Evaluation of TeamSTEPPS® Within a Cardiac Procedural Unit to Improve Teamwork and Patient Safety

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BACKGROUND: Communication and teamwork between members of the non-provider patient care team in the cardiac procedural unit were observed to be unbalanced and at times ineffective. Team members additionally expressed concerns regarding efficiency and accuracy in patient hand-off, specifically between units. Staff role satisfaction was deteriorating. The goal of this study was to improve teamwork and communication among the staff of the cardiac catheterization and electrophysiology lab. Participation in this initial, single-unit phase would include the non-physician staff of that unit. METHODS: Bandura’s Social Cognitive Theory was the theoretical framework utilized for this project. Theory selection was based on desire to evaluate the progression of staff as a unit rather than individuals which was proving ineffective in the past. Leadership assessment of service line communication noted deficits in teamwork and communication skills particularly with patient hand-off most specifically between units. Leadership and departmental educational representatives conferred and based on experience recommended a trial of TeamSTEPPS® (Team Strategies and Tools to Enhance Performance and Patient Safety) program initiation. A literature review was performed to evaluate program applications and available assessment tools. Multiple applications of TeamSTEPPS® are noted but none within a dynamic procedural unit caring for a diverse ambulatory, acute, critical and emergent patients. INTERVENTION: Staff was surveyed via the TeamSTEPPS® Teamwork Perceptions Questionnaire (T-TPQ) immediately before and post three hours of TeamSTEPPS® Essential course education. They were additionally surveyed at four- and eight-weeks post education. Documentation of their teamwork perceptions was recorded, and their behavior observed over the eight-week project time frame. RESULTS: Analysis by way of repeated measures ANOVA compared mean scores of individuals over time and was performed by matched pairings based on demographics. TeamSTEPPS® education resulted in statistically and clinically significant increases in teamwork perceptions from pre- to post-education and post-education to eight weeks assessments reflective of change and sustainability. CONCLUSIONS: TeamSTEPPS® education is effective in improving teamwork and communication perceptions immediately and at eight weeks in a dynamic cardiac procedural unit. Keywords: TeamSTEPPS, teamwork, communication, patient safety, T-TPQ, perceptions
communication, patient safety and teamwork

References:


communication-failures-in-healthcare-settings-5-study-findings.html
Ebell, M. H., Siwek, J., Weiss, B. D., Woolf, S. H., Susman, J., Ewigman, B., & Bowman, M.


Abstract Summary:

Development and evaluation of a TeamSTEPPS® Program among cardiac procedural unit staff in a mid-Atlantic community hospital to improve teamwork and patient safety. Implementation resulted in statistically and clinically significant outcomes and demonstrated sustainability.

Content Outline:

(The link for the example is not currently working unfortunately.)

Purpose:
Communication and teamwork in the cardiac procedural unit were observed to be unbalanced and ineffective. Team members expressed concerns regarding efficiency and accuracy in handoffs. The goal was improving teamwork and communication within the cardiac catheterization and electrophysiology lab.

Significance:
TeamSTEPPS® optimizes team performance by improving communication and teamwork skills to effectively improve efficient and rapid responses to changing circumstances. This leads to higher quality and safer patient care by optimizing teams, inclusive of the patient, and eliminating barriers. The four core skills of TeamSTEPPS®: communication, leadership, situation monitoring, and mutual support, are trainable skills that directly affect goal outcomes.

Theory and Implementation:
Bandura’s Social Cognitive Theory was the theoretical framework utilized for this project. Leadership assessment of service line communication noted deficits in teamwork and communication skills particularly with patient handoff most specifically between units. Leadership and departmental educational representatives conferred and based on experience recommended a trial of TeamSTEPPS® (Team Strategies and Tools to Enhance Performance and Patient Safety) program initiation. A literature
review was performed to evaluate program applications and available assessment tools. No literature was located regarding cardiac procedural unit implementation. Staff was surveyed via the TeamSTEPPS® Teamwork Perceptions Questionnaire (T-TPQ) immediately before and post three hours of TeamSTEPPS® education. They were additionally surveyed at four- and eight weeks post education. Documentation of their teamwork perceptions was recorded, and their behavior observed over the eight-week project time frame.

**Evaluation/Outcome:**
TeamSTEPPS® education resulted in statistically and clinically significant increases in teamwork perceptions from pre- to post-education and post-education to eight weeks assessments reflective of change and sustainability. TeamSTEPPS® education is effective in improving teamwork and communication perceptions immediately and at eight weeks in a dynamic cardiac procedural unit.

**Implications for Practice:**
Communication and teamwork development through evidence-based practice methods increases both professional and role satisfaction for providers and staff. Additionally, such improvements result in improved patient care outcomes, safety, and satisfaction.

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**Author Summary:** Dawn received a Bachelor’s in health administration 1987 from Penn State and her BSN from the Medical University of South Carolina in 1991. She earned her Masters in Family Medicine in 1997 and her DNP in 2018, both from Wilmington University in Delaware. She works as the Lead Advanced Practice Provider for the AtlantiCare Health System while maintaining clinical work at the AtlantiCare Regional Medical Center’s Heart Institute.