Research Poster 793675
Understanding Health Management for Adults with Autism

Jacinth 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. This 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 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.

Results: 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.

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

Research Poster 793647
Virtual Exercise Rehabilitation In-Home Therapy: A Randomized Study (VERITAS)


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.

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