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# Effects of Goal-Setting Before an Unsupervised Reaching Task on Behavioral Performance and Motivation in Patients With Subacute Stroke

**Topic:** Psychology

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## BACKGROUND

This study investigated the effects of goal setting on behavioral performance and motivation during an unsupervised reaching task in hospitalized patients with subacute stroke.

## METHODS

Using a single-blind, stratified randomized controlled design, 50 stroke patients with unilateral upper limb paresis were allocated to either a goal-setting group (n = 25) or a control group (n = 25). In the goal-setting group, goals related to upper limb function were set using the SMART framework, while the control group received no goal-setting intervention. Both groups performed an unsupervised reaching task during a 15-minute session. Primary outcome measures included total time spent on the task and movement accuracy. Secondary outcome was self-reported motivation assessed using a Visual Analog Scale (0-100).

## RESULTS

No significant differences were observed between groups in total time spent on the task (goal-setting: median = 636s, IQR = 500-709; control: median = 633s, IQR = 494-715; U = 297.5, $p$ = 0.771, r = −0.041). However, the goal-setting group demonstrated significantly higher accuracy in the reaching task (median = 92.6%, IQR = 82.9-96.0) compared to the control group (median = 80.7%, IQR = 65.4-92.6; U = 192, $p$ = 0.019, r = −0.331). Self-reported motivation scores showed no significant differences between groups (goal-setting: median = 76, IQR = 60-95; control: median = 84, IQR = 49-97; U = 296.5, $p$ = 0.994, r = −0.010).

## CONCLUSION

Goal setting immediately before an unsupervised reaching task significantly improves movement accuracy in patients with subacute stroke, potentially enhancing the quality of motor performance during self-rehabilitation.

**Statement of Disclosures**

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