

ORIGINAL REPORT

CLIENT-CENTRED THERAPY IN MULTIPLE SCLEROSIS: MORE INTENSIVE DIAGNOSTIC EVALUATION AND LESS INTENSIVE TREATMENT

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Objective: Despite beneficial effects on communication and process measures, client-centred practice has been shown to result in poor functional outcomes. To examine a potential explanation for poor functional outcomes, this paper aims to assess whether in client-centred therapy more time is spent on diagnostic consultation and less time on actual treatment compared to usual care.

Method: A multicentre cluster randomised controlled trial was performed. Thirteen hospitals and rehabilitation centres, 29 therapists and 269 outpatients with multiple sclerosis participated. Measurements included an inventory of diagnostic and treatment goals, the number of sessions, therapy duration and therapy intensity.

Results: In client-centred therapy, more sessions were used for diagnostic consultation (10.9% points difference, $p=0.030$); the time needed to formulate the first treatment goal was longer (11.4 days difference, $p=0.041$); there was a tendency towards more goals directed to diagnostic issues (0.69 goals difference, $p=0.056$), spending more hours on indirect issues (1.16 h difference, $p=0.051$) and towards a longer total therapy period (1.56 months difference, $p=0.058$) than in usual care.

Conclusion: Client-centred therapy resulted in more intensive diagnostic evaluation and less intensive treatment. This suggests that client-centred therapy should be adjusted towards a more proportional distribution of time devoted to diagnostic evaluation versus actual treatment.

Key words: patient-centred care; rehabilitation; occupational therapy; multiple sclerosis; patient participation; randomised controlled trial.

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INTRODUCTION

Incorporating a client-centred approach is nowadays widely advocated in healthcare organizations. In client-centred practice, health care professionals do not deal with diseases alone but with people who are concerned about their health (1), with needs that are to be understood (2). The focus is on treating the client as an unique individual, on considering the client's point of view, and on the participation of the client in the decision-making process and the treatment process (3).

The increasing focus on client-centred practice is driven by the challenges to the health care system to guarantee quality of care, long-term access, and financial sustainability. It is suggested that to meet these challenges, the core value of health should shift from "care for the disease" towards "behaviour and health" (4). This shift implies that the client needs to be empowered and should take more responsibility and control for his/her own health, lifestyle, and therapy. The health professional is expected to act towards a long-term perspective as a coach in self-management interventions (5). Self-management support intends to activate persons to be informed and to be able to manage their situation themselves by assisting and coaching clients and their families (5). Client-centred practice also aims to enable and empower clients to find their own path to improvement (6).

Client-centred practice claims to have a positive effect not only on process outcomes but also on functional outcomes (7–9). Recently we have performed a trial evaluating the efficacy of client-centred practice in clients with multiple sclerosis (MS) in outpatient clinics of hospitals and rehabilitation centres in the Netherlands (10). This trial revealed negative effects of the client-centred intervention on the secondary functional outcomes (i.e. fatigue and health-related quality of life). The process outcomes (i.e. the information-scale of therapy-quality and the client-centredness of the organisation) were in favour of the client-centred intervention (10). Other literature also showed

that client-centred practice, despite beneficial effects on communication and on process measures of client-centredness, can result in poor functional outcomes (1, 7).

The aim of the present paper is to establish whether there are differences in processes of care that could have impacted functional outcomes. The hypothesis was that more time is spent on the consultation process and less time on treatment and disease management in client-centred therapy compared to usual care.

METHODS

Design and participants

This paper presents the secondary analysis of the data from our trial about the efficacy of client-centred occupational therapy in clients with MS in outpatient clinics of hospitals and rehabilitation centres in the Netherlands (10). A multicentre cluster randomised design was used to minimise contamination bias within the participating centres and to stimulate therapists in the intervention group to support each other to work client-centred. The centres were eligible if they had at least two occupational therapists (OTs) that were regularly providing outpatient care to clients with MS and if they had at least 10 new MS outpatients each year. The OTs were recruited if they were legally registered and if they had no prior post-graduate education in client-centred practice.

