Is There a Role for Meaningful Activity in Stroke Rehabilitation?

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Purpose: Stroke survivors report multiple psychosocial issues after discharge and difficulties returning to meaningful roles and activities. This study explored the impact of an occupation-based group program on activity levels, well-being, and self-efficacy after discharge from inpatient rehabilitation. **Methods:** This pilot study recruited participants from two hospital rehabilitation units. Both units provided individual therapy programs. Unit A provided an additional occupation-based group program. Behavioural mapping recorded participants' activity levels in hospital for one weekday and one weekend day. Outcome measures collected at recruitment, discharge, and/or 1 month after discharge included Modified Barthel Index, use of community supports, length of stay, Stroke Impact Scale, and Self- Efficacy Gauge. **Results:** Participants from Unit A (n=8) had a significantly longer length of stay than Unit B (n=11) and spent significantly more time in occupational therapy (P=.01). Both participant groups were more inactive on the weekday compared to the weekend (P=.03). Participants in Unit A were more likely to report low levels of social participation and stroke recovery ($P < .05$) on the Stroke Impact Scale. **Conclusion:** There was no indication from the results of this study that an occupation-based group program had a positive effect on the measured outcomes. **Key words:** *activity, psychosocial, stroke rehabilitation, time use, transition*

The shrinking health care dollar and increasing strain on health care services have shaped the expectation that clients with stroke will be discharged from rehabilitation with a short length of hospital stay.[1] Stroke rehabilitation services have evolved to focus primarily on the physical skills and abilities necessary for a safe and expedient discharge to home[2] and key outcomes are measured by markers such as length of stay and functional recovery. Cott, Wiles, and Dewitt[3] have argued that these current models of delivery fail to adequately assess and address the needs of the clients. When asked about their experience of stroke rehabilitation, stroke survivors have identified that they are inadequately prepared mentally and physically to return to their lives after in-hospital rehabilitation.[4] Rittman, Boylstein, Hinojosa, Hinojosa, and Haun[5] further investigated the psychosocial experiences and found that stroke survivors experienced multiple issues related to adapting to changes in their self, their social connectedness, and their community participation with transition to home.

Rehabilitation is a process through which clients work to maximize their participation in former roles and responsibilities.[6] However, the reality of rehabilitation is that clients are often overcome with unexpected problems when trying to resume these former roles following discharge from hospital.[7] Although stroke survivors identify that the retraining of impairments can lead to recovery, they remain focused primarily on goals related to re-establishing their past identity and social position.[7] Providing opportunities for engagement in the roles and activities considered meaningful to clients can be difficult with the current emphasis of services on timeliness and safety of discharge.[8] In current clinical practice, there is a clear disparity between the inpatient rehabilitation focus on the basic skills and abilities necessary for discharge to home[2] and the stroke survivors' focus on returning to valued and meaningful prestroke activities.[7,9,10]

Occupational Therapy in Stroke Rehabilitation

The occupational therapy profession has underlying philosophies that support the inclusion of valued and meaningful activities into health care practice. Occupational therapy practice is based on the belief that occupation in the form of meaningful activity is central to human existence and its absence is a threat to health. A positive

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effect on health and well-being has been found for study participants who were able to engage in meaningful tasks and activities.[11] The shrinking length of stay in rehabilitation has undoubtedly impacted occupational therapy practice. The focus of stroke rehabilitation teams on outcomes that measure basic activities of daily living (ADL) has guided clinical practice to focus primarily on the skills necessary for these personal self-care tasks. The challenge for occupational therapy is to develop and investigate approaches to stroke rehabilitation that allow an equitable focus on other valued and meaningful tasks.

Eyres and Unsworth[12] investigated the effects of an occupation-based program for 15 older nonstroke participants hospitalised in an acute medical ward. Participants were randomly allocated to a control group who received usual care or the test group who participated in an additional program of activities that were related to self-care and domestic and community living skills. Data collected at admission and discharge indicated that the two groups were not significantly different on scores of functional independence, quality of life, or self-efficacy. However, Eyres and Unsworth[12] suggested that qualitative reports from clients and their carers on discharge provided support for the occupation-based program. Families and carers felt more confident regarding the discharge processes, and clients reported a greater feeling of well-being including more confidence to manage occupations such as self-care and mobility. The impetus for the study described in this article was the introduction of an occupation-based program at a local stroke rehabilitation unit. The program provided enhanced opportunities for engagement in meaningful activities regularly completed inside and outside the home environment including domestic and community living tasks. The aim of the study was to explore the outcomes of the program from the perspective of the client and the organisation.

