How to dramatically increase IVF protocol compliance? Interplay between medical culture, physician's communication style and patient's health literacy.

Contextualized in In-Vitro Fertilization (IVF) protocol compliance, our work was designed to help physicians from various medical cultural background to effectively assess patient's health literacy and adjust communication style. We assumed that the effects of communication style, shaped by patient's health literacy and self-efficacy, impact compliance differently in cultures with authoritarian, patient-centered, and mixed communication styles.

The objective of the research study was to develop culture-driven guidance to physicians in the context of IVF, helping physicians to improve patient compliance.

The research was conducted in three countries with different communication style prevalence:

1. Russia - a country with predominantly ***authoritarian*** physician communication style, where provider assumes a paternalistic approach with patient. Clear, straightforward recommendations are provided, no room for discussion is left. Patient should fully trust the expertise of the physician. (Recently, patient-centered approaches have started making their ways into the Russian healthcare market as well. Physicians are still struggling to apply patient-centered communication across their patient population, sticking to tried and tested authoritarian style.)

2. The USA – a country with ***patient-focused*** healthcare system, which has incorporated leading amount of patient-centered techniques. The approach assumes respect for patient preference, emotional support, involvement of family and friends, continuity of care.

3. Germany – a country with ***mixed*** "patient-centered" and "authoritarian" communication style, both a healthcare professional and a patient are viewed as active participants of medical decisions, sharing information and responsibility for choices.

Health literacy refers to the level of knowledge that allows a person to improve their health condition. Such knowledge includes understanding of general health information, medical terms and the national healthcare system as well as the ability to put those into practice. Patients with high health literacy can acquire and use most of the information required (≥ 75%) easily or very easily, patients with medium health literacy can acquire and use some of the information required (75% ≥ 50%) easily or very easily, patients with low health literacy can acquire and use minimal information (< 50%) easily or very easily.

The research design employed a mixed methods approach: we used in-depth interviews with patients who had successfully undergone IVF treatment, and analyzed virtual online health communities of patients from the three countries above (over 1350 posts reviewed and coded). We aimed to confirm hypothesized doctor-patient communication models based on the patients' preferences, health literacy and self-efficacy beliefs.

Our research shows some interesting variations among patients from different (medical) cultural backgrounds. Based on the differences revealed, we have identified three patient types:

Partner

Prevalence: the USA
Communication style: Patient-centered
Health Literacy: High

Most likely to behave:
- Always conduct independent research on treatment
- Choose physician rationally based on success rates and experience
- Able to judge the information about IVF treatment communicated by phytsician or other sources including the media
- Make up their own opinion and gain sufficient information as well as try to understand their physician
- Involved into all kinds of decisions such as choosing the right treatment option, the right time to start the treatment, etc.

What they expect from medical staff:
- Physician to be very open and communicative, act as a partner
- Physician to explain why certain steps within the treatment are taken
- Physician to share multiple information sources (leaflets, websites, support groups)
- Provider to assume multiple, continuous roles - from diagnostician, to surgeon, to doctor who develops and supervises the treatment plan
- Medical staff to be available at any time - 24/7
- Ability to always answer the "why?" question (i.e. Medical staff to recommend activities that are good for patients during the IVF treatment, why certain check-ups are necessary)
- Clinic to provide practical support, e.g. check-up calls

Assistant

Prevalence: Germany
Communication style: Mixed (Authoritarian & Patient-centered)
Health Literacy: High

Most likely to behave:
- Usually conduct independent research on treatment
- Rational aspects are secondary compared to the emotional ones when choosing a physician
- Able to judge the information about IVF treatment communicated by the physician; however, find it difficult to judge if the information in the media is reliable
- Follow their treatment regimen by themselves without any reminders from the clinic
- Even though informed, can choose to be involved or not involved in the decision-making process regarding their IVF

What they expect from medical staff:
- Physician is perceived as an arbitrator, and is expected to be completely honest with patients – even when the news or chances are bad
- Patients expect their treatment to be managed by one physician (currently the patient is assigned to the clinic and not to a physician in Germany)
- Physician expected to be available for communication in case of emergency
- Patients are not in need of assistance from physician e.g. self-completion patient diary provided by physician
- Clinics to recommend activities that are good for patients during the IVF treatment

Student

Prevalence: Russia
Communication style: Authoritarian
Health Literacy: Medium

Most likely to behave:
- Fully rely on physician regarding treatment decisions
- Can't judge the advantages and disadvantages of different treatment options
- Can't judge when a second opinion from another physician may be required
- Usually do not perform independent research on treatment
- When choosing a physician, rational aspects are secondary compared to the emotional ones
- Can't judge if the information about IVF treatment in the media is reliable

What they expect from medical staff:
- Physician is the decision-maker, patients believe that they are not competent to share treatment decisions
- Physician to instruct what kind of check-ups and when they should be done (explanation "why" is not required)
- Physician to provide detailed instructions on administering medication, injections (where to buy, when to administer, how to store etc.)
- Physician to provide support tools to follow the regimen such as a self-completed patient diary
- Patient to be able to seek advice at any time (personal contact with physician)

All the three patient types ("partners", "assistants" and "students") expect their physician to be emotionally involved in the IVF treatment. They emphasise that physician should be supportive and live through the journey with them. They also appreciate if a physician can show empathy. "Assistant" patients especially value honesty. They expect the physician to be honest with them even if their chances of getting pregnant after their IVF are very little. "Student" patients put trust first. As they are not confident enough to make shared decisions, it is critical for them to rely on their physician completely. For "partner" patients, physician's openness is of great importance. If the information offered by the physician to the patient is detailed enough that the patient understands the procedure, she will be able to estimate her chances better.

Culture-driven guidance to physicians practicing the following communication styles

"Authoritarian" communication style:

Since "Student" patients do little to no independent research, the physician is responsible for explaining the patient's various treatment options and alternatives, as well as all the nuances of the treatment clearly. The physician needs to put himself/herself in the patient's shoes. The physician should also encourage the patient to do research on IVF treatment to improve the patient's health literacy. Due to the relatively low health literacy, "student" patients require a lot of assistance from the clinic such as diaries or telephone reminders. It is hard for them to remain compliant to their treatment on their own. "Student" patients are mostly in need of patient websites with the possibility to talk to physicians and psychologists as well as concise information on IVF (e.g. videos).

"Patient-centred" communication styles:

"Partner" patients need a physician to be their partner during the IVF decision-making process. They need steady support from their physician who is always ready to encourage them, give them advice and show empathy. They do not want a physician who tells them what to do. They are interested in various education tools online and in book-format, patient websites and others, where they can look up general information. They prefer to track their personal progress online on a patient website.

Mixed "patient-centred" and "authoritarian" communication styles:

Similarly, "assistant" patients need a supportive partner to make decisions during their IVF treatment. However, the core value here is honesty. The physician should always tell the patient the plain truth and discuss further steps of the treatment. "Assistant" patients are quite self-sufficient; apart from clear instructions on how to proceed on their treatment, they do not need any further assistance from the clinic (e.g. telephone reminders). They welcome various education tools, preferably online or in the clinic.

Our analysis focused on patients' views on the medical culture, communication style and health literacy. The conclusion could be complemented by a physician's perspective. The next stage of this study will be in-depth interviews with fertility specialists to test doctor-patient communication models developed earlier. At this stage, we will analyse patients visit diaries completed by fertility specialists. This will help finalise the comprehensive model of doctor-patient communication based on medical culture, health literacy, communication styles, and assumed patient roles.

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