- 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

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# 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)

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# Chronic Care Model
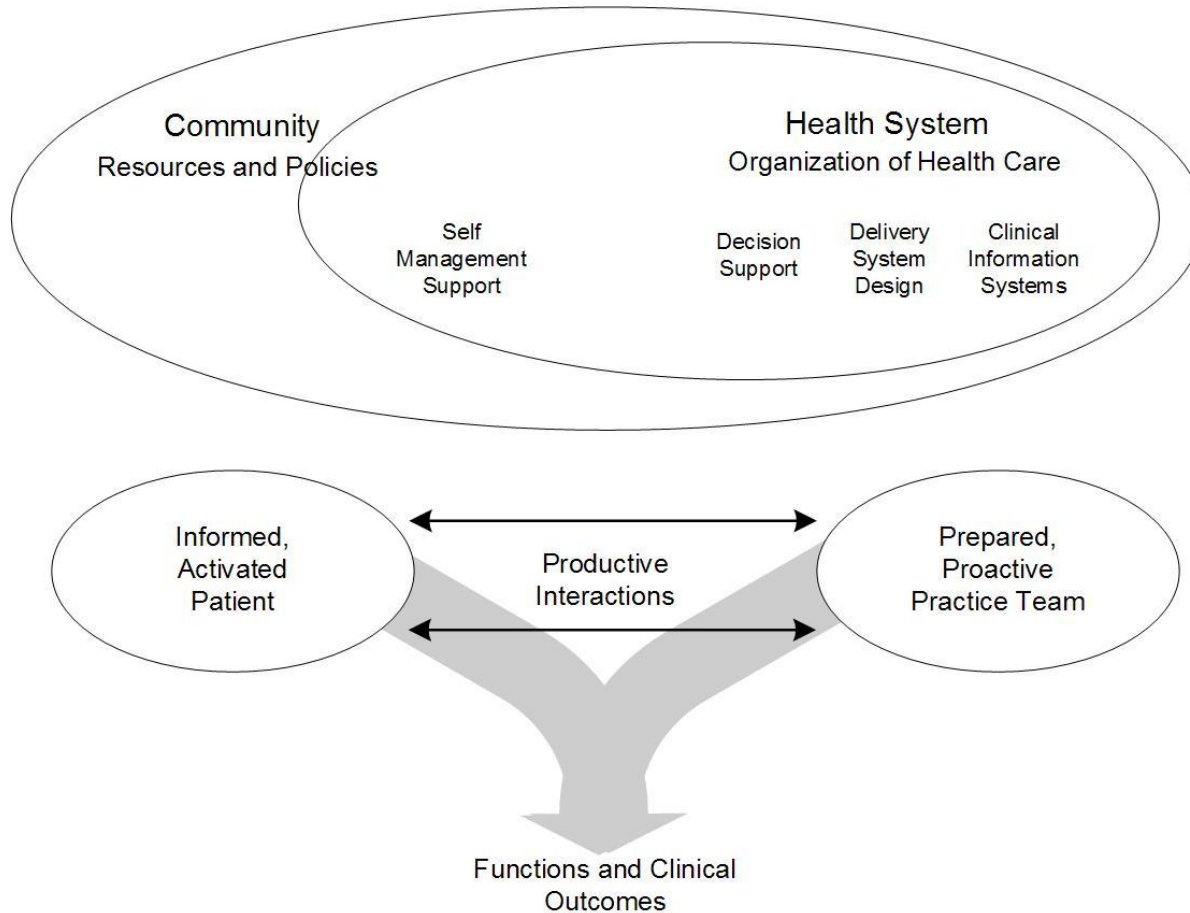
# Development of the RSSM Instrument

- 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

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# Patient Assessment of Chronic Illness Care (PACIC)

