Gender Differences in Verbal Behavior Style in Interviews in Family Medicine: Mars and Venus, or North Dakota and South Dakota?

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Introduction

Communication refers to the process of human beings responding to the symbolic behavior of other persons. Verbal communication is the conscious effort of expression that tries to facilitate the understanding of the message on the part of the other through the use of the words. On the most obvious level, language allows us to satisfy basic functions such as describing ideas, making requests, and solving problems. But beyond these functions, the way we use language also influences others and reflects our attitudes in more subtle ways.

Any language is a collection of symbols governed by a variety of rules and used to convey messages between people. Because of its symbolic nature, language is not a precise tool: meanings rest in the words themselves. In order for effective communication to occur, it is necessary to negotiate meanings for ambiguous statements. Language not only describes people, ideas, processes, and events; it also shapes our perceptions of them in areas including status, credibility, and attitudes about gender and ethnicity. Along with influencing our attitudes, language reflects them. The words we use and our manner of speech reflect power, responsibility, affiliation, attraction, and interest [1].

The clinical interview is a technique or channel and place of communication, where the doctor-patient relationship is produced and developed. And communication in the doctor-patient relationship points out signalizes (like signaling a path in the forest, so that we can focus our field study on the natural values of the place) the clinical setting [2]. Communication is increasingly essential in clinical practice. Since the end of the eighteenth century a process of recovery of the word in medicine has been consolidated, culminating in Freud, who introduces the term “talking cure”, a cure through the word [3]. The cornerstone of general practice is the consultation. Communication is an important component of patient care [4], maybe the most important aspect of practice that health care professionals have to master [5]. The physician-patient interview is the key component of all health care, particularly of primary medical care [6].

Studies have linked physicians' communication skills to a variety of positive outcomes, including patient and physician satisfaction, higher levels of adherence to therapeutic recommendations, improved physiological indicators of disease control, and enhanced physical and
mental health status. Previous research has displayed, a physician’s communication style is an essential factor predicting patient satisfaction and compliance. Furthermore, a good physician-patient relationship and high communication quality seem to be crucial elements fostering the activation of patients’ self-healing powers [7,8]. The patients’ amount of talking using their own words in the medical history segment of the health center visit was significantly correlated with reductions in blood pressure from clinic to home visit, but not with blood pressure levels at the clinic or the home interview [9].

About communication much has been written, from psychology to sociology, psychiatry and anthropology. As doctors and patients communicate during medical interactions they both offer accounts and respond to them. The medical interview is characterized by a moment-to-moment battle that mirrors and largely sustains the institutional authority and status of doctors and the reality of genders [10-14].

Men and women differ, and numerous academic and lay books have exploited those differences [4]. The relationship between gender and language is a confusing one. There are many differences in the ways men and women speak: The content of their conversations varies, as do their reasons for communicating and their conversational styles [1]. About gender and language, so far it has been discussed language use isn’t as clear-cut as it might seem. Despite the differences, men are from North Dakota, women are from South Dakota” [1,19], and the overall difference made by gender is either small or close to zero [20].

However, it is accepted that communication is more or less cross-cultural [21], and numerous studies have been done using this approach, and while the results have been mixed, the commonest finding is that men talk more than women [22]. On the other hand, patients vary in their willingness and ability to actively participate in medical consultations. Patient participation in medical interactions is influenced by:

- The patient’s personal characteristics (e.g., age, gender, education, ethnicity)
- The physician’s communication style (e.g., use of partnership-building and supportive talk)
- The clinical setting (e.g., the health condition, medical specialty) [23].

The influence of the physician’s gender or the gender agreement of the physician and the patient has also been studied to some extent [24-33], but much less the gender influence of the patient in the doctor-patient interview. It has been found that there is a lack of research using patient gender as a meaningful variable in health communication research. Furthermore, because of poor research designs in many studies, many of the conclusions about the role of gender in health communication interaction were found to be suspect.

Suggestions for improving future research are:

- Including patient gender as a significant variable in research designs
- Using research procedures appropriate to the research being conducted
- Using a more descriptive, rules-based epistemological approach to forming research questions [34].

