Improving Advanced Practice Provider Knowledge and Screening for Medication Adherence in Cardiovascular Patients

Jaime McDermott, MSN, RN, ACNP-BC, CV-BC, CCRN, CHFN
Rita D’Aoust, PhD, ACNP, ANP-BC, CNE, FAANP, FNAP, FAAN & Deb Baker, DNP, ACNP, NEA-BC

Background

• Medication non-adherence is a widespread problem among cardiovascular patients that leads to negative patient outcomes.1,7
• One third of prescribed medications are not filled and half are not taken as prescribed.3
• Screening for medication adherence (MA) is supported by several leading cardiovascular organizations including the American Heart Association (AHA) & the American College of Cardiology (ACC).3
• Assessment of MA using self-report is comparable to other methods used for assessment.9,10

Advanced practice providers (APPs) play a critical role in screening for MA on admission to the acute care setting.

APPs should have knowledge of MA & access to a screening tool within the electronic medical record (EMR) to provide comprehensive care to cardiovascular patients.

Purpose & Aims

Purpose: To examine if an education module improves APP knowledge of MA & changes current APP screening practices for MA in cardiovascular patients upon admission to the acute care setting.

Aim 1: To improve cardiology APP knowledge of MA & screening for MA by 20% over 12 weeks using an educational module

Aim 2: To improve screening for MA by cardiology APPs using DOSE-Nonadherence in cardiovascular patients by 40% over 6-weeks.

Methods

Design: Quasi-experimental pre- & post- intervention

Setting: Large urban integrated academic medical center in the Southeast within the Division of Cardiology

Sample: Convenience sample of APPs in the Division of Cardiology

Intervention: Education module on MA & screening for MA in the EMR

Measures:

• 10-item surveys using a 5-point Likert scale to rank the APP’s knowledge of MA before & after the intervention

• Subjective surveys for current APP screening & documentation practices (pre-intervention) & completion of the intervention (post-intervention)

• Retrospective chart review for MA screening performed by APPs using keywords & DOSE-Nonadherence

Results

Aim 1

• APP knowledge of MA increased by 37.3%.
• The mean score significantly increased from pre-intervention (M = 28.7, SD = 4.8%) to post-intervention (M = 39.4, SD = 3.3%).
• The mean difference between the pre- & post- intervention (M = 10.7, SD = 5.9%) was found to be statistically significant (t(13) = 7.279, p < .001).

Aim 2

• APP screening for MA increased by 69.6%. The relationship between these variables was statistically significant, χ² (1, N = 16), 114.49, p < .001.

Discussion

• Studies are limited specifically evaluating the impact of clinician knowledge on screening rates for MA.
• Screening for MA on admission has the ability to identify at-risk patients, allowing for earlier intervention & elimination of barriers to MA during the hospitalization.11
• An education module on MA increased knowledge among cardiology APPs & documentation of MA screening by cardiology APPs is improved by providing a place in the EMR for documentation.
• Findings suggest there is a need for increased knowledge for MA in cardiovascular patients among cardiology APPs & a demand to integrate a standardized screening tool in the EMR.

Limitations

• May not be representative of the population due to convenience sample.
• Limit generalizability & confounders may be present due to lack of randomization.
• Lacked a validated tool for surveys & was not piloted before use to assess for validity & reliability.
• Viewing of the education module did not have objective means of assessment.
• Attrition: 51.5% of the data was missing, which was likely due to survey fatigue & competing professional priorities.

Conclusions

• Educating APPs on MA & providing a valid & reliable MA screening tool in the EMR can improve APP knowledge & screening in cardiovascular patients upon admission to the acute care setting.

• Translation to practice:
  • Dissemination of finding at different levels within the organization
  • Organization taking steps to integrate MA screening into the permanent EMR

• Future projects/research:
  • Specific populations including patients undergoing evaluation for advanced heart failure therapies
  • Identification of reasons for nonadherence & interventions for medication nonadherence

References