STRENGTH and the Health Care Team: Changing Interprofessional and Client-Centered Practices

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Background: Client-centered practice in stroke rehabilitation is strongly influenced by interprofessional team functioning and collaborative goal setting. The hospital context is problematic for client-centered practice and reduces the ability of the health care team and client with stroke to appreciate the impact of stroke on functioning within the home environment. **Objective:** The purpose of this study was to trial Stroke Rehabilitation Enhancing and Guiding Transition Home (STRENGTH), an approach to rehabilitation that provides clients, carers, and hospital-based therapists with weekly opportunities to develop goals and undertake therapy sessions in the home and community before hospital discharge. **Methods:** Nine participants, comprising 3 occupational therapists, 4 physiotherapists, and 2 speech pathologists, completed a custom-made survey and participated in a semi-structured focus group at the completion of the 6-month trial of STRENGTH. The survey and focus group questioned the participants on their experiences and impressions of STRENGTH. **Results:** Inductive thematic analysis of the focus group identified 2 themes: "influences of context on team functioning" and "experiences of the program." The quantitative data supported the value of STRENGTH for team functioning and client outcomes. **Conclusions:** The findings provide an overall endorsement for STRENGTH from the therapists' perspectives and highlight the positive impact of environmental context on team functioning, collaborative goal setting, and ultimately client-centered practice. **Key words:** *cerebrovascular disorders, interprofessional relations, patient-centered care, rehabilitation*

Stroke rehabilitation practice has a strong discourse focused on client-centered practice, the interprofessional team, and collaborative goal setting.[1] The 3 elements of practice are interrelated, with a highly functioning interprofessional team and collaborative goal setting considered integral to the achievement of client-centered practice.[2-4] The level of collaboration necessary for client-centered practice is often difficult to achieve and can be influenced by the power imbalances that may exist between the client and the therapist or between the different health professionals.[2] The impact of power imbalance on collaborative goal setting was highlighted by Levack and colleagues[5] who identified a prioritization of team, or organizational, goals within stroke rehabilitation. They found that although the health care team considered their goals to be client-centered, the documented goals were more likely to be driven by an organizational need to quickly and safely discharge the client to home rather than the interests or goals as stated by the client or their families.

Recent consumer forums by the National Stroke Foundation (Australia) have clearly identified that people with stroke and their families do not believe that they are adequately involved in decision making or goal setting.[6] Equally, consumers of stroke rehabilitation services report feeling inadequately prepared both mentally and physically to return to their own environments after discharge from hospital.[6-8] One of the major issues for discharge to home, and client-centered practice, centers on the hospital-based rehabilitation environment, which does not adequately identify the demands and challenges that will be experienced within the home environment.[9] Blickem and Priyadharshini[10] acknowledged that an appreciation of the

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Top Stroke Rehabil 2014;21(5):413–420

www.strokejournal.com

doi: 10.1310/tsr2105-413

environments to which a person will be returning can enhance team functioning and client-centered practice by providing a shared focus and increasing collaborative goal setting.

The issue for stroke rehabilitation is 2-fold. First, the hospital environment can bias the goal setting and clinical practices of the therapists toward the hospital's requirements for discharge to home rather than the actual needs or expectations of the clients and carers. Second, clients have limited opportunities to engage in personal routines and meaningful activities, thereby reducing opportunities for engagement, adaptation, and recovery within their own contexts.[11] Current models of service delivery within Australia, which involve predominantly hospital-based rehabilitation during the subacute stage, appear problematic for client-centered practice and transition to home outcomes for clients and carers. A change in the environmental context for rehabilitation from hospital to home during this subacute stage may encourage therapy and goal setting that targets meaningful activities within a client's environment.[12] This is particularly pertinent for people who are not yet ready for discharge to home and would benefit from enhanced ways to contextualize the rehabilitation that they are receiving within the inpatient hospital setting.

