

## Review Article

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# Evaluating the efficacy of pre-visit behavior modeling videos on pediatric patient compliance

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## ABSTRACT

Pre-visit behavior modeling videos technique is considered a promising non-pharmacological preparation for various types of medical procedures in pediatric healthcare. However, there are some significant challenges, including pediatric patient non-compliance. This challenge may result from various factors, such as pediatric anxiety, fear, or limited understanding of medical procedures. These factors lead to elevated rates of incomplete treatment, prolonged appointment durations, dependence on pharmacological intervention, and increased caregiver and parent stress, including sedation medications. Pre-visit modeling videos had emerged as a practical and child-friendly intervention, which familiarizes pediatric patients with the intended medical procedure and the healthcare environment. This article aims to critically assess the data from studies on the application of modeling videos and their compliance in pediatric patients, and it additionally aims to provide recommendations to increase this technique's compliance and care efficiency and to reduce pediatric patients' anxiety. Furthermore, procedure completion and caregiver satisfaction will be discussed. Pre-visit modeling videos significantly increase cooperative behavior and decrease sedation use and procedure time. Additionally, age-appropriate and caregiver-engaged videos assist in decreasing anxiety. Numerous studies indicate that modeling videos were equally effective as tell-show-do and live modeling techniques; however, the modeling video method is scalable and resource-efficient. Variable intervention design, exposure timing, and outcome measurements limit generalizability despite promising findings. This review includes that pre-visit behavior modeling videos assist in pediatric behavioral management.

**Keywords:** Pre-visit, Behavior modeling videos, Modeling videos, Pediatric patient, Children, Pediatric patient compliance, Caregivers, Compliance, Healthcare

## INTRODUCTION

Pediatric healthcare has numerous challenges, including young patients' reluctance or inability to comply with medical or dental procedures. Children often refuse to comply due to fear, anxiety, and bewilderment regarding the appointment. The emotional and behavioral barriers to care delivery delay procedures, adversely impact the outcomes, and stress families and healthcare providers.<sup>1</sup> Children's clinical responses are heavily influenced by fear and anxiety, anxious children may cry, protest, or refuse to sit still, making even easy exams challenging. These answers delay appointments and may necessitate staff participation or rescheduling.<sup>2</sup> Lack of compliance can reduce quality and increase inaccuracy in precision operations such as dental restorations and blood samples. Repeated limited experiences might cause fear and long-term avoidance, causing anguish and lost care chances. These factors do not impact only the child; however, parents and caregivers sometimes stress out when their child struggles at medical appointments.<sup>3</sup> Stress can reduce caregiver confidence and healthcare satisfaction. When treating distressed children, healthcare workers may feel time pressure, inefficiency, and emotional weariness.<sup>4</sup> Reduced compliance leads to incomplete therapy, worse health outcomes, and higher sedative use. Thus, increasing pediatric care quality and efficiency requires addressing non-compliance.<sup>5</sup>

Behavior modeling is a psychological intervention that teaches or reinforces desired behaviors by watching others. Albert Bandura's social learning theory states that people learn by observing others and via direct experience.<sup>6</sup> Children respond effectively to observational learning. Watching another pediatrician peacefully undergo a surgery can reassure, reduce fear, and encourage ethical conduct. Live demonstrations, role-play, and, more recently, videos have been used for behavior modeling in pediatric healthcare.<sup>7</sup> Pre-visit behavior modeling movies expose children to the clinical setting, event sequence, and expected behavior. The videos reduce anxiety by demystifying operations and building predictability in a child-friendly, non-threatening manner.<sup>8</sup> Educational treatments before medical appointments educate children cognitively by explaining what will happen and emotionally by eliminating anxiety and uncertainty.<sup>9</sup> A well-designed film can show the clinic, introduce doctors, and standardize procedures. Children can arrive at the visit with more confidence and readiness when they know this information, which makes treatment easier.<sup>8</sup>

Digital health tools are becoming more accessible and popular, expanding patient education and involvement. Healthcare providers now use videos to instruct, develop health literacy, and prepare patients. Video-based behavior modeling in pediatrics is scalable and cheaper than in-person demonstrations, which take time and resources.<sup>10</sup> Pre-visit behavior modeling films are popular, but their efficacy is unclear.

