



Received: 05 March 2018
Accepted: 15 June 2018
First Published: 21 June 2018

*Corresponding author: Tina Zodan,
Department of Gynecology and
Obstetrics, Triemli Municipal Hospital,
Birmensdorferstrasse 501, 8063
Zurich, Switzerland
E-mail: Tina.ZodanOtto@see-spital.ch

Reviewing editor:
Udo Schumacher, University Medical
Center Hamburg-Eppendorf,
Germany

Additional information is available at
the end of the article

OBSTETRICS & GYNECOLOGY | RESEARCH ARTICLE

Teaching communication in an emergency gynecological setting

Tina Zodan^{1*} and Stephanie von Orelli¹

Abstract: This study aimed to test whether a difference in communication can change patients' satisfaction and whether teaching communication through individual experience can motivate residents to improve their communication skills.

In the first 115 days of our study, the communication mode of the attending resident remained unaltered. In the second 115 days, the attending resident was instructed to follow a six-point communication standard (CS). In both phases, patients completed a questionnaire regarding their age, waiting time, and description of their condition, plus the PDRQ-9 questionnaire and two questions concerning their satisfaction with the medical visit. In all, 265 questionnaires were evaluated. Of the 35 conditions encountered, six were identified as being associated with increased anxiety (emergency in early pregnancy, bleeding in early pregnancy, early fetal demise, follow-up of early fetal demise, irregular bleeding, and lower abdominal pain). When the satisfaction of the patients presenting with these conditions "before" and "after" the introduction of CS was compared, the difference in satisfaction reached borderline significance (Mann-Whitney U-test 0.066). Ten out of 11 residents commented positively on CS; seven of 11 residents experienced some internal change when using it.

ABOUT THE AUTHOR

Tina Zodan, currently senior consultant in obstetrics at the See-Spital, Horgen, Switzerland, completed a specialized residency program in gynecology and obstetrics. Due to a constant interest in "soft skills" in medicine, she also completed a two-year training course leading to a Certificate of Advanced Studies in psychosomatic and psychosocial medicine. Stephanie von Orelli is Head of Department and senior breast surgeon at the Triemli Municipal Hospital, Zurich, Switzerland. The two authors share a strong belief that while immense progress has been made in operative medicine and therapy, communication skills deserve more attention in the training of gynecologists and obstetricians.

PUBLIC INTEREST STATEMENT

Medical guidelines worldwide always instruct residents on what to do in a certain clinical situation, but never on what to say. We conducted our study in order to demonstrate to residents how a physician's communication during a medical visit can change patients' satisfaction, even if diagnostics and therapy remained the same. In our study, conducted in the emergency walk-in-clinic of a large gynecological department, we tested patients' satisfaction with their visit before and after the introduction of simple guidelines called a "communication standard," which was designed to be used by medical residents. Patients presenting with conditions associated with increased anxiety, such as bleeding in early pregnancy, early fetal demise, and strong abdominal pain, were more satisfied with their medical visit when the "communication standard" was applied. In all, 63% of the residents participating in the study experienced some changes within themselves or within the physician-patient encounter when using the "communication standard."

Choosing the appropriate words during an emergency medical visit can change a patient's satisfaction with the visit. When taught through their own experience, residents can be motivated to implement communication tools in their daily routine.

Subjects: Teaching & Learning; Obstetrics, Gynecology & Women's Health; Emergency Medicine

Keywords: physician–patient communication; teaching; motivation; gynecology; emergency

1. Introduction

Physician–patient communication is the basis of the physician–patient relationship. Numerous studies have shown that a sustainable physician–patient relationship positively influences compliance (Davis, 1971), long-term outcome (Stewart, 1995) and satisfaction of patients (Pollak et al., 2011). A lack of communication, insufficient communication and inconsiderate communication are known to be frequent causes of patients' complaints (Levinson, Roter, Mullooly, Dull, & Frankel, 1997; Taylor, Wolfe, & Cameron, 2002).

Despite the acknowledged importance of communication (Makoul, 2001; Simpson et al., 1991), the majority of the specialized residents' programs promotes clinical skills and neglects soft skills, including communication. A substantial number of residents underestimate the importance of communication, believing that evidence-based therapy (Bensing, 2000) outweighs any—excellent or poor—physician–patient communication. This attitude is supported by the fact that medical guidelines worldwide always instruct residents on what to do, but never on what to say.

Following typical European practice, Swiss medical students are taught the bases of physician–patient communication in their 1st and 2nd years. Later on, the curriculum focuses on clinical skills. Some studies have shown that the natural empathy of medical students decreases with years of study (Pfeiffer, Madray, Ardolino, & Willms, 1998; Rider, Hinrichs, & Lown, 2006). This finding is reflected in their behavior at the beginning of their residency: medical residents are still insecure, with little clinical knowledge, and far more self-centered than patient-centered (Illingworth, 2010).

In residency programs leading to the title of specialist in gynecology and obstetrics, the Swiss Medical Association has defined requirements in the field of physician–patient interaction. Before taking the specialists' exam, a resident is expected to be able to “break bad news,” talk to a “difficult patient,” be acquainted with psychosomatic issues in gynecology and obstetrics, and handle many other difficult topics. The knowledge for all these topics is supposed to be acquired through two block-courses of 6 h each, four psychosomatic sessions of 3 h each, and “workshops and seminars,” which are not further specified. This means that a resident applying for his/her specialist's certificate has spent 24 obligatory hours focusing on physician–patient interaction during a residency program lasting approximately 5 years.

In Switzerland, there is no standardized communication teaching program for medical residents. The need for change has been recognized by medical faculties and is summarized in the Basel Consensus Statement, 2010 (Kiessling et al., 2010). Although the learning goals were defined in 2010, no structured teaching program has been broadly applied so far.

In our effort to improve physician–patient communication in our department, we had to design a teaching program without extra funding, manpower, or organizational changes. Working within this framework, the “communication standard” (CS) that we devised had to be short and directly applicable to the residents' work-process.

