

A Systematic Review of Care

Coordination and its Effects on Type Two

Diabetes Mellitus Health Outcomes

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Terri, Hillary, Sierra, and Audrey are nursing students at the University of Wisconsin- Madison with anticipated graduation in May of 2017. This systematic review was undertaken as an assignment for *Introduction to Systematic Investigation*, a course requirement for the Bachelors of Science in Nursing program.

### Abstract

In the United States Type Two Diabetes (DMII) affects approximately 8.3% of the population, is the 7<sup>th</sup> leading cause of death and accrues \$116 billion/year in direct medical costs. Methods of outpatient care coordination are central to effective medical care for patients with DMII and the involvement of nurses in these efforts shows great promise in reducing HbA1c and thus health outcomes in the DMII population. The goal of this systematic review is to determine whether the implementation of care coordination is effective in improving health outcomes for patients with DMII as determined by reduction in HbA1c levels. Methods of care coordination were evaluated by comparing baseline and three month post-intervention HbA1c. This review includes primary, quantitative research studies which meet the following inclusion criteria: medical diagnosis of DMII, 18 years<sup>+</sup>, patients followed for a minimum of three months, baseline HbA1c recorded and measured three months post-intervention. All studies were written in English and conducted between January 1, 2006 and February 26, 2016. Seven quantitative studies were included after screenings and quality appraisals were performed. Within the articles were eight interventions, seven of which were shown to be effective in reducing HbA1c by a clinically significant amount:  $\geq 0.5\%$  with a mean reduction of 0.94%. All studies involved nurse led interventions and at least two of the following aspects of care coordination as defined by the authors: aligning care to patient centered goals, communicating knowledge among providers, providing education through a multidisciplinary approach, ongoing patient monitoring and updating plan of care, and appropriate resource referral. Further, interventions include online disease management, educational programs, nurse case management, motivational interviewing, nurse community health work, and outpatient intensive nurse management. This review shows that the utilization of nurse led care coordination has great potential for reducing HbA1c and improving health outcomes in DMII patients.