- 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

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# 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 ~1/2 were also in Wave 1
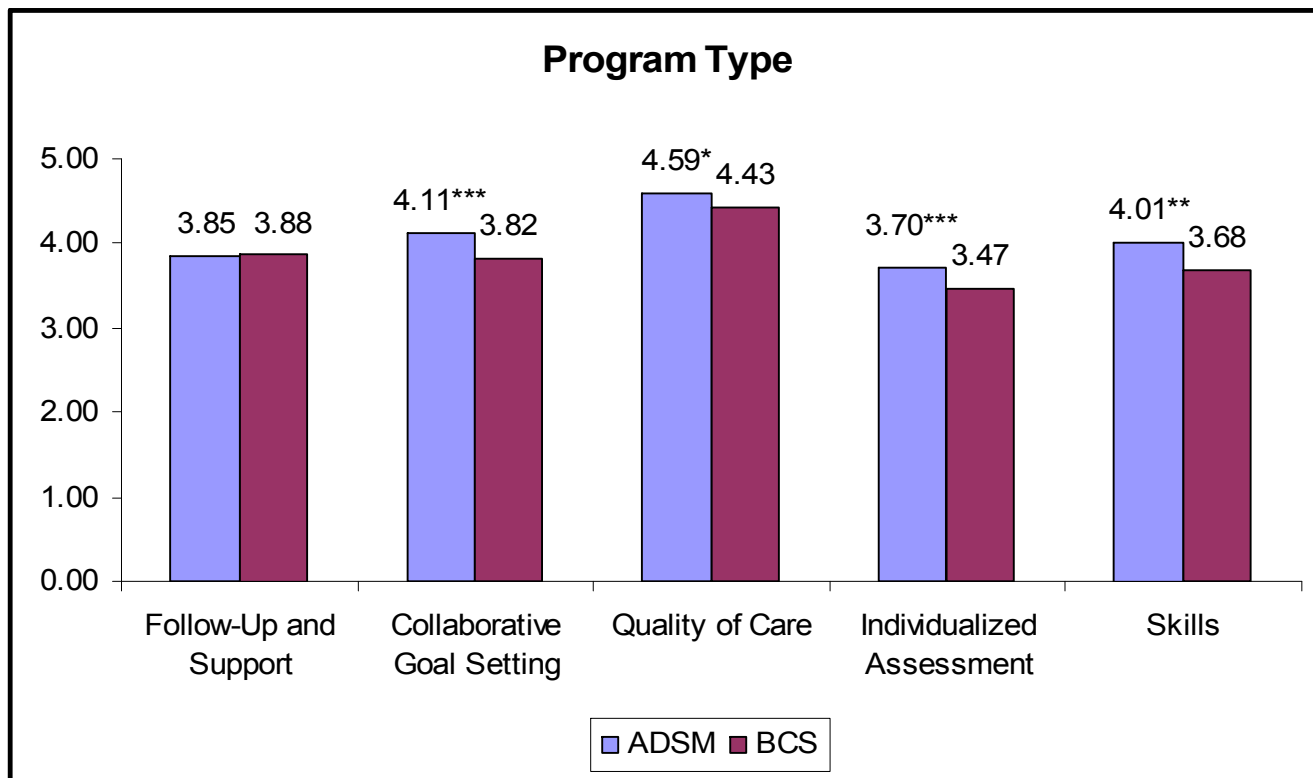  - Response rate = 68%