Clients with a diagnosis of MS, who were newly referred to the outpatient OT department of the participating centres and who had no OT in the past 6 months preceding inclusion, were eligible. Inclusion criteria were: age > 18 years, limitations in more than one activity of daily life, and a referral for OT. Clients with MS were excluded if they had a single health question, major depression, insufficient control of the Dutch language or did not provide written informed consent. Consecutive eligible clients with MS were included in the trial.

The trial protocol was approved by the local Medical Ethics Committee of the VU University Medical Centre in Amsterdam. All participating centres approved the study before allocation took place.

Randomisation and blinding

Randomisation of institutions was stratified for type of institution (i.e. hospital or rehabilitation centre). The randomisation procedure was based on a random number table and was performed by using a computer-generated sequence with allocation concealment. The random allocation of the institutions was performed before client recruitment and enrolment started. Accordingly, all participating OTs and their clients within the same centre were randomised into the same treatment condition.

The clients themselves were blinded to the treatment allocation. Due to the nature of the intervention, OTs were not blinded: they were instructed not to tell the clients about the allocated intervention.

Interventions

All therapists were familiar with the OT interventions in MS: energy conservation, time management, body mechanics, strategies for task performance and providing adequate assistive devices (11). The *experimental intervention* comprised client-centred OT according to a structured client-centred process model (the Canadian Practice Process Framework (CPPF)) (12). This client-centred framework describes 8 action points that guide the therapeutic process in a client-centred way (12). The first action point (*enter/initiate*) represents the first point of contact between the client and therapist where a collaborative decision is made to either engage in or terminate the therapy. At the second action point the therapist and client *set the stage* by determining how they work together, by clarifying expectations and assumptions and by identifying priority issues and possible goals. Subsequently action point 3 concerns the *assessment* or *evaluation* of personal, environmental and occupational factors that underlie the client's issues. Action point 4 (*agree on objectives and plan*) involves the therapist and the client to establish goals and agree on the

objectives and plan of intervention. The fifth action is to *implement the plan* with client participation and power-sharing. Action point 6 includes *monitoring and modifying* by ongoing evaluation to determine if the used strategies are meeting the objectives. In action point 7 the outcome of the plan is evaluated and the attainment of the goals is examined to determine whether goals are met or new goals or plans need to be established. With action point 8, the therapist and the client come to a collaborative decision to either pursue other objectives or conclude the therapeutic relationship (13). The time spent on these action points depends on the client's and therapist's situation and therapy process.

Prior to the data collection, all OTs in the experimental group received a two-day course in client-centred practice, treated clients according to the intervention and received a booster session to evaluate initial experiences 4 weeks after the course. They received 4 additional booster sessions during the study's data collection period. The 7 training sessions consisted of theory, role playing and feedback on audio-visual material of real-time situations. Components that are related to client-centred practice were also addressed in the course, e.g. motivational interviewing, shared decision making, self-management support, patient education, therapeutic modes, enablement skills, communication techniques and culturally sensitive care. The training was not only focused on the interaction and congruence with the client but also with the practice team. The therapists were facilitated in implementing client-centred practice in their practice teams.

The control group of OTs provided usual OT to their clients. They were exempted from mandatory courses in client-centred practice until the end of this project and were invited to take the client-centred-course at no cost after the conclusion of the project.

There is a marked contrast between the experimental and control group. OTs in the experimental group focused on enabling clients to choose, organise and perform activities the clients found useful and meaningful in their environment. In this group, the client-centred process model and a diary with criteria based on the CPPF were provided. OTs in the control group were focused on providing therapy for the client. In the control group, the client-centred framework and tools were not available. Ongoing support by the coordinating researcher was available for both groups. Through visits to the centres and by answering questions the researcher ensured that OTs were motivated to treat the MS-clients as agreed.

Assessments

Data on clients were collected prior to the start of the treatment and comprised demographic information and disease characteristics: gender, age, clinical type of MS, years since diagnosis and the severity of MS (Expanded Disability Status Scale (EDSS) (14).