The CS (Table 1), based on the local cultural norms and medical literature exploring physician–patient communication and physician–patient relationship (Dwamena et al., 2012; Illingworth,

Table 1. The communication standard (CS)

| | | |
|---------------|----------------|---|
| Paragraph 1 | When to say it | <i>Immediately after approaching the patient in the waiting room and on the way into the examination room</i> |
| | What to say | "I am sorry that you had to wait. Unfortunately, in an emergency walk-in clinic we can't always avoid it. Now I have time for you." |
| Paragraph 2 | When to say it | <i>After the patient takes a seat in the examination room</i> |
| | What to say | "Before you tell me about the problem that brought you here today, I would like to ask a few questions and immediately write your answers in our computer program. You may find some questions trivial or even unnecessary, but your answers may be important in our conversation later on" |
| Paragraph 3* | When to say it | <i>After history taking</i> |
| | What to say | "Tell me in your own words why you are seeking help here today." |
| Paragraph 4** | When to say it | <i>After the interview and before the examination</i> |
| | What to say | - "I understand that you are worried about your condition"or - "You are tough! It is clear that you've been suffering for some time before seeking help".....or - "It was a very good decision to seek help here today" ** |
| Paragraph 5 | When to say it | <i>After the examination has been conducted, the probable diagnosis named, and a therapy suggested</i> |
| | What to say | "In the last few minutes I told you a whole lot of things! It may well be that I forgot some issues that are important to you. Is there something else that you would like to know?" |
| Paragraph 6 | When to say it | <i>After the questions of special concern to the patients are clarified and before the patient is about to leave the examination room</i> |
| | What to say | "I do hope that you are going to feel better tomorrow! If your condition does not improve or even gets worse, please contact us again. This is my direct telephone number, and this is the number of the 24-hour emergency resident." |

3*: After this sentence, the residents were advised to let the patient speak for 2 min without interrupting.

4**: The residents were given a range of "empathy sentences" to choose from.

2010; Langewitz, 2011; Stewart, 1995), contained six items: apology for the waiting time, announcing history-taking and introducing the computer, giving the patient free-talking time, expressing empathy, eliciting more patients' hidden concerns, and stabilizing the relationship.

Paragraph 1 of the CS was aimed at the Swiss passion for punctuality and order. Long waiting times in any kind of public institution are viewed as a sign of bad organization and lack of control over the work-process. To counter any negative feelings that might ensue before the doctor-patient encounter even took place, an apology was introduced in the first sentence, an explanation of the situation in the second one, and a new opening was offered in the third one. **Paragraph 2** announced history-taking and introduced the computer screen. Various studies have reported patients sensing a "lack of interest" or "loss of empathy" from the attending physician, based on continuous doctor-screen instead of doctor-patient contact. The reduced time of eye contact with the patient and the increased computer-gaze time were associated with reduced patient centeredness and reduced satisfaction with the visit (Duke, Frankel, & Reis, 2013; Ventres & Frankel, 2010). To overcome the disturbance that the computer can cause in physician-patient communication, we relied on the patient-centered models of Smith (Smith et al., 1998) and Duke (Duke et al., 2013) adapted for the use of the computer during the consultation. **Paragraph 3** forced the residents to give patients free narrative time without interrupting. Studies on successful patient-interviewing and collection of data (Marvel, Epstein, Flowers, & Beckman, 1999) showed that interrupting patients spontaneously reporting their concerns does not lead to better data collection or shorter consultation time, but, conversely, prolongs the consultation since the patient's "chief complaint" gets discovered later in the course of consultation. In a Swiss study (Langewitz et al., 2002), when patients were allowed to express their concerns without diversion, the mean spontaneous talking time was 92 s, median 59 s, and 78% of

the patients had finished their initial statement in two minutes. **Paragraph 4** reminded the resident to express empathy and to encourage the patient to talk about her feelings, an intervention based on the NURSE model (Naming, Understanding, Respecting, Supporting and Exploring) (Back et al., 2007; Langewitz, 2011). In expressing empathy, the attending resident shifted focus from the disease to the patient and acknowledged her professional interest in “the whole person” and not only in “the condition” (Weston, Brown, & Stewart, 1989). In **Paragraph 5**, the resident was asked to elicit more of the patient’s hidden concerns through the “blaming oneself” technique: the attending resident defined herself as the one who did not give appropriate or clear information to the patient. In **Paragraph 6**, the attending resident was advised to express her interest in the future well-being of the patient and, despite the brevity of the encounter, make an effort to establish a physician–patient relationship (Krupat, Frankel, Stein, & Irish, 2006).

Constructing a patient questionnaire that would fit our needs was difficult. Most validated patient questionnaires are designed to test a long-term physician–patient relationship (Chisholm & Askham, 2006) and require substantial filling-in time. Owing to its shortness, we decided to use PDRQ-9 (Van der Feltz-Cornelis, Van Oppen, Van Marwijk, De Beurs, & Van Dyck, 2004), validated for German (Zenger, Schaefer, van der Feltz-Cornelis, Brähler, & Häuser, 2014). From the beginning, we were skeptical of PDRQ-9 and feared that the patients would not take time to reflect on their interaction with the attending resident, so we added two additional questions that were intuitive and simple to answer without extra reflection. To comply with the strict rules of anonymity (Bundesrat, 2011), we only recorded age of the patients, perceived waiting time, and reason for consultation, described in patients’ own words.

The primary aim of our study was to show how the communication of the attending resident during an emergency gynecological visit can change patients’ satisfaction with the visit, even if nothing in the examination or therapy changed. The secondary aim was to encourage residents to observe how communication influences both patients’ and physicians’ behavior.

2. Methods

The patients were recruited between August 2015 and February 2016 in the emergency walk-in clinic of the Department of Gynecology and Obstetrics, Triemli Municipal Hospital (TMH) in Zurich. Apart from more than 2500 operative interventions and over 2000 deliveries, the department has a large out-patient walk-in service used by more than 10’000 patients per year. The emergency walk-in clinic is a teaching setting: the patients are first seen by a resident and, if necessary, by a consultant. As part of the training process, residents decide for themselves whether they need the presence of a consultant.

