

The Other 45: Enhancing Chronic Disease Management

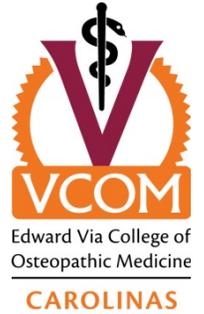


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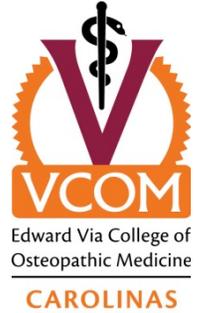
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Objectives

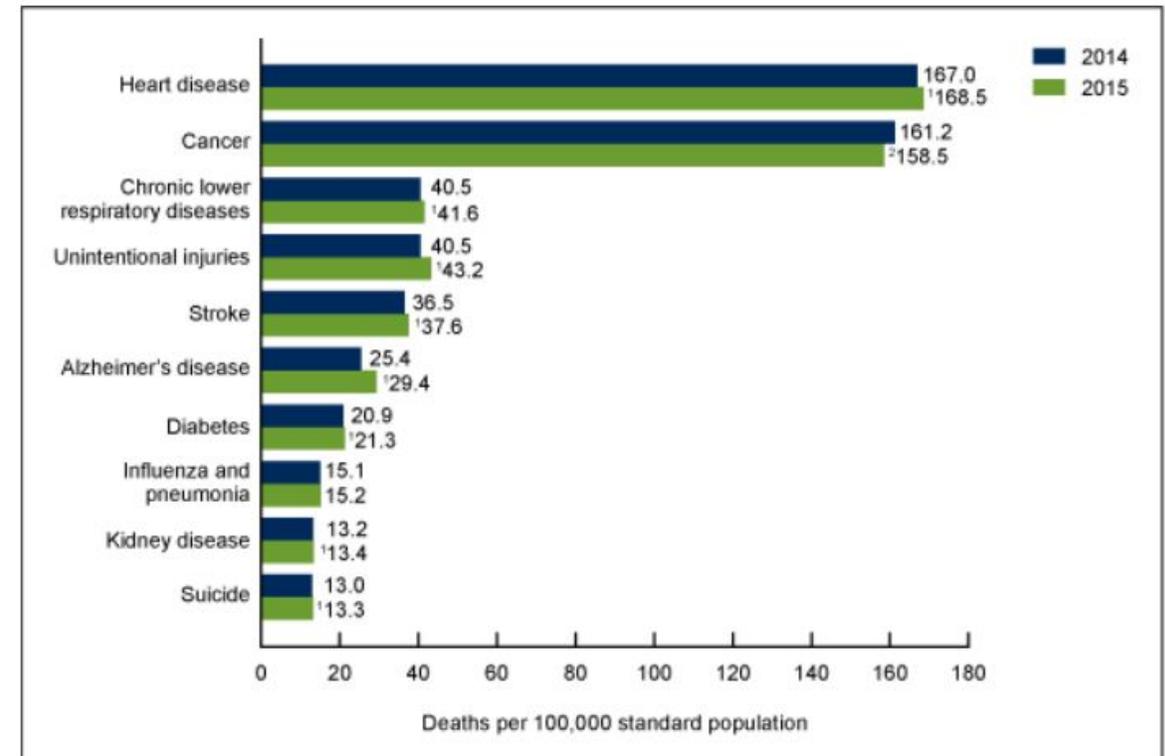


1. Understand a novel approach, The Other 45, to improving the management of chronic disease through patient education
 2. Recognize barriers that are present and thus inhibiting patients from receiving maximum benefit from their medical management of chronic diseases
 3. Recall the impact of The Other 45 on both patient and osteopathic medical student outcomes
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Chronic Disease Burden