Communication during medical encounters can be analyzed by using different interaction analysis systems. These systems differ with regard to their clinical relevance, observational strategy, reliability/validation and channels of communicative behavior. There are several communicative behaviors that occur in consultations: instrumental (cure oriented) vs. affective (care oriented) behavior, verbal vs. non-verbal behavior, high vs. low controlling behavior, and medical vs. everyday language vocabularies [35].

Existing research is limited because of lack of consensus of what to measure, conflicting findings, and relative lack of empirical studies [6]. The dynamics of communication, which has been tried to measure on the basis of verbal participation questionnaires [36], as well in relation with some aspects of patient-centered communication [37], as well using the Rotter interaction analysis [38], or by studying different aspects of the biopsychosocial model in the clinical interview [39], or by measuring whether family history and family problems were being taken into account during the visit [40], by the percent of total visit speech [36], by physician statements that were analyzed and coded as social talk, physician-centered statements, patient-centered statements, and discussion of patient affect, family, health promotion, and patient education [39], by cluster analysis [41], by means of coding what physicians say when they are trying to influence patients’ behaviors [42], by audio recorded, and categorized using the Medical Communications Behavior System and using Synote, a freely available application enabling synchronization of audio recordings with transcripts and coded notes [8], or by Revised Maastricht History-Taking and Advice checklist (MAAS-R) [25], by the VR-MICS/D (Verona-Medical Interview Classification System/Doctor) [43,44], using Stiles’ Verbal Response Mode coding system (VRM) [9,45], by Bales Interaction Process Analysis [46], by means of focusing upon the
relational aspects of communication to interpret the diversity of patients’ verbal communications to the female interviewer [26], and the classification of Byrne and Long [47], among other.

In this context, we carried out a qualitative and quantitative study with the objective of describe and compare the doctor-patient communication referred to the verbal behavior of the female patients vs. males at the family practice clinic, and to assess the implications that these possible differences may have in clinical management and interpersonal relationship.

Patients and Methods

Design and variables

Secondary analysis of existing dataset coded to explore patient-clinician verbal communication during ambulatory visits in a family medicine office was carried out [48]. A qualitative, observational, narrative study was conducted during the months of November and December 2016, through the audio recording of the consultation, and verbal content analysis of the interviews, based on the identification of 6 categories of classification of the behaviors in meetings that describe the class or behavioral style of the interaction process, not its content, proposed by its simplicity by open university, and based on the principles of Bales and Flanders, reviewed from a study by Huthwaite Research Group [49]:

- **Proposing**: A behavior that advances a new concept or suggests a course of action
- **Supporting or agreeing**: A behavior that includes a conscious and direct statement of support or agreement with another person or their concepts
- **Disagreement**: A behavior that involves a conscious and direct statement of difference of opinion, or criticism of the concepts of another person
- **Giving information**: A behavior that offers facts, opinions or clarifications to other individuals
- **Seeking information**: A behavior that seeks facts, opinions or clarifications of another individual or individuals
- **Building**: A behavior that extends or develops a proposal that has been made by another person.

Other variables were also collected like age, sex, and time in minutes of the consultation. The study is descriptive in its approach since it aims at describing an existing phenomenon and it is qualitative in nature although the study uses a quantitative method for data collection.

In all cases the doctor was the same professional, a family doctor who remains in the same consultation for over 25 years. The location was a family medicine office, in the Health Center Santa Maria de Benquerencia, Toledo, Spain, which has a list of 2,000 patients. Patients of both sexes over 14 years old were included (In Spain family doctors vs. males at the family practice clinic, and to assess the implications that these possible differences may have in clinical management and interpersonal relationship.

Sample

A non-random sampling, intentional of convenience was carried out by the investigators. A suitable sample number was considered when saturation occurred, i.e. no new data were obtained [50]. The criterion of maximizing the diversity in obtaining the sample was taken into account, and all types of interviews were included, with the widest possible situations.

Ethical aspects

The informed consent of all patients and companions for using of data in research was obtained. There was an ethical approval of the institution (Teaching unit of Family Medicine).