Our anonymous study aimed to include patients presenting during full working time (24 h a day) in the emergency walk-in clinic. Those excluded from the study were in-patients from other departments of TMH sent for an additional gynecological examination, patients with repeated consultations (e.g. wound-healing checks after gynecological operations), patients who were seen by both the attending resident and the consultant, and patients who did not have enough knowledge of German to complete the questionnaire.

The recruiting process followed a standard pattern. The nurses of the emergency walk-in clinic approached patients in the waiting room, briefly explained the study, handed them an information leaflet and questionnaire, and checked patients’ eligibility for the study. Patients were instructed to fill in the descriptive part of the questionnaire before being seen by the emergency resident and complete the rest of the questionnaire afterward. When finished, patients were instructed to put the questionnaire in the envelope provided and return it to the attending nurse.

The patients’ questionnaire, fitted on an A4 sheet of paper (Table 2), comprised the following: patient’s age, waiting time, short description of the condition leading to the consultation (to be written in the patient’s own words), PDRQ-9 questionnaire validated for German (Zenger et al., 2014), and two questions concerning patient satisfaction. The questions were: “Are you satisfied with your

Table 2. The patients' questionnaire

Please write in the following information:

| | |
|---|--|
| How old are you? | |
| How long did you wait for your visit? | |
| What leads you to you seek help here today? (Describe your condition in your own words) | |

Please mark the answer that you find most appropriate:

| | | | | | | |
|----|--|-----------------------------|---------------------------|------------------|-------------------------|--------------------------|
| 1. | The attending resident helped me | 1 | 2 | 3 | 4 | 5 |
| 2. | The attending resident had enough time for me | 1 | 2 | 3 | 4 | 5 |
| 3. | I trusted the attending resident | 1 | 2 | 3 | 4 | 5 |
| 4. | The attending resident understood me | 1 | 2 | 3 | 4 | 5 |
| 5. | The attending resident was dedicated to helping me | 1 | 2 | 3 | 4 | 5 |
| 6. | The attending resident and I agreed on the nature of my medical symptoms | 1 | 2 | 3 | 4 | 5 |
| 7. | I could talk to the attending resident | 1 | 2 | 3 | 4 | 5 |
| 8. | I felt satisfied with the attending resident's treatment | 1 | 2 | 3 | 4 | 5 |
| 9. | I found the attending resident easily accessible | 1 | 2 | 3 | 4 | 5 |
| | | 1 not at all appropriate | 2 somewhat appropriate | 3 appropriate | 4 mostly appropriate | 5 totally appropriate |

Were you satisfied with your visit today?

Please mark the answer you find most appropriate:

| | | | |
|--------------------|----------------|---------------|--------------------|
| 1 | 2 | 3 | 4 |
| 1 = yes, very much | 2 = mostly yes | 3 = mostly no | 4 = no, not at all |

In an emergency situation in the future, would you come here again?

Please mark the answer you find most appropriate:

| | | | |
|--------------------|------------------|-----------------|-------------------|
| 1 | 2 | 3 | 4 |
| 1 = definitely yes | 2 = probably yes | 3 = probably no | 4 = definitely no |

visit today?”, expressed on a Likert scale from 1 to 4 (1 = yes, very much; 4 = no, not at all), and “In an emergency situation in the future, would you come here again?” expressed on a Likert scale from 1 to 4 (1 = definitely yes; 4 = definitely no). For the purpose of our study, we made two changes in the original PDRQ-9 version: instead of using the term “my primary care practitioner,” we used the term “the attending resident,” and instead of using the original present tense, we used the past tense, e.g. instead of “my primary care practitioner has time for me,” we used “the attending resident had time for me,” reflecting the assumption that this single consultation would not have a sequel.

Based on the cultural value of number 1 in Swiss culture (“being the best,” “being the first”), we tried to catch the first, intuitive feeling of the patient by reversing the Likert scale in both additional questions concerning patients' satisfaction with the visit. Whereas in PDRQ-9, number 1 stands for “not at all,” in our two questions concerning patients' satisfaction, we used 1 to mark “very satisfied.”

The study was conducted in two phases: first, 115 days **before** and, second, 115 days **after** the introduction of the CS. At the beginning of the first phase, residents were informed about the study, acquainted with the content of the patients' questionnaire, and advised to perform their work as usual. The first 115 days of the study were followed by a week without recruitment. During this week, a 2-hour teaching session for residents was organized. In this session, the residents were given instruction on maintaining a patient-centered approach during an emergency visit (Illingworth, 2010; Stewart, 1995; Weston et al., 1989) and the CS was presented. The residents were instructed to implement the CS in every emergency medical visit over the next 115 days. No change was introduced concerning examination, diagnostics, or therapy. Both emergency examination rooms were equipped with a colored flowchart of the CS, placed where the attending resident could check it unobtrusively, and a simple, digital desk clock to help residents stick to paragraph 3 of the CS.

After the end of the second phase, and before the patients' questionnaires were analyzed, the residents completed the questionnaire concerning their experience with using the CS (Table 3).

At the time of this study, all 15 residents on the emergency walk-in clinic rotation were female. This does not reflect the gender policy of the hospital, but merely the current situation in Swiss residency programs for gynecology and obstetrics: the ratio of female to male residents is nearly 70% to 30%, a trend already reported in the literature (Gerber & Lo Sasso, 2006). Owing to the fact that all residents participating in the study were female, we used female forms (she/her) in the text when referring to the attending resident.

The study was approved by the Ethics Committee of the Canton of Zurich (KEK), Switzerland, registration number 47-2015.

Descriptive statistical analysis and Mann-Whitney U-tests were performed with IBM SPSS Statistics Version 23 (IBM Corp; Armonk, New York, USA).

3. Results

3.1. Results of the patients' questionnaire

In the first phase of the study, 2004 patients were seen in the emergency walk-in clinic, of whom 183 were recruited (9.1% recruitment rate). In the second phase, 1859 patients were seen, of whom 158 were recruited (8.5% recruitment rate). Thirty-six incomplete questionnaires from the first and 40 from the second phase were excluded from the analysis. A total of 265 correctly completed questionnaires were analyzed—147 in the first and 118 in the second phase of the study.