Practitioners struggle to draw inferences from studies with different designs, populations, outcome measures, and intervention forms. Some studies observe significant compliance and anxiety decreases, while others observe none. Age, development, and prior medical experiences may affect these therapies, stressing the necessity for a full data synthesis.<sup>11</sup> Systematically analyzing the literature reveals similar findings, methodological strengths and limitations, and evidence gaps. Clinicians, researchers, and policymakers need such synthesis to decide whether and how to use pre-visit behavior modeling videos in pediatric treatment.<sup>12</sup>

The main goal of this review article is to critically assess the evidence on pre-visit behavior modeling films for pediatric patient compliance. This article has certain objectives, including evaluating how these videos affect compliance, procedure completion, and sedation. And to determine how they reduce pre-procedural anxiety and discomfort in children and caregivers. Compare their efficacy to live modeling and verbal explanations for behavioral preparation. Ultimately, this article finds research gaps and suggests future directions. This review aims to determine if video-based behavior modeling is useful in pediatric treatment and how to optimize it for different age groups and clinical settings.

## LITERATURE SEARCH

A comprehensive literature search in the PubMed, Web of Science, Science Direct, and Cochrane databases utilizing the medical topic headings (MeSH) and relevant keywords such as 'pre-visit', 'behavior modeling videos', 'modeling videos', 'pediatric patient', 'children', 'pediatric patient compliance', 'caregivers', 'compliance', 'healthcare', and a combination of all available related terms was performed on September 11, 2025. All relevant peer-reviewed articles involving human subjects and those available in the English language were included. Using the reference lists of the previously mentioned studies as a starting point, a manual search for publications was conducted through Google Scholar to avoid missing any potential studies. There were no limitations on date, publication type, or participant age.

## DISCUSSION

### *General interpretation*

This review summarizes pre-visit behavior modeling videos on pediatric patient compliance and anxiety. However, video behavior modeling is a promising and non-pharmacological technique to improve collaboration and procedural completion and reduce both patient anxiety and the need for sedation. Overall, the results vary substantially depending on each patient's variables, such as age, clinical condition, measurement method, and intervention strategy.<sup>13</sup> Several research and quasi-experimental studies highlight considerable benefits; on the other hand, others demonstrate no statistically

significant variables.<sup>14</sup> The necessity of complete interpretations and standardized trials is highlighted by these contradictory outcomes. Low-cost video modeling and scalable behavioral preparation have significant clinical consequences. Thus, watching modeling videos of cartoon characters or other children undergoing routine treatments enables the child to be more cooperative and lessens the anxious feeling.<sup>15</sup> Video-based modeling in normal pre-visit routines may improve efficiency, patient satisfaction, and caregiver distress.<sup>16</sup>

### **Compliance improvement**

Multiple studies highlighted significant reported improvements in compliance after conducting pre-visit modeling videos; additionally, when they monitored the behavior profile rating scale (Houpt behavior rating scale) (Figure 1), they found a significant decrease in the negative pediatric behavior.<sup>17,18</sup> In another study, the findings indicate that watching a video of a dentist-created model of the intended procedures decreases the disruptive behavior and increases pediatric patients' compliance. This modeling video strategy is considered a preparation step for the child before the intended intervention.<sup>19</sup> In India, Dhillon et al conducted a randomized controlled trial on 36 pediatric patients aged 7-9 years to evaluate the impact of filmed modeling by cartoon characters on the anxiety of children during pit and fissure sealant application under rubber dam isolation, and recorded that statistically significant changes in anxiety level were observed among children following the filmed modeling. This emphasizes that film modeling is an efficient method for pediatric patients to instill positive behavior during dental treatment.<sup>20</sup> Similarly, the same findings have been shown by Albert Bandura's social learning theory: learning occurs through observation, imitation, and modeling, and is influenced by factors such as attention, motivation, attitudes, and emotions. Thus, pediatric patients show acceptable behavior toward interventions following the filmed modeling.<sup>21</sup> On the other hand, few studies indicate non-significant or minor effects of pre-visit behavior modeling videos on children's compliance or behavior outcomes. These findings may result from various factors, such as the application of age-inappropriate video modeling or any other psychological factors.<sup>22</sup> Moreover, these results may be shown as a result of the small sample size or the use of non-blind observational evaluation. And variables such as the modeling video content and intervention design impact its extent.<sup>23</sup> Modeling videos technique application results in a significant enhancement in audiological testing, which is indicated by studies that investigate whether pre-exposure via modeling videos promotes pediatric patients' compliance.<sup>24</sup> Additionally, findings demonstrate reduced need for repeated guidelines and elevated equipment tolerance. In clinical

