Consistencies in spouse support across medical and in-home contexts

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Aims

Over one third (36-39%) of older adult patients have a family member or friend accompany them to their medical care visits and spouses’ are known to influence the course and content of medical encounter discussions (Rosland et al., 2011; Ishikawa et al., 2005; Wolff & Roter, 2011). Yet, dyadic models of the “physician-patient relationship” are predominant in medical encounter literature, leaving the triadic accompanied medical encounter dialogue relatively unexplored (Laidsaar-Powell et al., 2013). This gap is significant considering couples often share responsibility in illness management (e.g., attending physician visits as a couple), with spouse support influencing patient coping behaviors and perceptions of the illness (Yorgason et al., 2010). Thus, the aims of our study were to assess statements of spousal support provision in medical encounter dialogue in the context of diabetes management, and to investigate the association of spouses’ support with patient receipt of diet-related support at home.

For married patients, chronic illness management often includes involvement of their spouses at home. Spouse support has consistent associations with patient health outcomes (e.g., see review Gallant, 2003; Uchino, 2009). Although it is not known exactly how spouse support benefits patient outcomes, suggested pathways include aiding the patient in proper chronic illness management (Franks et al., 2006; Gallant, 2003) and improving mood and reducing physiological responses to distress to a particular disease (Cohen, Gottlieb, & Underwood, 2000). Diabetes management related support (i.e., dietary adherence, medication, glucose testing, and exercise) is positively associated with higher levels of patient diabetes management (Brody et al., 2008; Connell et al., 1992; Fitzgerald et al., 1997; Glasgow & Toobert, 1988). Diet-related support is of particular importance to diabetes management because of its association with
glycemic control and dietary adherence (King et al., 2010; Murata et al., 2004). Determining the association between statements of spousal support provision during medical encounters with patient receipt of diet-related support from spouses outside of the medical setting would reveal the consistency between partners’ reports of spouse involvement in patient diabetes management. We anticipate that spouses’ statements of support during medical encounter dialogue will be positively associated with patient receipt of diet-related support at home.

**Methods**

Patients were recruited through collaboration with a local endocrinology clinic affiliated with a large hospital system. Invitation letters were sent to potential participants based on the clinic appointment log. Eligibility criteria for participation in this study included the following: only one partner was diagnosed with type 2 diabetes, be at least 50 years of age, and dyads had to be married and living together. A total of 62 eligible patient and spouse dyads responded to these letters and agreed to participate in this study. Due to recording equipment failure, four couples were excluded from this study. The 58 remaining audio-recorded physician visits were then professionally transcribed verbatim. Due to missing data on study variables, data from 56 couples were included in subsequent analyses.

**Measures**

Patient receipt of diet-related support was assessed with a self-administered questionnaire completed at the doctor’s office before a regularly scheduled physician visit. Additionally, participants’ (both patient and spouse) demographic characteristics were assessed with standard age, gender, income, employment status, and education items.

Patient receipt of diet-related support was measured with a three-item scale. Patients were asked “During the past month, tell me how often your husband/wife… (1) Did something to help
you stick with a health diet. (2) Showed appreciation for your efforts to stay on track with a healthy diet. (3) Showed that you understand the importance of her/him following a healthy meal plan.” These items were rated on a 5-point Likert scale (1 = not at all to 5 = everyday). We created a single patient receipt of diet-related support score by averaging the patient responses to the scale items and multiplying this figure by three (i.e., the total number of items). This method allowed us to include patients with missing data on two or fewer receipt of diet-related support items. Higher scores represented greater patient receipt of diet-related support ($M = 10.91$, $SD = 3.83$, range 3 to 15, $\alpha = .88$).

Marital quality was measured using five items from the Quality of Marriage Index (QMI; Norton, 1983). Spouses rated the extent to which they agreed with five statements “1) You have a good marriage., 2) Your relationship with your spouse is very stable. 3) Your marriage is strong. 4) Your relationship with your spouse makes you happy. 5) You really feel like part of a team with your spouse.” Items are rated on a 6-point scale ranging from 1 (strongly disagree) to 7 (strongly agree). These items were summed with higher scores representing greater marital satisfaction. The mean score for spouses was 33.14 ($SD = 2.68$; range 24-35; $\alpha = .88$).

Patients reported their self-rated health by answering the following question: “At the present time, how would you rate your overall physical health?” Patients rated their response on a five point scale ($1 =$ poor to $5 = $ excellent; $M = 2.93$, $SD = .95$, range 1-5).

Coding Constructs and Procedure

We developed a formal system for coding relational language in medical encounter dialogue (REL-MED). The REL-MED gives detailed descriptions of the constructs under investigation in this study. Only those sections of the transcripts identified as diabetes treatment talk were coded for spousal involvement statements. Diabetes treatment talk is dialogue
addressing the patient’s diabetes treatment regimen/adherence, diabetes education, glycemic control, diet, physical activity/exercise, medication, cardiovascular health, weight gain/loss, foot care, sensation/neuropathy, vision/retinopathy, and any other diabetes related treatment discussion. Trained coders identified diabetes treatment talk according to the topics addressed in the medical standards of care in diabetes (ADA, 2011). Spousal involvement statements are spousal speaking turns that reveal spouses take an active role in patients’ diabetes management outside of the physician’s office (e.g., dietary behaviors, symptom monitoring, medication adherence, and/or exercise). Intra-class correlation coefficients of study constructs (ICC > .90), indicate that coders reliably identified verbal indicators of spousal involvement during diabetes treatment talk.

