The doctor-couple communication in reproductive medicine: a pilot study on actual assisted reproductive technology (ART) visits

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Study questions: to explore **communicational characteristics in ART visits** and their association with patients' activation, patients' satisfaction and patients' adherence.
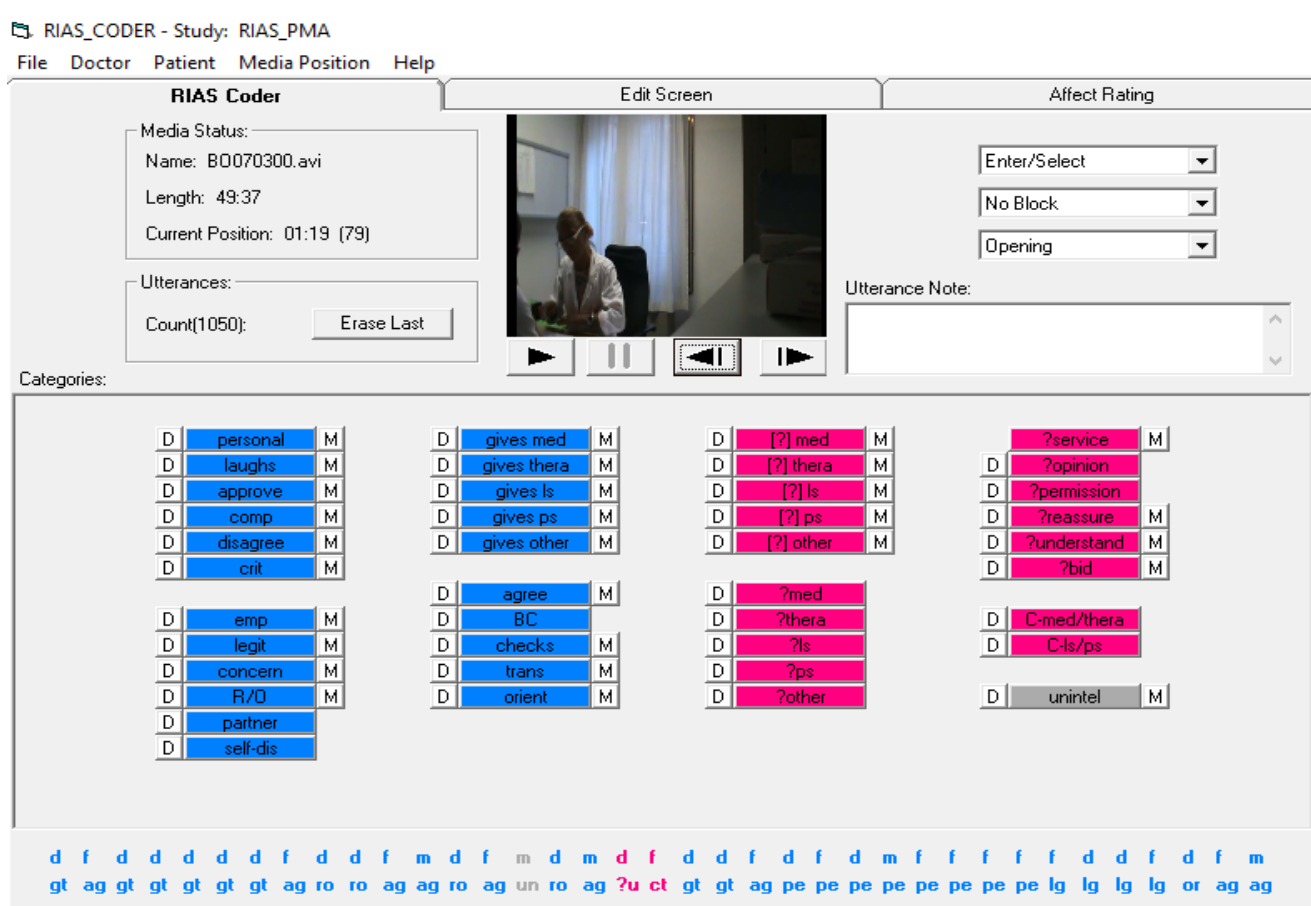
Summary answer: patients seemed very active and very satisfied. Females satisfaction is linked in particular to a positive climate in the visit and to the frequency of both physician and patients verbal exchanges.

What is known already: Communicational and relational aspects in reproductive medicine seem to be crucial for clinical decision making, retention in care and critical conversations with couples because of treatment low possibility of success. However, no studies have been realized regarding the actual interaction between the doctor and the couple in this medical context.

The patient-centeredness1 mean score was 0,53 (s.d.=0,28). Table 1 represents the differences in RIAS categories and total talk between first and follow up visits. A positive correlation was found between females SATQ and both patient (r=0,297, p=0.007) and physician (r=0,257, p=0.020) positive talk and between females SATQ and both patient (r=0,249, p=0.025) and physician (r=0,221, p=0.047) total talk.

Study design, size, duration: a descriptive **cross sectional study** involving **9 Italian ART clinics** where 28 clinicians and 173 patients (79 couples) signed a written consensus to be videotaped during their ART consultations. A total of 95 ART visits were collected in the period June 2014-January 2015. 85 visits (49 first visits and 36 follow up visits) were eligible for the analysis.

Participants/materials, setting, methods: Patients filled out: before the visit the **Patient Activation Measure** (PAM) adapted for ART context (5-point Likert scale from 1=totally disagree to 5=totally agree), and after a **satisfaction questionnaire** (SATQ) (5-point Likert scale from 1=poor to 5=excellent). A three months **telephone follow-up** explored the adherence to clinician recommendations. The communication content was coded using the **Roter Interaction Analysis System** (RIAS)[1], a validated and widely used coding system for categorizing verbal exchanges in the physician-patient interaction.

