PEER REVIEW HISTORY

ARTICLE DETAILS

TITLE (PROVISIONAL)	Individual Cartoon Video for Alleviating Perioperative Anxiety and Reducing Emergence Delirium in Children: A Prospective Randomized Trial
AUTHORS	Tang, Xinyu Zhang, Muchun Yang, Lizhuang Tao, Xinchen Li, Yamei Wang, Yi Wang, Xin Hu, Xianwen

VERSION 1 - REVIEW

REVIEWER	Dr. Peter Flom Peter Flom Consulting
REVIEW RETURNED	27-Jan-2023

GENERAL COMMENTS	I confine my remarks to statistical aspects of this paper. I think the authors used less than optimal methods, and I suggest improvements. General: The authors used independent samples t-tests (or a nonparametric test which they need to name) at four time points. This isn't exactly *wrong* but it is far from the best method. At a minimum the authors can use paired sample t tests. However, given that the authors have data at 4 time points, an even better method is multilevel models. Both of these let patients serve as their own controls, which is very valuable even with random treatment. The MLM would let the authors trace patterns over the time points and would allow them to add covariates. This would let them see if the cartoons worked better on some groups of kids (e.g. boys vs. girls, age, or whatever). For the pain scores, the authors should use a linear MLM, for delirium, a nonlinear MLM (with logistic link). p. 4 line 27 ff, Don't just give p values , give the effect size. If you only have space for one of these, give the ES. (E.g. similar to what you do on line 34) line 35 Insert "significant" between "no" and "differences" and give ES anyway. Tables 2, 3, and 4 need a footnote saying what test was used to get the p value

REVIEWER	Dr. Grace McMahon The Royal Children's Hospital Melbourne, Mental Health
REVIEW RETURNED	15-Feb-2023

GENERAL COMMENTS	General comments: - The age range of children in this study (between 3 and 7 years) extends beyond what is often considered preschool. Please change the terminology used for the age of participants. - It would be helpful for the reader to be provided with more information about the 'individual cartoon video' including whether it was just one video chosen and perhaps some examples of options that children had to choose from. Were there any restrictions imposed around the content of these videos? - There are several sections of the manuscript where more specificity is required. I have outlined these below. Abstract: - Background section – I suggest ensuring that this is very specific to your population of interest (i.e., young children) - Methods section – I suggest specifying that it was an individual video 'of the child's choice' Introduction: - It would be good to include more detail about previous studies that have been conducted and more specificity around limitations of the current literature. For example, it would be good to have more detail about what is meant by 'lacking personalisation and pertinence'. Is this due to all children in the study being shown the same cartoon? - In the aim, I think it would be helpful for the reader to know that this is amongst young children undergoing adenoidectomy and tonsillectomy - Please specify whether the incidence rate of delirium relates specifically to children or is a broader estimate for children and adults. Method: - Please change the language on line 28 of page 6 to 'intellectual disability' - As previously stated in my general comments, please include more detail around the procedure for children selecting the cartoon video (e.g., were they given a range of options or allowed to freely choose?). It would also be helpful to understand the types of cartoon videos that were watched as part of the intervention. - Please check the range for the mYPAS. Should this be 22.5 to 100? - Consider including examples of items/observations for each domain of the mYPAS - Consider moving information about who completed the assessment measures to the top of the paragraph - Please include a reference to support the cut-offs for ED (including what is described as severe ED) as defined by PAED scores - It would be good to include subheadings to help guide the reader through the Method section Results: - Please remove interpretation of results and save this for the Discussion - Consider slight rewording of captions for Tables 2 and 3 so that they more specifically state the information that is presented and for

	whom (specify the two groups) - Figure 2 – please have scaling of Y-axis consistent for each of the groups to help the reader with comparisons Discussion: - A lot of the information in the Discussion about previous studies could be moved to the Introduction to help build the rationale for this study. More space in the Discussion should be given to discussing the study results in detail, as well as acknowledging study strengths, limitations, and ideas for future research to build on these findings. There also needs to be discussion added around the clinical implications of the study findings