trials that address modeling videos, videos that were sent via email or messages allowed families to review the content before their child's exposure, which reinforced the behavioral effect.<sup>25</sup> Remote consultation and follow-ups in autistic pediatric patients increase the dental hygiene compliance; thus, video modeling shows improvement in daily cooperation by elevating procedural compliance and influencing outside actions.<sup>26</sup> In addition, therapies that are provided remotely or by video allow caregivers to provide customized treatment according to each child's condition.<sup>27</sup>

Score	Description
1	Aborted: No treatment rendered
2	Poor: Treatment interrupted; only partial treatment was completed
3	Fair: Treatment interrupted but eventually completed
4	Good: Difficult but all treatment was performed
5	Very Good: Some limited crying or movement
6	Excellent: No crying or movement

**Figure 1: Houpt behavior rating scale.<sup>17</sup>**

### **Anxiety reduction**

One of the most significant advantages of pre-visit modeling videos is anxiety reduction. Numerous validated anxiety scale studies show notable reduction in behavioral distress markers and self-reported anxiety.<sup>28</sup> Several randomized control studies indicated a significant reduction in pediatric patients' anxiety following the application of pit and fissure sealant using the modified child dental anxiety scale (Figure 2).<sup>20,29</sup> Additionally, studies across several countries on dental modeling videos found that dental anxiety significantly decreased in children exposed to video modeling; these results were obtained from the dental anxiety scale or from the psychological indicators such as heart rate and skin conductance.<sup>28</sup> Healthcare pre-visit virtual techniques not only benefit in reducing the anxiety in children; however, they additionally reduce the anxiety in their parents and increase their engagement and intervention alliance.<sup>28</sup> However, other studies showed a limited or non-significant decrease in pediatric patients' anxiety.<sup>30</sup> The effectiveness of this technique may be influenced by various factors, including unpleasant video content, previously established concerns, watching the modeling video for a long time, or any other psychological influences.<sup>31</sup> Moreover, findings have demonstrated that the caregiver involvement in watching the intervention modeling video maximizes the pediatric patient's anxiety reduction; this may be because of the effective mediation of the modeling video in the presence of parents or family members.<sup>32</sup>

<b>The MCDAS<sub>(1)</sub> Scale</b>					
<b>How do you feel about:</b>					
<b>Q1: Going to the dentist generally</b>	1	2	3	4	5
<b>Q2: Having your teeth looked at</b>	1	2	3	4	5
<b>Q3: Having your teeth scraped or polished</b>	1	2	3	4	5
<b>Q4: Having an injection in gums</b>	1	2	3	4	5
<b>Q5: Having a filling</b>	1	2	3	4	5
<b>Q6: Having teeth taken out</b>	1	2	3	4	5
<b>Likert scale:</b>					
1. would mean: relaxed/not worried					
2. would mean: very slightly worried					
3. would mean: fairly worried					
4. would mean: worried a lot					
5. would mean: very worried					