Before inclusion of the clients, the OTs provided demographic information about gender, age, and years of experience in OT and in MS. From the start to the end of the therapy, the therapist kept a therapy-diary. An inventory was made of the therapy goals (open format), the time the goals were set, the duration of the therapy-sessions (in hours), the intensity of the sessions (number of therapeutic sessions, period and frequency of sessions) and the treatment period (time of the start and the end of the therapy). Two raters independently classified the therapy goals into diagnostic and treatment goals. Two examples of diagnostic goals are 1) inventory of perceived occupational issues and 2) occupational diagnostics of perceived hand function problems. Two examples of treatment goals are 1) independent dressing and 2) maintaining a balance between rest and activity in a day's schedule. The interrater reliability of the categorization into diagnostic and treatment goals was found to be excellent, Kappa=0.78 ($p < 0.001$), 95% confidence interval (CI) (0.73 to 0.83). The percentage of diagnostic sessions was calculated as the number of the direct-contact sessions till the formulation of the first treatment goal divided by the total number of direct contact sessions.

Statistical methods

Analyses were performed according to the intention-to-treat (ITT) principle. Demographic variables and disease characteristics of the

Table I. Characteristics of the participants with multiple sclerosis (MS)

	Intervention group (n=156)	Control group (n=113)	p-value
Age, years, mean (SD)	44.4 (11.4)	47.1 (9.9)	0.049
Female, n (%)	110 (71)	74 (66)	0.410
Institution, n (%)			0.000
Hospital	114 (73)	41 (36)	
Rehabilitation centre	42 (27)	72 (64)	
Academic centre, yes/no, n (%)	114 (73)	19 (17)	0.000
MS-type, n (%)			0.003
RR	61 (39)	24 (21)	
PP	25 (16)	16 (14)	
SP	19 (12)	29 (26)	
PR	10 (6)	4 (4)	
Other (benign, unknown)	41 (26)	40 (35)	
Years since diagnosis, mean (SD)	8.0 (7.8)	8.3 (9.2)	0.758
EDSS, mean (SD)	5.0 (1.8)	5.1 (1.7)	0.450
Work situation, n (%)			0.671
Paid	45 (29)	34 (30)	
Unpaid	30 (19)	17 (15)	
Other (education, unemployed, sick leave, retired, unknown)	81 (52)	62 (55)	
Raised in the Netherlands, n (%)	146 (94)	108 (96)	0.232
Referral to OT, n (%)			0.081
Physiatrist	101 (65)	58 (51)	
Neurologist	32 (20)	34 (30)	
Other (general practitioner, MS-nurse)	23 (15)	21 (19)	

RR: relapsing remitting; PP: primary progressive; SP: secondary progressive; PR: progressive relapsing; EDSS: expanded disability status scale.

participating clients and of the participating therapists were compared between the experimental and control groups to verify prognostic comparability. Two-sided significance tests were used.

Linear mixed models were used to assess the efficacy of client-centred practice, allowing for clustering of clients within therapists and for clustering of therapists within practices. Analyses were adjusted for baseline differences. For the analyses 3 levels of correlations were taken into account: individual patients, therapists and health centres. The health centres and the therapists were random factors, the type of institution (hospital or rehabilitation centre) was a fixed factor. All statistical analyses were conducted according to a prespecified plan using SPSS, version 15.0 (15).

RESULTS

Characteristics

Data from 269 persons (156 in the intervention and 113 clients in the control group) were included in the analyses. Twenty-

Table II. Characteristics of the therapists

	Intervention group (n=11)	Control group (n=18)	p-value
Age, years, mean (SD)	38.6 (12.8)	34.9 (9.2)	0.41
Female, n (%)	10 (91)	16 (89)	0.86
Experience with MS, years, mean (SD)	9.1 (6.7)	6.6 (5.5)	0.29
Hours/week as OT, general, mean (SD)	28.5 (6.2)	27.3 (6.2)	0.41
Hours/week for MS, mean (SD)	4.8 (3.7)	3.9 (2.2)	0.51
Time since graduation as OT, years, mean (SD)	13.9 (11.8)	12.1 (8.8)	0.62

MS: multiple sclerosis; OT: occupational therapist; SD: standard deviation.

nine therapists (11 in the intervention and 18 therapists in the control group) of 7 hospitals and 6 rehabilitation centres (6 centres in the intervention and 7 centres in the control group) participated. The dropout rate of the participating clients was similar in the groups (5.1% for the intervention group and 5.3% for the control group). Twelve of the 269 treatment diaries were missing. The inclusion period was 22 months (May 2007–March 2009).