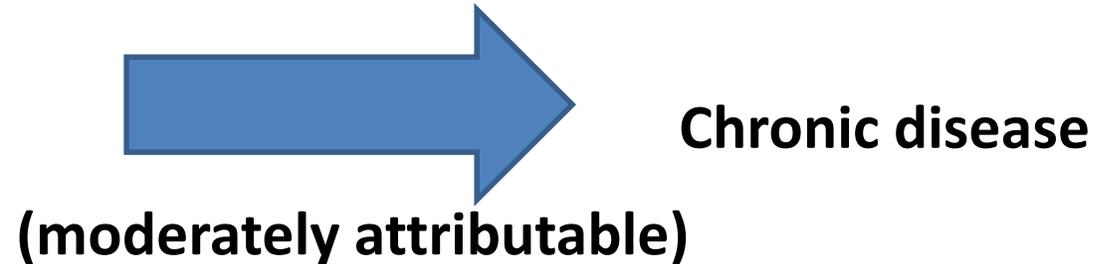
- In 2012, it was estimated that half (117 million) of all US adults have a chronic disease diagnosis¹ and they account for seven out of ten deaths each year.²
- 86% of the nation's \$2.7 trillion annual health care expenditures are for people with chronic and mental health conditions (CDC)

Figure 3. Age-adjusted death rates for the 10 leading causes of death in 2015: United States, 2014 and 2015

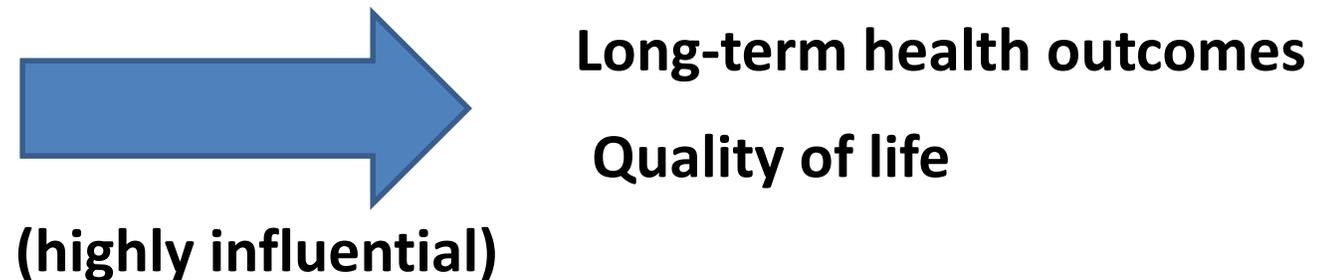


Chronic Disease Prevention

- Obesity
- Tobacco use
- Poor diet
- Inactivity

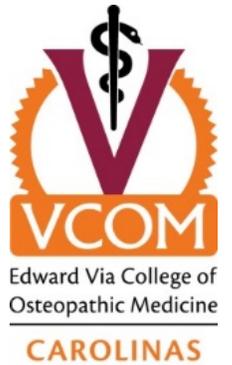


- The role of the patient
- Self-management level





The Other 45



- Physician office visits - often times scheduled for 15 minutes.
 - During that time period, what takes place?
 - History-taking, physical exam, diagnosis, prescribe treatment, documentation, follow up plan
 - Often times patients have multiple complaints
 - Time allotted to ensure patients have an adequate comprehension of the diagnosis and treatment plan is often minimal
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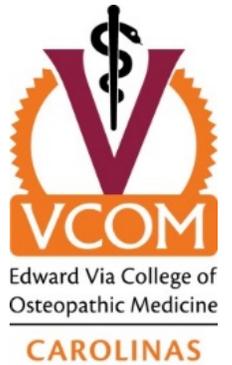
The Other 45

- The Other 45:
 - Patients with chronic medical conditions
 - 45 minutes per visit
 - Discuss diagnosis, treatment plan, medication effects, side effects to medications, follow up plan, preventative health measures



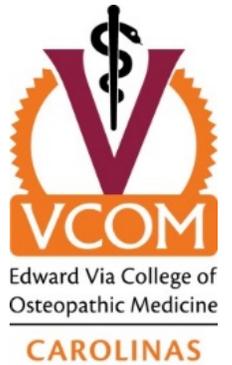


Research Objectives



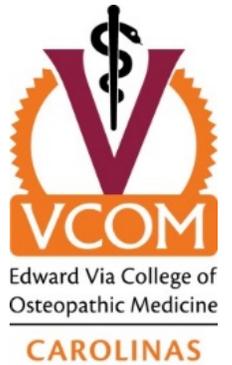
- To determine if patients who participate in the Other 45 show improvements in their health outcomes as well as in their ability to manage their chronic disease(s).
 - To determine if an OMS-II will display more confidence, will be able to provide better patient-centered communication, and will have more confidence in their basic medical knowledge of hypertension, diabetes, and chronic obstructive pulmonary disease (COPD).
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Methods



