

Poster Presentation

Change Management

Can a smartphone app facilitate communication for multi-organisational and multi-disciplinary clinicians? Preliminary results from a feasibility study

Kathleen Bagot (1), Chris Bladin (1,2), Stephen Bernard (3), Michelle Vu (1), Karen Smith (3,2), Marc Budge (4), Voltaire Nadurata (4), Dominique Cadilhac (2,1)

1. The Florey Institute of Neuroscience and Mental Health
2. Monash University
3. Ambulance Victoria
4. Bendigo Health

Abstract

Background: Timely delivery of care to patients with acute stroke/cardiac symptoms involves communication between multiple clinicians and organisations: paramedics from Ambulance Victoria (AV) and hospital staff from emergency department (ED), radiology/catheterisation laboratory, neurology/cardiology. Patient details are repeated using multiple methods (phone, fax, pager); such inefficiencies may cause treatment delays.

Aims: To determine (1) if a multi-organisational, technology-based communication solution could be implemented; and (2) factors associated with clinicians' intentions to use the technology.

Methods: A mixed-method design was used. The Pulsara™ Stop Stroke/STEMI app was implemented in a Victorian regional hospital and 11 AV branches. After demonstrations/training during July-September 2017, clinicians managing patients with suspected acute cardio-vascular symptoms were administered surveys. Measures of Perceived Organisational Readiness, Unified Individual Acceptance and Use of Technology, and intentions to use Pulsara™ (1 = completely disagree, 7 = completely agree) were included.

Results: Surveys were completed by 34 paramedics, 30 hospital personnel, 4 unknown. Both organisations were similarly ready (AV: M = 5.55, SD = .65, Hospital: M = 5.54, SD = .85; $t(65) = 0.05, p > .05$). Regression analyses ($n = 58$; $F(6,51) = 17.58, P = .00$; $R^2 = 0.67$) showed Performance Expectancy (useful) and Effort Expectancy (ease of use) were associated with intentions to use Pulsara, not Social Influence (important others), Facilitating Conditions (resources), Hedonic Motivation (enjoyment) nor Habit. Subsequently, Pulsara™ was activated 73 times (45 by AV, 28 by ED; 22/08/2016-21/02/2017) and improved care timelines found.

Conclusions: Staff from both organisations were ready for the inter- and intra-organisational communication tool partially explaining the successful Pulsara™ implementation in Australia (first time outside America). Future implementations should focus on ease of use and usefulness.