There was no difference in the age distribution of the patients between the first and the second phase, nor was there a difference in any of the nine items of the PDRQ-9 questionnaire.

Table 3. The residents' questionnaire

| | | | | |
|----|---|-------------|-----------|-------------|
| 1. | Think about all the patients you have seen during the study. In how many visits did you implement the CS? | | | |
| | Give your estimate in a percentage from 0 to 100% | | | |
| 2. | Which paragraph or paragraphs were your "favourite", i.e. which felt "just right" when you were saying it? | | | |
| | Give the number of the paragraph/paragraphs | | | |
| 3. | Which paragraph or paragraphs did you mostly forget to use? | | | |
| | Give the number of the paragraph/paragraphs | | | |
| 4. | Did the CS disturb your work with patients? | | | |
| | Mark the correct answer | | | |
| | NO, not at all | Mostly, NOT | Often YES | YES, it did |
| 5. | Did you notice any change in your feelings or the feelings of the patients when using CS? (Write your free comment) | | | |

Careful analysis of the conditions described in the patients' own words allowed identification of 35 different reasons for emergency consultation. The conditions reported by more than one patient are listed in Table 4, and the conditions reported by only one patient are listed in Table 4. Based on our experience, of the 35 identified conditions, we defined six as being associated with

Table 4. List of conditions that led to the emergency consultation, reported by two or more patients

| | Condition | Phase 1 | Phase 2 | Frequency | (%) |
|--|--|------------|------------|------------|-------------|
| 1* | Emergency in early pregnancy (bleeding excluded) | 20 | 19 | 39 | 14.7% |
| 2* | Lower abdominal pain | 19 | 20 | 39 | 14.7% |
| 3 | Unclear reason for consultation | 23 | 12 | 35 | 13.2% |
| 4* | Bleeding in early pregnancy | 10 | 11 | 21 | 7.9% |
| 5* | Irregular bleeding without pregnancy | 6 | 13 | 19 | 7.2% |
| 6 | Vaginal infection | 9 | 7 | 16 | 6.0% |
| 7* | Early fetal demise, first diagnosis | 9 | 7 | 16 | 6.0% |
| 8* | Follow-up after "early fetal demise" | 7 | 6 | 13 | 4.9% |
| 9 | Interruption of pregnancy (first consultation) | 7 | 5 | 12 | 4.5% |
| 10 | Gynecological control (not specified) | 3 | 4 | 7 | 2.6% |
| 11 | Complications after gynecological operation | 4 | 3 | 7 | 2.6% |
| 12 | Urinary infection | 3 | 2 | 5 | 1.9% |
| 13 | Breast pain or breast mass | 3 | 1 | 4 | 1.5% |
| 14 | Extra-uterine pregnancy | 2 | 1 | 3 | 1.1% |
| 15 | Preoperative consultation (to plan an operation) | 1 | 1 | 2 | 0.8% |
| 16 | Abscess | 2 | 0 | 2 | 0.8% |
| 17 | IUD insertion | 2 | 0 | 2 | 0.8% |
| 18 | Complication after cesarean section | 2 | 0 | 2 | 0.8% |
| 19 | Postpartum checkup | 2 | 0 | 2 | 0.8% |
| 20 | Ovarian cyst | 1 | 1 | 2 | 0.8% |
| 21 | Injuries | 1 | 1 | 2 | 0.8% |
| 22 | Genital herpes | 0 | 2 | 2 | 0.8% |
| List of conditions that led to the emergency consultation reported by only one patient | | | | | |
| 23 | A finding in the genital area | 1 | 0 | 1 | 0.4% |
| 24 | Inguinal pain | 1 | 0 | 1 | 0.4% |
| 25 | Lost tampon | 1 | 0 | 1 | 0.4% |
| 25 | Bartholin's cyst inflammation | 1 | 0 | 1 | 0.4% |
| 27 | Pain in pelvic area | 1 | 0 | 1 | 0.4% |
| 28 | Pelvic organ prolapse | 0 | 1 | 1 | 0.4% |
| 29 | Fever | 0 | 1 | 1 | 0.4% |
| 30 | Ruptured condom | 1 | 0 | 1 | 0.4% |
| 31 | Pelvic inflammatory disease | 1 | 0 | 1 | 0.4% |
| 32 | The "pill after" | 1 | 0 | 1 | 0.4% |
| 33 | Rest material after spontaneous delivery | 1 | 0 | 1 | 0.4% |
| 34 | Anal pain | 1 | 0 | 1 | 0.4% |
| 35 | Rash in genital area | 1 | 0 | 1 | 0.4% |
| | Total (cumulative with Table 4) | 147 | 118 | 265 | 100% |

*The conditions marked have been identified as the ones associated with increased anxiety

increased anxiety. When patients' responses were pooled, the patients presenting with these six conditions showed higher satisfaction with the consultation after the implementation of the CS (Mann–Whitney U-test; $p < 0.066$) (Table 5).

The perceived patients' waiting time was between 0 and 240 min (mean 32.6) in the first and between 0 and 245 min (mean 33.2) in the second phase. The median changed from 40 min in the first phase to 30 min in the second phase, but the change did not attain statistical significance. There was no correlation between perceived waiting time and patients' satisfaction with the visit, either before or after implementation of the CS.

3.2. Results of the residents' questionnaire

Of the 15 residents on emergency walk-in clinic rotation at the time of the study, 11 completed the residents' questionnaire, whereas four changed clinics and/or were not available for questioning. Only one resident (11%) reported being disturbed by the CS during her work. The residents varied significantly in their adherence to the CS (Table 6). The most frequently used and appreciated paragraphs of the CS were paragraph 1 (mentioned by nine residents), then paragraph 5 (mentioned by four residents), followed by paragraph 4 (mentioned by three residents). Paragraph 3 was only mentioned by one resident. The most often forgotten or changed paragraphs were 1, 2, and 3, each mentioned by two residents. Some residents did not admit forgetting a paragraph but explained, in free-text, that they changed the order of paragraphs or introduced some other changes.

