

Current Evidence for Successful Diabetes Self-Management Support (SMS)

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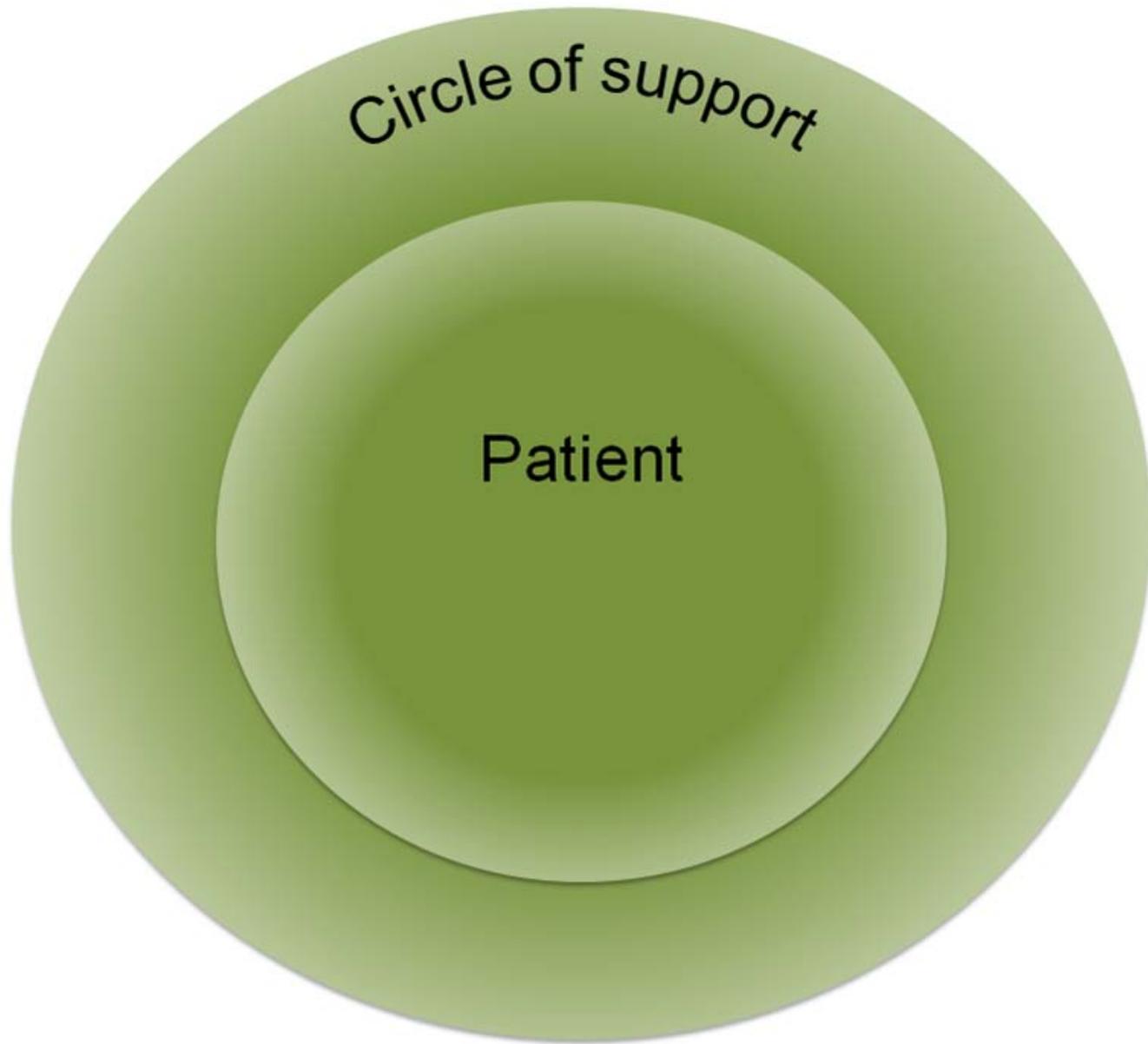
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Fraser River at Hope, BC



What Do We Hope to Accomplish?

- Define self-management support and self-management education
- Review evidence-based principles for self-management support in general and specific to diabetes
- List one example of how you plan to change your practice as a result of the training





Self-Management Support Defined

The assistance caregivers give patients and their self-defined circle of support so patients can manage their conditions on a day-to-day basis and develop the confidence to sustain healthy behaviors for a lifetime.

