Broadening the Conceptualization of ‘Participation’ of Persons with Physical Disabilities: A Configurative Review and Recommendations

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Abstract

Within the context of physical disability, participation has typically been conceptualized in terms of one’s performance of different roles and activities. This perspective, however, ignores the meanings and satisfactions that a person derives from participating. Without an accepted conceptualization of participation that accounts for people’s subjective perceptions and experiences, it is challenging for decision-makers and service-providers to design meaningful participation-enhancing services, programs, and policies.

Accordingly, our objectives were to: (a) conduct a review of definitions and conceptualizations of participation that extend beyond performance and capture people’s subjective experiences of participating, and (b) identify key experiential aspects of participation that can be used as a basis for conceptualizing and operationalizing the concept more broadly. The project involved a systematic, configurative review of relevant literature. Ten relevant articles were identified. Information on characteristics associated with experiential aspects of participation was extracted and subjected to a thematic analysis. Six themes emerged: Autonomy, Belongingness, Challenge, Engagement, Mastery, and Meaning. Drawing on these findings, it is recommended that the individual’s subjective perceptions of autonomy, belongingness, challenge, engagement, mastery and meaning associated with participating be incorporated into conceptualizations and operationalizations of the participation construct. This recommendation provides a starting point for clinicians, researchers and policy makers to conceptualize and measure the participation concept more consistently and more broadly.
65 *Keywords:* Social Participation; Social Engagement; Community Participation;

66 Community Involvement; Integration

67

68 **List of Abbreviations**

69 70 **CINAHL**  Cumulative Index to Nursing and Allied Health Literature

71 72 **ICF**  International Classification of Functioning, Disability and Health

73 74 **SDT**  Self-Determination Theory

75 76
Introduction

Participation refers to the nature and extent of involvement in activities and roles both at home and in the community\(^1,^2\). Among persons with physical disabilities, greater participation has been associated with better physical and psychological health and greater overall life satisfaction\(^3,^4\). Participation is considered so vital to human functioning and well-being, that the United Nations\(^5\) Convention on the Rights of Persons with Disabilities protects the basic right to “full and effective participation” in society.

Given its importance, participation is considered a fundamental goal of rehabilitation\(^6\), and is increasingly recognized by researchers as being part of a comprehensive approach to health outcome assessment\(^7\). For example, among those who have acquired a physical disability, return to participation in education, employment or family roles are often primary long-term goals of a rehabilitation program\(^8\). In the scientific literature, considerable research (e.g., \(^9,^10\)) has focused on the extent to which children and adults with disabilities participate in social roles (e.g., student, parent, spouse) and valued aspects of life (e.g., travel, sports, volunteerism). Research has also focused on developing and testing interventions to increase the number of people with disabilities who participate in various aspects of life and how much they participate (for example, see reviews by Clayton et al.\(^11\) on employment interventions and Rimmer et al.\(^12\) on exercise interventions).

Yet, as Dijkers\(^6\) has noted, participation is more than the quantifiable extent to which a person fulfills roles, has relationships and “otherwise performs a portfolio of actions that can be witnessed by an observer” (p. S7). Nevertheless, the perspective typically adopted by scientists, clinicians, and society in general, is to conceptualize
participation in terms of whether people are spending time involved in the typical range of activities that would be expected, when compared to societal or cultural norms. For instance, within the World Health Organization’s International Classification of Functioning, Disability and Health model (ICF; \(^{13}\)), participation is defined as “involvement in a life situation” (p. 10) and operationalized in terms of the degree of difficulty one has performing different roles and activities. However, conceptualizing participation merely in terms of performance ignores the meanings and satisfactions that an individual derives from participating\(^6,^{14,15}\). Indeed, people with disabilities have indicated that participation is not merely ‘being there’, and that full participation cannot be defined simply as involvement in a particular set of activities or by predetermined societal norms or standards\(^{14,16}\). Together, these perspectives create a compelling argument for a conceptualization of participation that extends beyond what a person does, and takes into account the person’s subjective experiences of participating.

