Peer Review File

Article information: https://dx.doi.org/10.21037/jgo-23-28

Review comments-Reviewer A

Comment 1: First, the title is unclear, which needs to indicate the effectiveness of 3D printing for HCC education in medical interns and 3DPM vs. 3DVR, and MDCT.

Reply 1: We have chosen a more definite and appropriate title(see Page 1, line 5-7).

Comment 2: Second, the abstract is not adequate and needs further revisions. The background did not explain why 3D printing is potentially effective for improving the education effects for HCC, what the knowledge gap is on the efficacy of 3D printing and what the significance of this research focus is. The methods need to describe the randomization method, duration of the intervention, and how these efficacy outcomes were assessed. The results need to describe the completion of the interventions of the three groups and quantify the findings on the differences in the effectiveness by using detailed test scores and accurate P values for statistical comparisons. The conclusion needs comments for the medical education implications of the findings, not to repeat the main findings again.

Reply 2: Thank you for your meticulous review, we have modified our text as advised (see Page 1-3, line 33-75).

Comment 3: the introduction of the main text needs to extensively review the use of 3D printing technology in the medical education, including its development, strengths, and knowledge gaps. Please clearly indicate the significance of this study.

Reply 3: we have modified our text as advised (see Page 4, line 104-115).

Comment 4: the methodology of the main text needs to be written under several subheadings such as subjects, randomization, intervention, outcome assessment, and statistics. The authors need to describe the clinical research design, sample size estimation, inclusion of subjects, assessment of characteristics of the subjects, and randomization method. Please have an overview of the selection of these outcomes and explain the details of measurements of these outcomes. The statistics needs describe the handling of missing data, the test of baseline comparability across the three groups, and why Bonferroni method was used for pairwise comparisons, not other methods such as SNK.

Reply 4: We added the baseline data (see Page 7, line 208-214, table 3), we have modified our text as advised (see Page 4-7, line 121-216).

Review comments-Reviewer B

1. Abstract should be within 200-350 words. Please shorten your Abstract.

Reply: Abstract was shortened within 200-350 words.

2. The date is not needed, we've removed it, please confirm.

423 Committee of Zhejiang Provincial People's Hospital (No. 2021QT333) on October 18,
424 2021. Participants were informed about the anonymized use of their data before the

Reply: Yes, we have confirmed.

3. This is not an observational study, it's a randomized trial, please revise your paper.

58 surgical planning, and test time using the centesimal system score within 90 minutes in
59 this observational study. A questionnaire investigation on the degree of satisfaction,

144 This single-center randomized trial comprised new interns studied in our department
145 from October 2020 to December 2020. This observational study was approved by the

Reply: We have modified our text as advised (see Page 5, line 127-128).

5. You already gave consent statement in Methods section/Para 1, please remove the below duplicated content.

211 and 3D spatial structures was also performed, and informed consent was obtained from
212 all participants. The 3DPM group were compared with both 3DVR and MDCT group

Reply: We have removed the duplicated content.

4. We've made minor revision to the Helsinki statement and also added it to Methods section according to our journal requirement, please confirm.
Reply: Yes, we have confirmed.

5. Table 3: Please define those data in table footnote.

				*vs.*3DVR	MDCT
Age (years)	22.8±0.7	22.6±0.6	22.3±0.8	0.33	1
Gender(M/F)	11/13	6/13	9/10	0.53	0.84

Reply: We have modified our text as advised (see Page 16, line 474-475).

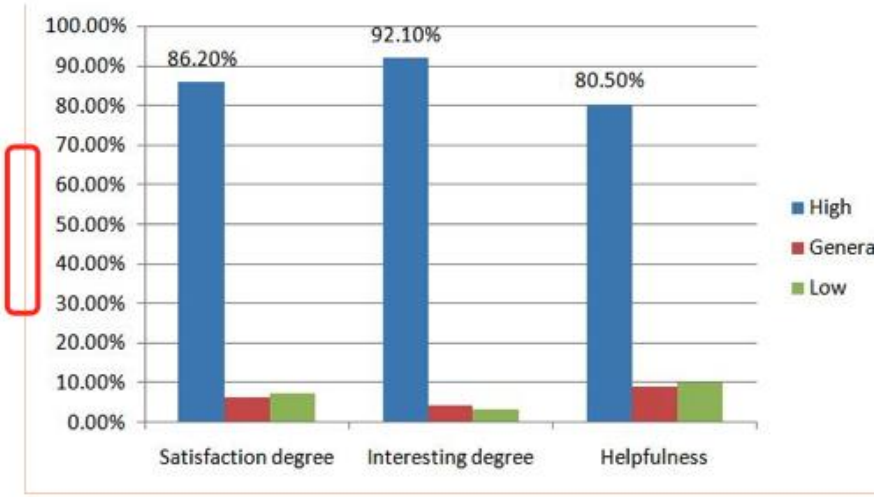
6. Table 4: Please define those data in table footnote.