Measuring Outcomes of an Occupation-Based Program

The first research question in this study asked, Does an occupation-based group program alter how clients with stroke spend their time during the day on the rehabilitation unit? Behavioural mapping tools are commonly used in studies to explore the impact of therapy practices in terms of where clients are, who they are with, their activity level, type of activity, and posture on weekdays and/or weekends when in acute stroke care or rehabilitation.[13–17] Time use studies have found that stroke clients in rehabilitation are likely to spend between 1 and 3 hours of their day in therapy depending on staffing levels and organisational structure.[17] Research has also identified that intensity of practice outside of therapy is necessary for improvement during rehabilitation[18] and that there is a strong need for rehabilitation services to reverse the trend of clients left sitting inactive and alone for vast periods of their days.[19] One study found that clients with stroke spent more time inactive and alone on a rehabilitation unit than clients from other diagnostic groups.[13] It was hypothesised for this study that participants with stroke who were engaged in an occupation-based group program would spend significantly more time in therapy and more time in activity and interacting with others outside of formal therapy time than clients who received standard care.

The second research question asked, What are the outcomes of an occupation-based program in terms of length of stay, functional independence, well-being, self-efficacy, discharge destination, and use of community supports? As identified earlier, health care professionals and inpatient health care facilities measure successful discharge in terms of timeliness and safety in basic functional tasks. However, the results of studies of transition to home suggest that measures related to psychosocial well-being and level of community participation should also be included as measures of discharge success.[5] It was hypothesised that length of stay and functional independence would remain unchanged as these were not the focus of the program, but clients who were participating in the occupation-based program would be more likely to have the skills necessary to be discharged to home and consequently use fewer community supports. In addition, it was hypothesised that they would report better levels of well-being and self-efficacy.

Methodology

This exploratory observational study was undertaken as Phase One[20] of a research program for the development and evaluation of a complex intervention targeted at the transition to home experience of people with stroke. The occupation-based group program was a standard practice in the hospital unit under investigation. It was not ethically plausible to establish a control cohort within this hospital site; a second hospital site, which did not have the occupation-based program, was recruited to the study to provide a cohort for comparison. Ethical approval for this study was received from the two participating hospitals and a university ethical review committee.

Data collection sites

Data were collected from the general rehabilitation units in two metropolitan hospitals. Unit A was a 28-bed unit and Unit B was a 22-bed unit. The staffing levels for the two units were comparable with the exception of occupational therapy assistants employed by Unit A and not Unit B. As a result of the additional staff, Unit A was able to offer an occupation-based group program to complement individual therapy. The groups included daily breakfast making group, daily life skills group, and a weekly community shopping group. Unit B offered largely individual therapy (standard care) with a weekly recreational cooking group.

Participants

Inclusion criteria for the study were the following: over 18 years of age, participating in rehabilitation after a first time stroke, previously living in the community, and adequate communication and cognition to complete the study questionnaires. People were considered ineligible if they were medically unwell or bed bound.

Data collection tools

Clinical characteristics

Baseline demographic data were collected from all participants at recruitment to the study. The type of stroke was classified according to the Oxfordshire Classification of Stroke.[21] The 12 subtypes of this system were collapsed into four categories: total anterior circulation (TAC), partial anterior circulation (PAC), lacunar circulation (LAC), posterior circulation (POC). The National Institute of Health Stroke Scale (NIHSS)[22] was completed with each participant to identify the severity of stroke symptoms at recruitment to the study. The NIHSS assesses stroke severity based on neurologic impairment and yields scores ranging from 0 (*no deficit*) to 46 (*severe deficit*). A score of <7 is indicative of mild severity, 7–15 moderate severity, and >15 severe. The level of functional independence was recorded at recruitment and discharge using the Modified Barthel Index (MBI).[23] A score of 100 is indicative of complete independence for self-care tasks, 91–99 is indicative of mild dependence, 61–90 is moderate dependence, 21–60 is severe dependence, and 0–20 is total dependence. [24]

Behavioural mapping tool

The behavioural mapping tool was developed based on previous research tools.[13,17] Each participant was observed every 10 minutes from 8:00 am to 4:30 pm on one weekday and one weekend day during their hospital stay. One researcher recorded the location of the participant, the people present, the activity being undertaken, and their posture at each 10-minute observation. The behavioural mapping tool was piloted in an unpublished study and small changes were made to improve validity within the data collection settings.