Currently, there is no commonly accepted conceptualization of participation that accounts for people’s subjective perceptions and experiences. As a result, it is challenging for decision-makers and service-providers to design meaningful participation-enhancing services, programs, and policies (cf. \(^{17,18}\)). If the subjective aspects of participation are not considered, strategies aimed at improving participation are likely to achieve only an increase in the number of people participating rather than the quality of people’s participation experiences \(^{18,19}\). In addition, without a consistent operationalization of the experiential aspects of participation, it is difficult for clinicians and researchers to select appropriate outcome measures and to compare results across studies, thus hindering the advancement of knowledge. Given these issues, the objectives
of the present paper were to: (a) conduct a review of definitions and conceptualizations of participation that have been used within the physical disability literature to encompass experiential aspects of participation, and (b) identify key experiential aspects of participation that can be used to formulate recommendations for operationalizing the concept more broadly, beyond performance.

**Method**

**Overview of Methods**

A systematic, configurative review was undertaken. Configurative reviews are conducted with the goal of seeking, interpreting and arranging information, providing enlightenment through new ways of understanding, and developing concepts\(^{20}\). Philosophically, such reviews are typically underpinned by assumptions of ontological relativism and epistemological constructionism.

Although configurative reviews tend to be more exploratory than aggregative reviews (e.g., meta-analyses, cost-benefit analyses), they are still conducted in a systematic manner with clear and accountable methods. The general methodology is specified \emph{a priori}, however specific methods may be selected or adapted iteratively as the research proceeds\(^{20}\). This iterative process was necessary to address inherent challenges. For instance, it was impossible to specify an \emph{a priori} literature search strategy for our project, as the search was for concepts and ideas rather than data. The search was further complicated by the use of a variety of terms in the published literature to reflect similar concepts, and discussion of the concept within different types of articles (e.g., reviews, editorials, research reports).
The impact of these challenges was mitigated by following recommendations\textsuperscript{20,21} employed by groups who have conducted similar types of reviews to operationalize concepts such as social exclusion\textsuperscript{22}, social inclusion\textsuperscript{18}, and institutionalization\textsuperscript{23}. These recommendations included: adopting safe-guards to reduce biases (e.g., establishing multidisciplinary teams); undertaking a broad search of relevant literature across multiple sources and databases rather than conducting an exhaustive review; using an iterative search strategy; and accepting overlap in the searching, analysis, synthesis and writing stages of the project, because re-visiting each of these steps can help to focus the review.

A multidisciplinary core team (i.e., the authors) led the project. This team had expertise in psychology, occupational therapy, disability and rehabilitation studies, and population health. The project was undertaken as a preliminary step in a much larger, federally-funded set of team-based projects designed to improve both objective and subjective aspects of participation among people living with physical disabilities (the Canadian Disability Participation Project; www.cdpp.ca).

\textbf{Literature Search Strategy and Extraction of Relevant Information}

A systematic, iterative, two-stage literature search was conducted, with the goal of identifying a sufficient number of documents to facilitate the exploration of common themes\textsuperscript{20,21}. In the first stage, we drew upon expertise within the core team to identify key articles that addressed a concept consistent with the ideas of \textit{full and effective participation}, \textit{qualitative aspects of participation}, or \textit{subjective experiences of participation}. The reference lists of these articles were reviewed to identify additional relevant papers. The abstracts and (if necessary) full papers for these citations were read to determine if the article provided a definition, key attributes, or any other information
that could be used to describe the concept. For articles that met these criteria, the
following information was extracted: type of article (e.g., editorial, review), terminology
used to label the concept, definition of the concept, and attributes or characteristics
associated with the concept.
This first literature search stage produced a clearer understanding of how the
concept was labeled, used, and discussed in the literature. Although there was
inconsistent terminology and labeling of the construct, it was routinely discussed within
the context of the need to think about participation beyond doing, or performing. It was
also noted that several of the articles reported on qualitative studies or were conceptual
papers that synthesized information and provided commentary.
With a better understanding of what to look for, MEDLINE, Embase, Cumulative
Index to Nursing and Allied Health (CINAHL), and PsycINFO databases were searched
for additional, relevant papers published between January 1990 and June 2015. The
following keywords were used: social participation OR community participation AND
physical disability. Search terms were kept broad given the lack of consistent
terminology used to describe the concept of interest. Publication language was not
restricted.
The searches returned 183 citations from MEDLINE, 114 citations from Embase,
272 citations from CINAHL, and 291 citations from PsycINFO. Using the knowledge
garnered from the phase one literature search, titles and abstracts were scanned to identify
articles that provided a definition, key attributes, or other information to describe a
conceptualization of participation that captured its subjective, qualitative, or experiential
aspects. Articles were excluded if they did not provide this information. There were no
other article inclusion/exclusion criteria. Particular attention was paid to abstracts that described qualitative studies, commentaries, and knowledge syntheses, given the number of articles of this type that were identified in the first phase of the search.