In all, seven of 11 (63.7%) residents experienced some change within themselves or within physician–patient communication when using the communication standard (CS) (Table 7).

4. Discussion

Our study is one of the few dealing with the teaching of communication in gynecology and obstetrics (Alder, Christen, Zemp, & Bitzer, 2007; van Dulmen & van Weert, 2001). Unfortunately, the small number of studies in this field contrasts sharply with the need for more patient-centered communication. This misbalance might be a reflection of the historical development of the specialty with its focus on operative interventions in gynecology and the prevention of fatal outcomes in obstetrics. Our results are similar to those of Alder and colleagues, who found a marginal improvement in communication of the residents and only a partial change in patient satisfaction before and after a residents' teaching program was implemented. However, physicians with poorer communication performance before the intervention showed greater improvements, suggesting that training of residents should be individually adjusted (Alder et al., 2007).

Table 5. Conditions associated with increased anxiety and difference “before” and “after” the implementation of CS. Mann–Whitney U-test; $p < 0.066$

| Condition | Phase 1 | Phase 2 | Total |
|---|-----------|-----------|------------|
| Emergency in early pregnancy (various reasons, bleeding excluded) | 20 | 19 | 39 |
| Bleeding in early pregnancy | 10 | 11 | 21 |
| Early fetal demise (first diagnosis) | 9 | 7 | 16 |
| Early fetal demise (follow-up) | 7 | 6 | 13 |
| Irregular bleeding | 6 | 13 | 19 |
| Abdominal pain | 19 | 20 | 39 |
| Total | 71 | 76 | 147 |
| Satisfaction with the consultation | | | |
| Median | 2.0 | 1.0 | |
| Mean | 1.8 | 1.5 | |
| Standard deviation | 1.1 | 0.9 | |

Table 6. Implementation of the CS and the feeling of being disturbed during the work

| Residents | In how many visits did you implement the CS (%)? | Did the CS disturb your work with patients? |
|-----------|--|---|
| 1 | 90 | no, not at all |
| 2 | 95 | no, not at all |
| 3 | 70 | often yes |
| 4 | 70 | mostly no |
| 5 | 70 | mostly no |
| 6 | 80 | no, not at all |
| 7 | 80-90 | mostly no |
| 8 | 50 | mostly no |
| 9 | 60 | no, not at all |
| 10 | 60 | no, not at all |
| 11 | 30-40 | no, not at all |

Table 7. Summarized free comments of the residents (Question number 5 of residents' questionnaire)

| Did you notice any change in your feelings or feelings of the patients when using the communication standard? | |
|---|---|
| Resident | Comments |
| 1 | No |
| 2 | Partly |
| 3 | I found the strict pattern of the communication standard not authentic. In a stressful emergency walk-in clinic such as ours, a communication standard is difficult to apply. |
| 4 | I noticed patients' special need to talk about issues that haven't been mentioned so far. When I used paragraph number 5, the women started, for the first time during the consultation, to talk "straight from the heart". |
| 5 | The sentences from the communication standard are generally welcomed by the patients. Apart from one sentence, I had already been using the others before they were suggested by the communication standard. The empathy sentence "it is good that you are here today" usually does not fit the situation. |
| 6 | No |
| 7 | Through the excuse concerning the waiting time at the beginning of the consultation, "the wind" was regularly taken "out of the patient's sails..." |
| 8 | No |
| 9 | The question about things that haven't been mentioned so far (paragraph number 5) really helps to reach the hidden worries and issues of patients |
| 10 | No |
| 11 | With paragraph 1 most of the patients became approachable and admitted that the waiting was "not so bad". I enjoy working in the emergency walk-in clinic and it makes me happy to observe the patients and their reactions. When the communication standard was introduced, I didn't have to change my routine much since I am used to communicating with patients in more or less the same way. |

All kinds of communication teaching (role-playing, feedback, discussion in small groups, oral presentation, modeling) have been shown to improve residents' knowledge about communication (Rao, Anderson, Inui, & Frankel, 2007), with better results being reported for interactive techniques than oral presentations (Berkhof, van Rijssen, Schellart, Anema, & van der Beek, 2011). In our study, we combined both methods. Although some studies report better results with long-term teaching programs (Rao et al., 2007), the newest Cochrane review (Dwamena et al., 2012) reports short-term teaching programs to be as effective as the long-term ones.

Studies targeting various aspects of communication in emergency settings have shown the need for improvement. In the study of Rising and colleagues (Rising, Papanagnou, McCarthy, Gentsch, & Powell, 2018) focusing on diagnostic uncertainty in emergency settings, 51% of the residents (125/244) expressed a strong desire for additional formal training. When testing how many physicians in an acute setting introduced themselves to the patient, the authors (Gillen, Sharifuddin, O'Sullivan, Gordon, & Doherty, 2018) found that 79% of the physicians introduced themselves, whereas 89.7% of the patients felt that an introduction made a positive difference to their healthcare visit. Another study (Ackermann et al., 2012) found that emergency physicians underestimate the time needed to communicate discharge information after an emergency admission by a factor of three (15 min vs. 45 min) and stated an obvious need to train physicians in efficient discharge communication. Dale and colleagues (Dale, Sandhu, Lall, & Glucksman, 2008) analyzed 430 medical visits video-taped in the same emergency department—180 of them were recorded in 1990 and 250 in 2005—and contrasted them on the basis of length and content. The average length of the visit was 251 s longer in 2005 than in 1990, and the content of communication during the visit contained significantly more “activating and partnering” patterns than in 1990, suggesting that the communication in the emergency department has become more patient-centered over a 15-year period.

All of the residents in our study were female, a factor that might have positively influenced our results. Women seem to be more satisfied with a female gynecologist who, according to various studies (Christen, Alder, & Bitzer, 2008; Janssen & Lagro-Janssen, 2012; Patel et al., 2011), have a more patient-centered mode of communication. Female residents in gynecology and obstetrics, when empowered with skills in patient-centered communication, reportedly receive higher satisfaction scores from their patients than their male colleagues (Christen et al., 2008).