There were significant differences in characteristics between the clients in the intervention group and the control group in terms of age (44 vs 47 years, $p=0.049$), type of institution (73% vs 36% hospitals, $p=0.000$), academic centre (73% vs 17% academic centres, $p=0.000$) and type of MS (39% vs 21% relapsing remitting (RR), 16% vs 14% primary progressive (PP), 12% vs 26% secondary progressive (SP), 6% vs 4% progressive relapsing (PR), $p=0.000$). No differences were found for the other characteristics (Table I).

There were no statistically significant differences in the characteristics of the OTs (see Table II).

Frequency and intensity of therapy

Analyses were adjusted for differences in age, institution type, academic-centre and MS-type, by incorporating these variables as fixed factors in the model. The results of the therapy frequency and intensity are presented in Table III.

Client-centred therapy used more sessions for diagnostic consultation than the control group (10.9% points difference, $p=0.030$). The time to formulate the first treatment goal was 11.4 days longer in the client-centred therapy ($p=0.041$). The results also indicate a trend towards more goals directed towards diagnostic issues within the client-centred therapy than within the usual care (0.69 goals $p=0.056$). Other results seem to indicate that less time was spent on actual treatment: the client-centred intervention group spent 1.2 h ($p=0.051$) more on indirect issues and the total therapy period took 1.6 months ($p=0.058$) longer compared with the usual care period (see Table III).

DISCUSSION

Client-centred therapy is assumed to result in positive functional outcomes (7–9). However, several studies revealed negative effects on functional outcomes compared to usual care therapy (1, 7, 10). The secondary analysis of our trial about the efficacy of client-centred therapy in MS revealed a

Table III. Effect of a client-centred intervention on the frequency and intensity of therapy

Outcomes	Unadjusted values		Adjusted values ^a	
	Intervention group Mean (SD)	Control group Mean (SD)	Mean difference (SE) ^b	<i>p</i> -value ^b
Sessions				
Diagnostic sessions, % ^c	15.6 (17.5)	12.0 (8.7)	+10.9 (4.2) ^d	0.030
Total number of sessions, <i>n</i>	7.7 (6.7)	11.9 (7.8)	+1.4 (2.5) ^d	0.579
Therapy duration				
Direct contact-time, treatment duration, h	6.8 (5.5)	6.9 (4.2)	+2.8 (1.3) ^d	0.070
Indirect time, treatment duration, h	2.1 (2.7)	1.8 (2.0)	+1.2 (0.6) ^d	0.051
Total treatment duration, h	8.9 (7.6)	8.7 (5.9)	+3.8 (1.7) ^d	0.051
Treatment period, months	4.4 (4.0)	3.2 (2.7)	+1.6 (0.7) ^d	0.058
Goals				
Diagnostic goals, <i>n</i>	1.0 (0.9)	0.7 (0.7)	+0.7 (0.3) ^d	0.056
Treatment goals, <i>n</i>	3.2 (2.3)	2.7 (1.6)	+0.8 (0.6) ^d	0.173
Total number of goals, <i>n</i>	4.3 (2.4)	3.8 (1.8)	+1.3 (0.6) ^d	0.030
Time till first treatment goal, days	14.9 (20.1)	11.5 (15.6)	+11.4 (4.8) ^d	0.041

^aAnalyses were adjusted for the institution cluster and for differences in age, institution-type, academic-centre and MS-type between the intervention and control group.

^bEstimates of the contrast between the intervention and control group.

^cSessions till first treatment goal/total number of sessions.

^dResults in favour of client-centred occupational therapist.

plausible explanation for these negative results: Client-centred therapy resulted in a more intensive diagnostic evaluation and a less intensive treatment, as compared to usual care therapy.

