Published in final edited form as:

Patient Educ Couns. 2011 November ; 85(2): 295–298. doi:10.1016/j.pec.2010.09.020.

Linguistic Features of Power Dynamics in Triadic Dementia Diagnostic Conversations

Erin Y. Sakai and

Washington University, St. Louis, USA

Brian D. Carpenter

Washington University, St. Louis, USA

Abstract

Objective—The purpose of this study was to examine linguistic expressions of power during dementia diagnosis disclosure.

Methods—Videotapes of dementia diagnosis disclosure sessions were reviewed to examine linguistic features of 86 physician-patient-companion triads. Verbal dominance and pronoun use were measured as indications of power.

Results—Physicians dominated the conversation, speaking 83% of the total time. Patients spoke more than companions (10% versus 6%). Dementia status was only related to the amount of time companions spent talking. Physicians used fewer first person singular and more first person plural pronouns than patients and companions. Power indices did not predict anxiety, depression, or satisfaction with the medical visit.

Conclusion—During the disclosure of a dementia diagnosis, physicians tend to dominate the conversation, exerting their social status through a variety of linguistic features. Patients and companions are not more distressed or dissatisfied as a result and exert their own subtle attempts to assert their role in the conversation.

Practice implications—Recognition of a hierarchical structure within healthcare interactions may be the first step toward maximizing patient outcomes. Evaluating patient expectations and preferences regarding physician communication style may be the most effective way of promoting patient-centered healthcare communication.

Keywords

Doctor-patient communication; dementia diagnosis; verbal dominance; social hierarchy

1. Introduction

Clear, collaborative conversations between individuals with dementia and their physicians facilitate information exchange [1,2], treatment planning [3,4], and compliance and satisfaction [5,6]. Yet these conversations are complex for many reasons, including the

Corresponding author at: Erin Y. Sakai, Washington University, Campus Box 1125, St. Louis, MO 63130, Phone: (314) 935-6173, Fax: (314) 935- 7588, eyesakai@wustl.edu.

Conflicts of Interest: The authors report no conflicts of interest.

Publisher's Disclaimer: This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

relative imbalance of power between patients and their healthcare providers. A physician, with relatively more knowledge, expertise, and prestige, may influence conversations by controlling the information provided, choosing topics covered, or using medical jargon [7,8]. Cognitive impairment further complicates the power dynamic, as physicians may adopt a paternalistic approach to compensate for patient deficits [9]. Likewise, companions accompanying cognitively impaired patients can influence conversation dynamics [10,11].

This study examined expressions of power among physicians, patients, and companions during dementia diagnostic conversations. We chose this situation because 1) diagnostic conversations involve both information giving and receiving and are likely to evoke expressions of power [1], and 2) the delivery of a diagnosis is a critical moment in dementia care, when dominance can set the tone for future interactions [12]. We studied two linguistic manifestations of power. The first was how much time each party spends talking. This index of social dominance has been used in previous research and likely reflects many variables, including the extent to which patients and companions are encouraged to offer input [13,14]. In the context of dementia, physicians and companions may dominate conversations even more in order to compensate for real or perceived patient impairment.

The second expression of power focuses on pronoun use. Linguistic researchers have suggested that pronoun use is a reflection of self-perceived social status [15,16]. People in lower status positions use more first person *singular* pronouns as an attempt to gain approval from people in higher status positions [17]. People with higher status, secure in their position, focus on the group rather than themselves and therefore use more first person *plural* pronouns [18].

2. Methods

2.1 Participants and procedure

Participants were evaluated at an Alzheimer's Disease Research Center. A description of recruitment and sampling can be found elsewhere [19]. Following a clinical interview and exam, the physician shared a diagnostic formulation with the patient and companion. These conversations were videotaped and transcribed. Eighty-six interactions were analyzed. Patients and companions answered questions regarding anxiety, depression, and satisfaction with their appointment 2-3 days after the session. Characteristics of the sample appear in Table 1.

2.2 Measures

2.2.1 Verbal dominance—We calculated the proportion of time each person spent talking during diagnostic feedback (number of words spoken divided by total number of words spoken by all individuals) [14]. Patients and companions also estimated the proportion of time each person talked. The discrepancy between actual and estimated time spent talking (estimate–actual) was calculated; positive scores indicate overestimation, negative scores underestimation.

2.2.2 Pronouns—We used text analysis software (Linguistic Inquiry and Word Count (LIWC) [20]) to calculate the ratio of first person singular and plural pronouns relative to all words.