– Bodenheimer, 2005

Self-Management Education Defined

Programs that are based on patient-perceived problems and address three self management tasks:

- Medical or behavioral management
- Role management
- Emotional management

and build skills in problem-solving, decision-making, taking action, forming a patient/health care provider partnership and resource utilization. These skills can be applied in any chronic condition.

– Based on Lorig and Holman, 2003

Condition-Specific Self-Management Education

Facts and technical skills about a particular disease, risk factor, symptom or condition, such as disease-specific knowledge, monitoring, and treatments, and their risks and benefits.

- Based on Bodenheimer, Lorig, Holman, Grumbach; 2002

About the Evidence Review of SMS Principles

- Undertaken 2008–2009, reviewed literature from 1980–2009
- Included structured reviews and meta-analyses
- Included chronic conditions and behavioral risk factors
- 83 articles were included

Battersby et al, 2010, Jrnl Qual Pt Saf

#1 Use Brief, Targeted Assessments

- Guide SMS with the following information:
 - Clinical severity
 - Functional status (often age as a proxy)
 - Quality of life
 - Patients' problems and goals
 - Self-management behaviors
 - Barriers to self-management

Battersby et al, 2010, Jrnl Qual Pt Saf

Depression and Diabetes

- People with major depression struggle with self-care behaviors in Diabetes Mellitus (DM), including:
 - Healthy eating (17.2% of people with diabetes and depression reported healthy eating once a week or less compared to 8.8% of those with just DM)
 - Exercise (44.1% MD and DM reported <30 min exercise/week compared to 27.3% with DM only)
 - Medication adherence (OHA nonadherence in MD and DM was 24.5% compared to 18.8% DM only)
 - Lin et al, Diabetes Care 2004

Diabetes Control (BG 80-150mg/dl = 4.5-8 mMol/L) in Past Year (%)

	Confident	Somewhat	Not confident
No problems with pain, emotions, social situation or \$	78	77	32
No problem with pain, emotions or social situation, <i>but</i> \$ problem	73	60	27
No problem with \$, <i>but</i> problem with pain, emotions, and social situation	78	57	29
Problems with pain, emotions, social situation, <i>and</i> \$	61	45	21

Wasson et al J Ambul Care Mgmt, 2006

#2 Information Alone Is Insufficient

- Use shared decision-making to decide which interventions are best for the patient
 - Self-help
 - Face-to-face
 - Group
- Evidence-based educational interventions support skill development
 - Healthy eating
 - Medication management

Battersby et al, 2010, Jrnl Qual Pt Saf

DESMOND study

- Type 2 DM, within 4 weeks of diagnosis
- Intervention
 - Two educators
 - Elicited learning
 - Focused on lifestyle (food choice, physical activity, Cardiovascular Disease [CVD] risk)
 - Goal setting
- Results
 - no significant difference in HbA1c
 - Intervention group lost about 1 kg more, had lower triglycerides, had more physical activity, and more had stopped smoking and had less depression

Davies et al, BMJ, 2008

#3 Use a Non-Judgmental Approach

- Provide information in a neutral way
- Motivational Interviewing (MI) is an example
 - Dunn systematic review, 2001
- MI in IHS
 - 26 patients recruited in IHS diabetes clinic, followed for 3 months
 - Two 30-minute MI sessions spread over 3 weeks
 - Improved depression, fatalism, treatment satisfaction, less vocational worry
 - Calhoun et al, Diabetes Spectrum, 2010

Battersby et al, 2010, Jrnl Qual Pt Saf

Physician Empathy and Outcomes in Diabetes

- 891 people with diabetes
- University-affiliated outpatient clinic
- 29 family physicians
- Jefferson Scale of Empathy
- HbA1c and LDL-C
- “Patients of physicians with high empathy scores were significantly more likely to have good control of HbA1c than were patients of physicians with low empathy scores.” LDL-C results were similar.

