



Objectives

General: Enhance Expertise in Psychosocial Issues and Promotion of Lifestyle Behavior Change

- Participants will be able to identify:
 - The skills & benefits of health coaching in diabetes care
 - Mind-body skills that may indicate improved outcomes in DM care and DM self-management
- Participants will be able to use "lessons learned" from the University of Virginia and University of Maryland experience with group health coaching and mind-body skills instruction to determine what resources might be needed to offer similar programs in your setting.

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Beyond Diabetes Self-Management Training: Mind-Body Skills in a Group Health Coaching Setting

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University of Virginia

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Today's Plan

- Chronic Health Coaching**
 - Contribution to patient/client coping/health outcomes
 - The University of Virginia health coaching experience
- Mind Body skills**
 - Evidence re: mood & patient/client coping
 - The University of Maryland-Joslin experience
- Group Coaching & Mind-Body Skills- UVA**
 - 3 phases so far!
 - lessons we are learning

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Disclosure to Participants

Conflict of Interest (COI) and Financial Relationship Disclosures:
 Presenter: Cynthia Moore MS, RD, CDE, FADA – no conflicts of interest/financial disclosures to report
 Presenter: Beth Frackleton RN, BSN, MEd – no conflict of interest/financial disclosures to report

Non-Endorsement of Products:
 Accredited status does not imply endorsement by AADE, ANCC, ACPE or CDR of any commercial products displayed in conjunction with this educational activity

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Beth Frackleton
RN, BSN, MEd, CHWC
Chronic Care Coach

UNIVERSITY OF VIRGINIA HEALTH SYSTEM
UVA-WorkMed Occupational Health and Wellness

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Chronic Care Coaching

“A strong body makes the mind strong.”
Thomas Jefferson

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What Can Coaching Accomplish?

- Health coaching has been shown to:
 - Improve adherence to **diet and exercise** recommendations (4,9,11)
 - Improve **glycemic control** in type 2 diabetes (3,7,8,10,11)
 - Improve **blood pressure control** (4,5)

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Why Do We Need Health Coaching?

- The problem of **non-adherence**:
 - **50%** of patients with chronic illness take medications as prescribed (10)
 - **10%** adhere to lifestyle change recommendations (10)
 - Only **5%** engage in **each** of the following six (2):
 - Regular exercise
 - Limited drinking
 - Healthful fat intake
 - Non-smoking
 - ≥ 5 daily servings of fruit and vegetables
 - Maintaining a healthy weight

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Biometric and Behavioral Outcomes

Changes in biometric and behavioral measures following chronic care coaching from Beth Frackleton

Measurement	n	Pre	Post	Change
Systolic BP (mm Hg)	22	120.3	116.1	-4.2 ^b
Diastolic BP (mm Hg)	22	76.8	72.7	-4.1 ^b
Waist Circumference (in)	22	39.2	37.9	-1.3 ^b
Body Mass Index (BMI)	12	35.7	33.8	-1.9 ^b
Fasting Blood Glucose (mg/dl)	10	103.5	92.9	-10.6
Total Cholesterol	10	198.0	180.5	-17.5 ^a
LDL Cholesterol	10	127.7	100.1	-27.6 ^a
HDL Cholesterol	10	50.4	54.3	3.9
Aerobic Exercise (min/wk)	13	49.2	171.2	122.0 ^b
Fruit (servings/day)	18	1.7	2.7	1.0 ^b
Vegetables (servings/day)	18	2.2	3.3	1.1 ^b

^aSignificant at p < .05
^bSignificant at p < .01

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What is Health Coaching?

- Creating **trusting relationships** to give clients the knowledge, skills, and self-efficacy to achieve desired goals in a fulfilling manner (1,6)
- Attributes of the Coach (6):
 - Empathetic
 - Mindful
 - Client-focused
 - Affirming
 - Active listener
 - Collaborative
 - Optimistic
 - Non-judgmental
 - Empowering
 - Zestful

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Testimonials

“The UVA Chronic Care program has provided an invaluable support to help bridge the gaps between visits with medical specialists, physical therapists, and even psychological services. **The care that I have received is personal, integrative, and most importantly, compassionate.** Without this program, I would have given up long ago.”

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Testimonials

“Chronic Care Coaching has provided structure for a diet and exercise program. I needed someone I’m accountable to and who provides motivation. My recent blood tests show a return to normal levels, my energy is up and I’ve lost weight. Beth has given me a **solid foundation on which to build, and helped me find the self-motivation** to stick with the effort.”

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 Registered Dietitian/Nutritionist, Certified Diabetes Educator,
 Emotional Brain Training Provider
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Testimonials

“The support group has **made me feel stronger, more capable of facing challenges, and provided hope** that no other service has granted, without adding the stress of more costs and complicated bureaucracy.”

