Patient Education and Counseling 98 (2015) 55–60

Contents lists available at ScienceDirect

Patient Education and Counseling

journal homepage: www.elsevier.com/locate/pateducou

Communication Study

Physician gender and patient centered communication: The moderating effect of psychosocial and biomedical case characteristics

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ARTICLE INFO

Article history:
Received 30 April 2014
Received in revised form 2 October 2014
Accepted 11 October 2014

Keywords:
Physician gender
Patient-centeredness
Patient–physician communication
RIAS

ABSTRACT

Objective: Female physicians have a more patient-centered communication style than their male counterparts; however, few studies have investigated how the biomedical or psychosocial nature of a patient diagnosis might moderate this relationship.
Methods: Seventy six 3rd year residents (50 male and 26 females) seeking board certification from the Korean Academy of Family Medicine participated in the 2013 Clinical Practice Examination by conducting two simulated patient (SP) interviews, one presenting a largely psychosocial case and the other largely biomedical. The interview recordings were coded with the Roter Interaction Analysis System (RIAS).
Results: Female physicians and their SPs engaged in more dialog than male physicians in both cases. Female physicians were more patient-centered than males for the psychosocial case ($t = -3.24$, $P < 0.05$), however, their scores did not differ for the biomedical case. In multivariate analysis, a significant interaction between physician gender and case ($z = -3.90$, $P < 0.001$) similarly demonstrated greater female patient-centeredness only for the predominantly psychosocial case.
Conclusion: Case characteristics moderated the association between physician gender and patient-centeredness.
Practice implications: Case characteristics need to be considered in future research on the association of physician gender and the patient-centered communication, as well as in the tailoring of physician communication training.

1. Introduction

There are well-documented gender differences in physician communication style [1–4]. Female physicians facilitate more open and equal exchange than male physicians; they ask more questions, share more information, engage in more psychosocial discussions and partnership building behavior, and are more encouraging of patient participation in their interactions [1,2,5]. Patients of female physicians speak more overall, make

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http://dx.doi.org/10.1016/j.pec.2014.10.008
0738-3991/

more positive statements, disclose more information, both psychosocial as well as biomedical than patients of male physicians [3].

These elements of medical exchange are considered indicative of a patient-centered communication style [1,6] and have been linked to a variety of positive outcomes, including patient and physician satisfaction, higher level of adherence to therapeutic recommendations, better disease control, enhanced physical and psychological status, and even lower healthcare cost [7–9].

Patient-centered communication may be particularly important in dealing with diagnostic conditions that have psychosocial, emotional and lifestyle ramifications. The predominantly biomedical or psychosocial nature of the case presentation and diagnosis, may play an important role in the understanding the relationship between physician gender and patient-centered communication style. Female gender has been associated with greater provision of psychotherapy/therapeutic listening in a US national survey of visit characteristics [10], and patient-centered consultations have been associated with psychosocial or complex problem presentations, suggesting that both physician gender and case characteristics [11]. Therefore, case characteristic seems to be associated with both physician gender and physicians' communication style, and may play a role as a moderator in the association between them.

Despite this substantial body of literature, few studies have specifically investigated how variation in case characteristics might moderate the relationship between physician gender and patient-centered communication style. It is plausible that the well documented higher levels of patient-centeredness associated with female physicians are a result of patient self-selection and gender-linked role expectations [12], the work environment, or training. For instance, female physicians are younger and more recently trained than their male counterparts [12], tend to work in managed care environments [12], and conduct longer visits [1].

The Korean culture has been defined by Confucianism for over 500 years, and the role of women in this tradition was largely confined to that of mothers. However, economic development and westernization has brought rapid and dramatic change to traditional gender roles. The majority of South Korean women are highly educated (99.5 and 61.6% for high school and university, respectively) and more than half work outside of the home. Despite this change, there are still vestiges of patriarch, and the proportion of women in professional and managerial positions are relatively low [13]. In the medical field, female physicians are rapidly increasing in numbers from 18% in 2002 to 23% in 2011 [14]. Current estimates are that 30% of newly licensed doctors are women as are 40% of current medical students.