Self-reported questionnaires

The Stroke Impact Scale (SIS) Version 3.0[25] is a self-reported questionnaire that invited the participants with stroke to rate how the stroke had impacted their health and life. Participants were asked to rate their performance on tasks related to physical recovery, memory and thinking, mood and emotions, communication, social participation, and overall stroke recovery. Final scores range from 0 (*little or no recovery*) to 100 (*full recovery*). Permission for use of the scale was obtained.

The Self-Efficacy Gauge (SEG)[26] was the second self-reported questionnaire and asked the participants to rate their confidence in their ability to complete 27 everyday activities without the help of someone else on a 10-point scale. Examples of tasks included walk one block, write, concentrate on something difficult, do the things I like to do, enjoy myself, get to bathroom on time, and drink from a cup. A final score of 270 is indicative of complete confidence in their ability to complete everyday activities, whereas a score of 27 indicates no confidence at all.

Procedures

The research team was notified by clinical staff of the admission of potential participants to the rehabilitation units. Potential participants were visited by a member of the research team 2 weeks after admission. This allowed the potential participant to become accustomed with, and involved in, the rehabilitation program prior to the introduction of the study. Participants were provided with a participant information sheet and were invited to discuss the study with others and ask additional questions prior to providing written consent. The procedure for participants after recruitment is detailed in **Figure 1**. At recruitment, baseline data were collected from the medical chart. The research assistant then completed the time use (behavioural mapping) aspect of the study. Participants were observed every 10 minutes for one week day and one weekend day within a 7-day period. The NIHSS was completed at this time, and the participants independently completed the SIS and SEG. The research team was notified when the participant was discharged from rehabilitation, and discharge data were collected. Telephone contact was made with all participants at 1 month after discharge. Participants were invited to complete the SIS and SEG via telephone interview or the questionnaires were posted for completion and returned in a self-addressed envelope.

Data analysis

All data were entered into the Statistical Package for Social Sciences version 15 (SPSS, Inc, Chicago, Illinois, USA) for analysis. A repeated measures general linear model explored the within- and between-group differences.

Results

Participant characteristics

A total of 171 patients were screened for inclusion in the study. Twelve eligible participants did not provide consent to participate in the study, 24 were medically unwell or not for active rehabilitation, 50 had a previous stroke, 7 were living in residential care prior to their stroke, and 57 had inadequate cognition or language skills. There were 21 participants recruited to the study: 9 participants from Unit A and 12 participants from Unit B. One participant from Unit A was a statistical outlier for all baseline demographic data and was unable to complete subsequent data collections due to decreasing health. This participant was excluded from all analyses. The baseline demographic details of the final 20 participants are outlined in **Table 1**. Three participants in Unit A received community supports prior to the stroke compared to no participants from Unit B. There were no statistically significant differences between the two groups. However, visual comparison of the baseline data of the two groups identified that there were differences in the gender distribution that may have influenced the results and that the mean NIHSS scores for the two groups were representative of mild (Unit A) and moderate (Unit B) severity of stroke.

Behavioural mapping data

A summary of the behavioural mapping data is presented in **Table 2**. A repeated measures general linear model was run to examine the time use data between the groups (Unit A and Unit B) and across the two data collection points (weekday and weekend). The following significant differences were identified:

Location: Participants in Unit A spent a greater amount of time in occupational therapy on a weekday ($F=12.02$, $P=.003$).

