

Table I. Overview of participation instruments, abbreviations, way of operationalizing and domains of the International Classification of Functioning, Disability and Health (ICF)

Instrument	Abbreviation	Way of operationalizing	ICF domains covered
<i>1. Unidimensional Instruments: frequency</i>			
1.1 The Keel Assessment of Participation (112)	KAP	11 items. Frequency: e.g. of an item: <i>During the past 4 weeks, I have moved around in my home, as and when I have wanted.</i> 5-point scale: all of the time, most of the time, some of the time, little of the time, none of the time.	5 domains: d4, d6, d7, d8, d9
1.2 Participation, patient-reported outcome (113)	PAR-PRO	20 items. Frequency: e.g. of an item: <i>Work/employment.</i> 5-point scale: Did not participate in this life situation, participated monthly (once every 3–4 weeks), participated bi-weekly (once every 2 weeks), participated weekly (1–4 days per week), participated daily/ almost every day (5 or more days per week)	5 domains: d4, d6, d7, d8, d9
<i>2 Unidimensional Instruments: limitations</i>			
2.1 Participation Scale (85)	P-Scale	18 items. Limitations: e.g. of an item: <i>helping other people.</i> 5-point scale: no restriction, some restriction but no problem, small problem, medium problem, large problem.	8 domains: d1, d3, d4, d5, d6, d7, d8, d9
2.2 ICF measure of Participation and Activities Questionnaire – screener part (26)	IMPACT-S	33 items. Participation Restrictions: e.g. of an item: <i>basic economic transactions.</i> 3-point scale: no restrictions, minor restrictions, major restrictions Remark: next to participation also activities are operationalized in this instrument Activity Limitations: e.g. of an item: <i>communicating, receiving.</i> 3-point scale: no limitations, minor limitations, major limitations	4 domains for participation: d6, d7, d8, d9
2.3 Oxford Participation and Activities Questionnaire (114)	Ox-PAQ	23 items. Difficulties: e.g. of an item: <i>how often during the past four weeks you had difficulties with getting up in the morning?</i> 5-point scale: never, rarely, sometimes, often, always	5 domains for activities: d1, d2, d3, d4, d5 Theoretically based on ICF, but not on the 9 domains (the following domains are given: routine activities, emotional well-being and social engagement).
2.3 Child and Adolescent Scale of Participation (45, 122)	CASP	20 items. Limitations: e.g. of an item: <i>Compared to other children your child's age, what is your child's current level of participation in household activities?</i> 4-point scale: as expected for age, somewhat limited, very limited, unable (at home, in school and in neighborhood/community in comparison with peers)	Theoretically based on ICF, but not on the 9 domains.
<i>3 Multidimensional instruments: multiple subjective dimensions</i>			
3.1 Impact on Participation and Autonomy Questionnaire (35, 115, 139)	IPA	41 items – 2 dimensions. Autonomy: e.g. of an item: <i>My chances of contributing to looking after my home the way I want to are:</i> 5-point scale: very good, good, fair, poor, very poor Limitations: e.g. of an item: <i>If your health or your disability affect your activities in and around your home, to what extent does this cause you problems?</i> 3-point scale: no problems, minor problems, major problems	Theoretically based on ICIDH-2 (17). (The following domains are given: autonomy indoors, family role, autonomy outdoors, social life and relationships, work and education)
3.2 Participation Enfranchisement (116)	PE	19 items – 3 dimensions. Choice and control, e.g. of an item: <i>I have choices about the activities I want to do.</i> 4-point scale: true, mostly true, mostly false, false. Contribution to the community, e.g. of an item: <i>I do things that improve my community.</i> 4-point scale: true, mostly true, mostly false, false. Valued by others, e.g. of an item: <i>I feel valued as a member of the society:</i> 4-point scale: true, mostly true, mostly false, false.	Theoretically based on ICF, but not clear on which domains (the following domains are given: productivity, social participation, being out and about in the community)
3.3 Rating of Perceived Participation (117)	ROPP	16 items – 3 dimensions. Restrictions in performing activities, e.g. of an item: <i>involvement in cultural, political and spiritual activities.</i> 5-point scale: not restricted, mildly restricted, moderately restricted, very restricted, severely restricted. Satisfaction with my level of participation (same item). 2-point scale: yes, no. Change: <i>I want support to change my level of participation</i> (same item). 2-point scale: yes, no.	Originally based on the ICIDH-2, including 7 domains; d3, d4, d5, d6, d8 and d9 but blended in other subdomains.