Figure 2: Modified child dental anxiety scale.<sup>29</sup>

#### Secondary observation and comparative effectiveness

Video modeling can be used as an independent technique or in conjunction with other non-pharmacological techniques; however, various behavioral preparation methods have been compared to modeling videos.<sup>33</sup> Dental behavioral guiding literature includes modeling (video or live), cognitive-behavioral approaches (tell-show-do), and audio-visual distraction, which are often applied concurrently.<sup>34</sup> When clinical staff resources are significantly limited, the modeling video technique is a viable option. Moreover, video modeling and live matches produce film results but with reduced time and resources.<sup>35</sup> Various emerging comparisons compare pre-visit virtual methods to other available methods, such as recent research on outpatient surgical procedures that demonstrates that virtual healthcare techniques achieve a greater reduction of anxiety in pediatric patients and their parents when compared with other informational brochures or verbal explanations.<sup>36</sup> Another study comparing 4 modalities (passive VR, gamified VR, 360° video, and traditional 2D educational video) in imaging contexts, such as MRI, found that gamified VR was better at decreasing anxiety, reducing head motion, and improving preparedness.<sup>37</sup> However, even traditional or 360° videos have meaningful advantages over no-preparation interventions.<sup>38</sup> Pediatric patients can watch modeling videos on WhatsApp, other mobile platforms, or clinic tablets before appointments. For instance, parents who watched WhatsApp-delivered vaccine hesitancy videos had much reduced reluctance and greater immunization adherence than control parents.<sup>39</sup> The use of several modeling video delivery techniques can increase reach and potentially reduce treatment cost.<sup>40</sup>

#### Limitations

Modeling videos have various limitations, despite the promising findings that studies have demonstrated. These limitations may result from intervention design heterogeneity, as the content varies according to each intended target, which may be a cartoon model, peer, or procedural walkthrough. Additionally, heterogeneity may be due to video duration or timing, which may be days in advance or minutes before the procedure, or may be due to caregivers' engagement or video delivery platform. Thus, comparisons with other techniques are challenging due to these variables.<sup>41</sup> Moreover, the effectiveness of the modeling videos is impacted by each video features, including video language, sensory inputs, and tone.<sup>42</sup> Inconsistent outcomes measurement that is measured by different measuring tools, such as behavioral rating scales (Houpt, Frankl, BPRS), physiological markers (skin conductance and heart rate), child-report anxiety or self-report measures (MCDAS, FIS, CFSS), or procedural metrics.<sup>29</sup> Therefore, the absence of standardized follow-up time points and main outcomes impacts meta-analysis findings and hinders the effect size aggregation. Statistical power and the minimal required sample size form another limitation, as numerous studies have limited sample sizes (less than 30); however, other studies have higher sample sizes. While some randomized control trials are well-powered, other trials are classified as exploratory or pilot studies. Additionally, numerous studies do not involve blinding, and ratings from clinicians or parents may be influenced by bias or anticipation impacts. Another limitation is limited long-term follow-up, as the majority of studies are on the short-term findings or immediate outcomes during or

following the visits. Limited studies evaluate the outcomes that last between physician visits, which make the habituation and cumulative results rarely discussed. Ultimately, the contextual and developmental variables form additional limitations, as the intervention effectiveness appears to be impacted by many factors, such as age, culture, and developmental level.<sup>43</sup> For instance, children at preschool age may exhibit elevated compliance levels, more than other higher-age pediatric patients<sup>44</sup> and cultural adaptation and language variables are significant factors; however, they are rarely discussed.

## CONCLUSION

Recent studies indicate that pre-visit behavior modeling videos are promising, considered as a low-cost and scalable behavioral technique to enhance pediatric patient compliance and reduce their anxiety. Video modeling efficacy evidence is significant in dental trials; however, it remains emerging in surgical and outpatient medical evidence. Despite significant limitations, such as sample size variation, age-related factors, modeling video content, and technique timing, studies demonstrate elevated procedural completion and increased anxiety reduction. Standardized outcome measuring methods, long-term follow-ups, suitable trial design, and consideration of cultural and developmental concerns are crucial for the application of effective healthcare modeling videos in pediatric procedures. Clinically, pediatric healthcare practitioners should ensure the use of accessible and acceptable content that is appreciated by caregivers and pediatric patients, especially in pre-visit modeling videos for procedures that cause pediatric anxiety.