# 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)
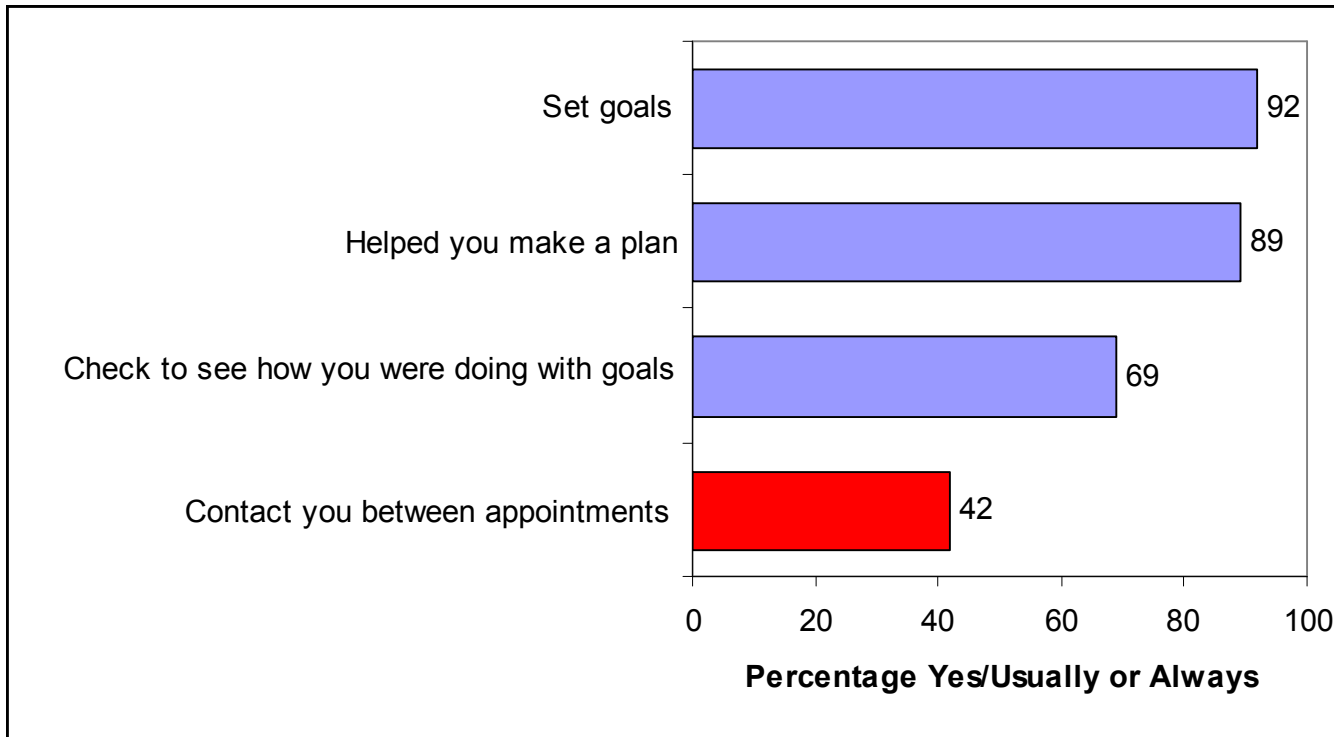
# Relationship Between RSSM and Patient/Program Characteristics



**Program Type**

Legend: ADSM, BCS

- Follow-Up and Support: 3.85, 3.88
- Collaborative Goal Setting: 4.11***, 3.82
- Quality of Care: 4.59*, 4.43
- Individualized Assessment: 3.70***, 3.47
- Skills: 4.01**, 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

Percentage Yes/Usually or Always

# Results: Individualized Assessment



Horizontal bar chart:

- Ask you questions about your health habits: 71
- Ask about what is important to you: 70
- Ask about your cultural traditions: 46

X-axis: 0, 20, 40, 60, 80, 100 — **Percentage Yes/Usually or Always**

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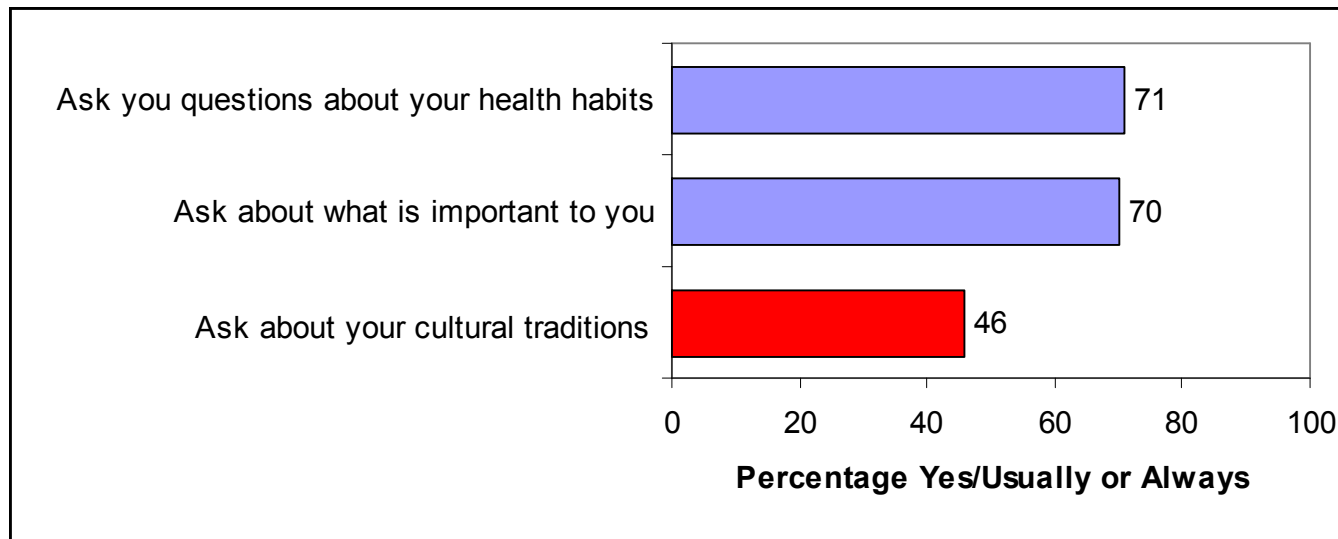
# Results: Quality of Care/Communication