Coding of transcripts took place in two stages. In the first stage, trained coders were tasked with coding treatment talk and spousal involvement statements within the accompanied medical encounter transcripts. The second coding stage consisted of the categorization of the involvement statements into three types: statements of spousal support provision, spousal control, and general spousal involvement. Procedures for the identification of these three types included conceptual ordering, categorical description of concepts, and contextual analysis (Corbin & Strauss, 2007). Statements of spouse support provision occurred in 25 of 56 (45%) transcripts ($M = .64$, $SD = .96$, range 0-5). Because of the large number of spouses who did not make any statements of spouse support ($n = 31$), a dichotomous, statements of spouse support provision variable was created and used in subsequent analyses.

Results

Before addressing our study aims, we examined bivariate associations among key study constructs in preliminary analyses (Table 1). At the bivariate level, statements of spouse support
provision were positively correlated with patient receipt of diet-related support \((r = .37, p < .01)\)
and marital quality \((r = .28, p < .05)\) Additionally, patient receipt of diet-related support was
positively correlated with patient self-rated health \((r = .29, p < .05)\).

Patient receipt of diet-related support was regressed on statements of spouse support
provision support during the medical encounter, controlling for marital quality and patient self-rated health.

Patient receipt of diet-related support = \(\beta_0 + \beta_1 (\text{Marital quality}) + \beta_2 (\text{Patient self-rated health}) + \beta_3 (\text{Statements of spouse support provision}) + e\)

Statements of spousal support provision were positively associated with patient receipt of
diet-related support \((B = 2.40, SE = 1.00, p < .05)\), as anticipated (Table 2).

Conclusion

These findings highlight correspondence of spouse and patient reports of spousal support
in diabetes management and could inform future studies designed to evaluate spousal
participation during medical encounters with patients managing chronic illness. The current
understanding of accompanied medical encounter dialogue remains limited; however, this study
has built upon this growing body of research that has explored accompanied medical encounter
dialogue and the often helpful role of patient companions in illness management (see Laidsaar-
Powell et al., 2013). One way that spouses may be helping is by providing information related to
support behaviors occurring at home that may be beneficial to the patients’ disease management.
We found that statements of spouse support provision during a routine medical visit were
associated with patient receipt of diet-related support at home in the past month. Healthcare
professionals working with couples managing a chronic illness should recognize that spouses’
participation in routine medical visits may be providing useful information about their supportive
behaviors in the home.
References


Table 1

Summary of Intercorrelations, Means, Standard Deviations and Ranges for Independent, Control, and Dependent Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>M</th>
<th>SD</th>
<th>Minimum</th>
<th>Maximum</th>
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</thead>
<tbody>
<tr>
<td><strong>Independent Variable</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Statements of spouse support provision</td>
<td>—</td>
<td>.28*</td>
<td>.22*</td>
<td>.37**</td>
<td>.64</td>
<td>.96</td>
<td>0</td>
<td>5</td>
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<tr>
<td><strong>Control Variables</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Marital Quality</td>
<td>—</td>
<td>.36**</td>
<td>.20*</td>
<td>33.14</td>
<td>2.68</td>
<td>24</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>3. Patient self-rated health</td>
<td>—</td>
<td>.29*</td>
<td>2.93</td>
<td>.95</td>
<td>1</td>
<td>5</td>
<td></td>
<td></td>
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<tr>
<td><strong>Dependent Variable</strong></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Patient receipt of diet-related support</td>
<td>—</td>
<td>10.91</td>
<td>3.83</td>
<td>3</td>
<td>15</td>
<td></td>
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</tr>
</tbody>
</table>


For all scales, higher scores are indicative of more extreme responding in the direction of the construct assessed. Statements of spouse support were assessed by trained coders using REL-MED coding procedures. Marital quality was assessed with a five-item scale worth a maximum of 35 points. Patient self-rated health was assessed with a single item with a maximum of 5 points. Patient receipt of diet related support was assessed by a three item scale worth a maximum of 15 points.

*p < .05

**p < .01
Table 2

*Predictors of Patient Receipt of Diet-Related Support*

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE</th>
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</thead>
<tbody>
<tr>
<td>Constant</td>
<td>5.31</td>
<td>6.12</td>
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<tr>
<td>Marital quality</td>
<td>.06</td>
<td>.20</td>
</tr>
<tr>
<td>Patient self-rated health</td>
<td>.81</td>
<td>.55</td>
</tr>
<tr>
<td>Statements of spouse support provision</td>
<td>2.40*</td>
<td>1.00</td>
</tr>
</tbody>
</table>

*Note. N = 50. \( R^2 = .18. F = 3.9. \)*

*\( p < .05 \)