Main results and the role of chance: the response rate was 62,1%. Both females and males reported high scores on the PAM (respectively μ=4,26±0,44 and μ=4,15±0,47) and on the SATQ (respectively μ=4,58±0,46 and μ=4,48±0,58). No differences were found in females and males satisfaction between first and follow up visits. 87% of the couples declared after three months to have followed the clinicians recommendations; 19% of the couples declared to have asked an opinion to another ART center. The RIAS inter-coder reliability was r=0,803. As far as the communication content: physicians contributed for 64% and patients contributed for 36% of all consultation statements. The RIAS categories distributions for physicians and patients are represented in Figure 1 and 2.

Figure 1. Physician's RIAS categories distribution

- biomedical questions
- psychosocial questions
- biomedical info
- psychosocial info
- emotional
- facilitation and pt activation
- positive talk
- negative talk
- social talk
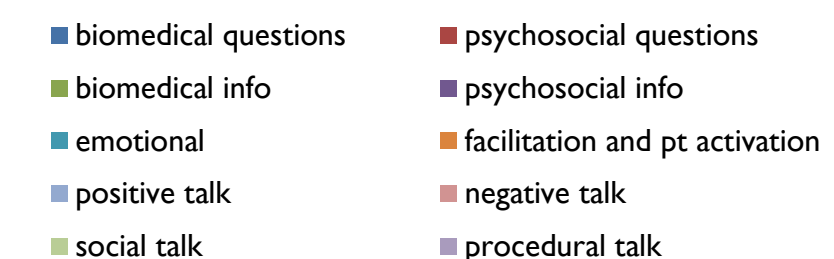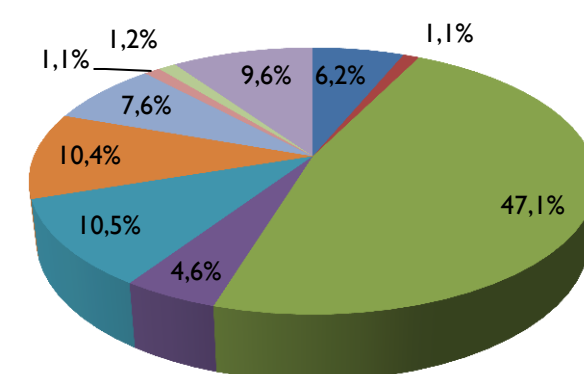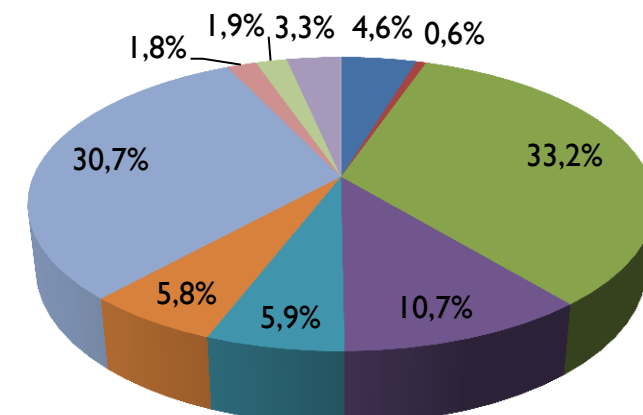- procedural talk

Figure 2. Patients' RIAS categories distribution

Limitations, reasons for caution: the results are preliminary and referred to the Italian context. A selection bias could be present both for accepting patients and physicians.

Wider implications of the findings: results will allow a deeper understanding of the complexity of doctor-patient communication during ART visits, in particular concerning the **engagement of the patient/couple** during the encounter and its outcomes; results will be used also for **tailoring the communicational training** of the multi-professional team involved in reproductive medicine.

Table 1. Differences in RIAS categories and total talk between first and follow up visits	Physician			Patients		
	first visit (mean)	follow up (mean)	p value	first visit (mean)	follow up (mean)	p value
Biomedical questions Questions on medical condition and treatment/procedures	41,59	13,36	**0.001**	10,37	14,94	**0.042**
Psychosocial questions Questions on psychosocial and lifestyle issues	8,22	1,58	**0.001**	1,69	1,42	NS
Biomedical info Info on medical condition and treatment; biomedical counseling	249,53	191,14	**0.036**	112,59	56,06	**0.001**
Psychosocial info Info on psychosocial and lifestyle issues and psychosocial counseling	27,61	13,94	NS	34,14	20,81	**0.025**
Emotional Concern; reassurance; empathy and legitimization; partnering	52,96	46,61	NS	15,51	15,89	NS
Facilitation and pt activation Check; asking for opinion; for understanding; for reassurance	63,37	30,78	**0.001**	15,18	15,97	NS
Positive talk Laughs; agreements, approvals, compliments	41,59	28,83	**0.018**	95,98	62,81	**0.006**
Negative talk Disagreements, criticism	5,88	4,28	NS	6,57	2,5	NS
Social talk Non medical chit-chat	5,43	6,33	NS	3,78	6,61	NS
Procedural talk Directions and instructions	57	30,78	NS	9,2	8,56	NS
All talk	556,39	368,44	**0.001**	310,31	207,64	**0.001**

References
1. Roter DL. Roter Interaction Analysis System: Coding Manual. 1991; Baltimore: Johns Hopkins University.

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