Someone on your DCT listened to you carefully — 90

Explained things so you could easily understand — 84

**Percentage Yes/Usually or Always**

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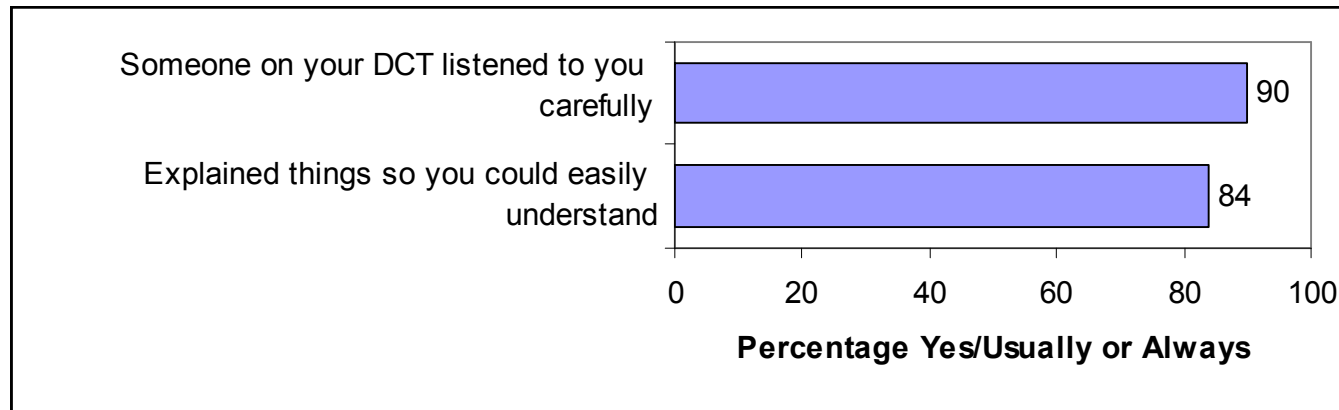
# Results: Learning Skills



Bar chart — Percentage Yes/Usually or Always

| Question | Percentage |
|---|---|
| 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 |
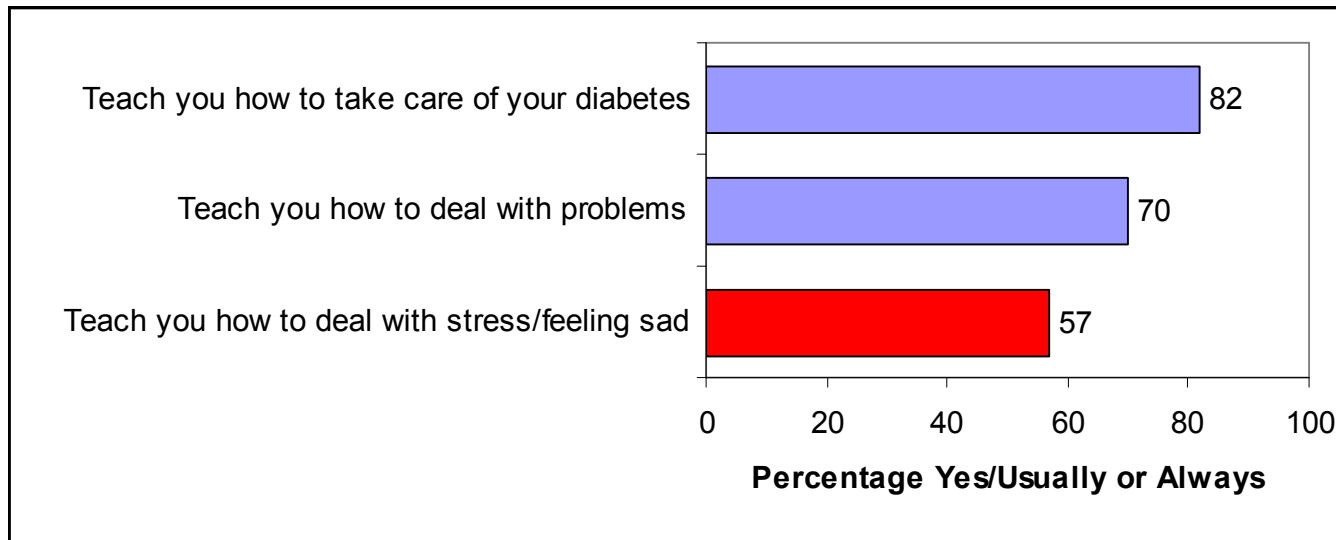
# Results: Follow-Up and Support



