Patient Education and Counseling 57 (2005) 62–76

Patient Education and Counseling

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Encouraging patient adherence: primary care physicians' use of verbal compliance-gaining strategies in medical interviews

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Received 1 August 2003; received in revised form 4 February 2004; accepted 11 March 2004

Abstract

Compliance-gaining strategies refer to subtle differences in ways people use language when their goal is to influence someone else's behavior. This stands in contrast to other kinds of persuasion aimed only at influencing others beliefs and attitudes. We have developed a new method of coding what physicians say when they are trying to influence patients' behaviors. This method applies theory and methods from the fields of interpersonal influence, linguistics and social psychology. We tested the reliability of this new method by randomly selecting 37 audiotaped medical interviews collected for an unrelated study [J. Gen. Int. Med., 9 (1994) 402] and having three coders independently identify physician compliance-gaining utterances and then independently apply one of 57 codes to each utterance. These codes also were categorized on two underlying dimensions reflecting whether the physician (1) framed the compliance-gaining utterance in a direct or indirect way, and (2) did or did not give a justification for that direct or indirect request. Reliability among coders and coders agreement with the final utterance identification and coding decisions, measured as per cent agreement among coders and/or, where appropriate, by Cohen's κ were good to excellent. Most physicians' strategies were indirect and incomplete. For female patients, physicians used significantly more strategies, including more indirect strategies, complete strategies, "prescriptions" and "demands". For male patients, physicians used a greater percent of direct strategies, including "procedural demands". This method provides a reliable and promising new technique for observing naturally occurring physician compliance-gaining speech.

Keywords: Patient-provider communication; Interpersonal influence; Physician behavior

1. Introduction

Effectively encouraging patients to adhere to medical advice is both critical to successful medical care and a central feature of the doctor–patient relationship. Unfortunately, nonadherence is widespread [1,2] and its deleterious effects are well documented [3–6].

A number of researchers have studied various aspects of doctor–patient communication and how these aspects relate to regimen adherence and patient satisfaction [7–9]. A common product of these studies has been systems for coding the verbal interactions between patients and physicians [10–12]. Although these types of systems have yielded very important findings and allow for global characterizations of the physician–patient interaction, we propose a more microanalytic approach derived from linguistic, communication, and social psychological research on interpersonal influence.

Our method applies theory and methods derived from interpersonal influence literature on compliance gaining. The term *compliance-gaining strategies* refers to subtle differences in the ways people use language when the goal is to influence someone else's behavior [13–15]. This goal of changing another's behavior stands in contrast to other kinds of persuasion aimed only at influencing others' attitudes and beliefs [16].

Focusing on the concept of interpersonal power, sociologists Marwell and Schmidt [17] developed the initial 16-item typology of verbal compliance-gaining strategies. Based on

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doi:10.1016/j.pec.2004.03.017

the classic works of Thibaut and co-workers [18–22], these strategies were characterized by the types of reasons provided for compliance. Although based on theory, this typology and its offspring are simply lists of strategies used in studies where people check off the verbal tactics they think they would use when in a hypothetical situation.

Burgoon and co-workers [23–26] are among the few researchers who have focused on the verbal compliance-gaining tactics used by physicians. Their work, however, has not examined actual physician speech during real encounters with patients but, rather, physician's self-reports of the types of strategies they would see themselves using in various hypothetical circumstances. Burgoon found that physicians reported that they would use more reward and punishment strategies and use more strategies of all kinds (and thus exert more effort in influencing behavior) when the patient's illness was severe. Physicians also reported that they would use more verbally aggressive tactics on a first rather than follow up visit. A companion study examined patients' perceptions of the types of strategies physicians used and found that patients reported physicians as using more verbally unaggressive than aggressive styles and that aggressiveness was negatively correlated with patient satisfaction. Although these studies are clearly limited by their hypothetical and/or retrospective self-report nature, they have added to the foundation of our coding scheme.

The coding scheme we have developed provides a fine-grained analysis of the ways that physicians use language when trying to influence patients. To develop the coding method we examined published literature, transcripts of medical interviews, and methods used by other doctor–patient communication researchers (e.g. [11,12]). We also heeded Dillard's [27] advice by organizing our list of strategies around practical and conceptually important dimensions that could later be used as aggregated dependent variables. Therefore, although our system consists of 57 mutually exclusive categories, these are ultimately reducible to the two underlying dimensions of directness and completeness.

Directness refers to the extent to which a physician states a desired action explicitly or implicitly. Direct strategies are often called "commands" and follow the linguistic form "Do *X*". The use of an indirect strategy requires that the patient infer the desired behavior from the utterance provided. These indirect strategies may follow a variety of linguistic forms (e.g., Doing X is not a bad idea"; "Directions will be on the bottle"). Research has shown that language is often indirect, people prefer using indirect language and indirectness appears to be "normal" and expected given enduring cultural norms about face saving, social distance, and politeness [28–30]. Aronsson [31], however, suggests that physician indirectness may result in patient confusion about regimens. Clearly if patients do not understand that they are supposed to follow some recommendation or do not understand the details of the recommendation itself, adherence will be a problem.

Whereas directness describes an action quality, completeness refers to the extent to which a strategy includes a justification *(*or a reason) for the action. These strategies follow the basic form "Do X because. . . " (e.g., Do X because it will make you feel better" or " Do X so I can monitor your progress").

Organizing our strategies around these two dimensions, directness and completeness, allowed us to examine both the way a specific medical recommendation is expressed and the types of reasons provided for compliance with that recommendation. Because we were most interested in the language physicians use to encourage compliance, we opted to organize our strategies around the dimensions of directness and completeness rather than more social dimensions (e.g. aggressive versus unaggressive or pro-social versus antisocial) or relational judgments (e.g., levels of dominance or intimacy). Furthermore, directness and completeness are two dimensions that can be determined, for the most part, by hearing and examining the linguistic qualities of an utterance.

In this paper, we present the first reliability assessment of this new method for describing the ways primary care physicians use language when they are trying to influence patient behavior.

2. The coding dimensions and strategies

Our coding method includes 57 mutually exclusive physician verbal compliance-gaining strategies, each defined as an utterance used when a physician tries to "get the patient to do something." Strategies vary on two dimensions and can be described as both direct or indirect and complete or incomplete. Direct strategies contain a desired patient behavior that is stated in the imperative form (e.g., "Cut down to one pack a day."), while indirect strategies contain an implied action (e.g., "We talked about the smoking."). Complete strategies include, in addition to a direct or indirect action, a justification or reason for the desired action (e.g., "Take it with food to prevent nausea."); incomplete strategies contain no justification (e.g., "Take it with food." or ". . . with food"). The 57 strategies are grouped and presented below, and complete lists of codes, brief definitions, and examples are presented in Appendix A.

2.1. Reinforcement and punishment strategies

These strategies are based on principles of operant conditioning and include several variations of Marwell and Schmitt's [17] *negative expertise*, *positive expertise*, *promise*, and *threat (direct positive reinforcement, indirect positive reinforcement, direct negative reinforcement, indirect negative reinforcement, direct positive punishment, indirect positive punishment, direct negative punishment, indirect negative punishment, verbal approval*, and *verbal disapproval*). These strategies were included to allow