2.2.3 Outcomes—Anxiety was assessed with the 20-item State-Trait Anxiety Inventory [21]. Depressive symptoms were assessed with the 15-item Geriatric Depression Scale [22]. Satisfaction with the diagnostic visit was assessed with the Dementia Care Satisfaction Questionnaire [23].

2.3 Analyses

We used analyses of variance (ANOVAs) to assess differences in actual and perceived verbal dominance. Independent samples *t*-tests were used to determine whether verbal dominance was influenced by dementia status. ANOVAs were used to compare differences in pronoun use. Bivariate correlations were calculated to examine associations between verbal dominance, pronoun use, and gender of all participants, patient and companion age, and relationship between patient and companion (spouse versus other). Small numbers of non-White participants precluded meaningful race comparisons. Finally, we conducted hierarchical regressions to determine whether pronoun use and time the physician talked predicted patient and companion anxiety, depression, or satisfaction, controlling for age and dementia status.

3. Results

Figure 1 presents means and standard deviations for actual and estimated time talked. Physicians dominated the conversation, $F(2,255)=2511.51$, $p<.001$, speaking on average 83.3% of the total time ($SD=9.63$, range=56.68%-98.70%). Patients spoke 10.3% of the time, companions 6.3%. The proportion of time physicians and patients talked did not differ based on the patient's dementia status, $t(84)=-.113$, $p=.910$, and $t(84)=1.857$, $p=.067$, respectively. Companions spoke more when patients had dementia (7.7%) than when they did not (3.7%), $t(71)=-3.735$, $p<.001$.

Patients and companions underestimated the proportion of time physicians spoke ($F(2,223)=59.94$, $p<.001$) and overestimated the proportion of time they themselves spoke (patients, $F(2,223)=42.84$, $p<.001$; companions, $F(2,223)=28.11$, $p<.001$). Compared to patients without dementia, patients with dementia more extremely underestimated the time physicians talked, $t(58)=2.364$, $p=.021$, and more extremely overestimated the time companions spoke, $t(58)=-2.879$, $p=.006$. Relative to companions of dementia patients, companions of patients without dementia overestimated the amount of time they themselves spoke, $t(77)=2.386$, $p=.019$.

There was a significant difference in the use of first person singular pronouns across participants, $F(2,255)=95.55$, $p<.001$. Physicians used fewer singular pronouns ($M=2.31$) than patients ($M=8.49$) and companions ($M=4.22$). Companions used fewer singular pronouns than patients ($p<.001$). There also was a significant difference among individuals in the use of first person plural pronouns, $F(2,255)=30.71$, $p<.001$. Physicians used more plural pronouns ($M=2.34$) than patients ($M=0.85$) and companions ($M=1.31$).

Demographic characteristics were not significantly associated with verbal dominance or plural pronoun use. However, older patients ($r=.26$, $p<.05$), older companions ($r=.33$, $p<.01$), female patients ($r=.24$, $p<.05$), male physicians ($r=-.51$, $p<.01$), and patients accompanied by a non-spouse ($r=.31$, $p<.01$) tended to use more singular pronouns.

None of the indices of verbal dominance or pronoun use predicted depression, anxiety, or satisfaction.

4. Discussion and conclusion

4.1 Discussion

This study examines linguistic manifestations of power during dementia diagnostic conversations. Physicians dominate these discussions, taking up over 80% of the speaking time. This may reflect their relative knowledge and the context of a diagnostic evaluation, as physicians provide information about dementia. At the same time, patients and companions

use subtle linguistic techniques to assert themselves. Consistent with previous research on pronoun use as a reflection of social status [17,18,24,25], patients and companions (particularly of an older age) use more first person singular pronouns than physicians, perhaps as a way of focusing attention on their perspective. Conversely, physicians use more first person *plural* pronouns, which may be an attempt to foster partnership, though this may not be a successful strategy [26].

Dementia introduces unique complexities because of the impact of patient cognitive impairment and the paternalistic stance physicians and companions may adopt. In the current study, however, conversations were similar regardless of a patient's dementia status, except that companions talk more when the patient has dementia. In this situation, companions may play the role of information surrogates, though at the risk of neglecting patient input.

Though previous studies have suggested a relationship between physician dominance and patient satisfaction [13,27], in our study, linguistic attributes are not associated with patient or companion satisfaction, depression, or anxiety. One potential explanation is that perceptions do not match the reality. Patients and companions underestimate the amount of time their physician talks and overestimate the amount of time they themselves talk. Therefore, what might look like an asymmetric conversation to an outside observer might not feel that way to people in the room, particularly older, frail patients who tend to prefer physicians who are more directive [28,29].