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3.4 Time Organization and Participation Scale (110)	TOPS	<p>32 items – 3 dimensions.</p> <p>Task performance in an appropriate pace, e.g. of an item: <i>fulfilling varied roles</i>. 5-point scale: never, rarely, sometimes, usually, always.</p> <p>Performance in time organization of activities (same item). 5-point scale: ranging from 1 very bad to 5 excellent</p> <p>Emotional responses as a result of lack of success at the expected pace (same item). 7 answer options: lack of motivation to perform, sadness, frustration, anger, crying, outburst towards family members, and outburst towards friends.</p> <p>2 open items: difficulty in organizing daily activities and distraction to perform activities.</p>	Theoretically based on ICF, but not on the 9 domains
<i>4 Multidimensional instruments: combining objective and subjective dimensions</i>			
4.1. Participation Measure for Post-Acute Care (119)	PM-PAC	<p>52 items – 3 objective dimensions 2 subjective dimensions.</p> <p>Duration, e.g. of an item: <i>During the past week, how much of the time: have you accomplished less than you would like?</i> 5-point scale: all of the time, most of the time, some of the time, a little of the time, none of the time.</p> <p>Frequency, e.g. of an item: <i>How many times in the past week have you done things socially with other people?</i> Different according to the item: 5-point scales: none, once, twice, three times, more than three times Remark: depending on the item, another 5-point scale is used: Every day, 5-6 days, 3-4 days, 1-2 days, never.</p> <p>Number of family and friends and close contacts, e.g. of an item: <i>How many close friends do you have?</i> 5-point scale: none, one, two to four, five to eight, nine or more.</p> <p>Limitation, e.g. of an item: <i>How much are you currently limited in getting around offices, stores or public buildings?</i> 5-point scale: not at all, a little, some, quite a lot, completely Remark: depending on the item, another 5-point scale is used: Not at all limited, a little limited, somewhat limited, very much limited, extremely limited.</p> <p>Satisfaction, e.g. of an item: <i>How satisfied are you with how much you can help family and friends?</i> 5-point scale: very satisfied, somewhat satisfied, neither satisfied or dissatisfied, somewhat satisfied, very dissatisfied.</p> <p>In addition; the following descriptive questions are asked: the current category of employment, current enrolment in an educational program and the effect of the disability on social economic status.</p>	Initially constructed on the ICIDH-2 but revised to correspond with the ICF, 8 domains: d1, d3, d4, d5, d6, d7, d8, d9
4.2. Participation Objective, Participation Subjective (111)	POPS	<p>26 items: 2 objective and 2 subjective dimensions.</p> <p>Frequency, e.g. of an item: <i>In a typical week, do you do 'answer option' of the shopping for groceries in your household?</i> 4-answer options: all, most, some, none</p> <p>Duration, e.g. of an item: <i>How many hours in a typical day do you 'the activity' (e.g. of an item: work for pay)?</i> No answer options, number of hours is asked for.</p> <p>Importance, e.g. of an item: <i>how important is this 'activity' to your wellbeing</i> 7-point scale: most, very, moderate, little, not, not applicable, don't know.</p> <p>Desired activity level, e.g. of an item: <i>would you like to be doing 'this activity' more or less than you are doing now?</i> 5-point scale: more, less, same, not applicable, don't know.</p>	5 domains: d4, d6, d7, d8, d9

