ABSTRACT | Originally Published 09 February 2015

Abstract T MP106: Nursing Acceptance of a Novel Care Coordination Application to Reduce Time to Thrombolysis in Patients with Acute Ischemic Stroke: A Pilot Study

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Abstract

Background: STOP STROKE© is a novel medical application (app) developed to improve care coordination in acute ischemic stroke and was previously demonstrated to improve door to thrombolytic times. The app captures stroke benchmarking data in real time for quality assurance/improvement. Current literature reports that successful adoption of new health care technologies is not decided by hospital administration, but determined on the work floor.

Purpose: We seek to determine the feasibility of an instrument used to measure end users' intent to use, perceived usefulness, and perceived ease of use of STOP STROKE© and to capture the determinants of these constructs.

Methods: We administered a 74-question, on-line survey to a convenience sample of 16 end users involved in acute stroke care after STOP STROKE© was instituted at our level II trauma center with annual emergency department volumes of 90,000. The Technology Acceptance Model (TAM) employs constructs including: perceived usefulness, ease of use, self-efficacy, external control, enjoyment, subjective norm, computer anxiety, voluntariness, image, job relevance, output quality, result demonstrability,

and intent to use. Participants included emergency department charge nurses, cardiac catheterization lab nurses, house supervisors, and stroke coordinator. Data analysis included descriptive statistics and crosstabs.

Results: Our sample consisted of 62% women, mean age 41 with an average of 10 years in their current role. Respondents had an average 4.8 years experience using smart phone technology. Overwhelmingly, nurses indicated they intended to use the app (93%), that it had usefulness (81.3%) and was easy to use (87.5%). Additionally, when comparing the app to the traditional stroke activation system, nurses felt that the app improved patient outcomes (86.7%), fit with current protocols and practice (93.3%), and that positive results were demonstrable (100%). Determinants were congruent with TAM theory.

Conclusions: The use of TAM can measure acceptance and intent to use the app. Our findings will allow a fully-developed instrument to identify pre-implementation concerns and then measure intervention success in post-implementation surveys.