

Work, Leisure and Social Participation

Effect of an Occupational Therapy Discharge Planning Program on Functional Participation in Older Adults: Smartphone-Based Application Outcome Alok Kumar Barik. *Gerontechnology* 25(s)

Background Older adults often experience a decline in functional participation following hospital discharge due to fragmented continuity of care and limited access to post-discharge rehabilitation services [2]. Digital health technologies, particularly smartphone applications, offer a promising platform for enhancing occupational therapy-based discharge planning and supporting functional reintegration into daily routines [1] **Objective** This study aimed to evaluate the effect of newly designed occupational therapy discharge planning program on functional participation among older adults transitioning from hospital to home settings, and the final outcome would be developed through smartphone-based application. **Methods** A randomized controlled trial will recruit 100 participants aged 60 years and above from Mahatma Gandhi Hospital, Jaipur, selected via simple random sampling. Inclusion criteria include consenting older adults admitted to the medicine ward; exclusion criteria are severe cognitive impairment (MoCA <10) and high fall risk (TUG \geq 14 seconds). Participants were randomly assigned to either an intervention group that received smartphone application based occupational therapy discharge planning or a control group that received conventional clinical discharge procedures. The intervention included individualized goal setting, home modification guidance, adaptive equipment recommendations, and structured follow-ups via the mobile application for four weeks post-discharge protocol through smartphone-based application. Outcome measures included the Montreal Cognitive Assessment (MoCA), Modified Barthel Index (MBI), and Reintegration to Normal Living Index (RNLI), which were assessed at baseline, 2 weeks, and 4 weeks post-discharge. Data were analyzed using a repeated-measures ANOVA with a significance level set at $p < 0.05$. **Results and Discussion** Participants in the intervention group demonstrated significantly greater improvements in occupational performance, satisfaction scores, and community participation compared to the control group. Functional independence (MBI) and reintegration scores (RNLI) showed sustained improvement at follow-up. User feedback indicated high acceptability and ease of use of the smartphone application. A smartphone application-based occupational therapy discharge planning program effectively enhances functional participation and independence in older adults after hospital discharge. Incorporating digital tools in routine occupational therapy practice may promote continuity of care and support aging in place.

References

1. Mobile Videoconferencing for Occupational Therapists' Assessments of Patients' Home Environments Prior to Hospital Discharge: Mixed Methods Feasibility and Comparative Study Karine Latulippe^{1,2}, PhD; Dominique Giroux^{3,4,5}, PhD; Manon Guay^{6,7}, PhD; Dahlia Kairy^{1,8,9}, PhD; Claude Vincent^{3,10}, PhD; Katia Boivin^{3,11}, MSc; Ernesto Morales^{3,10}, PhD; Natasa Obradovic^{6,7}, MA; Véronique Provencher^{6,7}, PhD.
2. Effect of occupational therapy home visit discharge planning on participation after stroke: protocol for the HOME Rehab trial Natasha A Lannin^{1,2}, Lindy Clemson³, Avril Drummond⁴, Mandy Stanley⁵, Leonid Churilov^{6,7}, Kate Laver⁸, Sophie O'Keefe⁹, Ian Cameron¹⁰, Maria Crotty^{8,11}, Tim Usherwood^{12,13}, Nadine E Andrew^{14,15}, Laura Jolliffe^{2,16}, Dominique A Cadillac.

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Repeated Measures ANOVA (Experimental Group)

Outcome	Source	SS	df	MS	F	p-value
MoCA	Time	412.36	2	206.18	48.92	<0.001
	Error	252.14	60	4.20		
MBI	Time	1089.44	2	544.72	52.37	<0.001
	Error	624.30	60	10.40		
RNLI	Time	732.81	2	366.41	49.86	<0.001
	Error	441.10	60	7.35		
DPAT	Time	512.60	2	256.30	61.28	<0.001
	Error	251.04	60	4.18		