VERSION 1 – AUTHOR RESPONSE

Reviewer 1

1、General: The authors used independent samples t-tests (or a nonparametric test which they need to name) at four time points. This isn't exactly *wrong* but it is far from the best method. At a minimum the authors can use paired sample t tests. However, given that the authors have data at 4 time points, an even better method is multilevel models. Both of these let patients serve as their own controls, which is very valuable even with random treatment. The MLM would let the authors trace patterns over the time points and would allow them to add covariates. This would let them see if the cartoons worked better on some groups of kids (e.g. boys vs. girls, age, or whatever). For the pain scores, the authors should use a linear MLM, for delirium, a nonlinear MLM (with logistic link).

Response: Thank you for your nice suggestions and we feel very sorry for the inconvenience brought to the reviewer. In previous data analysis, we did not consider carefully enough to select the most suitable statistical method. In the revised manuscript, given that we had the data of anxiety, emergence delirium and pain at four time points, the changes of anxiety and emergence delirium over time between two groups were evaluated by generalized linear mixed models(GLMM) with logistic link followed by pairwise comparisons with Bonferroni correction. Linear mixed model(LMM) was used to evaluate the change of pain for comparison of FLACC. Both GLMM with logistic link and LMM were adjusted for age, gender, surgery type and length of surgery and anesthesia. In the study, these factors did not differ between the two groups and had no impact in the multivariable analysis.

The incidence of anxiety was significantly different over time among children ($F=3.212$, $P=0.023$). There is also a significant difference in the incidence of anxiety between group V and group C ($F=34.943$, $P < 0.001$)(Figure 2, Table 2). Moreover, the interaction effect between time and group was statistically significant ($F=8.126$, $P < 0.001$)(Table 2). The incidence of anxiety at T0 exhibiting baseline anxiety was not statistically different between the groups ($P = 0.323$). After the intervention, the incidence of anxiety of group V is significantly lower than that of group C at T1 ($P < 0.001$), T2 ($P < 0.001$) and T6 ($P < 0.001$)（Figure 2）.

The incidence of ED was significantly different over time among children ($F=15.688$, $P < 0.001$). However, the incidence of ED between the groups and the interaction effect between time and group were not statistically different ($F=2.169$, $P=0.142$; $F=1.220$, $P=0.302$).

The FLACC score was significantly decreased over time among children ($F=3.870$, $P=0.010$). However, the FLACC scores between the groups and the interaction effect between time and group were not statistically different ($F=0.059$, $P=0.808$; $F=1.381$, $P=0.249$).

2、p. 4 line 27 ff, Don't just give p values , give the effect size. If you only have space for one of these, give the ES. (E.g. similar to what you do on line 34)

Response: Thanks for the valuable suggestion to improve our manuscript. We have re-written this part according to the Reviewer's suggestion.

And the specific content is as follows:

'The incidence of anxiety were comparable in group V and group C at the holding area (T0)(26% vs. 22%, P=0.323)'

3、line 35 Insert "significant" between "no" and "differences" and give ES anyway.

Response: Thanks for the valuable suggestion to improve our manuscript. We have re-written this part according to the Reviewer's suggestion.

And the specific content is as follows:

'We found no significant differences in cooperation during induction, postoperative pain or the incidence of adverse events between the groups (2.00 [0.00~4.00] vs. 3.00 [1.25~4.00], P=0.110; F=0.059, Pgroup=0.808; 3 (7.5%) vs. 4 (10), P=0.692).'

4、Tables 2, 3, and 4 need a footnote saying what test was used to get the p value

Response: Thanks for the valuable suggestion to improve our manuscript. We have added the test used to get the p value at the footnote sayings according to the Reviewer's suggestion.