After removing duplicates, and scanning citation titles and abstracts, ten papers were identified as potentially relevant. The full text of these articles was retrieved and read. Eight papers were excluded for the following reasons: paper was a commentary on another paper ($n = 1$); paper focused on a different concept (“the good life,” general disability issues, social care, barriers to participation [$n = 4$]); paper reported on an evaluation of a specific program ($n = 1$) or a study of the relationship between participation and other constructs ($n = 1$); paper discussed conceptual differences in participation versus social participation ($n = 1$). Two articles were considered relevant and included in the review. Additional papers were sought by searching the references of these two papers and any subsequent articles in which they were cited. These strategies did not yield any additional relevant papers.

Synthesis of Information

Information extracted on concept attributes or characteristics was subjected to an inductive thematic analysis$^{24}$. In brief, the individual attributes and characteristics were coded and then sorted into themes by two members of the authorship team [XXX, XXX]. All four authors then met to discuss and reach consensus regarding the coding, labeling, and descriptions of the themes. The themes and a preliminary draft of this manuscript were then circulated to academic and non-academic members of our larger team with a request to provide feedback on whether the themes, along with their labels and descriptions, were meaningful within each member’s content area of expertise (e.g.,
program delivery, public policy, organizational behaviour). Team members were also asked whether they believed the list of themes was comprehensive in its coverage of the experiential aspects of participation. The authorship team deliberated this feedback and subsequently used it to formulate recommendations for conceptualizing and operationalizing participation.

Results

Description of the Included Papers

The first and second stages of the literature search yielded eight and two papers, respectively, for a total of ten papers included in our review (see Table 1). The papers included four editorials/reviews, two focus group studies, one mixed-methods measurement development paper, a concept analysis, a qualitative meta-synthesis, and a quantitative, observational study. All papers were published in English.

Terminology and Definitions Used

Nine different terms were used in the literature to reflect the concept of interest:

1) the “qualitative/subjective/evaluative aspects of participation”;
2) “participation”;
3) “full participation”;
4) “participation enfranchisement”; 5) “engagement”; 6) “the subjective dimension of participation”; 7) “levels of participation”; 8) “meaningful participation”; and 9) “the subjective experience of involvement”. Only four of the terms were defined (“participation enfranchisement”, “engagement”, “levels of participation” and “the subjective experience of involvement”). The definitions are presented in the second column of Table 1.

Thematic Analysis
The third column of Table 1 shows the characteristics/attributes that were used to describe or define each term. Using an inductive approach, two authors categorized the individual characteristics into ten themes: Autonomy; Belongingness/Relatedness; Challenge; Efficacy/Mastery; Engagement; Impact; Inclusion; Meaning; Opportunity and Access; and Responsibility. Following deliberation and discussion with the core team members, two themes—Responsibility and Impact—were subsequently subsumed under Meaning, and Inclusion was incorporated within the theme of Belongingness/Relatedness. The team also decided that Opportunity and Access were pre-requisites, rather than characteristics of participation; this category was subsequently removed, resulting in a set of six themes. The final set of themes, their labels, and a brief description of each, is presented in Table 2.

