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Mirna Becevic

University of Missouri, USA

DERMATOLOGY ECHO: INNOVATIVE TELEMEDICINE ONE-TO-MANY FORCE MULTIPLIER

Statement of the Problem: Access to specialty medical care for rural and underserved patients is challenged by maldistribution of specialists who primarily practice in urban areas, and barriers such as cost, distance, and time away from work or school. In addition, many primary care providers (PCPs) report low self-efficacy in diagnosis, treatment and management of complex and costly diseases. The purpose of this study is to describe the Dermatology ECHO (Extension for Community Healthcare Outcomes) approach in improving access to care by increasing PCPs' capacity through their perceived confidence and self-efficacy. Dermatology ECHO is a multidisciplinary platform for virtual tele-mentoring of PCPs.

Methodology & Theoretical Orientation: Our comprehensive approach to program evaluations includes both qualitative and quantitative analysis. Aggregate data is collected to help us understand the impact of number of participants, number of sessions, number of continuing medical education (CME) credits awarded, as well as specific didactic topics. We also assess Medicaid claims data in terms of provider prescription patterns and patients' use of healthcare system (outpatient and inpatient visits, emergency room visits, etc.). Pre and post self-efficacy surveys are used to learn more about provider confidence and learning patterns.

Conclusion & Significance: Dermatology ECHO provides virtual support and mentoring in diseases that are common, chronic and complex. Weekly sessions include CME-approved didactic and up to 7 de-identified patient cases. Initial analyses indicate a statistically significant increase in participating providers' diagnostic accuracy after 12 months of participation in ECHO tele-mentoring program. In addition, we observed an increase in self-efficacy and practice change. While traditional telemedicine has been successful in addressing direct patient care over the past four decades, its main limitation of providing one-to-one direct care still remains. Project ECHO provides a structural model for tele-mentoring that can be replicated in any disease state.

Biography

Mirna Becevic is an Assistant Research Professor at the University of Missouri, Department of Dermatology. She is a Health Informaticist, with primary research focus on improving access to care for rural and underserved patients with tele health and telemedicine. In particular, she studies early detection of melanoma through combined efforts of teledermatology and computerized image analysis. As a lead evaluator for the Show-Me ECHO program in eight different specialties (dermatology, pediatric asthma, child psychiatry, chronic pain management, health ethics, autism, opioid use disorder, and hepatitis C), she has developed effective evaluation measures and laid groundwork for data-driven approach to understanding impact of tele-mentoring on provider practice change and patient outcomes. She served as a member of the board for Region VII Health Equity Council with the US Department of Health and Senior Services from 2011-2013, advancing the agenda to eliminate health disparities.

becevicm@health.missouri.edu