Table2:

aGeneralized Linear Mixed Model(GLMM) with logistic link was adjusted for age, gender, surgery type and length of surgery and anesthesia.

bMann–Whitney U-test

Table3:

aGeneralized Linear Mixed Model(GLMM) with logistic link was adjusted for age, gender, surgery type and length of surgery and anesthesia.

bMann–Whitney U-test

Table4:

aLinear Mixed Model(LMM) was adjusted for age, gender, surgery type and length of surgery and anesthesia.

bMann–Whitney U-test

cChi-Squared Test

Reviewer 2

1、The age range of children in this study (between 3 and 7 years) extends beyond what is often considered preschool. Please change the terminology used for the age of participants.

Response: Thank you for pointing out this problem in manuscript. We have changed the terminology of ‘preschool children’ into ‘young children’.

2、It would be helpful for the reader to be provided with more information about the ‘individual cartoon video’ including whether it was just one video chosen and perhaps some examples of options that children had to choose from. Were there any restrictions imposed around the content of these videos?

Response: Thanks for the valuable suggestion to improve our manuscript. According to the revised content, we described the ‘individual cartoon video’ in more details. In our study, we did not limit the number and types of cartoon videos. There were not any restrictions imposed around the content of these videos and every child select a favorite cartoon video freely according to his or her preference.

And the specific content is as follows

‘Most importantly, through conversations with children, their favorite cartoon videos even specific to favorite clips were all recorded. There were no limits to the scope of cartoons, which were freely chosen according to children’s preferences.’

3、Background section – I suggest ensuring that this is very specific to your population of interest (i.e., young children)

Response: Thanks for the valuable suggestion. I have specified the population of interest in background section in revised manuscript. Young children is the specific population.

And the specific content is as follows:

‘Perioperative anxiety and emergence delirium in young children may cause a series of adverse events, which are worth investigating. Pharmacological treatments of anxiety and delirium remain uncertain, while nonpharmacological treatments lack personalization and pertinence.’

4、Methods section – I suggest specifying that it was an individual video ‘of the child’s choice’

Response: Thanks for the valuable suggestion. We have re-written this part according to the Reviewer’s suggestion.

And the specific content is as follows:

‘In group V, an individual cartoon video of the child’ s own choice was played throughout the whole waiting, anesthesia induction and anesthesia recovery periods.’

5、It would be good to include more detail about previous studies that have been conducted and more specificity around limitations of the current literature. For example, it would be good to have more detail about what is meant by ‘lacking personalisation and pertinence’. Is this due to all children in the study being shown the same cartoon?

Response: Thanks for the valuable suggestion to improve our manuscript. We have re-written this part according to the Reviewer’s suggestion.

In the part of introduction of revised version, we highlighted the recent non-pharmacological interventions for the management of pediatric preoperative anxiety, including education approaches, behavioral techniques, parental presence at induction of anesthesia (PPIA), and complementary and alternative medicine (CAM) techniques and offered many recent studies relating to the technology devices and streaming media contents (paragraph3 in part of introduction). We also included several studies to show the inefficiency and limitations of some non-pharmacological interventions for anxiety (paragraph4 in part of introduction).

Besides, we explained what is meant by ‘lacking personalisation and pertinence’. ‘In previous studies, most used the same media content as interventions, regardless of the gender and age of patients[1, 2]. Even if the selection is based on age and gender, it is possible that the children cannot find his favorite cartoon video in the options of his age due to individual differences.’

6、In the aim, I think it would be helpful for the reader to know that this is amongst young children undergoing adenoidectomy and tonsillectomy

Response: Thanks for the valuable suggestion to improve our manuscript. We have re-written this part according to the Reviewer’s suggestion. We added the contents which surgery young children underwent.

‘Therefore, this study was performed to determine whether individual cartoon videos are capable of alleviating perioperative anxiety and reducing emergence delirium in young children undergoing adenoidectomy and tonsillectomy.’

7、Please specify whether the incidence rate of delirium relates specifically to

children or is a broader estimate for children and adults.

Response: We gratefully appreciate for your valuable comment. Emergence delirium is different from delirium. Emergence delirium has been considered a common postanesthetic problem in children and adults since 1960[3-5]. The prevalence of ED in children ranges from 25 to 80%, depending on the definition of ED used to measure this phenomenon[6, 7]. ED, which usually occurs within the first 30 min after anesthesia, has been characterized as self-limiting but of variable duration. The incidence rate of emergence delirium is higher in children, especially in preschool-aged children.

