THIRD EXAMINER · MANUSCRIPT AUDIT

Shear bond strength of a bulk-fill resin composite to dentin using four adhesive protocols: an in-vitro study

Manuscript prepared from an MSc thesis · fictional sample · Standard: CRIS · Ref. TE-0000



47 / 80 points

Major revision | Not ready to submit. Three findings block publication; each is fixable without new experiments.

Three things that block publication

1

C is not above the control: A 18.97 vs C 18.33 MPa, Tukey p = 0.925.

M1 · T04

2

Group B mean 12.58 MPa can't be computed from the raw data; the true mean is 15.28.

M2 · D02, H1

3

Methods say n = 10 per group; the data hold 9 (36 in total), with no exclusions reported.

M3 · INV-1

Scorecard

eight areas, each out of 10

Ethics	**8**	Approval and tooth source stated; donor consent wording missing.
References	**7**	[14] cited for a claim it doesn't make; [22] details don't match its DOI.
Language	**7**	Clear English; results overstate, two passages read machine-written.
Methods reporting	**6**	Specimen count misstated (10 vs 9); exclusions not reported.
Novelty	**5**	Well-studied comparison; the bulk-fill pairing adds a modest increment.
Statistics	**5**	Right tests; checks unreported, one SE given as an SD.
Data plausibility	**5**	Three of four group means recompute; group B does not.
Internal consistency	**4**	Headline claim contradicts its own table; n contradicts F(3, 32).

Total 47 / 80 = 59%, grade C.

A = ready with light polish · F = not defensible as written

Reported vs recomputed: 13 numbers checked



Full table on page 2: every reported value beside the value recomputed from the raw sheets.

Reported vs recomputed

QUANTITY	REPORTED	RECOMPUTED	STATUS
Specimens per group	10	9	MISMATCH
Mean, group A (MPa)	18.97	18.97	MATCH
Mean, group B (MPa)	12.58	15.28	MISMATCH
Mean, group C (MPa)	18.33	18.33	MATCH
Mean, group D (MPa)	11.08	11.08	MATCH
SD, group A (MPa)	1.45	1.45	MATCH
SD, group B (MPa)	2.43	2.43	MATCH
SD, group C (MPa)	2.28	2.28	MATCH
SD, group D (MPa)	0.82	2.46	MISMATCH
One-way ANOVA	F(3, 32) = 24.21	F = 24.21, p < 0.001	MATCH
A vs C (Tukey)	C significantly above A	p = 0.925, not significant	MISMATCH
Normality (Shapiro–Wilk)	Not reported	lowest p = 0.395	ADD
Equal variances (Levene)	Not reported	p = 0.647	ADD

Scorecard: the reason behind each score

AREA	SCORE	REASON
Ethics	**8** / 10	Approval and the source of the teeth are stated. Donor consent wording is missing.
References	**7** / 10	Most references support their sentences. [14] is cited for a claim it does not make; [22] has details that do not match its DOI record.
Language	**7** / 10	Clear and mostly correct English. The results chapter states conclusions more strongly than the data allow, two passages read as machine-written, and two Discussion sentences follow [7] without quotation marks.
Methods reporting	**6** / 10	Protocols and thermocycling are clear. The specimen count is misstated (10 vs 9) and exclusions are not reported, as CRIS requires.
Novelty	**5** / 10	Comparing universal-adhesive modes with an etch-and-rinse control is well studied; pairing them with a bulk-fill composite adds a modest increment.
Statistics	**5** / 10	The right test and post-hoc. Assumption checks are not reported, one SE is given as an SD, and the conclusion contradicts the Tukey result.
Data plausibility	**5** / 10	Three of the four group means recompute exactly from the raw sheets; group B does not (12.58 typed, 15.28 true).
Internal consistency	**4** / 10	The headline claim contradicts its own table, and the stated n contradicts both the sheets and the degrees of freedom, F(3, 32).

Fix roadmap, in order

1. **Rewrite the conclusion and the abstract:** C is comparable to the control, not superior.
   Author — Tukey A vs C, p = 0.925; A has the higher mean.

2. **Correct the group B mean** to 15.28 in Table 4.2, the text and the abstract.
   Author — It is the mean of the raw data; the typed value cannot be reproduced.

3. **State n = 9 per group;** list each excluded specimen and why.
   Author + supervisor — CRIS asks for the sample size and every exclusion.

4. **Report the group D SD** as 2.46.
   Author — 0.82 is the standard error.

5. **Add the normality and equal-variance results** to methods and results.
   Author — Reviewers ask for them; both pass, so this only strengthens the paper.

6. **Reword the sentence cited to [14];** correct the details of [22].
   Author — Each reference must support its sentence and match its DOI record.

7. **Quote or rewrite the two sentences that follow [7],** and rewrite the two passages that read as machine-written.
   Author — Journals run a similarity check on every submission.

8. **Read the results chapter against every table once more.**
   Supervisor — Two of the three blockers are mismatches between text and tables.