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

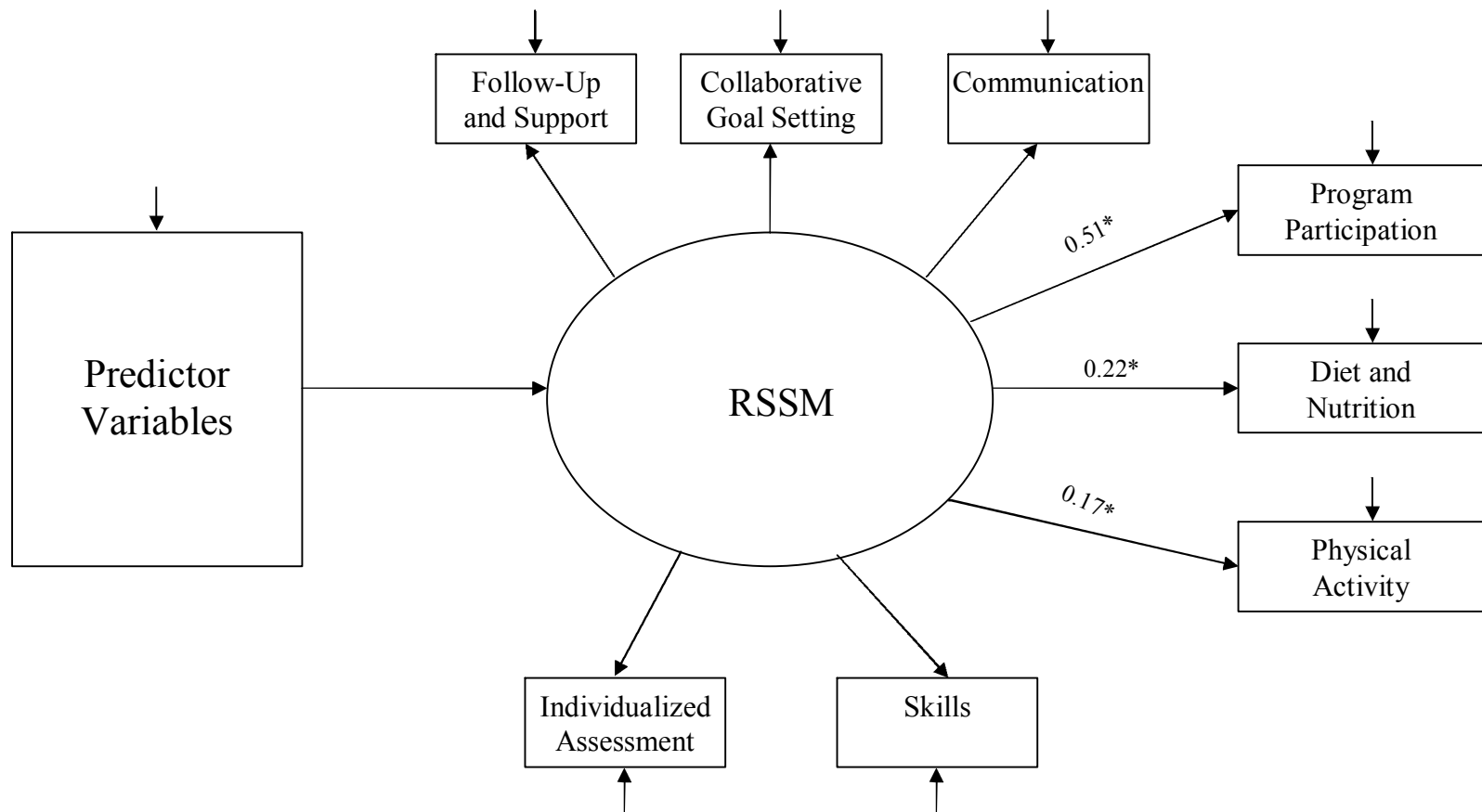Talk/meet someone on your diabetes care team — 34