8、Please change the language on line 28 of page 6 to ‘intellectual disability’

Response: Thank you for your rigorous consideration. We have re-written this part according to the Reviewer’s suggestion.

And the specific content is as follows:

‘Children having emergency surgery and those with previous anesthetic experience, developmental delays, intellectual disability, sedative medication or chronic illnesses were excluded from the study.’

9、As previously stated in my general comments, please include more detail around the procedure for children selecting the cartoon video (e.g., were they given a range of options or allowed to freely choose?). It would also be helpful to understand the types of cartoon videos that were watched as part of the intervention.

Response: We gratefully appreciate for your valuable suggestion. We have included more detail about the procedure for children selecting the cartoon video. In our study, we did not limit the number and types of cartoon videos. There were not any restrictions imposed around the content of these videos and every child select a favorite cartoon video freely according to his or her preference.

In the revised manuscript, we describe it this way:

‘Most importantly, through conversations with children, their favorite cartoon videos even specific to favorite clips were all recorded. There were no limits to the scope of cartoons, which were freely chosen according to children’s preferences.’

10、Please check the range for the mYPAS. Should this be 22.5 to 100?

Response: Thanks for your comments.

We have checked the range for the mYPAS. And scores of mYPAS range from 23.33 to 100, with higher scores indicating higher levels of anxiety[8].

The reference is as follow:

KAIN Z N, MAYES L C, CICCHETTI D V, et al. The Yale Preoperative Anxiety Scale: how does it compare with a "gold standard"? [J]. Anesth Analg, 1997, 85(4): 783-8.

The following paragraph is stated in the above reference.

‘Because each category of the m-YPAS has a different number of items (either four or six), partial weights were calculated and then added to a total score that ranged from 0 to 100. For example, for two categories containing four and six items, with a score of 1 in each category, the calculation is: (1/4 + 1/6) *100/2 = total adjusted score.’

Based on the statements above, we can make the following calculations:

(1/4+1/6+1/4+1/4+1/4)*100/5=23.33

11、Consider including examples of items/observations for each domain of the mYPAS

Response: Thank you so much for your suggestions. We have included examples of items/observations for each domain of the mYPAS according to the Reviewer’s suggestion.

The specific content has been modified as follows:

The mYPAS is a validated perioperative pediatric anxiety instrument with 22 items in 5 categories (activity, emotional expressivity, state of arousal, vocalization, and use of parents)[9]. In terms of activity, this domain measures the child’s level of activity or restlessness, for example, whether the child is fidgeting in their seat or moving around the room. The domain of emotional expressivity estimates the child’s emotional state and expression, for example, the child is crying, worried or happy. In terms of state of arousal, this domain measures the child’s physiological arousal, such as vigilance, sucking on thumb or panicked whimpering. The domain of vocalization investigates whether the child is reading, moaning, screaming, etc. And in terms of use of parents, it measures the child’s reliance on their parents for comfort and support. Scores range from 23.33 to 100, with higher scores indicating higher levels of anxiety[8].

12、Consider moving information about who completed the assessment measures to the top of the paragraph

Response: Thank you for your nice advice and we have made correction according to the Reviewer’s comments. The sentence ‘Every assessment was completed by the same trained anesthesiologist who is blinded to the group allocation.’ has been moved to the top of the paragraph.

13、Please include a reference to support the cut-offs for ED (including what is

described as severe ED) as defined by PAED scores

Response: Considering the Reviewer’s suggestion, we have included several references to support the cut-offs for ED and severe ED defined by PAED scores.

The specific content has been modified as follows:

‘ED was defined as PAED scores ≥10, and PAED scores≥15 is considered as the occurrence of severe ED[10-14]’

14、It would be good to include subheadings to help guide the reader through the

Method section

Response: Thank you so much for your suggestion and we had added the subheadings to help guide the reader through the method section, including ‘Ethics, Participants, Procedures, Measures and Statistical analysis’.