**Statement of Recommendation**

The themes were circulated to the larger team for feedback from members outside of the authorship group. Following a further round of discussions, the core team formulated the following recommendation:

*When conceptualizing and operationalizing participation, it is insufficient to consider only the objective, quantitative aspects of participation (e.g., level of performance, performance difficulty, number of people participating). The qualitative/subjective/experiential aspects of participation must also be taken into account. These aspects include the individual’s sense of autonomy, belongingness, challenge, engagement, mastery, and meaning associated with participating.*

This recommendation acknowledges that participation is more than what a person does or how an outsider evaluates that person’s performance. Participation also reflects
personal experiences, preferences, and perceptions. Implicit in this recommendation is
the assumption that what constitutes participation for one person may be different for
another. Moreover, different aspects of participation (e.g., experiencing a sense of
autonomy, challenge, meaning, etc.) will be important to different people, at different
times and in different situations, given that individuals often have unique and multiple
motives for participating.

**Discussion**

The purpose of this project was to synthesize efforts to conceptualize
participation beyond level of performance. Using a configurative review process,
information was extracted from ten relevant articles and categorized into six themes
representing experiential aspects of participation: Autonomy, Belongingness, Challenge,
Engagement, Mastery, and Meaning. The themes were then used as the basis for
formulating a recommendation that can be used by researchers, clinicians and policy
makers as a basis for conceptualizing and operationalizing participation more broadly.

Within the reviewed papers, concept labels ranged from general descriptors (e.g.,
“the subjective dimension of participation,”\(^ {29} \)) to specific terms (e.g., “participation
enfranchisement,”\(^ {26} \)). Yet despite terminological variability, in every article, the authors
emphasized the importance of taking into account people’s participation-related
experiences and perceptions. While we recognize that there is no clear consensus in the
literature for the use of any particular term, our group has elected to retain the World
Health Organization’s\(^ {13} \) term participation while expanding its conceptualization to
include not just objective, quantitative indicators of performance, but also the six themes
of qualitative, experiential aspects of participation, identified in our review.
The six themes represent experiential aspects of participation that should be taken into account when conceptualizing and operationalizing the participation construct. Importantly, the themes were apparent across different types of articles (e.g., editorials, research reports) and across studies that used different research methods (e.g., focus groups, observational studies). For instance, in their concept analysis of children’s participation, Hoogsteen and Woodgate highlighted the importance of control, engagement, meaning, and inclusion. Similarly, in a focus group study, Hammel and colleagues asked people with disabilities “what does it mean to fully participate in life?” Responses clustered into themes that included choice and control, meaningful engagement, and social connections. The consistency in identified features of participation across articles provides evidence to support the robustness of our conclusions with regard to the construct’s key experiential aspects.

Importantly, the six themes also align with theoretical conceptualizations of factors that contribute to well-being (e.g., self-determination theory; theory of purposeful work behavior; flow and peak experiences). For example, according to Self-Determination Theory (SDT), humans must experience ongoing satisfaction of three basic needs--autonomy, competence and relatedness--in order to experience optimal development and functioning. Paralleling this theoretical tenet, participation is known to be vital to human functioning and well-being and three of the themes identified in our review--Autonomy, Mastery and Belongingness--encompass the three basic psychological needs specified in SDT. Likewise, within the occupational therapy literature, Moll and colleagues recently proposed a framework delineating the links between occupation, health, and well-being, which incorporates eight types of everyday...
activities related to health and well-being, (e.g., connecting with others, taking care of
yourself), and five fundamental characteristics of activities that shape optimal health and
well-being. Three of these characteristics—control/choice, engagement, meaning—are
reflected in the themes identified in our review (i.e., Autonomy, Engagement, and
Meaning). Thus, our findings regarding key experiential aspects of participation are
consistent with both well-established theoretical perspectives on factors that contribute to
well-being in general\textsuperscript{31,32}, and emerging perspectives on factors that contribute to well-
being in occupational contexts in particular\textsuperscript{35}.