Table 4 Scores of tumor location, relationship between tumor and vessels, test time, and surgical planning in each group

Parameters	3DPM group (n=24)	3DVR group (n=19)	MDCT group (n=19)	P value 3DPM *vs.* 3DVR	3DPM *vs.* MDCT
Tumor location	36.7±4.8	33.2±5.8	26.8±10.0	0.03	<0.01
Relationship between tumor and vessels	37.1±4.6	31.6±3.7	30.0±5.8	<0.01	<0.01
Test time	7.7±2.1	7.3±1.5	6.8±1.8	0.53	0.14
Surgical planning	8±2.7	4.9±2.7	5.9±3.8	<0.01	0.04
Total	89.4±7.4	75.8±7.0	69.5±13.6	<0.01	<0.01

Reply: We have modified our text as advised (see Page 16, line 481-483).

7. Figure 3: Check if description is missing for Y-axis.



Reply: We have modified our text as advised (see Page 18, line 496).

8. Please clarify the specific hospital's name in this sentence.

143 ***Subjects***

144 This single-center randomized trial comprised new interns studied in our department

145 from October 2020 to December 2020. This observational study was approved by the

Reply: We have modified our text as advised (see Page 5, line 124-126+).

9. **CONSORT Checklist** needs to be re-checked and updated, please make the following revisions both to your manuscript and CONSORT checklist accordingly:

Reply: We have modified the Line Numbers of Reporting Checklist according to the revised manuscript.

1) Item 3a: For clarification, please indicate specific trial design in Methods section of the Main Text. For example, in this parallel study you could indicate “three-parallel study” in your manuscript. And allocation ratio should also be added to Methods section.
Reply: We have modified our text as advised (see Page 7, line 180).

2) Item 6a: Please be specific in describing which is/are the **primary endpoint(s)** and which is/are the **secondary** (if any) in **Methods** section in the Main Text.
Reply: We have modified our text as advised (see Page 6, line 209-210).

3) Item 14a: It is suggested that such information be also added to Results section para 1.

Recruitment	14a	Dates defining the periods of recruitment and follow-up	N/A	N/A

Reply: We have modified our text as advised (see Page 8, line 228-230, 254).

4) Item 17a: You could not fill “N/A” in this item, please re-fill it.

17a	For each primary and secondary outcome, results for each group, and the estimated effect size and its precision (such as 95% confidence interval)	N/A	N/A

Reply: We have modified our text as advised (see Page 8, line 241-254).

5) Item 24: please fill in “Footnote/Paragraph 2”. (We helped add such statement in Footnote)
Reply: We have modified our text as advised.

6) Table 2 in CONSORT checklist is fo**r Abstract**. Thus, please correct the Page/Line number and Section/Paragraph in the checklist accordingly. For example, “Section” here should be all filled out with “Abstract”. For items not mentioned in Abstract, you could just fill “N/A” instead.

Table 2 Items to include when reporting a randomized trial in a journal or conference abstract

Item	Description	Reported on Page Number/Line Number	Reported on Section/Paragraph
Title	Identification of the study as randomized	Page 1/Line 5-7	Title/Paragraph 1
Authors *	Contact details for the corresponding author	Page 1/Line 21-26	Title /Paragraph 2
Trial design	Description of the trial design (e.g. parallel, cluster, non-inferiority)	Page2/Line 39-48	Abstract/Paragraph 1
Methods			
Participants	Eligibility criteria for participants and the settings where the data were collected	Page 6/Line 174-187	Methods/Paragraph 4
Interventions	Interventions intended for each group	Page 6/Line 156-171	Methods/Paragraph 3-4
Objective	Specific objective or hypothesis	Page5/Line 121-134	Methods/Paragraph 1-2
Outcome	Clearly defined primary outcome for this report	Page 6/Line 174-187	Methods/Paragraph 4
Randomization	How participants were allocated to interventions	Page 5/Line 157-161	Methods/Paragraph 4
Blinding (masking)	Whether or not participants, care givers, and those assessing the outcomes were blinded to group assignment	N/A	N/A

Reply: We have modified our text as advised.