15、Please remove interpretation of results and save this for the Discussion

Response: Thank you for your nice advice and we have removed the interpretations of results to the discussion according to the Reviewer’s comments. This rigorous consideration is instructive for our future paper writing.

16、Consider slight rewording of captions for Tables 2 and 3 so that they more specifically state the information that is presented and for whom (specify the two groups)

Response: Thanks for your comments and we had reworded the captions for Table2 and Table3.

Caption for Table2: Anxiety occurrence and levels in pediatric patients between individual cartoon video group and control group

Caption for Table3: Emergence delirium occurrence and levels in pediatric patients between individual cartoon video group and control group

17、Figure 2 – please have scaling of Y-axis consistent for each of the groups

to help the reader with comparisons

Response: Thank you for your nice advice and we have adjusted Figure 2 according to the Reviewer’s suggestion.

Figure2: Anxiety occurrence in pediatric patients in the perioperative period

P＜0.001 versus the control group

18、A lot of the information in the Discussion about previous studies could be moved to the Introduction to help build the rationale for this study. More space in the Discussion should be given to discussing the study results in detail, as well as acknowledging study strengths, limitations, and ideas for future research to build on these findings. There also needs to be discussion added around the clinical implications of the study findings

Response: Thank you for pointing out the nice suggestions to our manuscript. According to the revised content, we have improved the structure and organization of the manuscript, especially the section of discussion.

Firstly, we have moved the information about background and previous studies to the section of introduction, which definitely help build the rationale for our study.

Secondly, we conducted a profound discussion on our study findings. (Paragraph 2 in discussion section)

Thirdly, combining previous research results, actual clinical findings, and our study results, we focused on discussing the role of individual cartoon video in alleviating anxiety throughout the whole perioperative period. What's more, discussion around the clinical implications of the study findings was also included. (Paragraph 3,4,5 in discussion section)

Finally, we analyzed the strengths (Paragraph 6 in discussion section), limitations (Paragraph 7 in discussion section) and future directions for further study (Paragraph 8 in discussion section).

VERSION 2 – REVIEW

REVIEWER	Dr. Peter Flom Peter Flom Consulting
REVIEW RETURNED	14-Apr-2023

GENERAL COMMENTS	The authors have addressed my concerns and I now recommend publication.

REVIEWER	Dr. Grace McMahon The Royal Children's Hospital Melbourne, Mental Health
REVIEW RETURNED	09-May-2023

GENERAL COMMENTS	Thank you for the opportunity to review this manuscript for a second time. The authors have done a good job addressing the previous comments and I believe that the manuscript is shaping up nicely. I have a few additional comments that I believe would further strengthen the manuscript. What is already known about the topic? *Perhaps add 'the effectiveness' or something similar before 'pharmacological treatments of anxiety and emergence delirium..' Introduction *It is stated that anxiety is an abnormal psychological state before paediatric anaesthesia and surgery. However, I believe that anxiety for children going into surgery is quite a normal and expected response. As such, I suggest that the wording be changed here to just state that anxiety is common in this context. *I suggest writing the abbreviations of VR and PACU out in full in the fourth paragraph. *I suggest caution with saying that it has been proven that the cause of emergence delirium is perioperative anxiety as I am guessing there are likely other contributing factors. Consider re-wording this. *One of the major limitations of previous research identified in the Discussion of the manuscript is that previous studies have tended to focus on preoperative anxiety with little research attention on the postoperative status of the patient's anxiety. I wonder whether this should also be incorporated into the Introduction to help further strengthen the rationale for the study and the timepoints of assessment. *I wondered if it is worth also including a brief rationale around the secondary outcomes as well as stating that these outcomes are also of interest in the study aim. Method

	*I suggest including information about who approached parents and families to inform them about the study/invite them to participate. *Do you have information on the number of children who underwent the procedures in the study period? It would be interesting to know more about the percentage who consented and whether characteristics of those who participated in the study differed to those who did not participate. This will help to understand more about the representativeness of the study sample. Results *Figure 2 looks great. I think it would be helpful to define the timepoints in a note below the figure to remind the reader of what was happening at each of the time points listed Discussion *I think it would be worth considering a slight restructure of the Discussion to first focus on the findings in relation to anxiety and discussion of how these findings fit with previous research followed by the discussion about the findings in relation to the incidence of ED. The description of previous studies in relation to using video distraction for anxiety could likely be reduced to include a greater focus on how your study findings extend the literature. *I wondered if it would be worth commenting on the results in relation to the secondary outcomes including whether these results are consistent with previous research.

