1016/j.apmr.2003.09.027</a>   |
| 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<br>Position and Institution: Research Department, Craig Hospital, Englewood, CO, USA<br>Publication History in Peer-Reviewed Journals: extensive  |
| Publication                            | Type of publication: scholarly peer-reviewed journal<br>Publisher: American Congress of Rehabilitation Medicine   |
| Date and Citation History              | 2004<br>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<br>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<br>Established author. Reputable journal and publisher. Publication within last 20 years. Cited by many other articles.  |

|  | Overview of Article   |
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| Type of article                        | Overall Type: Primary Research Study<br>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.<br><a href="https://doi.org/10.3928/24761222-20190403-02">https://doi.org/10.3928/24761222-20190403-02</a>  |
| 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<br>Position and Institution: Student at the School of Occupational and Occupational Therapy McGill University<br>Montreal, Quebec, Canada<br>Publication History in Peer-Reviewed Journals: Limited  |
| Publication                            | Type of publication: Scholarly peer reviewed<br>Publisher: Annals of International Occupational Therapy   |
| Date and Citation History              | Date of publication: 2019<br>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<br>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<br>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   |
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| Type of article                        | Overall Type: Review of Research Study<br>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 &amp; Rehabilitation</i> , 41(5), 584–600. <a href="https://doi.org/10.1080/09638288.2016.1198433">https://doi.org/10.1080/09638288.2016.1198433</a>   |
| 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<br>Position and Institution: Swiss Paraplegic Research, ICF Unit, Nottwil, Switzerland; Department of Health Sciences and Health Policy, University of Lucerne, Lucerne, Switzerland<br>Publication History in Peer-Reviewed Journals: Extensive   |
| Publication                            | Type of publication: scholarly peer-reviewed journal<br>Publisher: Taylor & Francis<br>Other: International, multidisciplinary journal  |
| Date and Citation History              | Date of publication: 2019<br>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<br>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<br>Rationale: Established author. Reputable journal and publisher. Publication within the last year.   |

|  | <b>Overview of Article</b>   |
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| Type of article                        | Overall Type: Review of Research Study<br>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.<br><a href="https://doi.org/10.1016/j.apmr.2012.10.031">https://doi.org/10.1016/j.apmr.2012.10.031</a>  |
| Abstract                               | “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.<br>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). |
| Author                                 | Credentials: MPH OTR,<br>Position and Institution: Boston University of Health and Rehabilitation Sciences<br>Publication History in Peer-Reviewed Journals: Extensive   |
| Publication                            | Type of publication: Scholarly peer reviewed<br>Publisher: Archives of Physical Medicine and Rehabilitation  |
| Date and Citation History              | Date of publication: 2013<br>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<br>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<br>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.  |

|  | <b>Overview of Article</b>  |
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| Type of article                        | Overall Type: Review of Research Study<br>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. <a href="https://doi.org/10.1016/j.apmr.2013.06.027">https://doi.org/10.1016/j.apmr.2013.06.027</a>   |
| 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>   |

|  | <b>Overview of Article</b>  |
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| Type of article                        | Overall Type: Review of Research Study<br>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. <a href="https://doi.org/10.1016/j.apmr.2011.01.006">https://doi.org/10.1016/j.apmr.2011.01.006</a>   |
| 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>  |

|  | <b>Overview of Article</b>   |
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| Type of article                        | Overall Type: Review of Research Study<br>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. <a href="https://doi.org/10.3109/09638288.2013.821178">https://doi.org/10.3109/09638288.2013.821178</a>  |
| 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<br>Position and Institution: University of the Basque Country UPV/EHU<br>Publication History in Peer-Reviewed Journals: moderate   |
| Publication                            | Type of publication: scholarly peer-reviewed journal<br>Publisher: Informa Healthcare  |
| Date and Citation History              | Date of publication: 2008<br>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<br>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<br>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<br>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.<br><a href="https://doi.org/10.1016/j.dhjo.2011.12.002">https://doi.org/10.1016/j.dhjo.2011.12.002</a>   |
| 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                              | Credentials: PhD, MPP<br>Position and Institution: Associate Professor at Northern Illinois University, College of Health and Human Sciences<br>Publication History in Peer-Reviewed Journals: moderate  |
| Publication                         | Type of publication: Scholarly peer-reviewed journal<br>Publisher: Elsevier<br>Other: Official journal of the American Association of Health and Disability  |
| Date and Citation History           | 2012<br>Google Scholar Cited By: 74  |
| 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   | Overall Relevance to EBP Question: moderate<br>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.   |
| Overall Quality of Article          | Overall Quality of Article: Good<br>This article was published in a respected peer-reviewed journal less than eight years ago by an author with moderate experience in the field.  |

|  | <b>Overview of Article</b>   |
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| Type of article                        | Overall Type: Review of Research Study<br>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. <a href="https://doi.org/10.3928/15394492-20111222-02">https://doi.org/10.3928/15394492-20111222-02</a>  |
| 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)<br>Position and Institution: Assistant Clinical Professor (part-time), McMaster University, Hamilton, Ontario, Canada<br>Publication History in Peer-Reviewed Journals: extensive  |
| Publication                            | Type of publication: scholarly peer-reviewed journal<br>Publisher: Elsevier  |
| Date and Citation History              | Date of Publication: 2012<br>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).<br>“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<br>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<br>Established author. Reputable journal and publisher. Publication within last 10 years  |