The development of an expanded conceptualization of participation has important
implications for scientists, clinicians and policy makers. By delineating its subjective/
experiential aspects, a clearer distinction can now be made between participation and
related concepts such as inclusion and community integration. Inclusion, for instance, has
traditionally been defined in terms of objective levels of participation or as the mere
presence of people with disabilities in societal settings and contexts\textsuperscript{18}. Likewise, although
some researchers have operationalized community integration as encompassing feelings
of belongingness and sense of community\textsuperscript{36}, in most studies, objective indicators of
participation have typically been at the core of community integration measures\textsuperscript{37}.

Considering participation in terms of the six thematic elements distinguishes it from these
other concepts.

The delineation of key experiential aspects of participation will also facilitate its
operationalization and the selection of appropriate measures for its assessment. In
previously published systematic reviews of participation measures for people with
disabilities, authors distinguished between instruments that assess actual participation,
and instruments that assess the subjective experience of participation\textsuperscript{38,39}. A sampling of
the latter is presented in Table 3 to illustrate how items or subscales/dimensions from
these instruments align with some of the themes identified in our review. This illustration
is, however, based solely on an assessment of the face validity of the instruments and
their items. Additional research is needed to determine whether the instruments and items
do indeed measure the experiential aspects captured by the themes (i.e., research to assess
construct validity).

When measuring the experiential aspects of participation in a particular context
(e.g., workplace, recreation, family roles), we encourage researchers and clinicians to
consider using measures that are not necessarily rehabilitation or disability-specific.
Other disciplines have well-established measures of people’s subjective experiences of
participation in specific domains and contexts. For instance, in workplace settings, the
Basic Need Satisfaction at Work Scale\textsuperscript{40-42} might be used to assess feelings of autonomy,
belongingness and mastery; work-related engagement and meaning could be captured by
sets of items formulated for testing hypotheses regarding the relationship between these
constructs in the workplace\textsuperscript{43}; challenge could be measured by the task complexity, skill
variety, and problem solving components of the Job Characteristics Framework\textsuperscript{44}. These
measures of experiential aspects of participation could be combined with measures that
capture more traditional, objective aspects of participation such as the Participation
Objective, Participation Subjective which includes an item to measure the time spent on
paid work\textsuperscript{45}, or the ICF\textsuperscript{13} which assesses the difficulty one has engaging in paid and
unpaid employment. In addition, because standardized questionnaires are unlikely to fully
capture the broad range of potential participation experiences, we recommend the use of
qualitative methods to capture how people experience participation in different contexts and how their experiences unfold over time. Combinations of assessments such as these should provide a more comprehensive and meaningful perspective on participation than any one methodology on its own.

**Project Limitations**

There are four main limitations of this review. First, given the ontological and epistemological assumptions inherent to configurative reviews, other reviewers could come to different conclusions regarding the content and labeling of the themes. However, given the involvement of a multidisciplinary team, and the resulting themes aligned with empirical perspectives on participation and broader theoretical perspectives on well-being, we believe that our conclusions are robust.

A second limitation is that our conclusions are based on the extant literature, and no relevant articles were found outside of the rehabilitation sciences. There may be other themes and disciplinary perspectives that are relevant to a broadened conceptualization of participation but are absent from the literature. Indeed, psychology experts within our team raised concern that positive emotions or affective states (e.g., enjoyment) were not explicitly mentioned among the key experiential elements of participation. While affective and emotional states could be captured under Engagement (e.g., experiencing positive affect while participating may be a characteristic of engagement) or Meaning (e.g., people may find meaning in activities that produce satisfaction or pleasure), the absence of discussion in the literature regarding affect and emotion highlights the need for continued work to identify and test the conceptual underpinnings of participation. In
addition, an important future direction will be to distinguish experiential aspects of participation from psychosocial antecedents and consequences of participation.

Third, an exhaustive review of participation measures was beyond the scope of this project (see [38 39] for systematic reviews of participation measures). Although a comprehensive analysis of subjective measures of participation may have provided further support for the six themes, we are reluctant to draw conclusions about the validity of the themes based on how participation has been previously measured. The conceptualization of participation should dictate its measurement rather than measurement dictating how participation is conceptualized. Furthermore, when conducting the analysis presented in Table 3, we recognized a strong potential for bias in linking measures with themes. That is, the original intent or meaning of the scales and items could be quite different from our interpretations. Notwithstanding these issues, there would be merit in compiling a catalogue of subjective measures of participation for people with disabilities, as some of the instruments may have utility for operationalizing the participation construct.