Current Study

Stroke Rehabilitation Enhancing and Guiding Transition Home (STRENGTH) is an innovative approach to inpatient rehabilitation that places the client, the carer, and the therapists within the home environment for one day of every week during the hospital stay. Clients with stroke who are medically stable and eligible for day leave, but not yet cleared for discharge, spend one day of every week within their home with the support of the therapy team, for some or all of the time. STRENGTH is promoted as an alternative to early supported discharge[13] when there are inadequate community services to support the hospital-in-home concept. The patient with stroke remains within the inpatient hospital environment but has a weekly outreach of therapy into the home environment with the support of current hospital-based therapists. The purpose of this approach is to enhance client-centered preparation for transition to home by allowing the client, carer, and therapists to collaboratively develop goals for the therapy within the client's home and social environments in preparation for discharge.

STRENGTH has been piloted and evaluated from the 3 distinct perspectives of the client, the carer, and the therapists. The 3 groups represent key stakeholders in the delivery of stroke rehabilitation services, and their experiences were considered important informants for the trial of STRENGTH. The research questions for the clients and carers related to the impact of STRENGTH on their preparation for, and experience of, the transition to home from hospital. In contrast, the purpose for including the therapists as research participants was to understand what, if any, impact STRENGTH had on therapeutic practices, both individually and from the team perspective. The purpose of this article is to report the experience of STRENGTH from the perspective of the therapist and health care team.

Methods

STRENGTH was trialed for 6 months within an inpatient rehabilitation unit. Research funding was used to backfill the therapists who were off the hospital site for one day of the week. A mixed methodology design collected quantitative and qualitative data from all occupational therapists, physiotherapists, and speech pathologists who worked on the inpatient rehabilitation unit during the 6-month trial of STRENGTH. All participants completed a survey (quantitative data) and participated in a focus group (qualitative data) at the end of the 6-month trial period. Ethical approval for this study was gained from hospital and university ethics committees (approval number 2008002372), and informed consent was obtained from all participants.

Participants

Therapists were eligible to participate in the study if they had worked as members of the rehabilitation team in the STRENGTH program. The participants in this study (N = 9) comprised 3 occupational therapists, 4 physiotherapists, and 2 speech pathologists. Five participants were less

than 2 years post graduation and had worked less than 1 year in stroke care. The remaining 4 participants were between 7 and 14 years post graduation and worked for between 3 to 14 years in stroke care. Six of the participants held a bachelor's degree, 2 participants held a master's degree, and 1 participant held a doctoral degree.

Data collection site

The study was conducted in an inpatient rehabilitation unit of a major metropolitan hospital. The rehabilitation unit is the major provider of stroke rehabilitation services for the surrounding geographical area, with roughly 50% of the beds occupied by persons with a diagnosis of stroke. The continuum of care for a person with stroke in this metropolitan area includes admission to an acute hospital following stroke, either to a stroke unit or a stroke service, transfer to the rehabilitation unit for inpatient subacute care, and then discharge from hospital to residential care or to home to receive one of the subacute community services such as transition care services, community-based rehabilitation, or rehabilitation day services based within the hospital. Average length of stay for a person with stroke at the time of the study was 38 days.

For this study, and the implementation of STRENGTH, the inpatient therapy team would spend one day of each week working within the clients' homes. The clients lived within a 25 kilometer radius of the hospital, and there were always 2 to 3 therapists working collaboratively with the client on a goal-related activity within the home and community (eg, preparing meals, catching a bus). The amount of time therapists spent within the client's home was variable and dependent on the purpose of the visit. All STRENGTH visits occurred on the same day of every week, which often required therapists to move between 2 to 3 clients' homes.

Procedures

Data collection

All participants completed a purpose-designed questionnaire that collected demographic data and had them rate their agreement with 12 statements about STRENGTH on a 5-point Likert scale (1 = *strongly disagree* and 5 = *strongly agree*). A semi-structured focus group was facilitated by one of the researchers, with all participants answering open-ended questions about their experiences of the STRENGTH program. Questions related to their general thoughts about the program, the program's impact on clinical practice, the perceived client and carer experiences, and suggestions for the program. The focus group was audio-recorded and transcribed verbatim.