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|  | <b>Overview of Article</b>  |
| Type of article                        | Overall Type: Review of Research Study<br>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 &amp; Child Neurology</i> , 60(3), 230-243. <a href="http://doi.org/10.1111/dmcn.13631">http://doi.org/10.1111/dmcn.13631</a>  |
| Abstract                               | <p>“Aim: To systematically review the measurement properties of instruments assessing participation in young people with autism spectrum disorder (ASD).<br/>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.<br/>Interpretation: Validation of these instruments, or others that comprehensively assess participation, is needed. Future studies should follow recommended methodological standards.<br/>What this paper adds</p> <ul style="list-style-type: none"> <li>• Seven instruments have been used to assess participation in young people with autism.</li> <li>• One instrument, with excellent measurement properties in one study, does not comprehensively assess participation.</li> <li>• Studies of three instruments that incorporate a more comprehensive assessment of participation have methodological limitations.</li> <li>• Overall, limited evidence exists regarding measurement properties of participation assessments for young people with autism” (p. 230).</li> </ul> |
| Author                                 | Credentials: Francesca Lami PhD<br>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.<br>Publication History in Peer-Reviewed Journals: Extensive   |
| Publication                            | Type of publication: Scholarly, peer-reviewed journal<br>Publisher: Mac Keith Press<br>Other: Peer-reviewed academic journal  |
| Date and Citation History              | Date of publication: 2017<br>Cited By: 4  |
| 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 | Overall Relevance of Article: Good<br>Rationale: This study is directly related to measurements of participation for individuals with disabilities, specifically ASD.   |
| Overall Quality of Article             | Overall Quality of Article: Moderate<br>Rationale: Established Author, Moderately credible journal and publisher. Published in the last 3 years.  |

|  | <b>Overview of Article</b>  |
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| Type of article                        | Overall Type: Review of Research Study<br>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. <a href="https://doi.org/10.1038/sc.2008.171">https://doi.org/10.1038/sc.2008.171</a>   |
| 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<br>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<br>Publication History in Peer-Reviewed Journals: Extensive  |
| Publication                            | Type of publication: Scholarly, peer-reviewed journal<br>Publisher: Taylor & Francis<br>Other: International, multidisciplinary journal   |
| Date and Citation History              | Date of publication: 2009<br>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<br>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<br>Rationale: Established author. Reputable journal and publisher. Published in last 11 years  |

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| Type of article                     | Overall Type: Review of Research Study<br>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. <a href="https://doi.org/10.1080/09638280902846947">https://doi.org/10.1080/09638280902846947</a>   |
| Abstract                            | <p>“Purpose. To identify and review instruments which assess participation as defined by the International Classification of Functioning, Disability and Health (ICF).<br/>                 Methods. A systematic search of the literature was conducted. Data related to the content, administration, scoring, reliability, validity and responsiveness was abstracted.<br/>                 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.<br/>                 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<br/>                 Position and Institution: Director of Research and Best Practice Implementation, Rick Hansen Institute, professor at the University of British Columbia<br/>                 Publication History in Peer-Reviewed Journals: extensive</p>  |
| Publication                         | <p>Type of publication: Scholarly peer-reviewed journal<br/>                 Publisher: Disability and Rehabilitation</p>   |
| Date and Citation History           | <p>2009<br/>                 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<br/>                 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<br/>                 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>   |

|  | <b>Overview of Article</b>  |
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| Type of article                        | Overall Type: Review of Research Study<br>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. <a href="http://dx.doi.10.1016/j.dhjo.2012.05.002">http://dx.doi.10.1016/j.dhjo.2012.05.002</a>  |
| 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<br>Position and Institution: Professor, University of Montana, Missoula<br>Publication History in Peer-Reviewed Journals: Extensive  |
| Publication                            | Type of publication: Peer-reviewed journals<br>Publisher: Elsevier  |
| Date and Citation History              | Date of publication: 2012<br>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<br>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<br>Rationale: Reputable author. Published within the past 10 years.  |

|  | <b>Overview of Article</b>   |
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| Type of article                        | Overall Type: Review of Research Study<br>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.<br><a href="http://doi.org/10.1111/jar.12565">http://doi.org/10.1111/jar.12565</a>   |
| 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<br>Position and Institution: Professor, Solomons Institute for Applied Psychology, Canterbury Christ Church University<br>Publication History in Peer-Reviewed Journals: Limited  |
| Publication                            | Type of publication: scholarly peer-reviewed journals<br>Publisher: Wiley  |
| Date and Citation History              | Date of publication: January 28, 2019<br>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<br>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<br>Rationale: Author is not well-established. Published within the past 5 years.  |

|  | Overview of Article   |
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| Type of article                        | Overall Type: Review of Research Study<br>Specific Type: Systematic Review  |
| APA Reference                          | Tse, T., Douglas, J., Lentini, P., & Carey, L. (2013). Measuring participation after stroke: A review of frequently used tools. <i>Archives of Physical Medicine and Rehabilitation, 94</i> (1), 177-192. <a href="https://doi.org/10.1016/j.apmr.2012.09.002">https://doi.org/10.1016/j.apmr.2012.09.002</a>   |
| 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>   |

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|  | <b>Overview of Article</b>  |
| Type of article                        | Overall Type: Review of Research Study<br>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. <a href="https://doi.org/10.1007/s40489-017-0102-8">https://doi.org/10.1007/s40489-017-0102-8</a>   |
| 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<br>Position and Institution: Autism Research Centre and Department of Pediatrics, University of Alberta<br>Publication History in Peer-Reviewed Journals: moderate   |
| Publication                            | Type of Publication: scholarly peer-reviewed journal<br>Publisher: Springer Nature B.V.   |
| Date and Citation History              | 2017<br>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<br>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<br>Rationale: moderately established author, reputable journal, published within the last 10 years.  |