KTI 8. EDUCATIONAL INTERVENTIONS FOR HEALTHCARE PROFESSIONALS

WHAT ARE EDUCATIONAL INTERVENTIONS FOR HEALTHCARE PROFESSIONALS?

EDUCATIONAL INTERVENTIONS FOR HEALTHCARE PROFESSIONALS DESCRIPTION:

- Using a range of modalities, educate healthcare professionals about topics in which behaviour change is sought.
- Modalities include:
    - Small-group teaching
    - Longitudinal relationships with patients
    - Role-playing
    - Writing/portfolio development
    - E-mail/ electronic communication
    - Book club
    - Video documentary

EDUCATIONAL INTERVENTION FOR HEALTHCARE PROFESSIONALS GOAL(S):

- Increase healthcare professionals' knowledge of a clinical topic and improve their care towards those patients.

CURRENT FINDINGS OF THE EVIDENCE:

- Only two studies measured patient outcomes along with learner outcomes making it difficult to infer a meaningful impact on the quality of patient care derived from these educational interventions as a whole.
- Numerous studies in this review detected that the educational intervention made a meaningful difference for their learners.
- Behaviours were most successfully changed when learners could track, reflect, and improve on their own progress as part of a learner-based quality improvement initiative.

POINTS TO KEEP IN MIND:

- The review focused on improving care delivered to patients with chronic conditions by physicians and used the Wagner's chronic care model (CCM) to assess training quality.

SYSTEMATIC REVIEW OF THE EVIDENCE FOR EDUCATIONAL INTERVENTIONS FOR HEALTHCARE PROFESSIONALS

Source: Bogetz JF, Rassbach CE, Bereknyei S, Mendoza FS, Sanders LM, Braddock CH. Training health care professionals for 21st-century practice: A systematic review of educational interventions on chronic care. Academic Medicine. 2015 Nov 1;90(11):1561-72.

EVIDENCE FROM THE SYSTEMATIC REVIEW	
Description of Educational Interventions	Modalities used to teach about chronic care: • Didactics (teaching) (n=14, 63.6%), • Reflective exercises (n=9, 40.9%), • Clinical rotations (n=8, 36.4%), • Working with inter-professional teams (n=6, 27.3%), • Home visit (n=4, 18.2%).
Setting	Healthcare settings: Hospitals Healthcare topic: Chronic diseases such as diabetes, asthma, heart disease Study location: Not identified
Intervention Deliverer	Unspecified
Intervention Recipient	Nurses, pharmacists, advanced practice nurses, undergraduate/graduate medical education learners, pharmacy students, social work students.
Quality of the systematic review	AMSTAR 8/9 (done by McMaster Health Forum)
Quality of studies included in systematic review	3 High quality 12 Medium quality 7 Low quality
OUTCOMES FROM SYSTEMATIC REVIEW	
Comparisons:	1. Specified educational intervention vs. no education
Patient clinical outcomes:	Improvement for patients of the intervention group included: • More planned visits and health assessments • Receipt of retinal exam/foot exam • Improvements in patients' HbA1C, LDL, BP • Documentation of self-management goals
Health care provider process outcomes:	Improvements in healthcare provider behaviour included: • Changes in learner participation in reviewing a patient registry (+48.1% change in average from baseline) • Setting self-management goals with patients (+33.8%) • Conducting planned visits (+40.3%) • Managing clinical questions (+68.1%) • Being part of a quality improvement cycle (+63.8%) However, the intervention showed no impact on learners participating in quality improvement teams (−0.3%). Evidence of concrete changes in learner behaviour included the improved ability to address patient self-management needs and track the learner's own quality of chronic care delivery.
System/organization outcomes:	Costs and necessary resources for curricular implementation were not addressed.

OPERATIONALIZATION OF EDUCATIONAL INTERVENTIONS FOR HEALTHCARE PROFESSIONALS

KEY ASPECTS OF SUCCESSFUL EDUCATIONAL INTERVENTIONS INCLUDE:

- Redesigning health care delivery systems to foster team-based care
- Emphasizing training of health care professionals on patient self-management
- Incorporating learner-based quality improvement initiatives.

The most efficacious educational interventions are likely to incorporate learner reflection, decision support, delivery system design, and shared self-management goals in their design.

STUDY EXAMPLE OF EDUCATIONAL INTERVENTIONS FROM THE SYSTEMATIC REVIEW

Source: Stevens DP, Bowen JL, Johnson JK, Woods DM, Provost LP, Holman HR, Sixta CS, Wagner EH. A multi-institutional quality improvement initiative to transform education for chronic illness care in resident continuity practices. Journal of General Internal Medicine. 2010 Sep 1;25(4):574-80.

STUDY INFORMATION	
Goals of Intervention	To improve the care and outcomes of adult patients with type 2 diabetes by teaching interprofessional teams of learners the principles and practices of the Improving Chronic Illness Care Model.
Description of Intervention	Improving Chronic Illness Care (ICIC) Model, delivered through team management and guides primary care practices helping healthcare providers develop higher-quality care for patients with chronic illnesses. Interprofessional care teams received education training about diabetes care based on the ICIC model. The Curriculum was developed and delivered by interprofessional faculty members. Intervention team members participated in the chronic illness curriculum for one half-day each week, which included: • A 60-minute didactic presentation • A 30- minute clinical discussion session that focused on patient management and quality improvement, • 2.5 hours of clinic visits with patients. A supplemental online course focusing on the practical management aspects of diabetes was also made available. Weekly presentation topics included various aspects of diabetes care such as: • Insulin management • Use of oral antidiabetic agents • Hypertension and diabetes • Lipid management in diabetes

	• Aspirin use • Glucose monitor instruction and use • Foot care • Nutrition • Exercise • Motivational interviewing • Patient self-management Population-based quality improvement was taught and included learning about planning and implementing quality improvement projects using the Plan, Do, Study, Act (PDSA). Learners developed and tested their quality improvement projects using the PDSA strategy. Control Usual care by internal medicine residents only (no team).
Setting	Community (medical clinic)
Intervention Deliverer	Interprofessional faculty
Intervention Recipient	Interprofessional team including primary care internal medicine residents, nurse practitioner students, and pharmacy students
Quality of the Study	High quality
STUDY OUTCOMES	
Comparison	1. Interprofessional team educated using the ICIC model vs. internal medicine residents.
Health Care Provider Process Outcomes	Interprofessional team care by learners was effective in improving quality of care for adult patients with diabetes treated in general medicine clinics. Intervention patients more frequently received assessments of: • HbA1c (79% versus 67%; P = .01) • Low density lipid-cholesterol (69% versus 55%; P = .009) • Blood pressure (86% versus 79%; P = .08) • Urine microalbumin (40% versus 30%; P = .05) • Smoking status assessment (43% versus 31%; P = .02) • Foot exams (38% versus 20%; P = .0005) However, there were no significant differences between groups at the final assessments for any clinical status measures. Intervention patients had significantly more planned general medicine visits than did control patients. Patients also had fewer emergency room visits and hospitalization although these results are not statistically significant.