Data analysis

Quantitative data including demographic details and responses to the questionnaire were summarized descriptively. Inductive thematic analysis was applied to the focus group transcript, which was initially read a number of times by the primary researcher to identify key phrases or units of meaning. Coding categories inductively emerged during this process and the analysis moved to a process of line by line reading with open coding.[14] Preliminary themes were identified, described, and then tested by 2 researchers with consensus. Theme descriptions were refined to ensure they were clear to readers who were not familiar with the data. Summaries of the themes were presented to team members with no additions noted.

Results

Quantitative data

Table 1 reports the median and range for all questions in the survey. All participants strongly agreed that the clients, carers, team, and therapists benefited from the program. The therapists agreed that the program had changed their rapport with clients and assisted with goal setting at the individual (agreed) and team level (strongly agreed). Participation in the program had highlighted discharge issues that the therapists were not previously aware of, and there was consensus that STRENGTH had changed the therapy programs within the rehabilitation gym. Therapists were uncertain whether the length of stay had been shortened, but disagreed that the length of stay had been increased with participation

Table 1. Questionnaire results

Question	Range	Median
The clients have benefited from this program.	5	5
The carers have benefited from this program.	4-5	5
The team has benefited from this program.	5	5
I have benefited from this program.	4-5	5
The program has changed my rapport with clients.	2-5	4
The program has assisted my goal setting with clients.	4-5	4
The program has increased the length of stay.	1-3	2
The program has shortened the length of stay.	3-4	3
The program has assisted the team goal setting with clients.	4-5	5
The program **has not** changed my therapy programs in the gym.	1-2	2
The program has highlighted discharge issues that I was not aware of.	2-5	4
I **would not** like to see this program continue.	1	1

in the program. All participants reported that they did not want the program to finish at the end of the research (strongly disagree).

Qualitative data

There were 2 main themes inductively determined from the data, each with subthemes. The first theme is "influences of context on team functioning" and describes how the home environment and STRENGTH impacted the communication, therapy, and goal setting of the team. The second theme is "experiences of the program" and describes the emotional impact of the program for therapists and clients and explores the benefits and challenges of the program.

Influences of context on team functioning

Participants identified that a key component of STRENGTH was the ability for the client, carer, and therapists to complete therapy within the home. This was a common element in the therapists' descriptions of how teamwork, therapy, and goal setting were enhanced by STRENGTH.

> *I think that being within the home environment is very beneficial and on our home visits we were picking up things that patients needed to work on. Having the opportunity to go back on multiple occasions you were able to develop more goals to work towards and [then] having opportunity to work on them as well.*

Overall in this theme, participants reflected on how team functioning had changed as a direct result of the program, with one therapist stating:

> *This project has made occupational therapy, physio and speech quite cohesive…. Obviously the team, as a whole, is larger than those three disciplines. So I think we've all seen the benefits of it.*

There were 3 subthemes related to impact on communication, impact on therapy, impact on goals.

Impact on communication. Therapists described how the introduction of the program required them to find the time to communicate more with each other. The need to develop goals and plan for the therapy sessions within the home environment created a level of collaboration that was higher than existing levels.

> *We had to discuss it together…and make sure that we were reaching all our goals, our individual therapy goals and then making them time efficient for the time that we had out there.*

An unexpected benefit for the less experienced therapists was that this collaboration gave them increased confidence when they talked with other professionals. A recent graduate reflected:

> *I also feel less inhibited in discussing cases and interacting with my colleagues, inter-disciplinary colleagues, not just my discipline.*

Impact on therapy. There was an increase in shared treatment sessions, with all therapists often working with the client and the carer on activities within the home.

> *We were more concise with our goals and our therapy sessions because we were not isolating one therapy. We were able to integrate a lot of different therapies all in one task which was probably a good integration.*

Therapists acknowledged that the experiences of shared therapy within the home often extended into the therapy sessions within the hospital environment.