VERSION 2 – AUTHOR RESPONSE

Reviewer 2

What is already known about the topic?

1、Perhaps add ‘the effectiveness’ or something similar before ‘pharmacological treatments of anxiety and emergence delirium..’

Response: Thank you for your rigorous comments, which has significantly improved the presentation of our manuscript. According to the revised content, we have added ‘the effectiveness of’ before ‘pharmacological treatments’ and ‘nonpharmacological treatments’.

Introduction

2、It is stated that anxiety is an abnormal psychological state before paediatric anaesthesia and surgery. However, I believe that anxiety for children going into surgery is quite a normal and expected response. As such, I suggest that the wording be changed here to just state that anxiety is common in this context.

Response: Thanks for the valuable suggestion to improve our manuscript. We have changed the wording to the statement.

And the specific content is as follows:

‘While, anxiety is common in children before anesthesia and surgery.’

3、I suggest writing the abbreviations of VR and PACU out in full in the fourth paragraph.

Response: Thank you for your nice suggestions and we feel very sorry for the inconvenience brought to the reviewer. We have wrote the abbreviations of VR and PACU out in full in the fourth paragraph.

And the specific content is as follows:

Virtual Reality (VR); Post Anesthesia Care Unit (PACU)

4、I suggest caution with saying that it has been proven that the cause of emergence delirium is perioperative anxiety as I am guessing there are likely other contributing factors. Consider re-wording this.

Response: Thank you for your nice suggestions and we feel very sorry for our imprecise expression. We have re-worded this saying.

And the specific content is as follows:

‘Meanwhile, it has been proved that one of the causes of emergence delirium was preoperative anxiety and that reducing preoperative anxiety can reduce the incidence of postoperative delirium.’

5、One of the major limitations of previous research identified in the Discussion of the manuscript is that previous studies have tended to focus on preoperative anxiety with little research attention on the postoperative status of the patient's anxiety. I wonder whether this should also be incorporated into the Introduction to help further strengthen the rationale for the study and the timepoints of assessment.

Response: Thanks for the valuable suggestion to improve our manuscript and we strongly agree with the reviewer’s viewpoint. In the fourth paragraph of the introduction section, we have pointed out two major limitations of previous research to help further strengthen the rationale for the study and the timepoints of assessment. On the one hand, the choices in previous research were impersonalized and limited, and on the other hand, previous research has focused more on preoperative anxiety and neglected the anxiety during the awakening period.

The specific expressions in the original text are as follows:

1、The first limitation:

‘ However, we found that the choices of the videos[21], handheld video games[16] or VR[20] in previous studies seemed to be impersonalized and limited. Most studies used the same media content as interventions, regardless of the gender and age of patients[20, 22]. Even if the selection is based on age and gender, it is possible that the children cannot find his favorite cartoon video in the options of his age due to individual differences.’

2、The second limitation:

‘Meanwhile, it has been proved that one of the causes of emergence delirium was preoperative anxiety and that reducing preoperative anxiety can reduce the incidence of postoperative delirium[1, 23]. Therefore, some studies have focused only on how to reduce preoperative anxiety, while few have continued to pay attention to the anxiety of children who are awakening in the Post Anesthesia Care Unit (PACU)[1].’

6、I wondered if it is worth also including a brief rationale around the secondary outcomes as well as stating that these outcomes are also of interest in the study aim.

Response: We gratefully appreciate for your valuable comment. We believed that it is worth also including a brief rationale around the secondary outcomes as well as stating that these outcomes are also of interest in the study aim.

