

Research Poster 793675

Understanding Health Management for Adults with Autism



Jaclyn Schwartz (Florida International University)

Research Objectives: To understand the factors affecting health in adults with autism.

Design: Using a qualitative grounded theory approach, the research team sought to develop a theory describing the factors affecting the health of adults with ASD.

Setting: Participants were recruited in the general community through social media groups, health clinics, and word of mouth.

Participants: To participate in this study individuals were required to be an adult with ASD (with cognitive capacity to consent into the study), a caregiver of an adult with ASD (of any severity level), or a health care provider currently serving adults with ASD (of any severity level).

Interventions: None.

Main Outcome Measure(s): Participants engaged in a semi-structured interview regarding barriers and facilitators to quality care.

Results: Three adults with ASD, 8 caregivers, and 4 health care providers participated in the study. Data analyses suggest that limitations in time, communication, resources, and self-management impair health in adults with ASD.

Conclusions: The existing literature suggests that adults with ASD have worse health outcomes than their peers but fails describe why these differences occur. Findings from this study presents a theoretical model that indicates that health of adults with autism is affected by time, communication, resources, and self-management. The impact of this work suggests that therapeutic intervention targeted to communication and self-management skills and policy intervention targeted at resources and duration of services may improve health of adults with autism.

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Key Words: Health Promotion, Autism Spectrum Disorder, Qualitative Research

Research Poster 793652

Unlocking the Black Box of Outpatient Rehabilitation for Subacute Stroke



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Research Objectives: 1. To determine the nature of an episode of stroke care for hospital based outpatient rehabilitation.

2. To determine the activities of usual and customary occupational therapy for individuals with a stroke.

Design: The original study was a multi-site, randomized, single-blinded Phase III clinical trial conducted from 2009-2014 (Winstein et al., 2013). This study was a mixed-methods secondary analysis of an existing dataset (Dose-Equivalent Usual and Customary Care [DEUCC] and Usual and Customary Care [UCC]).

Setting: Hospital-based outpatient rehabilitation.

Participants: Individuals 3-6 months post-stroke with mild-moderate hemiparesis and no cognitive deficits.

Interventions: Usual and customary occupational therapy.

Main Outcome Measure(s): Quantitative: Variables included CPT codes, total number of OT sessions (minutes) (UCC only), stroke motor severity (Fugl-Meyer Assessment- Upper Extremity), and cognitive status (dichotomous by DKEFS score).

Qualitative: A sample of treatment notes to include all seven treatment sites were electronically transcribed by two trained research assistants. Two separate researchers coded the treatment notes, building and refining a code set. Themes were allowed to emerge from the codes and refined as coding progressed.

Results: Patient engagement and goal-directed treatment were substantial themes. Occupational therapy practitioners also prescribed a functional home program from nearly the first day of treatment. Although the screening criteria for the original study excluded individuals with cognitive impairment, there were still billing codes for cognitive rehabilitation (97532). Those sessions typically involved strategy development for memory and attention during work and IADL tasks (such as cooking).

Conclusions: This study sheds some much needed light on the nature of hospital-based outpatient rehabilitation for individuals with stroke. The findings also help explain the lack of difference found between the investigational treatment (ASAP) and usual and customary occupational therapy (Winstein et al., 2016b).

Author(s) Disclosures: No conflicts.

Key Words: Stroke, Outpatient Rehabilitation, Health Services Research

Research Poster 793693

Using Smart Watch Sensing in At-Risk Populations (SARP) in a Sub-Acute Rehabilitation Center



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Research Objectives: To examine whether SARP correlate to physical therapy (PT)/occupational therapy (OT) evaluations at baseline and to investigate whether SARP variables are associated with clinical outcomes.

Design: This is prospective cohort study.

We use a smart watch based remote sensor system to monitor patients' physical activity in real-time.

Setting: A Skilled Nursing Facility.

Participants: A total of 99 subjects were enrolled in this study.

Interventions: Subjects were instructed to wear the smart watch throughout the day. SARP monitored physical activities as Total Active Time in a day and it calculated Energy from motion signals. Transfers, Gait (based on Functional Independence Measurement (FIM score)) and Gait Distance (based on Feet) were extracted from the therapy records (PT and OT).

Main Outcome Measure(s): Spearman correlations were performed to determine the association between baseline SARP and PT/OT evaluations. One-way ANOVA tests were used to compare SARP variables among three different clinical outcomes: discharge home, readmitted to the acute care hospital and discharge to other nursing facility.

Results: Subjects' mean age was 80.6 years with mean length of skilled nursing stay 23.4 days. Total Active Time, from SARP were significantly associated with the Transfer, Gait (FIM) and Gait (Feet) (all $p < 0.05$ with $\rho = 0.23, 0.28$ and 0.37 respectively). Total Active Time from SARP indicated that subjects who were readmitted to the hospital spent 45% less time on activity compared to the subjects who were discharged home ($p = 0.007$).

Conclusions: SARP monitors physical function in real-time and significantly correlates to in-person evaluations. There was a significant difference of SARP data among three outcome groups. Further exploration in future studies using SARP in an acute rehabilitation hospital and home settings is planned.

Author(s) Disclosures: Authors have no conflict of interest.

Key Words: Wearable Sensor, Real-Time Function Monitoring, Older Adults, Sub-Acute Rehabilitation Center

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Virtual Exercise Rehabilitation In-Home Therapy: A Randomized Study (VERITAS)



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Research Objectives: To determine the impact of a virtual physical therapy (PT) program versus usual care after total knee arthroplasty (TKA) on healthcare costs and clinical outcomes.