### Recommendations

Numerous studies and clinical trials have recommended modeling video techniques in pediatric patients' healthcare. Recent research suggests that depending on the standard results in evaluating the efficacy of this technique, the use of validated and consistent measuring tools and scales in evaluating children anxiety, intervention compliance, and procedural parameters is recommended in future randomized control trials. Additionally, predetermined statistical power and endpoints are critical. Optimizing video delivery and content is a significant recommendation in many studies, which indicated that modeling videos trials should use cartoon, peer, and clinician video models to provide tactile and auditory expectations, illustrate actual procedural technique, and engage caregivers. Video time should allow effective processing, the preferred time being from hours to days before the visit. It is necessary to assess dose-response and habituation by checking whether applying various video models repeatedly enhances the performance and whether results last between visits. And to address patients' age, culture effects, and developmental health, which enable the determination of which age group is appropriate for the

application of this technique and if video modeling is applicable in mental illnesses such as attention deficit, autism spectrum, and hyperactivity disorders. Modeling video content must be suitable for pediatric patient culture and language; adapting characters, texts, and visuals to community language and demographics may enhance efficacy and acceptability. Longitudinal studies must address cost-effectiveness by assessing compliance, anxiety and sedation medication reduction, treatment success, procedure cost, and patient/parent satisfaction over time. Other studies suggest policy and clinical recommendations: surgical and dental clinics should apply pre-visit modeling video instructions through messages, email, mobile apps/clinical websites. Moreover, caregivers' involvement is significantly recommended; parents should attend and discuss video model with their child, which increases effectiveness of modeling videos. Additionally, use of accessible digital platforms and devices enables solving the access gaps. Providing training for clinicians and getting family feedback are crucial, as teaching caregivers and parents how to apply an effective modeling video increases pediatric patient compliance. Ultimately, to discover the appropriate modeling video content, timing for different age groups, ideal delivery method and clinical circumstances, further research and trials are required.

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## REFERENCES

1. Lerwick JL. Minimizing pediatric healthcare-induced anxiety and trauma. *World J Clin Pediat.* 2016;5(2):143-50.
2. Lang EV, Viegas J, Bleeker C, Bruhn J, Geert-Jan van G. Helping Children Cope with Medical Tests and Interventions. *J Radiol Nurs.* 2017;36(1):44-50.
3. Aslaminabad N, Shokravi M, Jamali Z, Shirazi S. Barriers and Drawbacks of the Assessment of Dental Fear, Dental Anxiety and Dental Phobia in Children: A Critical Literature Review. *J Clin Pediat Dentist.* 2017;41(6):399-23.
4. Nwobodo EP, Strukcinskiene B, Razbadauskas A, Grigoliene R, Agostinis-Sobrinho C. Stress Management in Healthcare Organizations: The Nigerian Context. *Healthcare* (Basel, Switzerland). 2023;11(21):2815.
5. Tebbi CK. Treatment compliance in childhood and adolescence. *Cancer.* 1993;71(S10):3441-9.
6. Bandura A, Walters RH. *Social learning theory.* Vol 1: Prentice hall Englewood Cliffs, NJ. 1977.
7. Bozkul G, Karakul A, Düzkaya DS, Dilşen S. Effect of short film video and video-based education on fear, pain, and satisfaction of children undergoing day surgery. *J Pediat Nursing.* 2024;75:49-56.
8. Rotto TA. Effect of Pre-Visit Video on Behavior of Pediatric Patients in the Dental Operatory, Saint Louis University. 2025.