Analysis

The interview was recorded in audio, and later transcribed to Microsoft® Word. With the written text of the interview, their content was subsequently analyzed, classifying the interaction in the doctor-patient interview, according to the 6 proposed categories [51,52]. Once the qualitative study is completed, the results of the number of behaviors in the total of consultations are presented in a quantitative way.

Only as an orientation, because the size of the sample was not calculated as a quantitative, but qualitative, the bivariate comparisons were performed using the test of chi-square and exact probability Fischer.

But the sample is reasonably no different from the one randomly selected. Besides, it would be very strange if there were individuals over represented or absent in the sample studied. So, with all cautions, quantitative results could be extrapolated to the population of family medicine consultations [49,53].

Control of validity and reliability of the study

- **Internal validity (credibility)**: A qualitative study has internal validity when it is credible. We present a description and interpretation of a human experience or phenomenon such that people who live that experience immediately recognize the descriptions and interpretations as their own.
- **External validity (applicability)**: Although it is not an objective of the qualitative studies, that do not pretend to generalize findings, to the extent that the researchers have respected the criterion of maximizing the diversity in obtaining the sample and make a detailed description of the context and participants, the findings may be applicable in similar contexts.

Technique to control bias

Triangulation (it is to get different perspectives of the phenomenon studied).

Among different evaluators: The written transcripts of voice recordings of the interviews were read by the research team to reach agreements on the categories that were used. The process was as follows:

- Each researcher made several individualized readings of each interview, obtaining the frequency of each of the 6 categories, until obtaining a file of categories of each journal.
- A group agreement of categories was made for each interview-assigning phrase of original data to new categories—and thus forming a file of definitive categories for each interview. To facilitate this process, it was worked from the categories of a researcher, which were compared with those of the rest in group work. And finally, the results were interpreted.
Methodological triangulation: The integration of qualitative and quantitative findings, help researchers to clarify their theoretical propositions and the basis of their results [54].

Results

About 20 consultations were included in the analysis. In interviews with women vs. males, differed mainly in showing more "Supporting" (39% and 29%, respectively; p=0.05), and less "disagreement" (3% and 11%, respectively; p<0.05) (Table 1).

There were no differences in the verbal behaviors of the physician in the consultations with female vs. male patients (Table 2).

Table 3 presents some “verbatim” (literal phrases) in relation to the behaviors of each actor in consultations.

Table 1: Comparison of verbal behavior between patients female/male.

<table>
<thead>
<tr>
<th>Patients behavior styles</th>
<th>Female patients (N=12) No (%)</th>
<th>Male patients (N=8) No (%)</th>
<th>Statistical Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposing</td>
<td>8(3%)</td>
<td>9(6%)</td>
<td>$X^2=2.5211, p=0.112332, NS$</td>
</tr>
<tr>
<td>Supporting/ Agreeing</td>
<td>104(39%)</td>
<td>42(29%)</td>
<td>$X^2=3.8335, p=0.05$</td>
</tr>
<tr>
<td>Disagreeing</td>
<td>8(3%)</td>
<td>16(11%)</td>
<td>$X^2=11.2697, p=0.000788$</td>
</tr>
<tr>
<td>Giving information</td>
<td>125(47%)</td>
<td>65(46%)</td>
<td>$X^2=0.0884, p=0.766177, NS$</td>
</tr>
<tr>
<td>Seeking information</td>
<td>18(7%)</td>
<td>5(4%)</td>
<td>$X^2=1.8743, p=0.170987, NS$</td>
</tr>
<tr>
<td>Building</td>
<td>3(1%)</td>
<td>6(4%)</td>
<td>Fisher Exact test= 0.071202, NS</td>
</tr>
<tr>
<td>Total</td>
<td>266(100%)</td>
<td>143(100%)</td>
<td></td>
</tr>
</tbody>
</table>

Table 2: Comparison of verbal doctor behavior between patients female/male.

