

Summary

The implementation of client-centred practice in health care has gained increasing interest from patients, health professionals, and health policymakers. However, thus far, studies addressing the efficacy of client-centred practice have shown mixed results.

In the first part of this thesis we focused on the evidence of client-centred practice. We assessed the efficacy of client-centred practice during the entire therapy process in patients with multiple sclerosis (MS). In addition, we examined the hypothesis whether client-centred therapy spends more time on diagnostic consultation and less time on actual treatment compared to usual care.

The second part of this thesis focused on assessments closely linked with client-centred practice. First, we evaluated the measurement properties of a client-centred outcome assessment, the Canadian Occupational Performance Measure (COPM). Next, we examined instruments and scales that intend to measure participation. The improvement of the patient's participation is a common aim in client-centred health care. We reported on the extent to which instruments or scales that aim to measure participation indeed do so and which participation domains are assessed.

Evidence on client-centred practice

Chapter 2 describes the results of a clustered randomised trial that measured the efficacy of client-centred practice in patients with MS. We compared client-centred practice according to a client-centred process framework with usual care. In total, 269 outpatients with MS and 29 occupational therapists from 13 health centres (rehabilitation centres and hospitals) participated. The institution was the unit of randomisation. Outcomes were assessed at baseline, four, and eight months of follow up and focused primarily on measures of disability, participation, and autonomy. Secondary measures included fatigue, generic health-related quality of life, therapy quality, and therapy compliance. The results showed no significant differences on the primary outcomes between client-centred occupational therapy (OT) (n=156) and usual care OT (n=113). The secondary *functional* outcomes showed differences at four months in favour of usual care OT on the components fatigue (physical scale and total scale) and health related quality of life (mental health, bodily pain, and vitality). After eight months only the mental health component of health related quality of life was still statistically significant between both groups.

The secondary process outcomes showed differences in favour of client-centred OT on the component quality of the therapy process (information scale) and on the component client-centredness of the therapy process. We concluded that compared to usual care, client-centred practice resulted in a more client-centred therapy process, but poorer functional health outcomes.

To explain the findings of chapter 2 we assessed in **chapter 3** whether in client-centred practice more time was spent on the diagnostic consultation process and less on actual therapy compared to usual care. Client-centred therapy was compared to usual care therapy on the number of diagnostic and treatment goals, the number of sessions, therapy duration, and therapy intensity.

The secondary analysis of the trial showed that, in client-centred therapy, the diagnostic evaluation was more intensive compared to usual care. In particular, more diagnostic consultation sessions were needed and the time to identify the first treatment goal was longer. In contrast, in client centred therapy, the actual treatment was less intensive compared to usual therapy. Furthermore, there was a tendency in client-centred practice towards formulating more goals directed to diagnostic issues, spending more hours on indirect issues, and having a longer total therapy period than usual care. The more intensive diagnostic evaluation can be explained by the challenges client-centred practice poses on a therapist's diagnostic skills. The combination of less intensive treatment and less favourable functional outcomes in client-centred practice compared to usual care put too much responsibility for the treatment process on the patient who is apparently not able to follow his path to improvement. To avoid counterproductive results of client-centred practice we suggest that client-centred practice should be adjusted. While taking the patient's viewpoint into account, the diagnostic process should be less demanding. Furthermore, the health professional should take responsibility for providing proper treatment.

Assessments

For measuring the effectiveness of client-centred interventions, individualised outcome measures are seen as useful instruments. The Canadian Occupational Performance Measure (COPM) is an individualised outcome measure that aims to identify, prioritize, and evaluate a patient's perceived issues in daily life. The COPM

assesses a patient's perception of actual performance and satisfaction with this performance. In chapter 4 and 5 the reproducibility and the responsiveness of the COPM were assessed.

Chapter 4 presents the results of the reliability and interrater agreement of the COPM. Included were 95 adults (31 males and 64 females) with numerous diagnoses. Physicians referred the study participants to the outpatient clinic of two occupational therapy departments. Two different therapists administered the COPM twice.

The content of the prioritized problems showed a moderate interrater-agreement (66%). The reproducibility of the mean performance score (ICC: 0.67, 95%CI: 0.54-0.78) and the mean satisfaction score (ICC: 0.69, 95%CI: 0.56-0.79) was moderate. The reproducibility of the performance and satisfaction scores of the separate prioritised problems was weak (weighted kappa's ranged from 0.37 to 0.49). We concluded that the semi-structured design of the COPM is valuable, but may lead to moderate interrater agreement of the prioritized problems, moderate mean scores, and poor scores of the separate problems. We argue that a more distinct way to define and prioritize the identified problems may improve the reproducibility of the COPM. For individual assessments, the mean scores should be used and not the scores for each of the prioritized problems.

