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## Enhancing Student Nurse Practitioner Communication Skills in Adolescent Depression Screening through Virtual Simulation

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### **Abstract:**

**Problem Statement:** Adolescents are experiencing increasing levels of depression, which can lead to long-term health consequences. Primary care providers must be equipped to screen for depression and engage in sensitive conversations with at-risk youth. However, novice nurse practitioners (NPs) often lack the communication skills necessary to effectively conduct these conversations, resulting in gaps in care.

**Purpose:** This project aimed to explore the effectiveness of a virtual simulation experience on NP students' communication skills related to adolescent depression screening.

**Background/Significance:** NPs are essential in identifying and managing adolescent depression in primary care settings. Despite didactic preparation, novice NPs may struggle to apply screening tools and engage in difficult conversations during clinical encounters. Virtual simulation offers a promising pedagogical strategy to augment student learning and improve clinical preparedness and communication competencies.

**Methods:** This IRB-approved, evidence-based DNP project used a quasi-experimental pre- and post-test design. NP students in their final clinical year at one university participated in a generative-AI virtual simulation focused on interpreting and discussing the Patient Health Questionnaire Modified for Adolescents (PHQ-A) with simulated adolescent patients. Inclusion criteria included completion of relevant didactic content. Communication skills were assessed at baseline, and post-simulation, using the SEGUE Framework. Changes in scores were analyzed using a paired samples t-test.

**Results:** Twenty-seven NP students enrolled in the pediatric, family, adult, and mental health NP programs completed the simulation. Results showed a significant improvement in communication skills ( $t(26) = 4.67, p < .001$ ) with a large effect size (Cohen's  $d = .90$ ). Participants also demonstrated improved accuracy in scoring the PHQ-A.

**Discussion/Conclusion:** Virtual simulation effectively enhances NP students' communication skills and clinical readiness to address adolescent depression. This methodology supports improved pediatric outcomes and offers a model for MSN and DNP curricula. Future directions include expanding simulation experiences and evaluating long-term skill retention.

This project received IRB approval from Holy Family University and Villanova University. No funding was received.

**Keywords:** adolescent depression screening, nurse practitioner students, virtual simulation, communication skills