<table>
<thead>
<tr>
<th>Doctor behavior styles</th>
<th>Female patients (N=12) No (%)</th>
<th>Male patients (N=8) No (%)</th>
<th>Statistical Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposing</td>
<td>44(16%)</td>
<td>28(16%)</td>
<td>$X^2=0.907, p=0.340914, NS$</td>
</tr>
<tr>
<td>Supporting/ Agreeing</td>
<td>32(12%)</td>
<td>25(14%)</td>
<td>$X^2=2.8276, p=0.092657, NS$</td>
</tr>
<tr>
<td>Disagreeing</td>
<td>7 (2%)</td>
<td>3(2%)</td>
<td>$X^2=0.0747, p=0.784558, NS$</td>
</tr>
<tr>
<td>Giving information</td>
<td>108(39%)</td>
<td>67(39%)</td>
<td>$X^2=2.3996, p=0.121363, NS$</td>
</tr>
<tr>
<td>Seeking information</td>
<td>65(23%)</td>
<td>36(21%)</td>
<td>$X^2=0.1508, p=0.69774, NS$</td>
</tr>
<tr>
<td>Building</td>
<td>21(8%)</td>
<td>13(8%)</td>
<td>$X^2=0.2889, p=0.590917, NS$</td>
</tr>
<tr>
<td>Total</td>
<td>277(100%)</td>
<td>143(100%)</td>
<td></td>
</tr>
</tbody>
</table>

Table 3: Comparison of verbal behavior between patients female/male.

<table>
<thead>
<tr>
<th>Behaviour styles</th>
<th>Female Patients</th>
<th>Male Patients</th>
<th>Doctor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposing</td>
<td>That, make me a study, I do not know why...</td>
<td>You have to measure me the blood pressure...</td>
<td>You can try...</td>
</tr>
<tr>
<td></td>
<td>Yes, let me have a complete analysis</td>
<td>I ... I want to take... better... pills</td>
<td>This drug that I am going to change you does not make that potassium is lost...</td>
</tr>
<tr>
<td>Supporting/Agreeing</td>
<td>Okay, I'll try to quit smoking</td>
<td>Yes, yes, it's three weeks that it's left...</td>
<td>Let's see... you're right.</td>
</tr>
<tr>
<td></td>
<td>All right, we'll have to try them</td>
<td>Exactly...</td>
<td>All right, nothing happens</td>
</tr>
<tr>
<td>Disagreeing</td>
<td>No, nothing</td>
<td>No, I have not seen her; that was yesterday...</td>
<td>No, no, I think you cannot...</td>
</tr>
<tr>
<td></td>
<td>No, no ... No, it was to be warded before February, but now it is not...</td>
<td>No ... I do not trust in this</td>
<td>It should not because it is the same...</td>
</tr>
</tbody>
</table>
The clinical interview is an essential competence of the family doctor and communication a key piece in the doctor-patient relationship. Health care and its outcomes depend on how the professional and the consultant communicate, since profitable communication is a major component in health recovery [4,7-9].

In our study, a proposed Open University classification, though based on similar principles to Bales and Flanders, was used. It was chosen from other existing ones because it is a much simpler system and consist an abbreviated system devised originally to study management skills and behaviour by the Huthwaite Research Group [49].

Gender and language: gender differences in patients' verbal behaviors

What are the similarities and differences between male and female language use? In our study, interviews with women vs. males differ very little, these differences being found only in showing more "Supporting", and less "disagreement" in women (Table 1), which coincides with what was previously reported.

Research shows that the notion that men and women communicate in dramatically different ways is exaggerated. Men are more likely than women to emphasize making conversation fun. By contrast, women's speech is often somewhat powerless and tentative. Saying “This is just my opinion...” is less likely to put off a conversational partner than a more definite "Here's what I think...". Men's speech is often driven by quite different goals than women's. When someone else is sharing a problem, instead of empathizing, men are prone to offer advice: "That's nothing to worry about..." or "Here's what you need to do...". Besides taking care of business, men are more likely than women to use conversations to exert control, preserve their independence, and enhance their status. This explains why men are more prone to dominate conversations and one-up their partners. Men interrupt their conversational partners to assert their own experiences or point of view. (Women interrupt too, but they usually do so to offer support: quite a different goal) [1]. Table 3 presents some "verbatim" (literal phrases) in relation to the behaviors of each actor in consultations.