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Mind-Body Skills

- Skills that enhance the capacity to **respond** rather than merely **react** to physical or mental stressors
- Skills that enhance control of the autonomic nervous system
 - heart rate, BP, stress hormone levels, glucose

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Mind-Body Skills: Examples & Evidence

- Biofeedback (foot warming)₁
- Progressive Muscle Relaxation₂
- Yoga Nidra₃
- Relaxation Response₄
- Yoga₅, Walking, Running
- Meditation₆, Mindfulness Meditation₇
- Writing for Health/Journaling₈

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University of Maryland Pilot Study

- **Participants:** 7 started, 6 completed. 4 women, 2 men, ethnically diverse
- **Self-regulation skills:** these are also called mind-body skills
 - Meditation (relaxation response and mindfulness meditation)
 - Biofeedback with handheld thermistors
 - Guided body scan
 - Progressive muscle relaxation
 - Autogenic training (self-hypnosis)
 - Yoga Nidra (deep relaxation), yoga breathing, hatha yoga poses
 - Tai chi & Qi gong
 - Journal work (personal journal for self-awareness)

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Prior Intervention: Pilot Study of the effects of Mind-Body Skills Training in Type 2 Diabetes

Joslin Center/University of Maryland

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Class/Group Format/Facilitation

- **2 Leaders:** RD, CDE & Wellness Educator
- **Class time:** 1.5 hr. sessions + one 3 hr. mini-retreat class
- **Class materials:** 2 audiotapes (guided imagery & mindfulness), biofeedback forms to log pre post hand temperatures. Recommended use of a companion journal

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A Pilot Study of the Effects of Mind-Body Skills Training in Type 2 Diabetes

- **Group Mind-Body Skills Empowerment class**
 - **Content**
 - Basic diabetes self-care knowledge review – 2 wks.
 - Mind-Body skills instruction and practice – 8 wks.
 - **Tested**
 - Quality of life, Beck Depression Inventory (BDI), wks. 1, 10, 22
 - Salivary cortisol, heart rate and BP pre/post each class
 - Lab measures (A1c, stress hormones, etc.)

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Measures

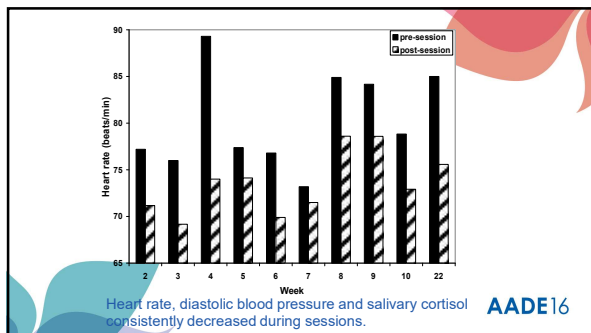
- **Labs:** at weeks 1, 10, 22
 - Hemoglobin A1C; urine fractionated catecholamines (epinephrine, norepi, & dopamine), cortisol via 24 hr. urine collection.
 - Pre/Post each class salivary cortisol
- **Pen and Paper Measures:** at weeks 1, 10, 22
 - BDI – Beck Depression Inventory
 - PAID- Problem Areas in Diabetes 2
 - Holmes and Rahe – Self rating of stressful life events
 - Diabetes Self-Care Activities Measure
 - SF-36 Health Status Questionnaire

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Measures - continued

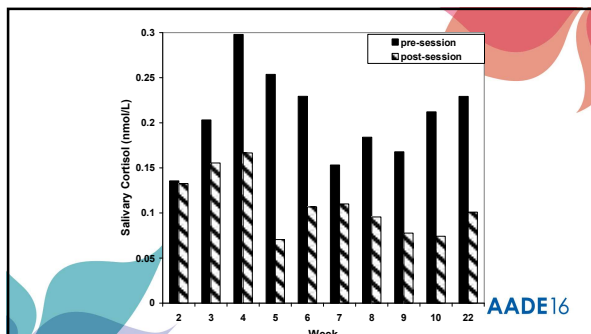
- Blood Pressure
 - Pre/Post each class blood pressures (average of 2)

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What did we find?