Our study found no correlation between perceived patients' waiting time and patients' satisfaction. The influence of the waiting time on patients' satisfaction is controversially discussed in the literature. Some studies find a correlation; some do not (Janssen & Lagro-Janssen, 2012; McMullen & Netland, 2013; Xie & Or, 2017). Although the mean waiting time remained the same throughout our study, the perceived patients' waiting time dropped by 10 min in the second phase of the study when the CS was applied. This phenomenon of physician communication being able to counter the negative effects of long waiting times has already been noted in the literature (Xie & Or, 2017). Although appreciated as a quality indicator by healthcare providers in assessing patients' satisfaction, waiting time is an indicator to be used with caution. Satisfaction is considered to be a “result of patients' actual experiences mixed with their expectations and priorities” (Wensing, Jung, Mainz, Olesen, & Grol, 1998) and can also depend on individual characteristics and on “as-yet-unknown” factors (Bleich, Ozaltin, & Murray, 2009).

The PDRQ showed no difference in any of its nine items before and after the implementation of the CS. From the questionnaire completion pattern, we speculate that if the interaction between the attending resident and the patient was to some extent satisfactory, many patients just rushed through the questionnaire, giving the highest rating in all categories. From our experience, PDRQ-9 is not suitable for assessing physician-patient interaction in an emergency setting.

The question dealing with patient satisfaction—“In case of a future emergency, would you come here again?”—aimed at showing the possible financial importance of the residents' communication. This question, however, did not reflect benefits of the CS. In a study exploring patients' satisfaction in a dental setting (Inglehart, Lee, Koltuniak, Morton, & Wheaton, 2016), the statement “I am planning on returning to this provider again,” presented as a Likert scale from 1 to 5, also showed less significance than “My satisfaction with the visit today.” Just as in our study, that study was conducted in a teaching setting providing less-expensive care but with longer waiting times. In both settings, the lower socioeconomic background of the participants and their wish to obtain medical/dental help at convenient costs might be reflected in a reduced intention to bond to the provider.

In discussions with the emergency nurses' team after completion of the study, the low recruiting rate (< 10%) in both phases of the study was explained by their high workload, the high number of patients with a poor knowledge of German, and the substantial number of patients who were "just not suitable for the study." Further inquiry revealed a bias in the recruiting process: the nurses were reluctant to hand out the questionnaire to patients who were crying or showed other signs of emotional distress. These were mostly patients with bleeding in early pregnancy, suspected early fetal demise, or strong abdominal pain. This revelation was disappointing since the question "Are you satisfied with your visit today?" was the only one for which borderline significance was reached in precisely this group of patients when "before" and "after" implementations of the CS were compared. In a future study, we would concentrate more on nurses' training concerning physician-patient and nurse-patient communication by giving them the same amount of teaching time we gave the residents.

Our CS was well accepted by the residents. Only one resident out of 11 found it disturbing to the clinical routine. Residents reported a sensation of relief within themselves and an instant reduction of tension between them and the patient after saying paragraph 1. As reported by residents, paragraph 1 also caused the most perceptible emotional change within the patients. Furthermore, the residents were pleasantly surprised how the "blaming oneself technique" in paragraph 5 can reveal more hidden concerns of the patient. Interestingly, paragraph 3, giving 2 min narrative space to the patient, was mentioned only once as being appreciated and was twice mentioned as being forgotten. Based on this revelation, we repeated the teaching session about effective data collection and the importance of patients' spontaneous talking time during the visit. Residents' individual impressions when implementing the CS (Table 7) confirm the finding that teaching communication can change residents' perspective on patients' needs (Braverman et al., 2015).

Our study is one of the few to focus on physician-patient communication in a gynecological emergency setting. Despite the lack of financial support, we managed to organize active and passive teaching of residents. All patients seen by the residents were real patients. Some studies argue that simulated patients have the advantage of more standardization, yet a real face-to-face experience causes more emotional involvement on the part of the resident. Our CS provided the residents with a solid tool, with six items supporting a patient-centered approach during an emergency medical visit. We hope that the "wow" effect that some of them experienced will cause them to deliberately improve (Ericsson, 2008) their communication skills.

Unfortunately, we had a relatively low recruitment rate for the large variability of conditions encountered among the patients. Had it not been for the bias in the recruiting process, we might have obtained more clarity on the question as to which patients really benefit from CS.

Another weakness of the study is the fact that we did not test for a possible long-term effect of our communication teaching, which is advocated by some authors (Maatouk-Bürmann et al., 2016; Maguire, Fairbairn, & Fletcher, 1986). Another round of patient questionnaires distributed to the patients 6 months after the first survey would provide more data on how firmly the residents had embedded the CS in their standard practice.

In a future study, we would pay more attention to the teaching of nurses, impose more control over the recruitment process, and test patients' satisfaction repeatedly, i.e. immediately after the communication intervention and 6 months later. Moreover, we would more closely target patients whose conditions are associated with increased anxiety.

Despite its shortcomings, our study adds weight to slowly accumulating evidence that patient satisfaction and physician-patient interaction can be improved through teaching and physicians' adherence to simple communication guideline.

Funding

This study was conducted without internal or external funding.

Competing interests

The authors report no competing interests.

Author details

Tina Zodan¹

E-mail: Tina.ZodanOtto@see-spital.ch

Stephanie von Orelli¹

E-mail: Stephanie.vonorelli@triemli.zurich.ch

¹ Department of Gynecology and Obstetrics, Triemli Municipal Hospital, Zurich, Switzerland.

Citation information

Cite this article as: Teaching communication in an emergency gynecological setting, Tina Zodan & Stephanie von Orelli, *Cogent Medicine* (2018), 5: 1491092.

