This product was by Research Triangle Institute International, External Evaluation Team of the Robert Wood Johnson Foundation Diabetes Initiative. Support for this product was provided by a grant from the Robert Wood Johnson Foundation® in Princeton, New Jersey.
Measuring Resources and Support (RSSM) for Self-Management of Diabetes

Lauren McCormack, PhD, MSPH; Joe Burton, MS; Carla Bann, PhD; Pam Williams-Piehota, PhD; Claudia Squire, MS; Doug Kamerow, MD, MPH; Ed Fisher, PhD; Russ Glasgow, PhD

Presented at the Society of Behavioral Medicine Conference, March 2006
Funded by the Robert Wood Johnson Foundation
Outline for the Presentation

- Overview of the Diabetes Initiative evaluation
- Development of the RSSM instrument
- Findings
  - Scores on RSSM scales
  - Relationship between RSSM and health behaviors
- Implications for future research
RTI’s Evaluation of the Diabetes Initiative

- Site Visits—in-person visits to 14 sites
- Longitudinal cross-site survey
  - Program participation, RSSM, health behaviors (smoking, diet and nutrition, physical activity, medical management), other measures
- Examination of enrollment and clinical data
  - Enrollment/disenrollment
  - Clinical measures (HbA1c, blood pressure, cholesterol)
Chronic Care Model

Community
Resources and Policies

Health System
Organization of Health Care

Self Management Support

Decision Support
Delivery System Design
Clinical Information Systems

Informed, Activated Patient

Productive Interactions

Prepared, Proactive Practice Team

Functions and Clinical Outcomes
Development of the RSSM Instrument

- Maintained an ecological perspective and chronic care focus
- Reviewed existing instruments
- Tailored existing items, drafted new items
- Conducted two rounds of cognitive testing
- Gained input from NPO, RWJF, Advisory Panel
26-item survey that provides a patient perspective on receipt of CCM-related chronic illness care

PACIC subscales:
- Patient activation
- Delivery system/practice design
- Goal setting/tailoring
- Problem solving/contextual
- Follow-up/coordination
RSSM Subscales

- Collaborative goal setting
- Individualized assessment
- Quality of care/communication
- Learning skills
- Follow-up and support
Cross-Site Surveys

- Wave 1 (Winter/Spring 2005)
  - $N = 720$ completes
  - Response rate = 70%

- Wave 2 (Winter 2006)
  - $N = 957$ of which
    - $\sim 1/2$ were also in Wave 1
  - Response rate = 68%
Sample Characteristics: Wave 1

- Mean age = 56 years
- 70% female
- 54% were of Hispanic, Latino, or Spanish origin
- 45% of the sample had less than a high school education
- 49% reported their health status as fair or poor
- Mean of 10 years with diabetes
Psychometric Properties of RSSM Scale

- Mean RSSM score = 3.95 (SD = 0.85)
- Overall alpha = 0.90
- Confirmatory factor analysis—5 factors
  - Scale correlations ranged from 0.42–0.74
- Alphas for subscales ranged from 0.70 to 0.84
- Subscales correlated with Hibbard’s Patient Activation scale (subset of items)
Relationship Between RSSM and Patient/Program Characteristics

Follow-Up and Support
- ADSM: 3.85
- BCS: 3.88

Collaborative Goal Setting
- ADSM: 4.11***
- BCS: 3.82

Quality of Care
- ADSM: 4.59*
- BCS: 4.43

Individualized Assessment
- ADSM: 3.70***
- BCS: 3.47

Skills
- ADSM: 4.01**
- BCS: 3.68

*p < .05, **p < .01, ***p < .001
Results: Collaborative Goal Setting

- Set goals: 92%
- Helped you make a plan: 89%
- Check to see how you were doing with goals: 69%
- Contact you between appointments: 42%
Results: Individualized Assessment

- Ask you questions about your health habits: 71%
- Ask about what is important to you: 70%
- Ask about your cultural traditions: 46%
Results: Quality of Care/Communication

- Someone on your DCT listened to you carefully: 90%
- Explained things so you could easily understand: 84%

Percentage Yes/Usually or Always
Results: Learning Skills

- Teach you how to take care of your diabetes: 82%
- Teach you how to deal with problems: 70%
- Teach you how to deal with stress/feeling sad: 57%
Results: Follow-Up and Support

- Schedule appointments: 84%
- Help you get medicines and other supplies: 77%
- Get the information that you needed from your DCT: 75%
- Help you find support groups: 68%
- Ask about problems with medications: 63%
- Talk/meet someone on your diabetes care team: 34%
Path Diagram of RSSM as a Mediator of the Relationship between Patient and Program Characteristics and Diabetes-Related Behaviors

- Predictor Variables
- Follow-Up and Support
- Collaborative Goal Setting
- Communication

- RSSM
  - Program Participation
  - Diet and Nutrition
  - Physical Activity

- Individualized Assessment
- Skills

Predictor Variables → RSSM:
- Follow-Up and Support
- Collaborative Goal Setting
- Communication

- RSSM → Program Participation:
  - 0.51*
- RSSM → Diet and Nutrition:
  - 0.22*
- RSSM → Physical Activity:
  - 0.17*

Note: * indicates significance level.
The following groups reported significantly higher RSSM scores:

- Hispanic origin
- Having a personal doctor
- “A lot” of self-reported knowledge of diabetes (vs. “nothing/a little”)
- More frequently talking to someone about feelings about having diabetes
- Higher patient activation
- Higher fatalism
- Never (vs. rarely) have difficulty understanding diabetes information
The following groups reported significantly lower RSSM scores:

- Older age
- Other race (vs. white)
- Income of $30,000-$49,999 (vs. <$10,000)
Conclusions

- A promising new instrument with good psychometric properties
- Potential for broader application to other chronic diseases
- Could be tailored to primary care issues
- Consider expanding instrument to include other domains
Next Steps for Analysis

- Finalize wave 1 results
- Analyze wave 2 data
- Analyses using wave 1 and wave 2 cohort
- Merge on clinical data
Contact Information

Lauren McCormack
Lmac@rti.org