9. Gosch EA, Flannery-Schroeder E, Mauro CF, Compton SN. Principles of cognitive-behavioral therapy for anxiety disorders in children. *J Cognitive Psychoth.* 2006;20(3):247.
10. Causio FA, Gandolfi S, Kaur J, Sert B, Fakhfakh M, De Angelis L, et al. Impact of Digital Health Interventions on Health Literacy: A Systematic Review with Quality Appraisal. *medRxiv.* 2025;1-57.
11. James A, Soler A, Weatherall R. Cognitive behavioral therapy for anxiety disorders in children and adolescents. *Cochrane Database Systemat Rev.* 2005;4:CD004690.
12. McConnell K, Keenan C, Storey C, Thurston A. Video-based interventions promoting social behavioural skills for autistic children and young people: An evidence and gap map. *Campbell Systemat Rev.* 2024;20(2):e1405.
13. Al-Namankany A, Petrie A, Ashley P. Video modelling for reducing anxiety related to the use of nasal masks place it for inhalation sedation: a randomised clinical trial. *Europ Arch Paediat Dentist.* 2014;16(1):13-8.
14. Mason RA, Ganz JB, Parker RI, Boles MB, Davis HS, Rispoli MJ. Video-based modeling: Differential effects due to treatment protocol. *Res Autism Spectrum Disord.* 2013;7(1):120-31.
15. Paryab M, Arab Z. The effect of Filmed modeling on the anxious and cooperative behavior of 4-6 years old children during dental treatment: A randomized clinical trial study. *Dental Res J.* 2014;11:502-7.
16. Carvell J. Health Literacy and the Feasibility of Using Video-Based Education in the Emergency Department, University of Nevada, Las Vegas. 2023.
17. Modha B. Endodontic treatment under inhalation sedation: A case report. *SAAD Digest.* 2021;37:79-81.
18. Dhar V, Jayaraman J, Marghalani AA, Wells M, Randall CL, Law C, et al. Nonpharmacological behavior guidance for children during dental treatment visits: A systematic review and meta-analysis-Part 2. *Pediat Dentist.* 2023;45(3):197-220.
19. Hine J, Hajek R, Roberts H, Allen K. Decreasing disruptive behaviour during routine dental visits: a video modelling intervention for young children. *Int Dental J.* 2018;69(4):265-72.
20. Dhillon S, Deshpande AN, Poonacha KS, Bargale S, Macwan C, Jaiswal V. The Effect of Filmed Modeling by Cartoon Character on Anxiety of Children during Pit and Fissure Sealant Application under Rubber Dam Isolation: A Randomized Controlled Trial. *J Integrated Health Sci.* 2023;11(2):110-3.
21. McLeod S. Albert Bandura's social learning theory. *Simply Psychol London.* 2011;694-5.
22. Maione L, Mirenda P. Effects of Video Modeling and Video Feedback on Peer-Directed Social Language Skills of a Child With Autism. *J Posit Behav Interventions.* 2006;8:106-18.
23. De Lepeleere S, Verloigne M, Brown HE, Cardon G, De Bourdeaudhuij I. Using the Intervention Mapping Protocol to develop an online video intervention for parents to prevent childhood obesity: Movie Models. *Global Health Promot.* 2018;25(2):56-66.
24. Roberts MY, Rosenwasser J, Phelan J, Hampton LH. Improving pediatric hearing testing for children with developmental delays: The effects of video modeling on child compliance and caregiver stress. *J Am Academy Audiol.* 2020;31(05):310-6.
25. Christakis DA, Garrison MM, Herrenkohl T, Kevin H, Frederick PR, Chuan Z, et al. Modifying media content for preschool children: a randomized controlled trial. *Pediatrics.* 2013;131(3):431-8.
26. Orsi-Cordova KL. Evaluating the Effects of Video Modeling and Visual Supports on Preschoolers' Compliance With Dental Procedures, Nova Southeastern University. 2017.
27. Tse YJ, McCarty CA, Stoep AV, Myers KM. Teletherapy delivery of caregiver behavior training for children with attention-deficit hyperactivity disorder. *Telemed E-Health.* 2015;21(6):451-8.
28. Mihandoust S, Joseph A, Browning MH, Cha JS, Gonzales A, Markowitz J. Can pre-visit exposure to virtual tours of healthcare facilities help reduce child and parent anxiety during outpatient surgical procedures? *Applied Ergonomics.* 2024;119:104308.
29. Manepalli S, Nuvvula S, Kamatham R. Comparative efficacy of a self-report scale and physiological measures in dental anxiety of children. *Journal of investigative and clinical dentistry.* 2013;5.
30. Singh NN. Inclusiveness, Diversity, and Accessibility of Mindfulness-Based Interventions and Research with Children and Families: A Conversation with Researchers, Participants, and Community Collaborators. *Mindfulness.* 2024;15(12):3142-52.
31. Hasan MR, Jha AK, Liu Y. Excessive use of online video streaming services: Impact of recommender system use, psychological factors, and motives. *Comp Human Behavior.* 2018;80:220-8.
32. Babayigit T, Çikili Uytun M, Temeltürk R. The Effectiveness of Parenting Program Based on Video Interactive Guidance: Effectiveness of Parental Interactive Guidance. *J Pediat Academ.* 2024;5(2):56-62.
33. Clinton E, Correspondence E, Clinton. Using video modeling to teach academic skills to students with disabilities: a review of the literature. *Int J Applied Res.* 2015;1(11):382-390.
34. McHayleh N, Harfouche A, Souaid P. Techniques for Managing Behaviour in Pediatric Dentistry: Comparative Study of Live Modelling and Tell-Show-Do Based on Children's Heart Rates during Treatment. *J (Canadian Dental Association).* 2009;75:283.
35. Lund DA, Hill RD, Caserta MS, Wright SD. Video Respite™: An Innovative Resource for Family, Professional Caregivers, and Persons With Dementia1. *The Gerontologist.* 1995;35(5):683-7.
36. Rudravaram S, Gupta A, Kalra B, Shahzadi M, Manoj KG, Geeta K, et al. Evaluation of parental

