Table CONSORT Checklist for Cluster Randomized Controlled Trials

Section/Topic	Item No.	Checklist Item	Reported on Line No.
Title and Abstract	1a	Identification as a cluster randomized trial in the title	1-3
	1b	Structured summary of trial design, methods, results, and conclusions	17-42
Introduction	2a	Scientific background and explanation of rationale	51-106
	2b	Specific objectives or hypotheses	107-112
Methods	3a	Description of trial design (e.g., cluster RCT, parallel, factorial)	115-116
	3b	Important changes to methods after trial commencement	Not applicable
Participants	4a	Eligibility criteria for clusters and participants	124-132
	4b	Settings and locations where the data were collected	118-123
	4c	How clusters were defined and recruited	118-123
Interventions	5	The interventions for each group with sufficient details to allow replication	133-197, Additional File1
Outcomes	6a	Completely defined pre-specified primary and secondary outcome measures	206-247,Additional File2
	6b	Any changes to trial outcomes after the trial commenced	Not applicable
Sample Size	7a	How sample size was determined	249-256
	7b	When applicable, explanation of any interim analyses and stopping guidelines	Not applicable

Section/Topic	Item No.	Checklist Item	Reported on Line No.
Randomization	8a	Method used to generate the random allocation sequence	120-123
	8b	Type of randomization (e.g., block, stratified)	120-123
	9	Mechanism used to implement the random allocation sequence	120-123
	10	Who generated the allocation sequence, enrolled clusters, and assigned participants	120-123
Blinding (Masking)	11a	If done, who was blinded after assignment to interventions	120-123
	11b	If relevant, description of the similarity of interventions	Not reported
Statistical Methods	12a	Statistical methods used to compare groups for primary and secondary outcomes	257-271
	12b	Methods for additional analyses (e.g., subgroup and adjusted analyses)	257-271
Results	13a	For each group, the numbers of clusters and participants randomly assigned, receiving intended treatment, and analyzed for the primary outcome	288-296
	13b	For each group, losses and exclusions after randomization, together with reasons	288-296
	14a	Dates defining the periods of recruitment and follow-up	288-296
	14b	Why the trial ended or was stopped	Not applicable
Baseline Data	15	A table showing baseline	297-308 (Table 1)

Section/Topic	Item No.	Checklist Item	Reported on Line No.
		demographic and clinical characteristics for each group	
Numbers Analyzed	16	For each group, number of clusters and participants included in each analysis	288-296
Outcomes and Estimation	17a	For each primary and secondary outcome, results for each group, and the estimated effect size and its precision	309-371 (Table 2, Table 3, Figure 2, Additional File3)
	17b	For binary outcomes, presentation of both absolute and relative effect sizes is recommended	Not applicable
Ancillary Analyses	18	Results of any other analyses performed, including subgroup analyses and adjusted analyses	309-371(Table 2, Table 3, Figure 2)
Harms	19	All important harms or unintended effects in each group	Not reported
Discussion	20	Trial limitations, addressing sources of potential bias, imprecision, and multiplicity of analyses	484-508
	21	Generalizability (external validity) of the trial findings	Not reported
	22	Interpretation consistent with results, balancing benefits and harms, and considering other relevant evidence	401-482
Other Information	23	Registration number and name of trial registry	46-48, 558-559
	24	Where the full trial protocol can be accessed	The detailed study protocol is available in Chinese and can be provided by the corresponding author

Section/Topic	Item No.	Checklist Item	Reported on Line No.
			upon reasonable request. An English translation is in preparation for future publication
	25	Sources of funding and other support; role of funders	553-560