And finally, a fourth limitation is that we restricted our review to literature that addressed participation among people with physical disabilities. For people with other types of disabilities (e.g., sensory, intellectual), it is possible that different, or additional types of experiences are relevant to the conceptualization of participation.

Conclusions

Despite some limitations, our synthesis has created a starting point to begin operationalizing and measuring the participation concept more broadly and consistently. We have formulated a recommendation to capture six experiential aspects of participation.
that extend beyond mere performance: Autonomy, Belongingness, Challenge, Engagement, Mastery, and Meaning. We encourage researchers, clinicians and policy makers to adopt this recommendation when addressing questions regarding participation among people with physical disabilities.

Disclosure Statement

The authors have no financial or competing interests to disclose. The funding agency had no involvement whatsoever in the conception or preparation of this manuscript.
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<table>
<thead>
<tr>
<th>Reference, Description</th>
<th>Terminology, Definition</th>
<th>Attributes/Characteristics</th>
</tr>
</thead>
</table>
| Dijkers, 2010<sup>6</sup> Editorial/Introduction to special issue on participation | Qualitative/subjective/evaluative aspects of participation | • Autonomy  
• Challenge, mastery  
• Closeness, affection, social support given and received, emotional attachment  
• Desire more/less/same/different; fit with ideal self  
• Difficulty, restriction, limitation, problemness  
• (Dis)agreement, unity  
• Importance, value, meaning  
• Influence  
• Opportunity and access  
• Productivity  
• Respect and dignity  
• Responsibility  
• Satisfaction  
• Self-efficacy, sense of competence  
• Sense of belonging/membership/acceptance |
| K. W. Hammel et al., 2008<sup>14</sup> Focus group study | Full Participation | • Choice and control  
• Meaningful engagement  
• Personal and social responsibilities  
• Having an impact  
• Social connections  
• Societal access and opportunity |
<table>
<thead>
<tr>
<th>Source</th>
<th>Title</th>
<th>Description</th>
<th>Key Characteristics</th>
</tr>
</thead>
</table>
| J. Hammel, 2015 | Participation | Review article | - Autonomy  
- A sense of competence and accomplishment  
- A sense of belonging, acceptance, safety, respect  
- Ability and opportunity ‘to do’; to engage in personally meaningful/valuable activities  
- Ability and opportunity to contribute to well-being of others  
- Ability and opportunity to support and do things for others  
- Engagement in meaningful and reciprocal relationships  
- Having social connections  
- Social engagement and inclusion |
| Heinemann et al., 2011 | Participation Enfranchisement: | Mixed-methods measurement development studies | - Choice and control  
- Contributing to one’s community  
- Feeling valued by others |
| Hjelle & Vik, 2011 | The subjective dimension of participation | Focus group study | - Being engaged (in one’s own and others’ lives)  
- Being a member of society (being equal, valued, included, having freedom to choose)  
- Interacting as a citizen |
<table>
<thead>
<tr>
<th>Reference</th>
<th>Title</th>
<th>Description</th>
</tr>
</thead>
</table>
| Hoogsteen & Woodgate, 2010 | Participation in children with disabilities | The child must…
| | | • take part in something or with someone
| | | • feel included or have a sense of inclusion; while participating, children must feel like they are engaged by either doing or being
| | | • have a choice or control over what they are taking part in; hold a degree of autonomy and take part in what matters to them
| | | • work toward obtaining a personal or socially-meaningful goal or enhancing quality of life
| Imms & Granlund, 2014 | Engagement: “involvement in the task while there” (p. 291) | “The fully engaged individual will experience a level of acceptance of, and by, others and is the ultimate in participation outcomes.” (p. 291)
| Kramer et al., 2012 | Levels of participation: “the extent to which they [youth with disabilities] felt meaningfully engaged and authentically included” (p. 771) | Four levels of participation on a continuum from more to less inclusive participation:
| | | • Doing what everyone else is doing
| | | • Fringe participation
| | | • Waiting or watching
| | | • Doing something different
| Law, 2002 | Meaningful participation | • Clear goals
| | | • Quick and accurate feedback
| | | • Must be a feeling of choice or control over activity
| | | • A supportive environment
| | | • A focus on the task
| | | • A sense of challenge from the task
| | | • A sense of mastery
| | | • May experience sense of ‘flow’
<table>
<thead>
<tr>
<th>Maxwell et al., 2012&lt;sup&gt;30&lt;/sup&gt;</th>
<th><strong>The subjective experience of involvement:</strong> “…the subjective experience of involvement can be represented by the psychological constructs of involvement, control, motivation, and attention as experienced in the here-and-now moment” (p. 276)</th>
<th><strong>• Control</strong></th>
<th><strong>• Motivation</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Observational study</td>
<td></td>
<td><strong>• Concentration</strong></td>
<td><strong>• Involvement</strong></td>
</tr>
</tbody>
</table>
### Table 2.

