



Contents lists available at ScienceDirect

Journal of Interprofessional Education & Practice

journal homepage: <http://www.jieponline.com>

Test of an interprofessional collaborative practice model to improve obesity-related health outcomes in Michigan



Jean Nagelkerk ^{a, *}, Ramona Benkert ^b, Brenda Pawl, FNP-BC ^a, Amber Myers ^c, Lawrence J. Baer ^d, Ann Rayford ^e, Scott J. Berlin ^f, Kimberly Fenbert ^g, Holly Moore ^h, Mark Armstrong ⁱ, Drew Murray ^j, Phyllis D. Boone ^k, Sandra Masselink ^f, Carly Jakstys ^e

^a Office of the Vice Provost for Health Grand Valley State University, 301 Michigan St. NE, Suite 400, Grand Rapids, MI 49503, USA

^b Wayne State University, College of Nursing, 5557 Cass Ave., Suite 201 Detroit, MI 48202, USA

^c MDHHS, South Grand Building, 333 South Grand Avenue, 5th Floor, Lansing, MI 48933, USA

^d 5540 Chauncey Dr. NE, Belmont, MI 49306, USA

^e Nursing Practice Corporation, Wayne State University, 5200 Anthony Wayne Drive, Suite 115 Detroit, MI 48202, USA

^f Grand Valley State University, 401 W. Fulton Street, Grand Rapids, MI 49504, USA

^g North Ottawa Pediatrics, 1310 Wisconsin Street, Suite 204, Grand Haven, MI 49417, USA

^h William Beaumont Hospital, 15867 Howard Dr., Macomb, MI 48042, USA

ⁱ Spectrum Health Medical Group Family Medicine, 2111 12 Mile Road, Sparta, MI 49345, USA

^j Innovation & Impact Michigan Health Council, 2121 University Park Drive, Okemos, MI 48864, USA

^k Michigan Primary Care Partners Eastside, 8540 105th Avenue, Stanwood, MI 49346, USA

ARTICLE INFO

Article history:

Received 18 May 2017

Received in revised form

7 December 2017

Accepted 13 February 2018

Keywords:

Interprofessional education

Interprofessional collaborative practice

Obesity

Study

Nurse managed center

Interprofessional education program

Obesity study

ABSTRACT

The purpose of the study was to test the effectiveness of an interprofessional collaborative practice (IPCP) education program on clinicians' and students' knowledge and attitudes toward IPCP and to determine the effectiveness of an IPCP weight loss program in two nurse-managed centers. The study team used the Midwest Interprofessional Practice, Education, and Research Center (MIPERC) collaborative practice education program that consists of online learning modules followed by daily huddles and collaborative care planning. The obesity intervention program was implemented by faculty and staff practitioners and students in two clinics with very different patient populations (community residents and college students). Staff/faculty practitioners and students demonstrated statistically significant knowledge gains as a result of online learning modules (Introduction to IPE $p < .05$; Motivational Interviewing $p < .001$; Safety Behaviors $p < .001$; Team Dynamics $p < .001$). Small, but not statistically significant changes in attitudes toward IPCP were seen with both groups. At program completion, enrolled patients showed statistical significant ($p < .001$) weight losses and decreases in body mass indices. Other health outcomes showed no significant changes (blood pressure, prevalence of smoking, exercise frequency or duration $p > .05$). The study demonstrated the potential of an IPCP program to affect weight loss in two populations.

© 2018 The Authors. Published by Elsevier Inc. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

1. Introduction

Obesity is a major health problem and the USA has one of the highest rates of obesity when compared to other industrialized countries in the world.¹ In Michigan, the adult obesity rate is 30.7% and the state ranks as 17th in the USA.² Due to the high rate of occurrence and associated co-morbidities affecting population health, Michigan's governor has made obesity and team-based, patient-centered care a priority health care initiative.³ The Governor based his recommendations on a recent Institute of

* Corresponding author.

E-mail addresses: nagelkej@gvsu.edu (J. Nagelkerk), ramonabenkert@wayne.edu (R. Benkert), pawlb@gvsu.edu (B. Pawl), MyersA1@michigan.gov (A. Myers), baer@iserv.net (L.J. Baer), arayford@nursingpracticecorporation.com (A. Rayford), berlins@gvsu.edu (S.J. Berlin), kfenbert@noch.org (K. Fenbert), ahmmoores@msn.com (H. Moore), Mark.armstrong@spectrumhealth.org (M. Armstrong), mhc@mhc.org (D. Murray), pboone@michiganprimarycarepartners.com (P.D. Boone), masselis@gvsu.edu (S. Masselink), cjakstys@nursingpracticecorporation.com (C. Jakstys).

<https://doi.org/10.1016/j.xjep.2018.02.001>

2405-4526/© 2018 The Authors. Published by Elsevier Inc. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Medicine report,⁴ page 2) which “stresses that, because obesity is such a complex and stubborn problem, a bold, sustained, and comprehensive approach is needed.”