Healthcare interactions often include multiple people, each with their own perspective, together in a situation with its own unique demands. In light of this diversity, we found only sporadic associations between linguistic expressions of power and demographic characteristics. In fact, the standard deviations for most of our dependent variables were large, suggesting genuine variability in practice, despite our homogenous sample and the constraints of the diagnostic situation. Power dynamics might play out differently in other contexts (e.g., follow-up appointments, conversations with other types of providers).

4.2 Conclusion

During the disclosure of a dementia diagnosis, physicians tend to dominate the conversation, exerting their social status through a variety of linguistic features. Patients and companions are not more distressed or dissatisfied as a result and exert their own subtle attempts to assert their role in the conversation.

4.3 Practice implications

Recognizing the social hierarchy in a healthcare interaction may be the first step in establishing relationships that maximize patient engagement. Subtle linguistic features may deserve attention as one indication of the dynamics playing out in a healthcare conversation. Once attuned to these linguistic features, clinicians may find it beneficial to ask about patient and companion expectations of their physician, the quantity and type of information they want, and their preference for involvement in their care [12]. Likewise, identifying the extent to which patients wish to have third-party family or friends involved in the conversation (if at all) would be useful. Truly patient-centered care may involve being mindful of social hierarchy and identifying patient expectations, rather than applying a universal algorithm to guide healthcare conversations.

Acknowledgments

This project benefited from the generous support and guidance of John C. Morris, M.D., Chengjie Xiong, Ph.D., Mary Coats, R.N., and Elizabeth Grant, Ph.D.

Financial Support: Support for this project was provided by a grant from the University of Missouri Advisory Board of the Alzheimer's Disease and Related Disorders Research Program. Support for the Washington University ADRC comes from grants from the National Institute on Aging, P50-AG05681 and P01-AG03991. Additional support to the first author was provided by the Ruth L. Kirschstein National Research Service Fellowship Award, NIH grant T32 55114.

References

1. Ong L, De Haes J, Hoos A, Lammes F. Doctor-patient communication: A review of the literature. *Soc Sci Med*. 1995; 40:903–18. [PubMed: 7792630]
2. Brunett PH, Campbell TL, Cole-Kelly K, Danhoff D, Frymier R, Goldstein MG, Gordon GH. Essential elements of communication in medical encounters: The Kalamazoo consensus statement. *Acad Med*. 2001; 76:390–393. [PubMed: 11299158]
3. Emanuel E, Emanuel L. Four models of the physician-patient relationship. *J Am Med Assoc*. 1992; 267:2221–6.
4. Carpenter BD, Dave J. Disclosing a dementia diagnosis: A review of opinion and practice, and a proposed research agenda. *Gerontologist*. 2004; 44:149–158. [PubMed: 15075411]
5. Greene MG, Adelman RD, Friedmann E, Charon R. Older patient satisfaction with communication during an initial medical encounter. *Soc Sci Med*. 1994; 38:1279–88. [PubMed: 8016691]
6. Stewart M, Meredith L, Brown JB, Galajda J. The influence of older patient-physician communication on health and health-related outcomes. *Clin Geriatr Med*. 2000; 16:25–36. [PubMed: 10723615]
7. Mast MS. Dominance and gender in the physician-patient interaction. *J Mens Health Gend*. 2004; 1:354–8.
8. Roter DL, Stewart M, Putnam SM, Lipkin M, Stiles W, Inui TS. Communication patterns of primary care physicians. *J Am Med Assoc*. 1997; 277:350–6.
9. Adelman RD, Greene MG, Ory MG. Communication between older patients and their physicians. *Clin Geriatr Med*. 2000; 16:1–24. [PubMed: 10723614]
10. Adelman RD, Greene MG, Charon R. The physician-elderly patient-companion triad in the medical encounter: The development of a conceptual framework and research agenda. *Gerontologist*. 1987; 27:729–34. [PubMed: 3428622]
11. Werner P, Gafni A, Kitai E. Examining physician-patient-caregiver encounters: The case of Alzheimer's disease patients and family physicians in Israel. *Aging Ment Health*. 2004; 8:498–504. [PubMed: 15724831]
12. Fisk JD, Beattie BL, Donnelly M, Byszewski A, Molnar FJ. Disclosure of the diagnosis of dementia. *Alzheimers Dement*. 2007; 3:404–10. [PubMed: 19595961]
13. Bertakis KD, Roter D, Putnam SM. The relationship of physician medical interview style to patient satisfaction. *J Fam Pract*. 1991; 32:175–81. [PubMed: 1990046]
14. Ohtaki S, Ohtaki T, Feters MD. Doctor-patient communication: A comparison of the USA and Japan. *Fam Pract*. 2003; 20:276–82. [PubMed: 12738696]
15. Sexton JB, Helmreich RL. Analyzing cockpit communication: The links between language, performance, error, and workload. *Hum Perf Extrem Environ*. 2000; 5:63–8. [PubMed: 12190082]
16. Davis D, Brock TC. Use of first person pronouns as a function of increased objective self-awareness and performance feedback. *J Exp Soc Psychol*. 1975; 11:381–388.
17. Dino A, Reysen S, Branscombe NR. Online interactions between group members who differ in status. *J Lang Soc Psychol*. 2009; 28:85–93.
18. Cassell J, Huffaker D, Tversky D, Ferriman K. The language of online leadership: Gender and youth engagement on the internet. *Dev Psychol*. 2006; 42:436–449. [PubMed: 16756436]
19. Carpenter BD, Xiong C, Porensky EK, Lee MM, Coats M, Johnson D, Morris JC. Reaction to a dementia diagnosis in individuals with Alzheimer's disease and mild cognitive impairment. *J Am Geriatr Soc*. 2008; 56:405–412. [PubMed: 18194228]
20. Pennebaker, JW.; Chung, CK.; Ireland, M.; Gonzales, A.; Booth, RJ. The development and psychometric properties of LIWC2007. Austin, TX: LIWC.net; 2007.