Hojat et al, Acad Med 2011

#4 Collaboratively Set Priorities and Goals

- Patient activation level is linked to success in self-management
- Turn goals into specific plans
 - Proximal rather than distal
 - Specific rather than vague (SMART)
 - Collaborative!
 - Bodenheimer, Pt Educ Counseling 2009

Battersby et al, 2010, Jrnl Qual Pt Saf

Self-Management Goal Setting in Diabetes

- 488 patients in a CHC, largely Spanish-speaking
- Set 2,133 goals in a 3-year period
- Most successful goals were for medication adherence and healthy eating
- Successful goal attainment associated with achieving or maintaining HbA1c <7%
 - Anderson et al, Diabetes Spectrum, 2010

#5 Use Collaborative Problem Solving

- Define the problem, brainstorm ideas, pick one, try it, evaluate, repeat
- Goal is for patient to learn the skill and be able to apply it widely

Battersby et al, 2010, Jrnl Qual Pt Saf

Problem Solving

1. Identify the problem.
2. List all possible solutions.
3. Pick one.
4. Try it for two weeks.
5. If it doesn't work, try another.
6. If that doesn't work, find a resource for ideas.
7. If that doesn't work, accept that the problem may not be solvable now.

Source: Lorig et al, 2001

#6 Use Diverse Providers for SMS Interventions

- The following can effectively deliver self-management programs with clearly defined roles tasks and with training
 - Lay people
 - Nurses
 - Pharmacists
 - Community health workers
 - Health coaches
 - Medical office assistants
 - Any willing person!

Battersby et al, 2010, Jrnl Qual Pt Saf

#7 Use Diverse Formats

- Effective modalities include
 - Telephone
 - Face-to-face
 - Group
 - Self-instruction
 - Interactive technologies

Battersby et al, 2010, Jrnl Qual Pt Saf

#8 Enhance Patient Self-Efficacy

- Performance mastery
- Modeling
- Reinterpreting symptoms
- Social persuasion
 - Lorig & Holman, Ann Beh Med 2003

Battersby et al, 2010, Jrnl Qual Pt Saf

Self-Efficacy

People's beliefs about their capabilities to perform specific behaviors and their ability to exercise influence over events that affect their lives. Self-efficacy beliefs determine how people feel, think, motivate themselves and behave.

– Albert Bandura

#9 Follow-Up Actively

- Reminders and feedback to clinicians and patients helps sustain behaviors and improve outcomes

Battersby et al, 2010, Jrnl Qual Pt Saf

#10 Provide Case-Management for Selected Patients

- Based on guidelines
- Goal directed
- Work best when CM can adjust medications without waiting for MD approval

Battersby et al, 2010, Jrnl Qual Pt Saf

TEAMcare Depression and Diabetes Study

- RCT of 214 patients in a Health Maintenance Organization (HMO)
- TEAMcare vs. usual care
- Nurse care manager
 - Coached patients using action plans
 - Monitored disease control and depression
 - Worked with primary care provider to make changes in medications
 - Worked on lifestyle changes
- www.teamcarehealth.org to access more info and tools

TEAMcare results

- HbA1c .58% lower
- LDL 6.9 mg/dl lower
- Systolic blood pressure (BP) 5.1 mmHg lower
- Lower depression scores
- More likely to have insulin, BP meds and antidepressant meds adjusted
- Better quality of life
- Greater satisfaction with care
 - Katon et al, NEJM 2010;363:2611-20

#11 Link to Effective Community-Based Programs

- Evidence-based
- Tracking results
- Can be more culturally congruent
- Often lay-lead

Battersby et al, 2010, Jrnl Qual Pt Saf

#12 Use Multi-Faceted Interventions

- Identification and tracking
- Guideline-based (with guidelines that address people with multiple chronic conditions)
- Linked or based in primary care
- Provider teams
- Combinations of modalities
- Address more than one condition

Battersby et al, 2010, Jrnl Qual Pt Saf

The Bigger Picture

- Citizen-centered approach to integration
- Example:
 - Physician advice to exercise
 - Local media campaign to reinforce message
 - Incentive program through employer, group
 - Appealing environment
- “Integration [is] a natural answer to the current fragmentation of health care.”

