



# Use of multimedia during informed consent: novelty or necessity

Henry H. Chill<sup>1</sup> · Uri Dior<sup>1</sup> · David Shveiky<sup>1</sup>

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## Abstract

The process of informed consent is an integral part of the preoperative encounter. In theory, it has the potential to educate patients, enabling them to reach a true autonomous decision regarding the treatment offered. Unfortunately, in recent years informed consent has become overly complicated for the average patient. Questions have been raised regarding the ability of the process, as practiced nowadays, to actually increase knowledge and achieve its goals. In search of new ways to increase patient comprehension, researchers have suggested use of multimedia during the process of informed consent. Visualization of complex ideas, interactive learning and tailoring the procedure to fit patient needs are all advantages presented by use of multimedia during the process. Several randomized prospective trials have looked into this topic and have presented promising data in favor of multimedia use. Informed consent is a process with unfulfilled potential, and use of multimedia may be part of the solution. In our opinion, it is time to change the way we educate patients.

**Keywords** Informed consent · Multimedia · Female pelvic medicine · Patient education

## Current opinion

The origins of informed consent can be traced back to ancient times. In his historical manuscript, *Historia Ecclesiastica*, John of Ephesus describes how in 578 AD the Emperor of Byzantium, Justin II, suffered great pain as a result of urinary retention [1]. Surgeons of the time were reluctant to treat him because of fear of failure and the punishment that might follow. Even after the emperor himself reassured the surgeons that no harm would be inflicted upon them in case of failure, the emperor's doctors demanded the scalpel to be handed to them by the emperor himself. This gesture conveyed the true free will of the emperor and is conceived as an early form of informed consent.

Nowadays, informed consent is an integral part of the preoperative encounter and comprises a fundamental part of the patient-doctor relationship. In theory, the process of informed consent should educate patients regarding the procedure they

are about to undergo, disclose benefits and risks, and eventually help patients reach an autonomous decision, implementing their right to self-determination [2, 3]. However, are we actually fulfilling the potential of this process? Has informed consent become a self-protective process instead of an educational one?

The traditional fashion of achieving informed consent is similar among most caregivers. It has been proposed that any attempt to receive informed consent must include the following elements: a diagnosis and an explanation of the proposed treatment, the risks and benefits of the proposed and alternative treatments, and risks and benefits of declining intervention [4]. The final step of informed consent includes the signing of a legal form expressing the patient's consent to undergo the suggested treatment [5].

Over the years informed consent documents have grown to be perplexing for the average patient. Contributing to this trend are several factors: First, many physicians view the informed consent document as a means to protect themselves or their institution against future litigation. This sometimes results in extensive use of technical jargon as well as complex legal wording [5]. Second, as physicians feel obliged to provide as much information as possible, patients are given information that may be irrelevant to their decision. Excessive detail is not always in favor of the patient. It may lead to confusion and less understanding of the suggested treatment and subsequent

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✉ Henry H. Chill  
henchill@gmail.com

<sup>1</sup> Department of Obstetrics and Gynecology, Hadassah-Hebrew University Medical Center, Jerusalem, Israel

signing of documents without understanding their full nature [5]. Frequently patients feel that the informed consent is mostly a liability issue rather than a medical one and hence might believe reading the documents to be futile [6, 7]. The frequent consequence of this traditional informed consent process is patients signing documents and agreeing to treatments and procedures they do not truly understand.

In search of new ways to increase patient comprehension, researchers are exploring alternative tools that may increase patient knowledge and satisfaction. Examples of such means include multimedia interventions, enhanced consent forms, extended discussion and test/feedback modules [8]. Multimedia platforms that were previously suggested include a wide range of advanced technologies such as videos, computerized presentations and online internet learning [7]. Another option is to use multimedia as a supplement to the standard process, rather than an alternative to it.

Multimedia informed consent presents several advantages. Visual learning can simplify convoluted terms, especially with regard to surgical procedures where familiarity with anatomy is essential. Interactive learning can be incorporated, engaging the patient in the form of questionnaires assessing patient knowledge in real time. Willis presented data supporting this concept showing that brief quizzes and other interactive features may enable caregivers to better detect patient difficulty in the understanding of informed consent [9]. Last, use of multimedia gives an opportunity to individualize the process, tailoring it according to the patient's needs.

Although some studies have reported computer-based learning to have a negative effect on patient comprehension, several more recent randomized controlled trials have shown the opposite [10]. One study assessed use of a multimedia module to aid the informed consent process in women undergoing gynecologic laparoscopy for pelvic pain. Forty-one women were randomized to undergo the standard informed consent or to multimedia-assisted informed consent. The multimedia-assisted informed consent included a 15-min educational module comprised of voice, text and three-dimensional computer animation. Women in the multimedia group were shown to have superior knowledge scores without increasing anxiety [11]. Similar results were presented in two other studies including patients intended to undergo cataract and vascular surgery [12, 13].

In their recent study, Madeira et al. assessed patient feedback following use of a multimedia platform before undergoing in vitro fertilization, ovulation induction and intrauterine insemination. Three thousand ninety-seven women viewed the multimedia platform, which included watching educational videos followed by a comprehension quiz. Following this the patients answered a survey about their experience. Most women agreed it increased their comfort in pursuing treatment, increased satisfaction and better prepared them for consent. The authors concluded that the multimedia platform

improved patient satisfaction, knowledge and feeling of control over medical decision making [14].

The field of female pelvic medicine seems compelling for implementation of such technologies. The complex anatomy of the female pelvis as well as numerous surgical treatment options to choose from makes multimedia an invaluable tool for educating patients prior to such procedures. Being an area dealing mainly with quality of life, patient perspective of the procedure as a whole is crucial to achieving a high level of patient satisfaction. A true feeling of information acquisition is likely to improve perception of the process in general, increasing knowledge and decreasing anxiety. Clearly, there is great need for more studies evaluating the effect of media-assisted informed consent on patient knowledge and satisfaction.

Patient difficulty accessing and completing the process as well as high costs are obstacles in the way of implementing advanced technology. These hurdles can be overcome with good technical support and are expected to subside as technology advances, resulting in lower costs and increased availability. It can be expected that the majority of patients in the future will feel comfortable with computer-based education.

Standard informed consent is still the common practice, but clearly it is time for a change of paradigm. Integration of multimedia into the process of informed consent encompasses great opportunities for increasing patient knowledge and satisfaction, opportunities too promising to be overlooked. It is time to take action and change the way we educate patients.

## Compliance with ethical standards

**Conflicts of interest** H.H. Chill and U. Dior have no conflicts of interest. D. Shveiky serves on the medical advisory board of Escala Medical.

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