- The Other 45 Program
 - Developed based on a community needs assessment
 - Initially piloted at a local free health clinic
 - Implemented as part of the Early Clinical Experience at VCOM- CC during the 2016-2017 academic year
 - Implemented at two free clinics and one FQHC in Spartanburg, SC
 - Scripts were provided to help guide conversations
 - VCOM faculty oversaw the program at each site
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Methods



Patient Population

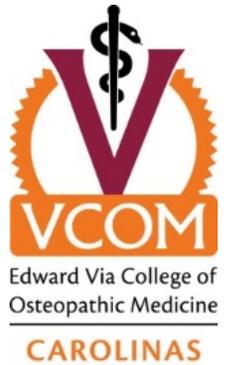
- Participant Eligibility
 - Previous diagnosis of diabetes, hypertension or COPD
 - 18 years of age or older
 - Speak and understand English
 - Able to read and complete the questionnaire
 - Life expectancy greater than six months

Student Population

- Student Eligibility
 - All currently enrolled OMS-II who were scheduled to participate in the Other 45 (120 students) were eligible and recruited to participate in the study

Methods

Patient Procedures

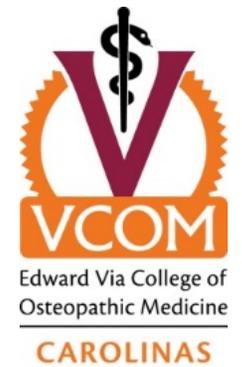


- Recruitment
 - Medical records review, patients were contacted via telephone and scheduled an appointment for The Other 45 program.
 - Those with an existing appointment to see a physician and met the criteria were referred by the physician to Other 45 and participated the same day as the appointment
 - Informed Consent
 - Attend Three Visits
 - Initial visit
 - 3 week follow-up
 - 3 month follow-up
 - Those who attended all three visits received a gift card as compensation
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Methods

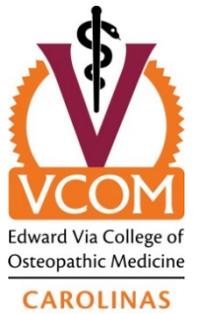
Patient Procedures



Procedures and Measures	Diabetic Patients	Hypertensive Patients	COPD Patients
heiQ (1 st , 2 nd , 3 rd visit)	X	X	X
“The Other 45”	X	X	X
Blood Pressure (1 st , 2 nd , 3 rd visit)	X	X	X
Hemoglobin A1C levels (1 st , 3 rd visit)	X		
Oxygen Saturation (1 st , 2 nd , 3 rd visit)			X
Clinical COPD Questionnaire (CCQ) (1 st , 2 nd , 3 rd visit)			X

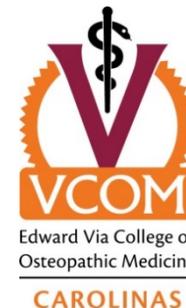
Methods

Student Procedures



- Given a formal presentation on proper teaching principles
 - Students recruited one week prior to clinic day via email
 - Completed pre and post survey via Qualtrics
 - Measurement Tool Adapted from:
 - Patient-Practitioner Orientation Scale
 - Harvard medical school Cambridge Integrated Clerkship Evaluation
 - The C3 instrument – Communication, Curriculum and Culture
 - Survey measured three domains
 - Patient Centered Care
 - Confidence
 - Medical/teaching knowledge
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Patient Results



Demographics	
Gender	n (%)
Male	14 (29.8)
Female	33 (70.2)
Age	
18-40	4 (8.5)
41-50	6 (12.8)
51-60	24 (51.06)
61-70	10 (21.3)
>70	3 (6.4)
Education	
Less than HS Diploma	4 (8.5)
HS Graduate	26 (55.3)
Some College	8 (17.0)
College graduate	4 (8.5)
Missing	5 (10.6)
Clinic Location	
Free Clinic 1	11 (23.4)
Free Clinic 2	11 (23.4)
FQHC	25 (53.2)