**Discussion**

**Ways to measure verbal communication in the doctor-patient interview**

also explains why female speech is often somewhat powerless and tentative. Saying “This is just my opinion...” is less likely to put off a conversational partner than a more definite "Here's what I think...". Men's speech is often driven by quite different goals than women's. When someone else is sharing a problem, instead of empathizing, men are prone to offer advice: "That's nothing to worry about..." or "Here's what you need to do...". Besides taking care of business, men are more likely than women to use conversations to exert control, preserve their independence, and enhance their status. This explains why men are more prone to dominate conversations and one-up their partners. Men interrupt their conversational partners to assert their own experiences or point of view. (Women interrupt too, but they usually do so to offer support: quite a different goal) [1]. Table 3 presents some "verbatim" (literal phrases) in relation to the behaviors of each actor in consultations of our study.

It has been reported that women consult with more problems, usually give more information, and ask more [55], but no in our study. The sociolinguistic research of communication indicates that before a problem, men prefer to solve it by their account, while the women look for suggestions and solve it consensually, and women are the more supportive [56]. We found similar findings. In addition, the fact that in our study women show more behaviors of agreement and support makes us think about the possibility of achieving better health outcomes in those consultations. Verbal behaviors positively associated with health outcomes included empathy, reassurance and support and the therapeutic alliance is based in rapport, trust, communicative success and agreement [57]. Although other authors report that women were more likely than men to refuse medication [58].

**Duration of the consultations**

Who speaks more, women or men? The results of the investigations seem contradictory. It may depend on where the conversation is: public or private. For women the language of communication tends to establish connections and negotiate relationships. For men, communication tends to preserve independence and maintain status and hierarchy [59]. Female callers are more verbos than male callers for open style prompts [60]. Older men and women were significantly
more verbose than young men and women [61]. And it may be interpreted that longer consultations are associated with more adequate diagnoses, at least in psychological problems [62]. But, we found no differences in the duration of the consultation among female patients vs. males (Figure 1).

A growing body of research explains some of the apparent contradictions between the similarities and differences between male speech and female speech. They have revealed other factors that influence language use as much or more than does gender. Orientation toward problem-solving also plays a role in conversational style. The cooperative or competitive orientations of speakers have more influence on how they interact than does their gender. The speaker's occupation and social role also influence speaking style [1].

The gender of the care providers

In our study it was the same male doctor in all the interviews, and in this way they have not influenced differences by gender nor social gradient, etc. Although with contradictions, as there are authors who communicate that male and female doctors use a speech style which is not gender specific [24], or the gender of the care providers was not an issue for patients regarding communication about some issues [26], most of the data show patient-doctor gender concordance/discordance is associated with their agreement/disagreement on advice given during the consultation. Physicians need to be conscious that their own demographic characteristics and perceptions might influence the quality of prevention counseling delivered to their patients [27]. The authors hypothesize that physician gender could have an effect on patient satisfaction, compliance, and health status through the mechanisms of the physician patient relationship and gender-specific communication strategies to explore the patient's agenda [7,28-30,32,33,63]. On the other hand, it has been reported that physicians make more efforts to communicate with female patients than with men, and give more time to consultations with women [55], but this is not reproduced in our study.

Verbal behavior of the physician

The doctor-patient discourse is characterized by the asymmetry that emerges in the encounter, the distribution of turns in the conversation and the type of language strategies that are used. While the doctor has at his disposal more linguistic alternatives to participate in the speech, the patient has more restricted possibilities of using the same linguistic resources in that event. The physician, in his role, searches for information about the patient, makes a diagnosis, proposes and evaluates a treatment. The patient tends to give personal information about his psycho-social identity and to initiate, according to the need and possibility, subjects that he considers relevant.

Michael Balint suggested that the patient begins the consultation by offering one or more problems and issues to the doctor. The doctor respond to these offers, indicating his acceptance or rejection of them, until some kind of compromise is worked out. In consequence, while the matters that are discussed in the consultation reflect the problems presented by the patient, they include only those aspects that the doctor indicates that are allowable [47].