*Results of the Thematic Analysis of Attributes/Characteristics Used to Describe Experiential Aspects of Participation*

<table>
<thead>
<tr>
<th>Themes</th>
<th>Brief Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autonomy</td>
<td>Having independence, choice, control</td>
</tr>
<tr>
<td>Belongingness</td>
<td>Experiencing a sense of belonging to a group; acceptance/respect from others; included at interpersonal or societal levels</td>
</tr>
<tr>
<td>Challenge</td>
<td>Feeling appropriately challenged</td>
</tr>
<tr>
<td>Engagement</td>
<td>Engaged in the activity; motivated; focused, involved; experiencing ‘flow’</td>
</tr>
<tr>
<td>Mastery</td>
<td>Experiencing achievement/competence/sense of accomplishment; self-efficacy</td>
</tr>
<tr>
<td>Meaning</td>
<td>Contributing toward obtaining a personal or socially-meaningful goal; feeling a sense of responsibility to others</td>
</tr>
</tbody>
</table>
Table 3.

*Examples of Instruments to Assess Subjective Aspects of Participation and their Potential Thematic Alignment*

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Relevant Subscale/Dimension or *Question</th>
<th>Aligned Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact on Participation and Autonomy Questionnaire&lt;sup&gt;46&lt;/sup&gt;</td>
<td>Autonomy Indoors</td>
<td>Autonomy</td>
</tr>
<tr>
<td></td>
<td>Autonomy Outdoors</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Social Relations</td>
<td>Autonomy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Belongingness</td>
</tr>
<tr>
<td>Reintegration to Normal Living Index&lt;sup&gt;47&lt;/sup&gt;</td>
<td>*“I feel that I can deal with life events as they happen”</td>
<td>Mastery</td>
</tr>
<tr>
<td></td>
<td>*“In general, I am comfortable with my personal relationships”</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Belongingness</td>
</tr>
<tr>
<td>Social Role Participation Questionnaire&lt;sup&gt;48&lt;/sup&gt;</td>
<td>Role Importance</td>
<td>Meaning</td>
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<td>Satisfaction with Role Performance</td>
<td></td>
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<tr>
<td>Participation Objective, Participation Subjective&lt;sup&gt;45&lt;/sup&gt;</td>
<td>*“What is the importance of [the activity] to your well-being?”</td>
<td>Meaning</td>
</tr>
<tr>
<td>Participation Enfranchisement Measure (19-item version)&lt;sup&gt;26&lt;/sup&gt;</td>
<td>Choice and Control</td>
<td>Autonomy</td>
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<td></td>
<td>Contributing to One’s Community</td>
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<td></td>
<td>Feeling Valued</td>
<td>Meaning</td>
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<td>Belongingness</td>
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<td>Participation Enfranchisement Measure (48-item version)&lt;sup&gt;49&lt;/sup&gt;</td>
<td>Importance of Participation</td>
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<td>Autonomy</td>
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