Woolf et al, Ann Fam Med, 2005

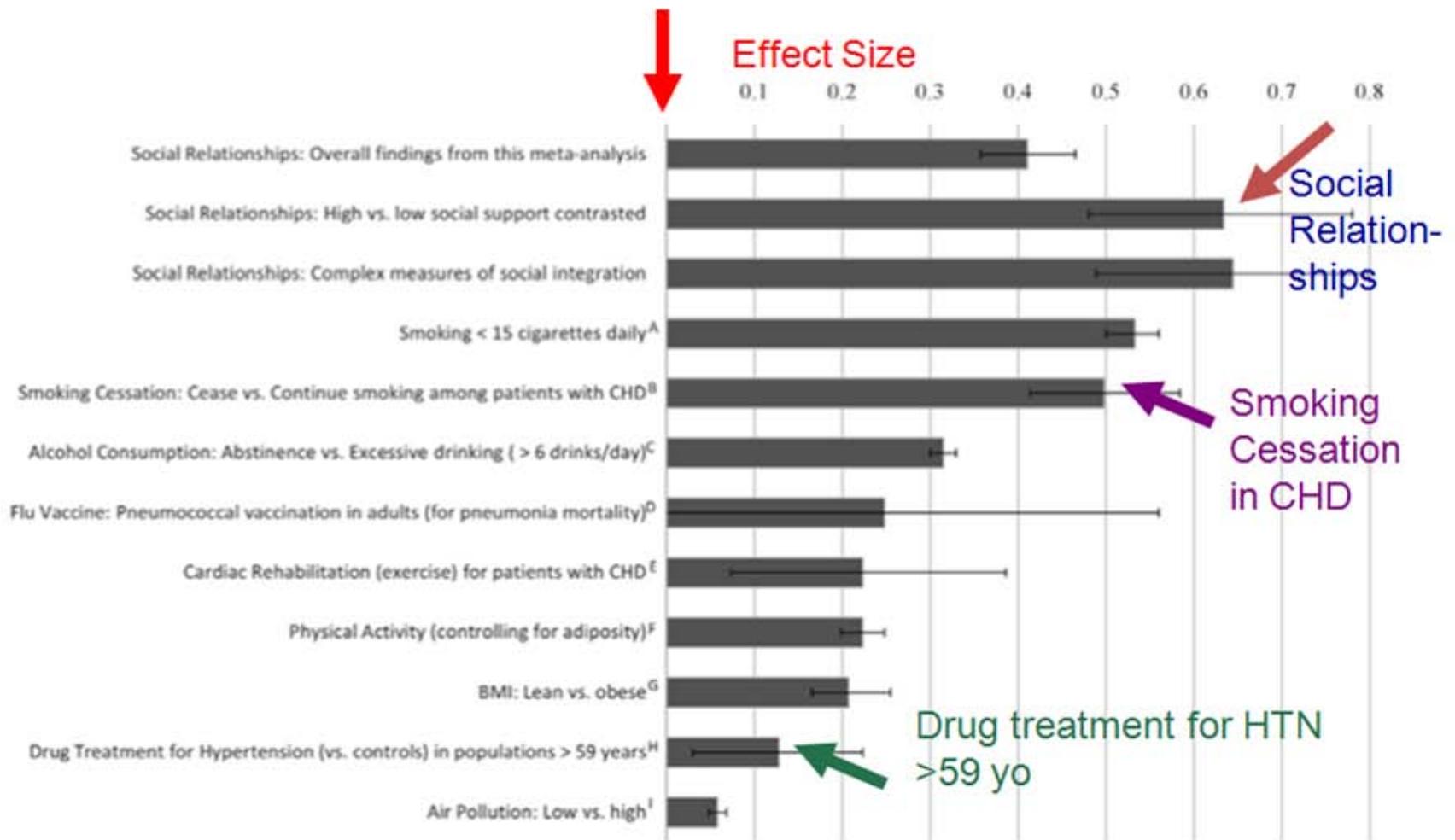


Figure 6. Comparison of odds (lnOR) of decreased mortality across several conditions associated with mortality. Note: Effect size of zero indicates no effect. The effect sizes were estimated from meta analyses: ; A = Shavelle, Paculdo, Strauss, and Kush, 2008 [205]; B = Critchley and Capewell, 2003 [206]; C = Holman, English, Milne, and Winter, 1996 [207]; D = Fine, Smith, Carson, Meffe, Sankey, Weissfeld, Detsky, and Kapoor, 1994 [208]; E = Taylor, Brown, Ebrahim, Jolliffe, Noorani, Rees et al., 2004 [209]; F, G = Katzmarzyk, Janssen, and Ardern, 2003 [210]; H = Insua, Sacks, Lau, Lau, Reitman, Pagano, and Chalmers, 1994 [211]; I = Schwartz, 1994 [212].
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Thank You!