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4.3 Participation Survey/Mobility (123)	PARTS/M	<p>20 items – 1 objective and 5 subjective dimensions:</p> <p>Duration, e.g. of an item: <i>How much time do you require for working inside your home?</i> 3-point scale: more than 20 minutes, 10 to 20 minutes, less than 10 minutes Remark, depending on the item, another 3-point scale is used: more than 60 minutes, 30 to 60 minutes, less than 30 minutes.</p> <p>Or Frequency, e.g. of an item: <i>How frequently do you participate in outdoor maintenance activities?</i> Remark: only duration or frequency is asked, not both 4-point scale: 5 or more times a week, 3 to 4 times a week, 1 or two times a week, never. Remark: depending on the item, a 5-point scale is used: 3 or more times a day, once or twice a week, once or twice a day, once or twice a month, never.</p> <p>Choice, e.g. of an item: <i>To leave you house, how much choice do you have compared to others?</i> 4-point scale: a lot of choice, some choice, little choice, no choice.</p> <p>Satisfaction, e.g. of an item: <i>How satisfied are you with your participation in leisure activities?</i> 4-point scale: very satisfied, satisfied, somewhat satisfied, dissatisfied.</p> <p>Help form others, e.g. of an item: <i>How much help from another person do you require for take a vacation?</i> 4-point scale: a great deal, a moderate amount, just a little, none.</p> <p>The use of accommodations, adaptations or special equipment, e.g. of an item: <i>How often do you use accommodations, adaptations, or special equipment to socialize?</i> 5-point scale: all of the time, most of the time, some of the time, a little of the time, never.</p> <p>In addition; the reason of limitation is asked for each item. 5 option answer scale: Illness, A physical impairment, Pain, Fatigue, Not limited.</p>	6 domains: d4, d5, d6, d7, d8, d9
4.4 Children's Assessment of Participation & Enjoyment (125)	CAPE	<p>55 items – 4 objective dimensions and 1 subjective dimension:</p> <p>Diversity, e.g. of an item: <i>Have you done active physical recreation activities in the past four months?</i> Answer option: yes, no</p> <p>Frequency, If yes: <i>How often?</i> 7-point scale: 1 time in the past 4 months, 2 times in the past four months, 1 time a month, 2–3 times a month, 1 time a week, 2–3 times a week, 1 time a day or more.</p> <p>With whom do you do this most often? 5 answer options: alone, with family, with other relatives, with friends, with others.</p> <p>Where do you do this most often? 6 answer options: at home, at a relative's home, in your neighborhood, at school, in your community, beyond the community</p> <p>Enjoyment: <i>How much do you enjoy this activity?</i> 6-point scale: not at all, somewhat; sort of, pretty much, very much, love it.</p>	Theoretically based on ICF, but not on the 9 domains
4.5 Participation and Environment Measure for Children and Youth (121)	PEM-CY	<p>25 items, 1 objective and 3 subjective dimensions</p> <p>Remark: the scale is divided in items depending on the context of the activity: home, school, community</p> <p>Frequency, e.g. of an item: <i>How often does your child participate in 1 or more computer video games?</i> 8-point scale: daily, few times a week, once a week, few times a month, once a month, few times in last four months, once in the last four months, never.</p> <p>Involvement in activities, e.g. of an item: <i>How involved is your child when doing these activities?</i> 5-point scale: Ranging from minimally, over somewhat involved to very involved (in-between point not given).</p> <p>Expected change in number and type of activities: e.g. of an item: <i>Would you like your child's participation to change in this type of activity?</i> yes or no, along with 5 answer options to clarify the desire: 5 Answer options: No change desired, yes; Do more often, yes; Do less often, yes; To be more involved, yes; To be less involved, yes; Be involved in a broader variety of activities</p> <p>The amount of environmental support: e.g. of an item: <i>Do things help or make it harder for the child to participate?</i> 4 answer options: Not an issue, usually helps, sometimes helps/sometimes makes harder, usually makes it harder. Does the child need help; 4 answer options: not needed, usually yes, sometimes yes/sometimes no, usually no.</p>	Theoretically based on ICF, but not on the 9 domains