To support these priorities and with a funding opportunity to test an interprofessional team-based approach (Health Resources and Services Administration [HRSA] of the U.S. Department of Health and Human Services [HHS], grant number UD7HP25052), a unique partnership was formed, founded on a belief that to be effective, weight management interventions should be interprofessional using collaborative approaches.⁵ The partnership included the Michigan Department of Health and Human Services (MDHHS) Primary Care Office (PCO), two universities and their nurse-managed centers, the Michigan Area Health Education Center (MI-AHEC), and an organization dedicated to developing a healthcare workforce, the Michigan Health Council (MHC). The goals of the partnership were in alignment with the mission of the *National Center for Interprofessional Practice and Education* to seek evidence to demonstrate a relationship between interprofessional collaborative care, health professions education and health outcomes.⁶ The PCO selected two universities, Grand Valley State (GVSU) and Wayne State (WSU), to participate in the implementation and evaluation of an interprofessional collaborative practice program (IPCP) at their nurse-managed sites. The PCO convened and GVSU provided the lead for the funded study with the goal of strengthening interprofessional collaborative practice statewide. This study was undertaken in coordination with the efforts of the Michigan Health Council (MHC) and Michigan Area Health Education Center (MI-AHEC) which have a mutual goal to spread interprofessional collaborative practice statewide.

2. Background

Currently, there is a renewal of interest in interprofessional education (IPE) and IPCP.⁷ IPE and IPCP requires collaborative skills including mutuality, shared leadership and responsibilities, and teamwork with good communication, clarity of roles and responsibilities, negotiation skills, and cooperation.^{8–10} Collaboration skills are founded on an understanding of team dynamics and the goals of collaborative care and patient safety.

Evidence for the effectiveness of IPE and IPCP to improve collaborative skills and positively affect patient outcomes is emerging.^{11–13} However, the IOM suggests that stakeholders need to commit resources to build the evidence-base for IPE and IPCP using a mixed methods approach in academic and practice settings and across a range of patient populations to measure the impact of interprofessional education (IPE) on collaborative practice behaviors and patient outcomes.¹⁴

To date, the majority of IPE and IPCP studies have focused on pre-licensure students and post-licensure practitioners using educational interventions (e.g., courses with or without field placements, workshops) and have documented improved attitudes toward IPE and/or IPCP.¹³ Nursing and medicine are two of the most common disciplines included in previous studies followed by physical therapy, pharmacy and social work.¹⁵ The majority of educational outcome studies used self-reports with few studies measuring actual behavior changes. A recent study showed that an interprofessional curricula with interactive sessions for social work, medicine, nursing, pharmacy and nutrition students improved participants' attitudes and values toward interprofessional practice but not their knowledge about other disciplines.¹⁶ From two recent scoping reviews,^{13,15} authors concluded that most research on IPE or IPCP emphasized the “intermediate” outcomes of changes in attitudes, values and knowledge and few studies focused on patient outcomes. The Cochrane Report¹³ shows that, of the fifteen qualifying studies for inclusion, seven produced positive patient

outcomes, four studies had neutral or positive patient outcomes and four studies reported no changes on patient outcomes.

Multi-disciplinary care has been shown to achieve clinically significant and substantial weight loss in obese and overweight adults.^{17–19} The majority of studies were randomized controlled trials^{17,18} and few took place in primary care settings. Randomized controlled trials, while the gold standard for proving the effectiveness of an intervention, often employ limited samples and are not easily translated into daily practice. In these studies it was not clear if practitioners used an IPCP approach or if patient subjects interacted with practitioners from various disciplines who, although working together, were not functioning as interactive team members. No identified study explored the effects of IPCP on weight loss specifically.

Given the statewide priority health initiative to address obesity coupled with multiple institutions desiring partnerships to pilot interprofessional experiences across the state for education and practice workforce, our team's overarching aim is to report on the clinical outcomes of these experiences. The purposes of this paper are to present study findings related to: 1) the effectiveness of the interprofessional collaborative practice (IPCP) educational program on clinician and student participants' knowledge and attitudes toward IPCP; and 2) the results of implementing the IPCP weight loss program on obesity health related outcomes in the two nurse managed centers.

3. Methods

Clinic participants (N = 290) were self-selected to participate in the weight loss program with the inclusion criteria of a BMI 25 or higher. Since the study design sought to satisfy a dual purpose, that of testing an interprofessional team approach for weight loss in two distinct populations and in two disparate physical locations, the research team used pre vs. post design for this study. Baseline values (pre-intervention) were recorded at the subject's first visit and values for these same variables tracked at each subsequent visit. Values recorded at program completion were used as the post-intervention variable set. Faculty, staff and students at the two College of Nursing's nurse managed centers and patients who enrolled in their IPCP weight loss programs participated in the study. The nurse managed centers included Grand Valley State University's Kirkhof College of Nursing's Family Health Center (FHC) in Grand Rapids, Michigan and Wayne State University College of Nursing's Campus Health Center (CHC) in Detroit, Michigan. The FHC serves approximately 5000 patients in an urban transition neighborhood population, of which, almost 80% of the residents live below the poverty line. The CHC is an on-campus facility available to the university population of over 33,000 students. Students utilizing the clinic are characteristically under- or uninsured, and are from medically underserved areas and diverse backgrounds.

3.1. IPCP education program

The interprofessional collaborative practice education program tested for this study was developed by the Midwest Interprofessional Practice, Education, and Research Center (MIPERC). The MIPERC was established in 2007 as a regional inter-institutional infrastructure to implement interprofessional education, collaborative practice and research for the improvement of healthcare in regional communities. The IPCP education program was developed in response to a need for interprofessional education for academic faculty/staff, students, and preceptors providing internship experiences for student learners at their assigned site. The MIPERC, on-line, IPCP educational core program contains foundational

Download English Version:

<https://daneshyari.com/en/article/8572765>

Download Persian Version:

<https://daneshyari.com/article/8572765>

[Daneshyari.com](https://daneshyari.com)