> *If we knew what the task was then we were more specific with the way we treated the patient [in hospital]…making a more concise treatment and more effective treatment.*

The therapists also found that there was a much better understanding of what each had to contribute and how to carry this into their therapy sessions.

> *And we can all help each other…. We can bring in some of the principles that speech is suggesting, and speech and occupational therapy can bring in some of what physio suggest.*

Impact on goals. The therapists described how the goals were more realistic from the perspective of both the therapists and the clients. Clients were much more involved in the planning of each weekly visit, and the opportunity for the clients to test their skills in their own environment was considered invaluable in encouraging realistic expectations and engagement in the goal-setting process.

> *Also from the client's point of view, what I find is sometimes it could be difficult for them to set personal goals in the hospital 'cause they haven't experienced any challenges yet.*

Therapists described how clients who had exceeded expectations within the hospital setting suddenly had an entire new set of goals that were related to their realistic discharge situation.

> *It probably made my goals more realistic ... taking a patient to their house and actually exploring the true community measures made it more realistic ... in terms of timeframes and expectations.*

Experiences of the program

In this theme, the therapists spoke of the experiences of STRENGTH from an emotional and practical perspective. Unexpected emotional responses and practical issues for the team, clients, and carers were all discussed. Final reflections on STRENGTH highlighted that despite some difficulties, this had been a valued and beneficial experience. There was a sense that the team would not be able to sustain the outreach to client's homes after funding for the program ended and that this would be "a huge loss for the future patients we have."

The first visit to the home posed challenges for both the client and the therapists. The experience of taking a client home and facing many difficulties and barriers was overwhelming. All acknowledged an "emotional slump" after the first visit for clients, but this was then channeled into positive ways to develop goals and therapy aimed at the difficulties that were encountered. The need for support for both the clients and therapists was raised.

> *I don't think I was fully prepared for the emotional point of view ... [it] was very challenging for her first home visit to work out all the functional losses that she had suffered ...I didn't think I was particularly prepared for that emotionally and that was probably a bit of challenge.*

More formal structures for debriefing were suggested as possible additions to the program, including increased access to clinical neuropsychologists and social workers during the program.

The therapists identified some challenges with the program related to the timing and coordination of the day of in-home therapy sessions. In-home sessions were sometimes difficult due to differing family contexts and commitments.

> *I think it was mixed. I think there were some families for whom it was something that they would fit in because they could see the benefits of it. I think for other families it was much harder … depend[ing] on the level of connectedness to the patient or [their] own work environment … some people have more flexibility in their lives.*

Because they spent extended time with one client, therapists sometimes worried about their other clients and noted that they would normally see a larger number in the same time within the hospital. Despite the backfill to support continuing therapy for clients who were not participating in STRENGTH, one therapist stated:

> *I feel that we spend a lot of time with this patient but not necessarily with the other patients we have on our list and that was a bit of a struggle.*

Finally, therapists perceived that the program was more difficult to implement for some clients, including people who were considered high functioning. One client in particular was highlighted as

> *…hav[ing] things that he wanted to do but I don't think he saw them as being a massive problem and they probably weren't a massive problem and so we would do things and it was beneficial but I don't think it was as beneficial as having patients that had a more severe injury.*

In contrast, the program was considered highly beneficial for clients with more severe and complex conditions, including clients with cognitive impairments or reduced insight into their condition, "those who need the functional context to carry over."

Discussion

The purpose of this study was to explore the experiences of the health professionals involved in the trial implementation of STRENGTH in an inpatient stroke rehabilitation unit. Both the qualitative and quantitative findings suggest that there were many benefits with the potential to enhance the client, carer, and therapist experience of rehabilitation. More important, however, the transcript of the focus group narrated the growth of a health care team, articulating changing practices that were akin to the development of an interprofessional team with a clearly expressed client-centered focus. STRENGTH may be a viable option for providing health care when early supported discharge is not feasible or supported; it offers an alternate model of service delivery to increase the time spent within the person's own environments.

