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## Dermatology Online Journal

### Title

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### Permalink

<https://escholarship.org/uc/item/269735qq>

### Journal

Dermatology Online Journal, 27(6)

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### Publication Date

2021

### DOI

10.5070/D327654069

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Peer reviewed

# Effect of pre-operative informational video on Mohs surgery patient experience

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*Keywords: Mohs micrographic surgery, patient education, video*

To the Editor:

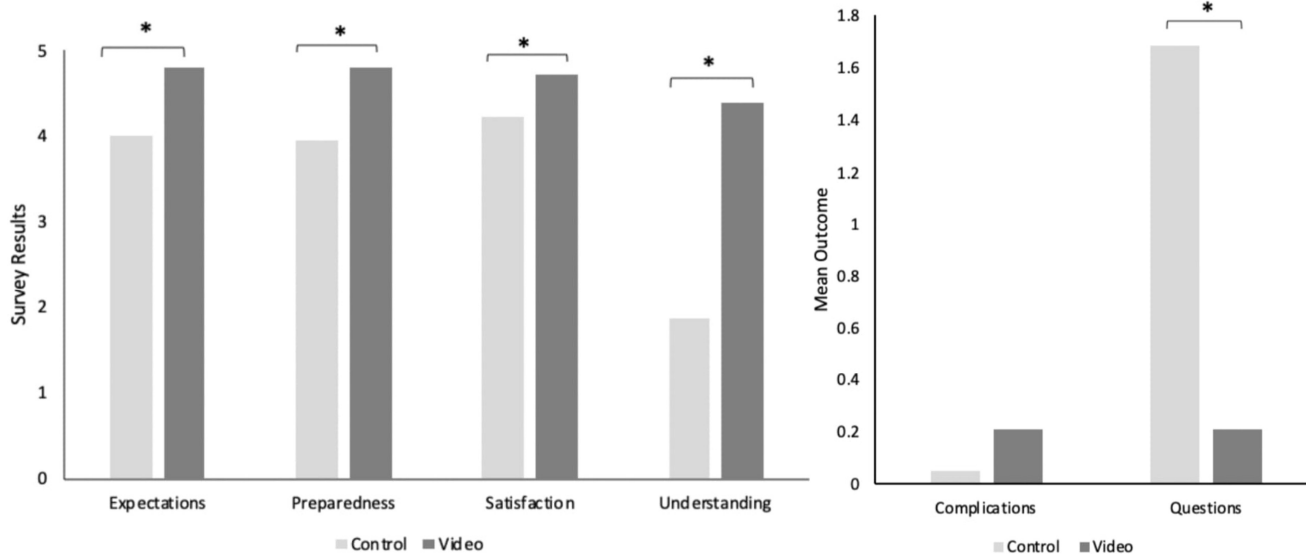
Studies in surgical specialties have shown that pre-operational instructional videos improve patient satisfaction [1]. In the practice of dermatology, multimedia videos and virtual reality simulators have been incorporated into the informed consent process for Mohs micrographic surgery (MMS) with mixed results on patient anxiety or satisfaction [2-5]. Although previous studies implemented in-office patient education modules during the consent period, we sought to examine the effect of home-accessible videos that could be viewed at the convenience of the patient prior to their appointment. Outcome measures previously examined include anxiety, satisfaction, and knowledge retention. However, other important surgical outcomes to consider include postoperative patient questions and complications.

The purpose of this study was to develop a home-accessible pre-operative informational video regarding MMS and to assess the efficacy on 1) patient understanding, preparedness, expectations, and satisfaction and 2) post-operative complications and patient-initiated communication.

The study was reviewed and approved by the University of California Los Angeles Institutional Review Board (IRB#17-001735). An educational video (5:13) was developed that described MMS, surgical day expectations, and postoperative pain

expectations. A control video (0:26) was developed that reminded patients of their appointment. A prospective study was conducted with 94 patients (recruited from July 2019 to April 2020) undergoing MMS at the UCLA Health dermatology surgical clinics. Study size was determined by power needed to achieve statistical significance. Patients were randomized into the informational video group or the control video group. Both groups viewed a video at home prior to MMS. Postoperatively, patients completed a survey that assessed: preparedness for surgery, expectations for surgery, understanding of surgery, and overall satisfaction. Only patients who completed the follow-up survey were included. During the 30-day postoperative period, telephone encounters, patient-to-provider messages, and complications were recorded. Statistical analysis was performed using paired t-test.

The groups were similar in sex and age. Compared to the control group (N=48), patients in the informational video group (N=46) had statistically significant improvements in patient-reported perceptions of what to expect during MMS (4.00±1.47 versus 4.81±0.20; P<0.01), feeling prepared for surgery (3.96±1.55 versus 4.88±0.11; P<0.01), overall understanding of MMS (1.86±1.28 versus 4.38±0.64; P<0.01) and satisfaction with their surgical procedure (4.23±1.21 versus 4.73±0.33; P<0.01), (**Figure 1A**). When stratified based on prior MMS experience, among patients who had never had MMS before, there were significantly fewer post-procedure questions in the video group compared to the control group (1.68±1.01 versus 0.22±0.18;



**Figure 1. A)** Survey results among all Mohs patients (first-time Mohs patients and repeat patients). **B)** Mean of postoperative complications and questions among first-time Mohs patients only. Asterisks indicate statistical significance ( $P < 0.01$ ).

$P < 0.01$ ), (**Figure 1B**). There was no significant difference in postoperative complications between the groups.

This study suggests at-home educational videos can improve patient expectations, preparedness, understanding, and satisfaction with MMS. Compared to in-office educational materials, at-home preoperative educational videos are low cost, require no additional physician time or clinic space, and can be viewed multiple times by patients.

Particularly in the current pandemic environment, evaluating effective telehealth modalities is important. Future studies investigating the role of multimedia in the postoperative period could further reduce communications and complications and potentially improve patient outcomes, lower healthcare costs, and decrease physician workload.

## Potential conflicts of interest

The authors declare no conflicts of interest.

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