References

- Ackermann, S., Bingisser, M.-B., Heierle, A., Langewitz, W., Hertwig, R., & Bingisser, R. (2012). Discharge communication in the emergency department: Physicians underestimate the time needed. *Swiss Medical Weekly*, 142, w13588.
- Alder, J., Christen, R., Zemp, E., & Bitzer, J. (2007). Communication skills training in obstetrics and gynaecology: Whom should we train? A randomized controlled trial. *Archives of Gynecology and Obstetrics*, 276(6), 605–612.
- Back, A. L., Arnold, R. M., Baile, W. F., Fryer-Edwards, K. A., Alexander, S. C., Barley, G. E., ... Tulsy, J. A. (2007). Efficacy of communication skills training for giving bad news and discussing transitions to palliative care. *Archives of Internal Medicine*, 167(5), 453–460.
- Bensing, J. (2000). Bridging the gap. The separate worlds of evidence-based medicine and patient-centered medicine. *Patient Education and Counseling*, 39(1), 17–25.
- Berkhof, M., van Rijssen, H. J., Schellart, A. J. M., Anema, J. R., & van der Beek, A. J. (2011). Effective training strategies for teaching communication skills to physicians: An overview of systematic reviews. *Patient Education and Counseling*, 84(2), 152–162.
- Bleich, S. N., Ozaltin, E., & Murray, C. K. L. (2009). How does satisfaction with the health-care system relate to patient experience? *Bulletin of the World Health Organization*, 87(4), 271–278.
- Braverman, A. M., Kunkel, E. J., Katz, L., Katona, A., Heavens, T., Miller, A., & Arfaa, J. J. (2015). Do I buy it? How AIDET™ training changes residents' values about patient care. *Journal of Patient Experience*, 2(1), 13–20.
- Bundesrat. (2011). Humanforschungsgesetz, 810.30.
- Chisholm, A., & Askham, J. (2006). *What do you think of your doctor? A review of questionnaires for gathering Patients' feedback on their doctor*. Picker Institute Europe.
- Christen, R. N., Alder, J., & Bitzer, J. (2008). Gender differences in physicians' communicative skills and their influence on patient satisfaction in gynaecological outpatient consultations. *Social Science & Medicine* (1982), 66(7), 1474–1483.
- Dale, J., Sandhu, H., Lall, R., & Glucksman, E. (2008). The patient, the doctor and the emergency department: A cross-sectional study of patient-centredness in 1990 and 2005. *Patient Education and Counseling*, 72(2), 320–329.
- Davis, M. S. (1971). Variation in patients' compliance with doctors' orders: Medical practice and doctor-patient interaction. *Psychiatry in Medicine*, 2(1), 31–54.
- Duke, P., Frankel, R. M., & Reis, S. (2013). How to integrate the electronic health record and patient-centered communication into the medical visit: A skills-based approach. *Teaching and Learning in Medicine*, 25(4), 358–365.
- Dwamena, F., Holmes-Rovner, M., Gauden, C. M., Jorgenson, S., Sadigh, G., Sikorskii, A., ... Olomu, A. (2012). Interventions for providers to promote a patient-centred approach in clinical consultations. *The Cochrane Database of Systematic Reviews*, 12 (CD003267). doi:10.1002/14651858.CD003267.pub2
- Ericsson, K. A. (2008). Deliberate practice and acquisition of expert performance: A general overview. *Academic Emergency Medicine: Official Journal of the Society for Academic Emergency Medicine*, 15(11), 988–994.
- Gerber, S. E., & Lo Sasso, A. T. (2006). The evolving gender gap in general obstetrics and gynecology. *American Journal of Obstetrics and Gynecology*, 195(5), 1427–1430.
- Gillen, P., Sharifuddin, S. F., O'Sullivan, M., Gordon, A., & Doherty, E. M. (2018). How good are doctors at introducing themselves? #hellomynameis. *Postgraduate Medical Journal*, 94(1110), 204–206.
- Illingworth, R. (2010). What does "patient-centred" mean in relation to the consultation? *The Clinical Teacher*, 7(2), 116–120.
- Inglehart, M. R., Lee, A. H., Koltuniak, K. G., Morton, T. A., & Wheaton, J. M. (2016). Do waiting times in dental offices affect patient satisfaction and evaluations of patient-provider relationships? A quasi-experimental study. *Journal of Dental Hygiene: JDH*, 90(3), 203–211.
- Janssen, S. M., & Lagro-Janssen, A. L. M. (2012). Physician's gender, communication style, patient preferences and patient satisfaction in gynecology and obstetrics: A systematic review. *Patient Education and Counseling*, 89(2), 221–226.
- Kiessling, C., Dieterich, A., Fabry, G., Hölzer, H., Langewitz, W., Mühlhans, I., & Participants, B. W. (2010). Communication and social competencies in medical education in German-speaking countries: The Basel consensus statement. Results of a Delphi survey. *Patient Education and Counseling*, 81(2), 259–266.
- Krupat, E., Frankel, R., Stein, T., & Irish, J. (2006). The four habits coding scheme: Validation of an instrument to assess clinicians' communication behavior. *Patient Education and Counseling*, 62(1), 38–45.
- Langewitz, W. (2011). Patientenzentrierte Kommunikation. In: Rolf Adler (Ed.), *Psychosomatische Medizin: Theoretische Modelle und klinische Praxis* (Vol. 7, pp.338–347). München: Urban & Fischer.
- Langewitz, W., Denz, M., Keller, A., Kiss, A., Rüttimann, S., & Wössmer, B. (2002). Spontaneous talking time at start of consultation in outpatient clinic: Cohort study. *BMJ (Clinical Research Ed.)*, 325(7366), 682–683.
- Levinson, W., Roter, D. L., Moolooly, J. P., Dull, V. T., & Frankel, R. M. (1997). Physician-patient communication. The relationship with malpractice claims among primary care physicians and surgeons. *JAMA*, 277(7), 553–559.
- Maatouk-Bürmann, B., Ringel, N., Spang, J., Weiss, C., Möltner, A., Riemann, U., ... Jünger, J. (2016). Improving patient-centered communication: Results of a randomized controlled trial. *Patient Education and Counseling*, 99(1), 117–124.
- Maguire, P., Fairbairn, S., & Fletcher, C. (1986). Consultation skills of young doctors: I-Benefits of feedback training in interviewing as students persist. *British Medical Journal (Clinical Research Ed.)*, 292(6535), 1573–1576.
- Makoul, G. (2001). Essential elements of communication in medical encounters: The Kalamazoo consensus