Person: Participants in Unit A spent significantly more time with a therapist on a weekday ($F=4.98$,

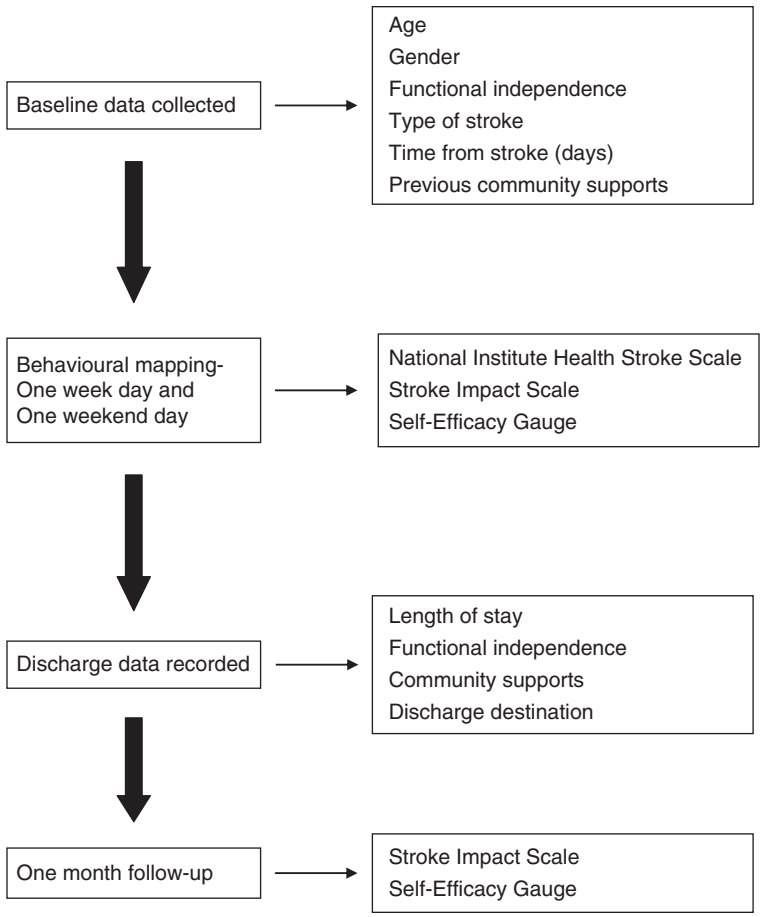

Figure 1. Data collection procedure.

Table 1. Baseline demographic details

	Unit A (n=8)	Unit B (n=12)
Gender, n (%)		
Male	3 (38%)	8 (66%)
Female	5 (62%)	4 (33%)
Mean age in years (*SD*)	69 (10.7)	68.1 (8.9)
Mean days from stroke to baseline (*SD*)	30 (14.3)	33.5 (15.9)
Location of stroke, n (%)		
TAC	1 (13%)	4 (33%)
PAC	5 (62%)	4 (33%)
LAC	2 (25%)	3 (22%)
POC	0 (0%)	1 (11%)
Hemisphere affected, n (%)		
Left	2 (25%)	5 (42%)
Right	6 (75%)	7 (58%)
Mean NIHSS score (*SD*)	4.3 (1.4)	7.5 (4.3)
Mean MBI score (*SD*)	54.6 (21.6)	51.7 (26.6)

Note: TAC=total anterior circulation; PAC=partial anterior circulation; LAC=lacunar; POC=posterior circulation; NIHSS=National Institute of Health Stroke Scale; MBI=Modified Barthel Index.