anxiety following three methods of pre-anesthesia counseling: Video, brochure and verbal communication. *Pediat Anesthesia.* 2024;34(7):665-70.

37. Yang Y, Guo M, Corona EA, Daniel B, Leuze C, Baik F. VR MRI Training for Adolescents: A Comparative Study of Gamified VR, Passive VR, 360 Video, and Traditional Educational Video. *arXiv.* 2025.

38. Ulrich F, Helms N, Frandsen U, Rafn A. Learning effectiveness of 360° video: experiences from a controlled experiment in healthcare education. *Interactive Learning Environments.* 2019;29:1-14.

39. Lubis TA, Gunardi H, Herqutanto, Soedjatmiko S, Hindra IS, Fatima SA, et al. Educational videos to address vaccine hesitancy in childhood immunization. *Vaccine.* 2022;40(41):5965-70.

40. Krouse H. Video modeling to educate patients. *J Adv Nursing.* 2001;33:748-57.

41. Khalil F, Läer S. Physiologically Based Pharmacokinetic Modeling: Methodology, Applications, and Limitations with a Focus on Its Role in Pediatric Drug Development. *BioMed Res Int.* 2011;2011(1):907461.

42. Maione L, Mirenda P. Effects of Video Modeling and Video Feedback on Peer-Directed Social Language Skills of a Child With Autism. *J Posit Behav Intervent.* 2006;8(2):106-18.

43. Gentile DA, Oberg C, Sherwood NE, Story M, Walsh DA, Hogan M. Well-child visits in the video age: pediatricians and the American Academy of Pediatrics' guidelines for children's media use. *Pediatrics.* 2004;114(5):1235-41.

44. Özerk K, Cardinal D. Prevalence of Autism/ASD among preschool and school-age children in Norway. *Contemporary School Psychol.* 2020;24(4):419-28.

45. Adam M, Chase RP, McMahon SA, Kira-Leigh K, Jamie J, Victoria W, et al. Design preferences for global scale: a mixed-methods study of “glocalization” of an animated, video-based health communication intervention. *BMC Publ Health.* 2021;21(1):1223.

46. Besler F, Kurt O. Effectiveness of video modeling provided by mothers in teaching play skills to children with autism. *Educational Sci Theory Pract.* 2016;16(1):209-30.

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