- statement. *Academic Medicine: Journal of the Association of American Medical Colleges*, 76(4), 390–393.
- Marvel, M. K., Epstein, R. M., Flowers, K., & Beckman, H. B. (1999). Soliciting the patient's agenda: Have we improved? *JAMA*, 281(3), 283–287.
- McMullen, M., & Netland, P. A. (2013). Wait time as a driver of overall patient satisfaction in an ophthalmology clinic. *Clinical Ophthalmology (Auckland, N.Z.)*, 7, 1655–1660.
- Patel, I., Chang, J., Srivastava, J., Feldman, S., Levender, M., & Balkrishnan, R. (2011). Patient satisfaction with obstetricians and gynecologists compared with other specialties: Analysis of US self-reported survey data. *Patient Related Outcome Measures*, 2, 21–26.
- Pfeiffer, C., Madray, H., Ardolino, A., & Willms, J. (1998). The rise and fall of students' skill in obtaining a medical history. *Medical Education*, 32(3), 283–288.
- Pollak, K. I., Alexander, S. C., Tulsy, J. A., Lyna, P., Coffman, C. J., Dolor, R. J., ... Ostbye, T. (2011). Physician empathy and listening: Associations with patient satisfaction and autonomy. *Journal of the American Board of Family Medicine: JABFM*, 24(6), 665–672.
- Rao, J. K., Anderson, L. A., Inui, T. S., & Frankel, R. M. (2007). Communication interventions make a difference in conversations between physicians and patients: A systematic review of the evidence. *Medical Care*, 45(4), 340–349.
- Rider, E. A., Hinrichs, M. M., & Lown, B. A. (2006). A model for communication skills assessment across the undergraduate curriculum. *Medical Teacher*, 28(5), e127–134.
- Rising, K. L., Papanagnou, D., McCarthy, D., Gentsch, A., & Powell, R. (2018). Emergency medicine resident perceptions about the need for increased training in communicating diagnostic uncertainty. *Cureus*, 10(1), e2088.
- Simpson, M., Buckman, R., Stewart, M., Maguire, P., Lipkin, M., Novack, D., & Till, J. (1991). Doctor-patient communication: The Toronto consensus statement. *BMJ (Clinical Research Ed.)*, 303(6814), 1385–1387.
- Smith, R. C., Lyles, J. S., Mettler, J., Stoffelmayr, B. E., Van Egeren, L. F., Marshall, A. A., ... Greenbaum, R. B. (1998). The effectiveness of intensive training for residents in interviewing. A randomized, controlled study. *Annals of Internal Medicine*, 128(2), 118–126.
- Stewart, M. A. (1995). Effective physician-patient communication and health outcomes: A review. *CMAJ: Canadian Medical Association Journal = Journal De l'association Medicale Canadienne*, 152(9), 1423–1433.
- Taylor, D. M., Wolfe, R., & Cameron, P. A. (2002). Complaints from emergency department patients largely result from treatment and communication problems. *Emergency Medicine (Fremantle, W.A.)*, 14(1), 43–49.
- Van der Feltz-Cornelis, C. M., Van Oppen, P., Van Marwijk, H. W. J., De Beurs, E., & Van Dyck, R. (2004). A patient-doctor relationship questionnaire (PDRQ-9) in primary care: Development and psychometric evaluation. *General Hospital Psychiatry*, 26(2), 115–120.
- van Dulmen, A. M., & Van Weert, J. C. (2001). Effects of gynaecological education on interpersonal communication skills. *BJOG: an International Journal of Obstetrics and Gynaecology*, 108(5), 485–491.
- Ventres, W. B., & Frankel, R. M. (2010). Patient-centered care and electronic health records: It's still about the relationship. *Family Medicine*, 42(5), 364–366.
- Wensing, M., Jung, H. P., Mainz, J., Olesen, F., & Grol, R. (1998). A systematic review of the literature on patient priorities for general practice care. *Part 1: Description of the Research Domain. Social Science & Medicine* (1982), 47(10), 1573–1588.
- Weston, W. W., Brown, J. B., & Stewart, M. A. (1989). Patient-centred interviewing part I: Understanding patients' experiences. *Canadian Family Physician Medecin De Famille Canadien*, 35, 147–151.
- Xie, Z., & Or, C. (2017). Associations between waiting times, service times, and patient satisfaction in an endocrinology outpatient department: A time study and questionnaire survey. *Inquiry: A Journal of Medical Care Organization, Provision and Financing*, 54, 46958017739527.
- Zenger, M., Schaefer, R., van der Feltz-Cornelis, C., Brähler, E., & Häuser, W. (2014). Validation of the Patient-Doctor-Relationship Questionnaire (PDRQ-9) in a representative cross-sectional German population survey. *PLoS One*, 9(3), e91964.



© 2018 The Author(s). This open access article is distributed under a Creative Commons Attribution (CC-BY) 4.0 license.

You are free to:

Share — copy and redistribute the material in any medium or format.

Adapt — remix, transform, and build upon the material for any purpose, even commercially.

The licensor cannot revoke these freedoms as long as you follow the license terms.

Under the following terms:

Attribution — You must give appropriate credit, provide a link to the license, and indicate if changes were made.

You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use.

No additional restrictions

You may not apply legal terms or technological measures that legally restrict others from doing anything the license permits.

Cogent Medicine (ISSN: 2331-205X) is published by Cogent OA, part of Taylor & Francis Group.

Publishing with Cogent OA ensures:

- Immediate, universal access to your article on publication
- High visibility and discoverability via the Cogent OA website as well as Taylor & Francis Online
- Download and citation statistics for your article
- Rapid online publication
- Input from, and dialog with, expert editors and editorial boards
- Retention of full copyright of your article
- Guaranteed legacy preservation of your article
- Discounts and waivers for authors in developing regions

Submit your manuscript to a Cogent OA journal at www.CogentOA.com

