Introduction: Research indicates that most children who undergo surgery experience significant preoperative anxiety and postoperative pain. Although various forms of preoperative preparation have been shown to be effective, few are routinely used because of cost-containment efforts. With outpatient procedures becoming increasingly more prevalent, much of the responsibility for addressing a child's perioperative anxiety and pain shifts to parents. The current study set out to develop and assess the feasibility and utility of an internet-based intervention aimed at reducing children's perioperative anxiety and pain. The intervention is tailored to parent and child characteristics, easily accessible, and grounded in empirical evidence.

Methods: The Web-based Tailored Intervention Preparation for Surgery (WebTIPS) was developed using input from a team of surgeons, anesthesiologists, child life specialists, and psychologists. WebTIPS introduces parents to what they will experience before, during, and after surgery, and provides anxiety management techniques and education on pain management. The program includes an animated child website that incorporates shaping and exposure to anesthesia induction and relaxation strategies for anxiety management. Following IRB approval, 8 parent-child dyads who had recently undergone surgery and 8 parent-child dyads who were scheduled to undergo surgery accessed the website. Parents completed a questionnaire regarding the usability and likeability of WebTIPS on a 5-point Likert-type scale (0-4), with higher scores indicating more positive responses. Participants attended a focus group and an individual interview to examine perceptions and feasibility of WebTIPS. Transcriptions of the interviews were coded to identify common themes.

Results: The most common concerns parents expressed were: lack of knowledge and preparation, an adverse event during surgery, and their child waking in the PACU. All parents responded positively to the content of the website and most reported that they learned valuable information and felt better prepared. Most parents perceived their children as engaged and interested in the child website. Single-sample t-tests confirmed that parents found all modules to be useful. Mean ratings were significantly greater than the midpoint (moderately helpful) of the scale (home before surgery: mean=3.25, t(11)=4.49, p=.001; waiting area and induction mean: 3.58, t(11)=10.65, p<.001; recovery: mean=3.42, t(11)=7.34, p=.001; home after surgery: mean=3.33, t(11)=3.33, p=.002).

Conclusions: The initial evaluation of WebTIPS showed that using a web-based preparation program is feasible, and the content and presentation were well received. Because WebTIPS is easily accessible and inexpensive, it offers a favorable option for treating children's perioperative anxiety and pain. WebTIPS will next be examined in a large randomized controlled trial.