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4.6 Utrecht Scale for Evaluation of Rehabilitation-Participation (120)	USER-P	<p>32 items, 1 objective and 2 subjective dimensions:</p> <p>Frequency A, e.g. of an item: <i>how many hours per week or how often do you usually spend on the following education)?</i> 6-point scale: none at all, 1–8 hours, 9–16 hours, 17–254 hours, 25–35 hours, 36 hours or more.</p> <p>Frequency B, e.g. of an item: <i>How often have you undertaken sports or other physical exercise in the last 4 weeks?</i> 6-point scale: never, 1-2 times, 3-5 times, 6-10 times, 11-18 times, 19 times or more.</p> <p>Limitations, e.g. of an item: <i>does your illness or condition currently limit you daily live (e.g. going out)?</i> 5-point scale: not applicable, not possible, with assistance, with difficulty, without difficulty.</p> <p>Satisfaction, e.g. of an item: <i>How satisfied are you with your current daily life? (e.g. household activities):</i> 5-point scale: very satisfied, dissatisfied, neutral satisfied, very satisfied, not applicable.</p>	4 domains of the ICF: d4, d5, d6, d9
4.7 Participation Measure – 3 domains, 4 dimensions (117)	PM-3D4D	<p>19 items, 2 objective dimensions, 2 subjective dimensions:</p> <p>Diversity, e.g. of an item: <i>did you go to movies, concerts, shows, sports events, lectures, or exhibits?</i> 2 answer options: yes, no</p> <p>Frequency, <i>if yes how often?</i> Different multi-point scales depending on the item: For productivity items: Less than once a month, 1–3 days a month, once a week, 2–4 days a week, 5 or more days a week. For social and community items: Never in the past 3 months, once or twice in past 3 months, once a month, 2–3 times a month, once a week, 2–4 times a week, every day or almost every day?</p> <p>Desire for change, <i>Would you like to change your current participation in this activity?</i> 2 answer options: yes, no.</p> <p>Perceived difficulty, <i>what was the level of difficulty in participating in this type of activity?</i> 4-point scale: very difficult, moderately difficult, a little difficult, not difficult at all.</p>	Theoretically based on the ICF but not on the domains. (based on Chan & Coster (140) in which the 9 domains of the ICF are blended into Productivity, Social, and Community domains)
4.8 Ghent Participation Scale (71, 72)	GPS	<p>19 items, 2 objective dimensions, 3 subjective dimensions:</p> <p>Remark: the scale starts by asking 2 questions: <i>What are the 5 most important activities that you have performed during the last week and</i> <i>What are the 5 most important activities that you have delegated during the last week</i> The scale builds further on these 10 activities (5 self-performed and 5 delegated activities).</p> <p>Duration, <i>How much time did you spent in these 5 self-performed activities?</i> 5-point scale: maximum 1 hour, more than 1 hour and less than half a day, half a day, a full day, more than 1 day.</p> <p>The need to delegate activities: <i>How many of the 5 delegated activities you would rather have performed yourself?</i> No answer options.</p> <p>Self-performed activities in accordance with choices and wishes, e.g. of an item: <i>It was entirely my choice to engage in this activity.</i> 5-point scale: I totally disagree, I disagree, I doubt, I agree, I totally agree</p> <p>Self-performed activities leading to appreciation and social acceptance, e.g. of an item: <i>I felt a strong appreciation during this activity.</i> 5-point scale: I totally disagree, I disagree, I doubt, I agree, I totally agree</p> <p>Delegated activities, e.g. of an item: <i>I completely trust the person(s) who performed this activity for me.</i> 5-point scale: I totally disagree, I disagree, I doubt, I agree, I totally agree</p>	All domains of the ICF d1,d2,d3,d4,d5,d6,d7,d8,d9

ICF domains: d1=learning and applying knowledge; d2=general tasks and demands; d3=communication; d4=mobility; d5=self-care; d6=domestic life; d7=interpersonal interactions and relationships; d8=major life areas; d9=community, social and civic life.