In light of the rapidly increasing number of female physicians in the Korean Medical workforce, the current study was conducted taking advantage of the opportunity afforded by the Korean Academy of Family Medicine's CPX (Clinical Practice eXamination) [15] to describe gender-linked differences in medical communication and within the context of a psychosocially and biomedically focused patient case.

We hypothesized that female physicians in Korea, like those elsewhere, would be more patient-centered than their male counterparts and that this pattern would persist regardless of case characteristics.

2. Methods

2.1. Participants and setting

Participants included 314 family medicine residents completing training and seeking certification from the Korean Academy of Family Medicine (KAFM) through the CPX administered in 2013. Sixty standardized patient (SP) members of the Clinical Practice Consortium participated in the examination. The consortium trains and coordinates SP use in medical school training programs and the medical license examinations throughout Korea. Prior to the CPX, all SPs underwent a half-day review of their case.

Twenty examination rooms were used for the exam; 12 of these rooms were furnished with built-in video camera equipment and 8 rooms were adapted for use with portable equipment. Each physician was randomly assigned to an exam room. Instructions to the physicians were to conduct 2 separate 10 min interviews with SPs assigned to their exam room. Physicians were observed and evaluated by board-certified faculty members recruited by the CPX board using a checklist of case-specific items relevant to history taking, physical exam, counseling, and patient–physician interaction.

For the current analysis, a total of 152 SP–physician consultations conducted by 76 physicians (50 male and 26 female) were analyzed. These encounters were selected for technical reasons. Only physicians who were assigned to the 12 CPX dedicated rooms were included as the quality of the videotapes produced in the 8 adapted rooms was too inconsistent for reliable use. The case combinations were selected to represent a distinction between predominately psychosocial and biomedical case characteristics. The psychosocial case was presented by 10 middle aged male SPs and was generalized myalgia poorly characterized in multiple body sites accompanied by moderate emotional distress. The case was not straightforward, and differential diagnoses included fibromyalgia, polymyalgia rheumatica, hypothyroidism, and anxiety disorder. Exploration of potential psychosocial causes and direction of work-up to rule out potential physical causes were importantly considered in evaluation. The biomedical case was presented by 10 middle-aged female SPs and included symptom presentation of dark red stools and weight loss. The case was relatively straightforward and the differential diagnoses included colorectal cancer and inflammatory bowel disease. Naming of potential diagnoses and specific direction for further work-up were importantly considered in evaluation.

The cases were developed by the CPX examination committee of KAFM whose members are all board-certified and experienced family physicians working in academic medical centers. The committee developed a pool of CPX cases, discuss them through 3 day workshop, and finally select the cases considering the balanced mix to reflect the various aspect of care. While the committee selected one predominantly psychosocial case and one predominantly biomedical case, it was largely based on intuition and there were no specific criteria for the distinction. The Institutional Review Board of Seoul National University Hospital approved the study (IRB number 1310-067-527).

2.2. Study measures: analysis of simulated encounters

The Roter Interaction Analysis System (RIAS) was used to code the CPX simulations [16]. The instrument is the most commonly used communication coding system for medical interaction worldwide with high levels of demonstrated reliability (average inter-coder reliability = 0.85 for various studies) and validity [16]. Communication units are defined as "utterances"—the smallest discriminable speech segment to which a classification may be assigned, and the coding is performed directly from audio or video file without transcript [16]. The unit of analysis is a complete thought and includes 37 parallel clinician and patient codes and a handful of codes unique to each speaker. Every statement is allocated to a code and the codes are mutually exclusive and exhaustive. As in other studies of this kind, the large number of individual codes was reduced by combining similar codes into categorical composites, as displayed in Table 1. These include: question asking