Table 2. Mean time-use recorded from behavioural mapping data

	Weekday (minutes)		Weekend day (minutes)	
	Unit A	**Unit B**	**Unit A**	**Unit B**
Location				
Bedroom	240.0	321.0	310.0	321.0
Occupational Therapy*	67.0	19.0	0	0
Physiotherapy	42.5	58.0	0	0
Speech Pathology	25.0	9.0	0	0
Day or dining room	74.0	48.0	56.0	45.0
Recreation room	8.0	10.0	0	14.0
Person				
Therapist*	152.5	91.0	0	0
Nurse	27.5	58.0	31.0	46.0
Doctor*	0	12.0	0	0
Other client	65.0	44.0	71.0	82.5
Visitor	65.0	72.5	105.0	126.0
Alone	206.0	240.0	247.5	222.0
Activity				
Self-care	35.0	35.0	46.0	47.0
Meal time	46.0	54.0	36.0	61.0
Sleeping	51.0	48.0	52.5	34.0
TV/music/radio	35.0	22.5	47.0	49.5
Reading/writing	22.5	44.0	35.0	65.0
Talking/on phone	94.0	100.0	95.0	112.0
Arts or crafts/games	0	10.0	6.0	9.0
Wheeling	9.0	2.5	0	2.0
Walking**	15.0	6.7	2.5	3.0
Exercising	16.0	9.0	11.0	5.0
No activity**	74.0	100.0	67.5	42.0
Occupational Therapy*	52.5	17.5	0	0
Physiotherapy	27.5	47.0	0	0
Speech Pathology	26.0	11.0	0	0
Posture				
Standing (supported)	22.5	11.0	4.0	0
Standing (unsupported)	40.0	12.5	6.0	7.0
Sitting (supported)	9.0	13.0	2.5	5.0
Sitting (unsupported)	304.0	355.0	247.5	342.0
Lying down	145.0	127.0	160.0	85.0

* $P < .05$ between group difference on a weekday. **$P < .05$ between weekday and weekend observations.

$P=.04$). Participants in Unit B spent significantly more time with a doctor on a weekday ($F=7.51$, $P=.01$).

Activity: Participants in Unit A spent significantly more time participating in occupational therapy on a weekday ($F=8.03$, $P=.01$). Participants from both Unit A and Unit B spent significantly more time inactive on a weekday compared to the weekend ($F=5.6$, $P=.03$). Participants from both Unit A and Unit B spent significantly less time walking on the weekend when compared to a weekday ($F=6.34$, $P=.02$).

Discharge

At the time of discharge to home, both groups had improved significantly ($P < .001$) on the MBI score of functional independence with no between-group differences ($P=.60$). Participants in Unit A had a mean score of 81.6 and participants in Unit B had a mean score of 84.2. Length of stay in rehabilitation was significantly different with a mean stay of 86.5 days (*SD* 27.2) in Unit A compared to 47.7 days (*SD* 29.1) in Unit B ($t=2.99$, $P < .05$). Four (50%) participants from Unit A were referred to community supports

at discharge compared to 2 (16.7%) participants from Unit B. One participant from each unit was discharged to hostel level of care and all other participants were discharged to their homes.

Self-Efficacy Gauge

There were missing data for the SEG. One participant from Unit A and two participants from Unit B became distressed when considering responses to the questions in the survey at recruitment to the study and chose not to continue. One additional participant from Unit B did not return the follow-up surveys. The following results are based on seven participants from Unit A and nine participants from Unit B. At recruitment to the study, participants in Unit A reported a mean of 130.7 (*SD* 40.2) on the SEG compared to 157.4 (*SD* 51.1) from Unit B. The difference between the groups was not significant at baseline and this difference was relatively unchanged at follow-up with a mean score of 156.6 (*SD* 41.2) for Unit A and 185.3 (*SD* 47.9) for Unit B.

Stroke Impact Scale

The mean scores for the components of the SIS at baseline and 1 month follow-up are presented in **Table 3**. Repeated measures general linear model confirmed that there were significantly improved scores for physical recovery reported by participants from both units ($F=4.63$, $P<.05$) but no differences between the two groups. There was a significant difference between the two units with respect to stroke recovery at follow-up ($F=6.54$, $P=.02$). Finally, there was a significant Time x Unit effect for social participation ($F=9.94$, $P=.01$) with the participants from Unit A consistently reporting lower levels of social participation that decreased at the 1 month follow-up.

Discussion

The purpose of this pilot study was to explore the impact of an occupation-based group program on key outcomes for stroke rehabilitation. It was not the intention of this study to compare the two rehabilitation units in terms of effectiveness, and this discussion will not attempt to do so. The results of this study will be discussed with respect to potential relationships between the occupation-based program and any trends or findings. However, due to the pilot nature of this study, it is important to first acknowledge its limitations. The inclusion of a small sample group from one geographical area may limit the ability to generalise the results. There was a trend for some baseline differences between the groups which may have impacted the results, and they are addressed further in the discussion. The second site (Unit B) was chosen because it was comparable to the original site (Unit A) except for the occupation-based program, but there may have been differences between the two sites that were unknown to the researchers. Finally, a clear record of participation in the occupation-based program was not kept for participants at Unit A, and we are unable to report their participation in the program in this article.