A possible explanation for the shift away from treatment can be found in the theoretical foundations of client-centred therapy. The origin of client-centred therapy can be found in approaches that focus on enabling individuals to find solutions in a nondirective manner (16). These collaborative approaches supposedly empower and provide an opportunity for clients to find their own path to improvement (6). Thus, client-centred theory suggests that if clients are enabled and empowered, they can 'treat' themselves. However, the shift away from treatment in combination with the poor functional outcome in our trial suggest that clients receiving client-centred therapy are less able to follow their path to functional improvement compared to usual care.

A possible explanation for the more intensive diagnostic evaluation can be found in the high diagnostic requirements of client-centred therapy. Client-centred therapy requires shared decision making and setting goals as well as the exploration of the therapists' and the clients' needs, perspectives, expectations, strengths, frames of reference, and the societal and practice context (12). It also requires the involvement of the client in the decision making process and in setting goals. Implementing client-centred practice can be a challenge for the therapists and the clients. The implementation can also be influenced by contextual and systems variables. In our trial, the therapists were extensively trained in the principles of client-centred practice and they were facilitated in implementing it in their practice teams. We found a clear contrast in outcomes between both intervention groups. The overall adherence to the interventions and the contrast between both randomisation-groups seemed to be a success since the client-centredness was in favour of the client-centred therapists and in favour of the patients that received the client-centred intervention (10). Nevertheless, the therapists indicated that it was not easy to actually implement

client-centred therapy and to change their way of working. Others have also suggested that health professions experience educational barriers in implementing client-centred therapy (3, 17, 18). It seems that, despite intensive training, client-centred therapy poses a challenge for therapists' diagnostic skills, leading to a long and intensive diagnostic phase.

Our results might lead one to conclude that client-centred therapy should be abandoned: the results of our trial are not supporting the application of client-centred therapy. On the other hand, one can also argue that it is important to take the client's point of view and preferences into account in planning treatment. Apparently, the assumption that enabled clients can follow their own path towards improvement should be revised. Studies presenting beneficial effects of client-centred practice focus mainly on process outcomes and behavioural or psychological aspects (7, 19). These aspects are valuable in themselves and may alleviate a patient's distress associated with illness and uncertainty (20). Least associated with the perceived quality of care are outcome aspects like physical functioning (21). To reach better functional results, the focus in client-centred practice should be especially on productive interactions leading to improved functional outcomes, and not just to improved process outcomes.

A different approach towards client-centred therapy could be developed: while taking the client's point of view and preferences into account in planning treatment, the therapist should take responsibility for providing treatment: this would result in clients getting proper treatment for the issues they want to be treated. For example, during the therapy of a MS patient suffering from fatigue, it is important that the therapist and the patient spend enough time on actual training to create a balance between workability and workload to manage fatigue in daily life. It is also important to make the diagnostic approach less demanding as the present elaborate approach towards diagnosing and analysing the client's problems seems to be counterproductive.

Generalization of the results of our trial should be done with caution. More qualitative data is needed to explain why the emphasis was on diagnostics, e.g. by means of more in-depth interviews or focus groups with therapists and patients. We used a client-centred practice approach according to a structured client-centred process framework. Generalization to client-centred approaches that use no or other frameworks may not be warranted. Similarly, generalization to other patients than the study population (MS outpatients in hospitals and rehabilitation centres) may not be warranted. Nevertheless, our results are in accordance with other studies that focused on other health professionals, other patients and used other client-centred approaches (1, 7). Other strengths of our study are the robust trial design, the recruitment of a large sample and the high retention rates. The inclusion criteria of the MS-clients were broadly defined, they varied e.g. in age, type of MS and severity of disease, and the intervention was implemented in 13 outpatient hospitals and rehabilitation centres, strengthening the external validity of the trial (10). Differences in patient characteristics were taken into account into the adjusted analyses. The therapists were extensively trained in the principles of client-centred therapy, but were not blinded to the intervention status since this was not possible.

In conclusion, this study showed that client-centred therapy according to a structured client-centred process framework, 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. This suggests that client-centred therapy should be adjusted towards a more proportional distribution of time devoted to diagnostic evaluation versus actual treatment.

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