So we further refined our contents as follows:

‘Therefore, this study was performed to emphatically determine whether individual cartoon videos are capable of alleviating perioperative anxiety and reducing emergence delirium in young children undergoing adenoidectomy and tonsillectomy. Simultaneously, the study also investigated the impact of individual cartoon videos on induction compliance, postoperative pain and adverse events.’

Method

7、I suggest including information about who approached parents and families to inform them about the study/invite them to participate.

Response: Thanks for your comments. According to the reviewer’s suggestion, we have included the information about who approached parents and families to inform them about the study/invite them to participate.

And the specific content is as follows:

‘After the introduction and invitation of the clinical trial leader, ninety-five patients aged between 3 and 7 years with an American Society of Anesthesiologists physical status I-II and who were scheduled for their first elective adenoidectomy or tonsillectomy under general anesthesia were enrolled.’

8、Do you have information on the number of children who underwent the procedures in the study period? It would be interesting to know more about the percentage who consented and whether characteristics of those who participated in the study differed to those who did not participate. This will help to understand more about the representativeness of the study sample.

Response: Thanks for your comments. As shown in the Consort flow chart (Figure 1), 105 patients were first assessed for eligibility, and 10 patients were excluded. Among these 10 patients, 3 patients declined to participate the clinical trial, 5 patients not meeting the inclusion criteria and 2 patients for other reasons. Unfortunately, we have not further documented more detailed characteristics of those who participated in the study and those who did not participate.

Thank you for pointing out the nice suggestions and we will document more detailed characteristics of those who participated in the study and those who did not participate to help to understand more about the representativeness of the study sample in the next clinical trial. This rigorous consideration is instructive for our future trial.

Results

9、Figure 2 looks great. I think it would be helpful to define the timepoints in a note below the figure to remind the reader of what was happening at each of the time points listed.

Response: Thanks for your comments. We have added the timepoints in a note below the figure 2 to remind the reader of what was happening at each of the time points listed.

And the specific content is as follows:

‘T0, preoperative holding area

T1, entry to the operating room

T2, induction of anesthesia

T6, leaving the PACU

mYPAS＞40 is considered as the occurrence of anxiety.’

Discussion

10、I think it would be worth considering a slight restructure of the Discussion to first focus on the findings in relation to anxiety and discussion of how these findings fit with previous research followed by the discussion about the findings in relation to the incidence of ED. The description of previous studies in relation to using video distraction for anxiety could likely be

reduced to include a greater focus on how your study findings extend the literature.

Response: Thank you for pointing out the nice suggestions to our manuscript. According to the revised content, we have improved the structure and organization of the manuscript, especially the section of discussion.

Firstly, we discussed the findings in relation to anxiety (Paragraph 2 in Discussion section). Then, we discussed how these findings fit with previous research and the highlights of our findings(Paragraph 3 in Discussion section). The fourth paragraph was elaborated on the relationship between anxiety and emergence delirium (ED). Continually, we discussed the findings of ED (Paragraph 5 in Discussion section). Next, we discussed the advantages of choosing individualized cartoon videos and its clinical implications (Paragraph 6,7 in Discussion section).

Finally, we analyzed the strengths (Paragraph 8 in discussion section), limitations (Paragraph 9 in discussion section) and future directions for further study (Paragraph 10 in discussion section). What’s more, the description of previous studies in relation to using video distraction for anxiety has been reduced to include a greater focus on the highlight of our findings.

Thank you once again for the reviewer's nice suggestions, which made my article more logical.

11、I wondered if it would be worth commenting on the results in relation to the secondary outcomes including whether these results are consistent with previous research.

Response: Thanks for your comments.

Because there were no significant differences in the secondary results between the two groups, I did not comment on the results too much in the discussion section. There were no significant differences in the incidence of adverse events between the two groups, which is different from the previous research results. I conducted an analysis and the possible reason is that our study may be limited by the sample size. We calculated the sample size with the incidence of ED and anxiety, and a larger sample size is required for determining differences in adverse events (Paragraph 5 in Discussion section).