Table 3. Pre and post scores [mean (*SD*)] from Stroke Impact Scale

	Unit A ($n=7$)		Unit B ($n=11$)	
	Recruitment	Follow-up	Recruitment	Follow-up
Stroke recovery	51.6 (25.6)	40.8 (25.8)	62.3 (20.3)	66.9 (18.9)
Emotions	69.0 (20.2)	61.9 (12.5)	72.3 (16.7)	68.9 (15.4)
Memory	64.7 (29.4)	68.8 (14.4)	72.7 (24.4)	70.1 (19.3)
Communication	86.2 (12.4)	84.2 (11.8)	83.1 (21.0)	88.0 (17.1)
Social participation	36.2 (26.9)	23.2 (22.0)	30.0 (26.4)	59.9 (19.9)
Strength	42.9 (19.2)	44.6 (20.5)	48.6 (26.0)	59.1 (22.6)
Hand function	25.7 (31.4)	35.0 (35.0)	25.0 (35.1)	55.0 (34.8)
Mobility	35.7 (22.6)	50.4 (18.8)	47.5 (30.1)	72.7 (20.5)
ADL	47.1 (16.1)	47.9 (27.1)	54.8 (26.1)	67.7 (23.9)
Physical (combined)	37.9 (17.2)	44.5 (20.2)	44.0 (24.7)	62.7 (23.1)

Note: ADL=activities of daily living.

As anticipated, the increased staffing and group program in Unit A significantly increased the time that participants spent in occupational therapy and therapy overall. Participants in Unit A were receiving on average 106 minutes of therapy on observation days compared to 75.5 minutes in Unit B. It was also hypothesised that participants in Unit A would spend more time interacting with each other and engaging in activity outside of therapy. This was not supported by the results, with participants in both units spending over 240 minutes a day in their bedrooms on therapy days and between 206 and 240 minutes alone. The amount of time spent alone remains consistent with the results from a previous Australian study.[19] There was a trend for participants from Unit A to spend less time engaged in no activity outside of therapy time (74 minutes vs 100 minutes) on the weekday, but this did not persist to the weekend observations. The results for the weekday may be suggestive of the positive influence of the group therapy program in Unit A on activity, however further research is necessary to explore this potential relationship.

Unexpectedly, we found that participants in both units spent more time engaged in no activity on the weekdays when compared to the weekend. It appeared from the data that this time was replaced with sedentary activities on the weekend such as television, music, radio, or talking. On a weekday, participants may have been waiting around for therapy, reluctant to commence an activity that they may not have been able to complete before the therapist arrived. An alternate explanation relates to the endurance and energy expenditure required to participate in rehabilitation after stroke. Fatigue has been identified as a factor that can interfere with the intensity of practice necessary for recovery.[27] However, the observations of the participants in this study may suggest that the increased time spent inactive on therapy days might be representative of a need for the clients to rest and recuperate after the demanding activity of therapy. Fatigue after stroke is a concept that requires further investigation to determine optimal management strategies. It is suggested that a balance is needed between the exercise promoted by health professionals and the rest required by clients.[28]

Despite substantially different levels of stroke severity (NIHSS) at baseline, all participants improved significantly on the MBI to achieve a functional level that was indicative of moderate-mild dependence for self-care tasks. This outcome is in contrast to claims that severity of stroke may be a useful predictor of functional outcome[22,29] and supports the assertion that stroke rehabilitation programs focus on the functional ability required to ensure a safe and timely discharge.[3,8] Despite the relatively good levels of functional independence achieved, the participants in this study reported levels of self-efficacy and well-being after stroke (SIS scores) that were lower than anticipated. Psychosocial issues persisted for the participants irrespective of the level of functional independence and support the assertion that a focus on functional ability for discharge may leave clients unprepared for the psychosocial aspects of discharge.

In contrast to the second hypothesis of this study, the occupation-based program did not have a positive impact on psychosocial outcomes after discharge. Participants in Unit A reported significantly lower scores for social participation and overall stroke recovery at follow-up. There was a persistent trend for cores from the SEG and all other domains of the SIS to be lower for participants in Unit A. A number of issues need to be explored with reference to these results including expectations for recovery after a mild stroke, gender differences between the two groups, the potential impact of length of stay, and the reality of an occupation-based program.

