

# The Use of Video Resources to Improve Patient Understanding

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Video resources may be attractive to both patients and physicians to improve patient understanding of necessary procedures, as well as the post-treatment sequelae. Shared decision-making between patients and their health care providers is becoming increasingly important (1, 2). Reliable patient education is essential for shared decision-making. Clinician-created educational material that can be accessed prior to a consultation may benefit clinical practice. Shared decision-making involves a bi-directional information exchange within the clinician-patient relationship, before making the final decisions (3), and can optimize evidence-based treatment (4). The patient's level of involvement in the "shared decision-making" is influenced by their level of health literacy (5, 6). Audio-visual educational aids, especially videos, can be an efficient method to improve the patient's health literacy (7, 8). With the increased presence of technology in the healthcare field, visual aids can be a beneficial alternative to written materials as a more tangible resource to the modern patient population. This article intends to bring awareness to the underutilization of visual aids as a more standardized supplement in the shared-decision making between physicians and patients. As more aspects of the healthcare system become digitalized, video decision aids can propel the technological transition by making daunting medical procedures more accessible to a wider patient population.

## Discussion

Within the modern healthcare setting, patients' preference for shared decision-making has increased. Shared decision-making occurs when a healthcare provider and patient evaluate the circumstances and decide together the best treatment that addresses the patient's needs and preferences (1). Especially in cases with chronic diseases, older and younger patients tend to respond to diagnoses in their selection of physicians or in actively selecting their treatment of choice (1). While shared decision-making has been implemented for past decades, there has been a suggested bias where specific treatments were more likely to be promoted despite variable patient preferences (2). Hence motivational interviewing has been added to shared decision-making to address the complexities of patient perspectives and behavioral tendencies. Shared decision-making centers on a collaborative discussion with the patient to evaluate alternatives and the pros and cons of listed treatments before making a final decision given the deliberations (3). Motivational interviewing builds on such discussions by accounting for the patient's ambivalence towards behavior or adherence to medicine. For instance, a less effective hypertensive medication could be prescribed to a patient instead of a greater effective medication if it meant better adherence to the regimen (3, 4). Background factors of both physicians and patients can impact the perspectives approaching evidence-based treatment and the subsequent behavior when starting such treatment. The Theory of Planned

Behavior (TPB) uses background factors to predict how a physician may respond or react to a certain scenario (4). Factors such as bio-social status, political ideology, education, spirituality, and socioeconomic status can cause physicians to form attitudes on what "proper" treatment entails. Such intentions can alter the way diagnoses or treatments are presented, especially when explained and translated to different communities. The last category of TPB measures the physicians' beliefs on how plausible behavioral change or adherence may be. The measurements of behavior expectations show that physicians may shift clinical knowledge when behavioral control is underestimated. This effect may be amplified when factoring in potential burnout or mental fatigue, worsening the sense of control from the provider. Although participatory decision-making from patients has been shown to improve health outcomes, patients with low health literacy are less likely to be involved in their accessibility to care. The Short Test of Functional Health Literacy in Adults (STOFHLA) evaluates health literacy based on language fluency, commute times, birthplace, education, and socio-economic status category. Studies showed that patients who had a lower STOFHLA score, or lower health literacy, were more likely to not feel like a partner and entrusted medical decisions solely to the physician (5). Potential barriers of a longer commute or limited access to providers off hours may place a cognitive burden on patients, resulting in decreased empowerment in medical decision-making. However, efforts in clearer communication between providers and patients have been shown to improve the desire for partnership among patients of all health literacies. By focusing on a few key concepts explained in plain language alongside pictorial materials, patients were more likely to incorporate behavioral changes (5). Such presentation of information can be useful in universal scenarios where health literacy could not be determined or was inaccurately evaluated. A similar improvement in knowledge was shown with educational interventions involving videos that explained the diagnosis or initiation of a new treatment, followed by a personalized discussion with medical personnel (6). In a study involving patients with atrial fibrillation (AF), patients were presented with video material explaining the potential consequences of stroke or hemorrhages and the risks and benefits of potential antithrombotic treatments. These patients were then required to fill out a questionnaire to ensure an understanding of the possible outcomes when taking aspirin, warfarin, or neither before consulting with medical personnel on the final decision. Compared to the control group with only the initial verbal intervention, patients with visual aid and access to a medical adjunct were more confident in their decision with antithrombotic therapy and had more accurate expectations of possible consequences (strokes or hemorrhages). However, such visual aids seemed to be less beneficial amongst elderly patients (> 75 years old) as participants were less likely to name any benefits or risks associated with warfarin (6). Yet when spouses and close family members of elderly patients were educated, they were more knowledgeable on treatments and properly monitored adherence

to regimens. Educational interventions for elderly patients in a group setting may prove to be more beneficial than that on an individual basis. Websites containing video and statistical graphics can be an alternative decision aid for patients to understand treatment expectations. In a study of women with early-stage estrogen receptor-positive breast cancer, participants were given “Adjuvant Online” as a resource to compare the risk of cancer recurrence between hormonal, chemotherapy, combined therapy, and no additional therapy (7). Afterward, patients were given a postclinic survey to determine the factual knowledge of each treatment benefit and the expectations of treatment benefit. Based on the graphics, patients who determined combined therapy had the best estimates for being cancer free were more likely to pick the treatment with confidence. However, 30% of participants selected the incorrect therapy as being the most statistically beneficial and were more likely to pick the one they perceived as most advantageous. To address potential misunderstandings, Adjuvant Online presented numerical data in a more user-friendly format to avoid having too many numbers present and overlapping. Further decision aids should be cognizant of how complex presentation can result in reduced comprehension and lower quality choices. Shorter educational videos made by multi-disciplinary and multi-cultural care teams can improve knowledge and self-efficacy for patients and those who are exposed to emergency situations. In a study to improve stroke literacy among patients with acute ischemic stroke (AIS) and intracerebral hemorrhage (ICH), a 5-minute video was given to patients hospitalized and their families. After the video, patients were assessed on the information given and followed up in 30 days. Notably, the video’s script was written at a 6<sup>th</sup>-grade reading level and featured a racially, ethnically, and agedly diverse cast to accommodate for potential barriers in health literacy. Using the results from the assessment, participants were given knowledge scores immediately after the video presentation and then after 30 days. Collectively, the participants who watched the video exemplified greater stroke literacy and a decreased risk of depression. While other longer video formats had benefits, a short-form version that was specifically standardized by medical professionals can show similar positive effects.

## Conclusion

Combined decision-making by patients and their providers has become increasingly important. Decision-making that considers the patient’s beliefs and behavior shows greater adherence and satisfaction with subsequent treatment plans. Proper explanations of possible treatments are vital in patient decision-making and video aids can be a useful alternative or supplement to traditional brochures. Audio-visual aids improve patient understanding via a simpler presentation of information tailored to the individual patient’s needs. This format also bridges the gap when it comes to shared decision-making with patients with low health literacy as it removes

the barriers of language and literacy. Overall, the increase in clearer communication and understanding helps improve the joint effort of both the patient and provider when it comes to decision-making. While video aids hold great promise for improving patient understanding, it is important to note that they should be used to complement, and not replace personalized communication between healthcare workers and patients. As shown by the latest research on video decision aids, it is important to continuously evaluate effectiveness through feedback from patients to ensure information is shared clearly and respectfully. This article intended to address the technological push in the healthcare system with video decision aids being a firm and promising start. Given the increased presence of videos and visual stimuli in people’s daily lives, video decision aids can be a more acceptable format to process information. Current results are encouraging, and further modifications can hopefully show greater effectiveness to a wider population and lowering barriers to healthcare.

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