In our study, the verbal behaviors of the physician (male) in females and males patient's consultations were similar [Table 2], and coincides with that reported by other authors. Although there may be much variability among physicians in their verbal behavior in the consultation, this does not change individually according to gender of the patients attended [47].

Limitations of the Study

Coding difficulties: There may be difficulties in sorting, since in one sentence more than one category can be observed. A disagreement phrase can also be a proposal, and a proposition can also give information. Many phrases can be considered either as giving or requesting information, but once the technique has been learned, and biases have been avoided through the triangulation of researchers, it can provide useful data on the behavior of individuals and groups [49,53].

The question of representativeness of the sample: How “typical” was the behavior of the participant? Will the “typical” activity be found if the sample were larger? Is the activity collected subject to fluctuations? Interviews were recorded on normal consultation days, communication was not subject to fluctuations, and we thought that by maximizing the diversity of the participants, they represented the patients usual of the consultation. It may be thought that the size of the sample is small, but in qualitative studies this usually is small, and sample size was given by the saturation of the data [50]. Once the qualitative study was completed, the results of the number of behaviors in were presented in a quantitative way, and only as an orientation.

The content of the interviews was not collected: Only the class or behavioral style of the interaction process. The conceptualization of the disease is another point of interest that can vary between males and females. A different understanding of the origin of a disease, for example, can cause communication problems and lead to misunderstandings. Although there is a great deal of variation within each gender, on the average, men and women discuss a surprisingly different range of topics. These differences can lead to frustration when men and women try to converse with one another. Male patients tended to describe their ailments with performance-oriented statements, whereas the female patients usually used emotional-oriented statements [64,65], and more women indicate symptoms of fatigue than men did [34] and consult with more problems [55]. All these possible differences in verbal content were not studied in our study.

Silences have not been collected: we could interpret the silence that the patients assume, in some segments of the conversation, is a
reflection of the emotional load they feel with the situation they are living. But when picking up the audio recording it was not possible to know when the patient’s voice was silenced.

**Non-verbal communications have not been collected:** verbal and nonverbal messages should be studied as inseparable phenomena they happen together [65].

**Conclusion**

In the 90’s of the twentieth century, a book was published in the United States that was successful sales; “Men are from Mars, women are from Venus” [18]. This book argues that men and women were destined not to understand us because we assume that the other will react as we do. The book revolves around the argument that men find it easier to deal with specific issues, aggressiveness and competition (Mars was the god of war in Greek mythology) and women are more accustomed to dealing with The affective issues, which have to do with human bonds and communication (Venus was the goddess of love).

The book has been criticized for placing human psychology into stereotypes. Men and women are not fundamentally different, contrary to what Gray suggests in his book. The idea that men and women “speak different languages” has itself become a dogma, treated not as a hypothesis to be investigated. The idea that men and women differ fundamentally in the way they use language to communicate is a myth in the everyday sense [20].

The verbal behavior in interview in the family medicine consultation with female patients vs. males shows very small differences. There is a weak indication of a profile of verbal behavior that may facilitate the work of the physician. Neither men are of Mars nor the women of Venus; maybe men are from North Dakota and women from South Dakota [1,19]. Anyway, he results of communication are more complex than what these results may indicate. Communication is an extremely important but understudied dimension of the patient-therapist relationship [8], and the methods described here could provide a useful model for further research and reflective practice, although they need further refinement. However, our data, showing that consultations with female patients show more agreement/support, which coincides with other authors [66], suggest that this type of interview can achieve better results [4].

Why is the research on gender differences so confusing? In some studies, male speech and female speech seem identical, whereas other studies reveal important differences. As we have already said, one reason for the confusion is that factors besides gender influence the way people speak: the setting in which conversation takes place, the expertise of the speakers, their social roles (husband/wife, boss/employee, and so on). Also, female roles are changing so rapidly that many women simply don’t use the conversational styles that characterized their older sisters and mothers. But in addition to these factors, another powerful force that influences the way individual men and women speak is their sex role—the social orientation. Research suggests that neither a stereotypically male style nor female style is the really speak languages? Oxford University Press, Oxford.

**References**