**Percentage Yes/Usually or Always**

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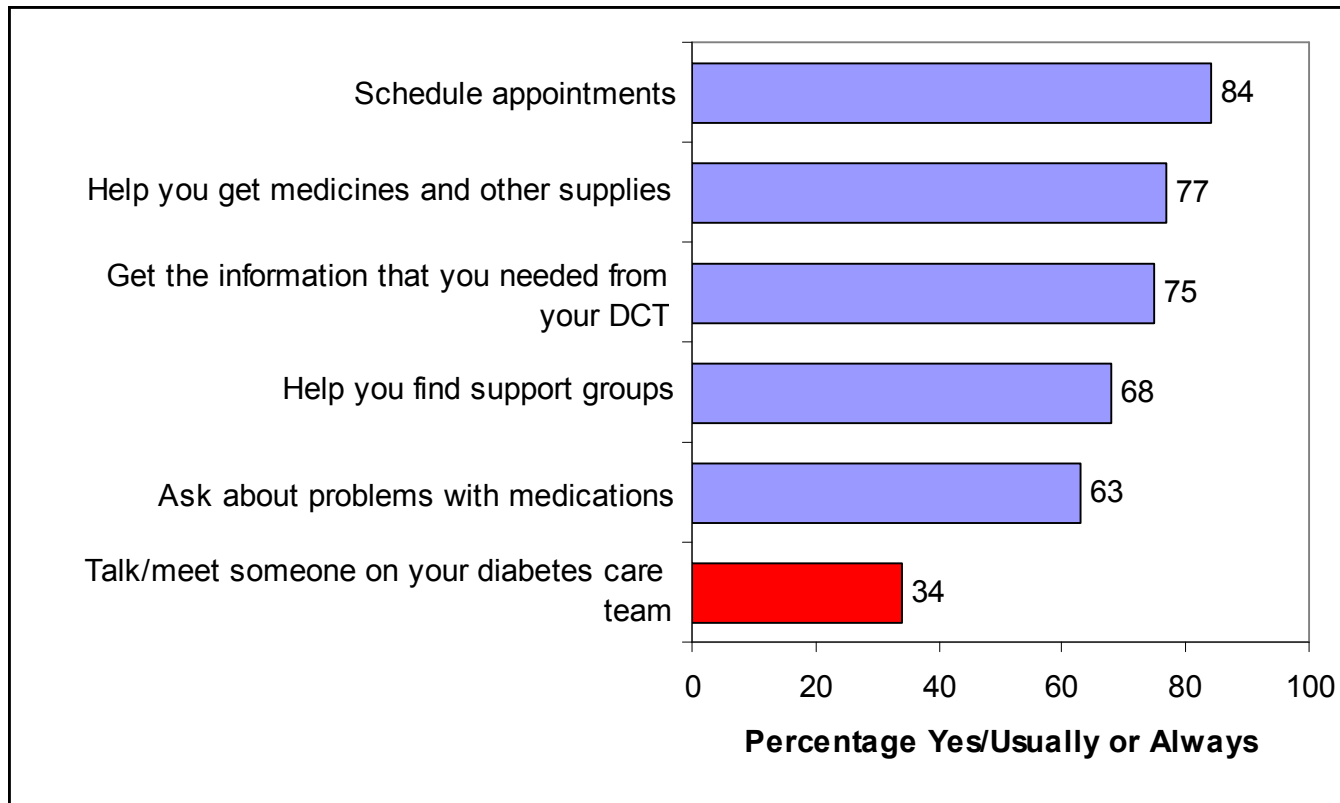
# Path Diagram of RSSM as a Mediator of the Relationship between Patient and Program Characteristics and Diabetes-Related Behaviors

# Model Results

- 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

# Model results (cont.)

- 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

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# 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

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