Measure	Week 1	Week 10	Week 22	Findings
HbA1c (n=6)	7.7%	7.9%	7.5%	No significant reductions except for 2/6 individuals
Urinary cortisol (n=5)	94 ug/day	59 ug/day	66 ug/day	Wk 1-10 (p=0.06) Wk 1-22 (p=0.19) in 4/5 subjects
Stress hormones (n=5) (Epinephrine, Nor epi, total catecholamines Dopamine)				Wk 1-10 (variable per subj, no net change) Wk 1-22 all had lower dopamine, nor epi and total catechol. (p= 0.06) Wk 1-22 all lower or same epinephrine (p=0.31)



Results During Class

Test	Result	
Salivary cortisol Comparison before & after class	-0.09	P = 0.003*
Heart Rate Comparison before & after class	HR dropped an avg. of 6.4 beats/minute from pre to post session	P= 0.0001*
Blood Pressure Comparison before & after class	BP dropped an avg. of 3.7 mmHg diastolic; 2.4 mmHg systolic	P = 0.0001* – diastolic P=0.10 - systolic
		*Clinically & statistically significant

Quality of Life: Pen & Paper Tests

Test	Wk 1	Wk10	Wk 22	Result
BDI- Beck Depression Inventory	8.4	1.8	1.8	Wk 1-10 (p=0.06) Wk 1-22 (p=0.06)
PAID 2 - Problem Areas in Diabetes	62.0	47.8	45.8	Wk 1-10 (p=0.13) Wk 1-22 (p=0.09)
Holmes & Rahe life stress	181.2	185.2	157.4	No consistent changes in life event scores during the study
Diabetes Self-Care	273.5	273.1	268.1	Wk 1-10 (p=0.84) Wk 1-22 (p=0.81)
SF 36	70.8	80.4	77.3	Wk 1-10 improvements (p=0.38) Wk 1-22 improvements (p=0.09)

Conclusions

“The favorable short-term physiological changes and quality of life improvements seen in these subjects suggest that mind-body skills training may offer individuals with diabetes additional self-management tools for decreasing cardiovascular risk factors and managing stress or depression.”

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Phase I: Plan to do run a pilot Offer Class to UVa Employees
(7 Weeks Toward Wellness)
 planned a March 2016 start

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Appreciation for Joslin/U MD Team

- Janine Denis Cook, PhD
- Tom Donner, MD
- Deborah Young-Hyman PhD
- Jane Kaufman-Marinelli MS, LMT
- Toni Pollin, PhD
- (Cynthia Payne Moore, MS, RD, CDE)

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UVA Group Coaching + Mind-Body Skills Training Group *“7 Weeks Toward Wellness”*

Facilitators/Coach Instructors: 2
 Group/Class Size: 10 people or fewer
 Class Sessions: 7 group classes,
 -new mind-body skill each week, review prior skills
 -review one aspect of Diabetes Self-Care 7

Individual Sessions: 2 individual meetings/person with a health coach, scheduled 1st and last week of group classes

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Current Research & Lessons Learned
University of Virginia

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Phase I : lessons learned

- **Challenges**
 - Inadequate time for marketing & communication (3-5 versions of flyers, dropped price, deeper discounts)
 - Anticipated more support from employers & potential funders
 - Out of pocket client cost proved challenging
- **Life & research lessons!**
 - Reframing/opportunity to “notice what is”
 - **CAN be a route to reach people who have been out of care
 - Opportunity to gain research partners

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Phase II- submitted grant to DCE/Academy of Nutrition & Dietetics

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Phase III : lessons learned

Preparation is golden!

Lessons

1. Small can be best for first group.
2. 2 pen and paper tests is plenty. Have a plan/cutoff for significant depression scores.
3. Blood pressure & heart rate can be used as in-session biofeedback.

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Phase II : lessons learned

- **Challenges**
 - Unknown timeline on grant approval, therefore unknown funds available for research

Lessons

- Delays can help clarify study components & outcomes
- Research training, CITI – ethics, etc.
- Grant writing & IRB proposals
- Alternatives to “ideal” outcome measures

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Challenges: 7 Weeks Toward Wellness

- **Assessing best duration of group: 7-12 wks**
 - Is there time for them to learn, practice & see benefits?
 - Cost & time commitment for longer groups
- **Initial health/skill/knowledge level of group:**
 - Best if similar. Can set requirements for preliminary DMSMT
- **It’s a lot to include-DM Self-care with Group Health Coaching & Mind-Body skills practice**

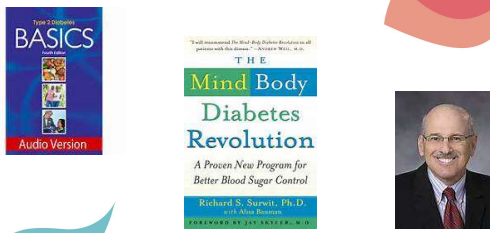
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Phase III- Return to original clinical pilot study

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**Resources
Coaching & Mind-Body Skills Training**

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Training Resources

- Mind Body Self-Regulation Mindfulness
 - Center for Mind-Body Medicine
 - Integral Yoga
 - Mindfulness Based Stress Reduction (MBSR)
- Health Coaching
 - Wellcoach Training
 - Duke Integrative Health Coach Training
 - Arizona Integrative Health Coaching

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