Health Measurements					
	Baseline Mean	3-Week Follow-up Mean	3-Month Follow-up Mean	P-value	95% CI
CCQ	23.6	22.4	21.2	N/A	N/A
BP	Systolic	136.5	130.9	0.14	(-12.6-3.74)
	Diastolic	83.3	81.3	0.14	(-5.76-1.76)
Hemoglobin A1C (n=13)	8.8	N/A	8.3	0.36	(-0.94-0.49)

Patient Results

	Baseline to 3-Week Follow-up (n=35)					Baseline to 3-Month Follow-up (n=26)				
heiQ Scales	Baseline	Follow-up	Change from Baseline	p-value	95% CI	Baseline	Follow-up	Change from Baseline	p-value	95% CI
Skill and technique acquisition	3.09	3.33	0.24	0.01	0.08-0.41	3.02	3.15	0.13	0.00	-0.09-0.36
Constructive attitudes and approaches	3.29	3.52	0.23	0.01	0.06-0.40	3.17	3.38	0.21	0.08	-0.03-0.44
Health service navigation	3.39	3.58	0.18	0.03	0.02-0.35	3.38	3.43	0.05	0.57	-0.14-0.24
Self-monitoring and insight	3.11	3.30	0.19	0.07	-0.01-0.40	3.09	3.35	0.26	0.01	0.08-0.43
Positive & active engagement in life	3.07	3.27	0.19	0.04	0.01-0.38	3.00	3.24	0.24	0.03	0.03-0.45
Emotional distress	2.38	2.09	-0.29	0.003	-0.45- -0.12	2.49	2.23	-0.26	0.0007	-0.12- -0.40
Health-directed activity	2.71	2.84	0.13	0.28	-0.11-0.37	2.73	2.78	0.05	0.75	-0.26-0.35
Social integration and support	3.13	3.32	0.19	0.12	-0.05-0.44	3.05	3.20	0.15	0.17	-0.07-0.38



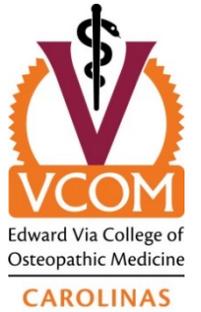
Student Results

Changes in Students' Patient-Centeredness, Confidence, and Medical Knowledge from Before to After Patient Encounter

Domain	Mean (Standard Deviation)	p-value
1. Patient-Centered Care	0.913 (3.248)	0.023
2. Clinical Confidence	2.406 (3.607)	<0.001
3. Medical and Teaching Knowledge	0.899 (2.468)	0.004



Discussion



- The eight scales measured by the heiQ varied in their results highlighting the potential short-term and long-term benefits of the program
 - Similar to other chronic disease self-management programs
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Discussion

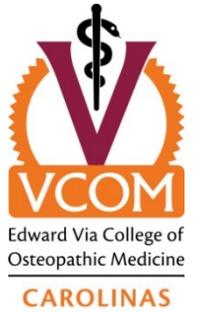
- Program was very beneficial for students – consistent with previous research
 - Moderate increase in patient-centered care
 - This may be attributed to students’ increased awareness of the needs of a patient after spending 45 minutes simply educating and teaching the patient
 - Increase in medical knowledge
 - OMS-II being given an opportunity to directly interact with patients rather than a formal classroom learning environment.
 - Significant increase in the students’ confidence in the clinical setting
 - Likely due to the students being given a low-stress opportunity to interact with real patients

Limitations

- Transportation barriers
- Loss-to-follow-up
- scheduling conflicts
- Length of time spent at the clinic



Conclusion/Future Research



- Participating in The Other 45 **significantly improves** a patient's ability to self-manage their chronic disease
 - It also enhances a medical students' **level of confidence, patient centered care, and knowledge** of three chronic disease processes
 - Future studies
 - Control group
 - Long-term health outcomes
 - Objective measurements in medical knowledge
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Questions