Chapter 5 contains a report about the extent to which the COPM is able to detect improvement over time (criterion responsiveness) and to what extent changes in the COPM correlate with changes in other measures (construct responsiveness). On two occasions, before the start of OT and three months later, 152 consecutive patients with numerous diagnoses, admitted to the outpatient clinic of two occupational therapy departments, completed a COPM interview and three self-reported health status questionnaires.

The criterion responsiveness was established with a transition index that was used to calculate the area under the receiver operating characteristic curves and the optimal cut-off values for the COPM scores. To determine construct responsiveness, correlations were calculated between the change in COPM scores and the change in scores of the Sickness Impact Profile (SIP68), the Disability and Impact Profile (DIP), and the Impact on Participation and Autonomy (IPA). During the reassessment we obtained blind scores (i.e., giving scores without seeing the scores of the first assessment) and reflective scores (i.e., giving scores with the knowledge of the scores of the first assessment). Significant positive correlations

were found between the COPM and the SIP68, DIP, and IPA scores. The optimal cut-off values for evaluating the perceived improvement for respectively the blind and the reflective scoring were 1.37 and 0.90 for the performance scores and 1.90 and 1.45 for the satisfaction scores. We concluded that the changes in the COPM validly represent the perceived issues of a patient in time. The construct responsiveness was supported and the criterion responsiveness showed good discriminatory power of the COPM to detect improvement.

Additional analyses as described in chapter 5, revealed a high correlation between the performance and satisfaction scores making the use of both scores questionable. Analyses about the feasibility of the COPM revealed that scoring the patient's perceived problems on the COPM was difficult during the first assessment. During the re-assessment scoring was perceived as significantly easier. Patients also indicated that the COPM was a good way to identify their problems.

Chapter 6 presents the results of a systematic review to evaluate whether instruments that intend to measure participation actually do so. Furthermore, this chapter reports how frequent specific aspects and domains of participation were addressed. Two reviewers independently rated 103 instruments containing 2445 items. In our operationalization of the construct participation, we suggest that participation items should require the performance of roles in a social context, involving not only environmental factors, but mainly involving other people. Furthermore, we suggest that participation items require a combination of multiple activities and these activities should be related to a role. According to this definition of participation, most instruments that aim to measure participation were found to do so only to a limited extent. We found that 619 of the 2445 items (25%) concerned participation. For 217 items (9%), it was unclear whether or not they belong to participation (undetermined items). In total, 68 instruments contained at least one (sub)scale with 50% or more participation or undetermined items. The participation items referred mainly to aspects of participation problems (53%) and participation accomplishment (31%), and less to satisfaction with participation (6%). The addressed participation domains include primarily work/study (27%), social life (27%), general participation (19%), and home (11%). The undetermined items referred to domains about leisure (43%), transport (26%), and shopping (12%). We concluded that instruments that aim to measure participation do so but only to a limited extent.

Participation is defined and operationalized in different ways and to date we have not yet evaluated the measurement properties of these participation items.

However, before this evaluation is possible, consensus among experts should be reached about the construct and the operationalization of participation aspects, domains and perspectives.

Conclusion and suggestions for future research

In **chapter 7** we discussed the findings and the methodological issues associated with the presented research in this thesis. The main findings and recommendations for further research are:

Client-centred practice resulted in a more client-centred therapy process than usual care. Client-centred practice also resulted in a more intensive diagnostic evaluation and in a less intensive treatment approach, leading to less favourable functional outcomes compared to usual care therapy. We recommended the following research:

- Determine whether a more proportional distribution of the time devoted to diagnosis and analysis of the patient's health situation and living context, and to the actual treatment, results in improved functional results;
- Determine whether tailoring of client-centred therapy to characteristics of the patient, leads to improved effectiveness in client-centred practice.

The COPM is a reproducible and responsive outcome measure to assess and evaluate patients' perceived problems. Further research is needed to:

- Determine whether a more distinct method of assessing the COPM improves the reproducibility;
- Assess the necessity to obtain scores for performance as well as for satisfaction, given that both items are highly correlated.

The content, aspects, and domains of participation are operationalized in different ways and the instruments that aim to measure participation do so only to a certain extent. Future research should be directed towards:

- Creating consensus about the construct and operationalization of measuring participation;
- Establishing measurement properties of the scales and instruments aiming to measure participation.