21. Spielberger, CD. Manual for the State-Trait Anxiety Inventory. Palo Alto, CA: Consulting Psychologists Press; 1983.
22. Leshner EL, Berryhill JS. Validation of the geriatric depression scale: Short form among inpatients. *J Clin Psychol.* 1994; 50:256–60. [PubMed: 8014251]
23. van Hout H, Vernooij-Dassen M, Hoefnagels WH, Grol RP. Measuring the opinions of memory clinic users: Patients, relatives and general practitioners. *Int J Geriatr Psychiatry.* 2001; 16:846–51. [PubMed: 11571762]
24. Kacwicz E, Pennebaker JW, Davis M, Jeon M, Graesser AC. Pronoun use reflects standings in social hierarchies. Manuscript submitted for publication.
25. Skelton JR, Wearn AM, Hobbs FDR. ‘I’ and ‘we’: A concordancing analysis of how doctors and patients use first person pronouns in primary care consultations. *Fam Pract.* 2002; 19:484–488. [PubMed: 12356699]
26. Kinsman H, Roter D, Berkenblit G, Saha S, Korthius PT, Wilson I, Eggly S. “We’ll do this together”: The role of the first person plural in fostering partnership in patient-physician relationships. *J Gen Intern Med.* 2010; 25:186–93. [PubMed: 20033624]
27. Buller MK, Buller DB. Physicians’ communication style and patient satisfaction. *J Health Soc Behav.* 1987; 28:375–88. [PubMed: 3429807]
28. Ende J, Lewis K, Ash A, Moskowitz MA. Measuring patients’ desire for autonomy: Decision making and information-seeking preferences among medical patients. *J Gen Intern Med.* 1989; 4:23–30. [PubMed: 2644407]
29. Ende J, Kazis L, Moskowitz MA. Preferences for autonomy when patients are physicians. *J Gen Intern Med.* 1990; 5:506–9. [PubMed: 2266433]

Figure 1. Actual and estimated proportion to time spent talking, for each participant

Table 1
Demographic characteristics of the sample

Characteristic	Individual Seeking Evaluation (n=86)	Companion (n=86)
Age, mean (<i>SD</i>)	72.93 (8.10)	62.46 (13.72)
Female, n (%)	52 (60.5)	60 (69.8)
Race, n (%)		
Black	8 (9.3)	5 (5.8)
White	78 (90.7)	77 (89.5)
Education, yrs, mean (<i>SD</i>)	14.52 (3.48)	15.1 (2.84)
Relationship to patient, n (%)		
Spouse	---	50 (58.1)
Child	---	21 (24.4)
Other Relative	---	8 (9.3)
Friend	---	7 (8.1)

Note. Sums of cells may not equal 86 because of missing responses.