The findings strongly indicate that the change in model of service delivery directly impacted how the interprofessional team functioned, improving communication and goal setting. This new model of working provided an opportunity for creativity within the team that has been previously described by Molyneux.[15] In this study, the existing structures and hierarchies of their hospital-based practice did not work within the context of STRENGTH. The team members were required to acknowledge professional identities while developing a new and shared understanding and ownership of the collaboratively developed client goals. Although not directly measured, the less experienced therapists described a growing confidence in their professional role and identity, which is an important precursor to team functioning.[15] The therapists described improved communication within the team, which together with role understanding has been highlighted as an essential element of interprofessional team functioning.[16] Notably however, the therapists felt that this new way of functioning as a team would not be retained without STRENGTH, reinforcing the importance of context on team functioning.

Client-centered practice focuses on identifying, understanding, and answering the needs of clients.[2] The quantitative and qualitative results support the findings that STRENGTH allowed a greater identification and understanding of challenges from the clients' perspectives and enhanced client-centered practices within this health care team. When the clients and therapists were not constrained by the hospital environment, they found new challenges and a common focus for collaborative goal setting. Goals and therapy programs were developed in response to the challenges identified during the visits to home with direct consultation of the clients. This process appeared to overcome the issue of prioritization of goals within the hospital setting that was highlighted by Levack and colleagues[5] and supported the premise that a goal-directed, client-centered approach is facilitated when therapy is conducted within the home environment.[17]

The home environment plays a critical role in the identification of client-centered problems and goals for both the therapists and the clients.[3] The therapists described a clear period of adjustment for the clients as they began to grieve for the changes to their lives and started to work toward addressing these changes from both a practical and psychological perspective. The therapists described how this process was helpful in motivating the clients and provided both clients and therapists with enhanced insights into the challenges that lay ahead. STRENGTH promoted opportunities for clients to engage with the challenges while receiving the daily support of the health care team rather than negotiating them with lower levels of support following discharge to home. The emotional aspects of this program for the therapists were not anticipated and the responses, particularly from the younger therapists, warrant further exploration.

There was a period of adjustment for the team with the introduction of STRENGTH. In the process of developing a new way of working, the therapists had to come to terms with the different focus of their working day. This was more problematic for the younger therapists

who seemed unable to believe that the additional staffing provided by the project would cover their remaining clinical work for that day. Despite these practical challenges, the therapists placed a high level of value on the program from team, individual, and client perspectives. They were unsure whether lengths of stay were shortened by participation in the program, but they felt strongly that they were not lengthened. Further work is warranted to investigate cost efficiency and to understand the implications of STRENGTH for staffing, length of stay, and other key outcomes.

Limitations and future directions

This article reports the impact of STRENGTH on one health care team and does not report the outcomes as discussed from other stakeholders, including the clients with stroke and their carers. The data did not involve formal evaluation of interprofessional functioning, and inferences are made from the quantitative and qualitative data to support the development of the team. Despite these limitations, this study provides important insights into the impact of context for rehabilitation on the health care team. It would be beneficial for further research to compare STRENGTH to usual care to specifically measure the impact of environmental context on client-centered practice, including the key elements of collaborative goal setting and interprofessional team functioning. In addition, further studies will be conducted to investigate the outcomes of STRENGTH compared to usual care with respect to goal attainment, client satisfaction with goals, organizational outcomes such as length of stay, and a cost-benefit analysis.

Summary

STRENGTH is one model of service delivery that may allow the inpatient therapy team to capitalize on therapy opportunities for their clients while strengthening the partnership of team, client, and carer. The findings demonstrate that the environmental context for rehabilitation can impact interprofessional team functioning, collaborative goal setting, and client-centered practice. It appears that there is value in combining the two environmental contexts in therapy programs, and it is timely for stroke rehabilitation teams to consider alternate models of service delivery, such as STRENGTH, as a means for increasing the shared focus for rehabilitation with clients and carers.

Acknowledgments

This study was supported by an Early Career Researcher Grant from The University of Queensland. We would like to thank the hospital site, and the rehabilitation team, who worked with us on this pilot research program. We declare no conflicts of interest.

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