Edwards, Hahn, Baum, and Dromerick[30] found that despite achieving full independence for self-care tasks, many clients with mild stroke reported diminished life satisfaction and reduced social activity at 6 months after the event. It is possible that the clients with mild stroke in Unit A had higher expectations for their recovery and were therefore more critical of their outcomes. Clients with mild stroke have identified that recovery of full independence in basic self-care and the prospect of a full recovery can lead to expectations that are not achievable.[31] People with mild stroke are better able to participate in everyday situations and may more readily

experience the difficulties associated with less obvious impairments. This is unlike their peers with severe stroke who may be unable to access or participate in the same everyday situations. People with mild stroke often perform worse on outcomes perhaps due to executive functioning and memory deficits that are not detected by measures like the NIHSS. Qualitative interviews with people with mild stroke have highlighted this as an important issue for coping. A depletion of the higher level skills needed for decision making, maintaining self-control, and responding in an active way to stress may mean that life continues to be a struggle with daily experiences of uncertainty. [31]

Notably, the participants in Unit A had a tendency to report lower levels of perceived recovery during the rehabilitation process, and this was exaggerated after discharge. Two factors may have contributed to this result. First, there was a gender difference between the groups with predominantly more female participants recruited at Unit A. Niemeier[32] discusses the important differences between how men and women respond to disability. Women were more likely to be distressed by communication deficits, upper limb impairment, and inability to perform the traditional caregiving roles. In contrast, men were more likely to be distressed by loss of motor ability, work, income, and independence. The participants from Unit A may have been predisposed to reporting poorer scores on scales of stroke recovery, social participation, and emotions on the basis of the gender difference. Further investigation of this phenomenon is warranted.

The second factor is that participation in the occupation-based program may have provided a realistic view of what to expect at home that was counterproductive to the participant's psychological status. It is common for clients in the early stages after stroke to focus on getting back to "normal" and regaining prestroke status.[10,33] Participants may have experienced concerns about returning to valued and meaningful prestroke activities as a result of the program. Alternatively, achievement of the tasks in a modified and supportive hospital environment may have overinflated expectations for level of performance at home. It is clear that further research is necessary to explore the impact of the occupation-based program on self-efficacy and well-being.

A final consideration for the results was the markedly different length of stay for participants in Unit A. It is unclear why this group, with NIHSS scores indicative of mild stroke, remained in hospital for longer; this may be reflective of a difference in service delivery between the two units. Dependence on nursing staff during inpatient stroke rehabilitation can prevent clients from fully appreciating the impact of the stroke on their everyday functioning.[34] Further research is necessary to determine whether the extended length of stay may have predisposed this group to greater dependence on nursing staff and more psychosocial issues after being discharged to home. Irrespective, further studies should explore the impact of an occupation-based program in stroke rehabilitation. It is unclear whether an individual occupation-based program would have resulted in different outcomes. Future studies could explore the use of individual goal setting to identify the components necessary for an individualised program. It would be useful to explore the impact of performing tasks within both hospital and home environments, and it is recommended that these studies include in-depth exploration of the subjective client experience. Finally, further exploration into the influence of factors such as stroke severity, gender, and length of stay on the client's experience of the occupation-based group program, their sense of well-being, and self-efficacy is warranted.

Conclusion

Although it is difficult to determine the effects of the occupation-based group with the sample recruited to this study, it appears that stroke survivors continue to spend large portions of their day in their bedroom, inactive and alone, irrespective of the therapy program. The programs in both units targeted functional independence for discharge with participants achieving equitable levels despite differing stroke severity at baseline. However, the results suggest that this focus on functional independence may be at the expense of psychosocial issues, with both groups reporting

levels of self-efficacy, recovery, and well-being that are compromised. Participants from Unit A consistently reported lower levels of self-efficacy and well-being, and further studies are required to explore potential influences such as the expectations for recovery after mild stroke, gender differences, and longer length of stay. Further studies are required to understand the role of meaningful activity in rehabilitation and unravel the needs of clients with respect to transition to home.

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