

Key Finding:

Being published on Core journals and reporting funding sources may significantly related to higher reporting quality among traditional Chinese medicine RCTs.

Background

Randomized controlled trials (RCT) have been increasingly used to assess the efficacy of traditional Chinese Medicine (TCM) interventions yet the quality of these trials has found to be generally low, which might hamper the implementation and synthesis of the trial results.

Method

Four main Chinese electronic databases (China National Knowledge Infrastructure, VIP, Sinomed and Wanfang Database) were searched from their inception to Jun 2017, for all the RCTs that used TCM interventions to treat cancer and cancer-related symptoms published in Chinese language. The reporting status of key methodological items and factors that may affect reporting quality. Multiple logistic regression was applied to identify the influencing factors.

Main Result

5,623 TCM RCTs on cancer care from 1984 to 2016 were included. Detailed results were reported in the Table. Logistic regression showed that published on Core journals, reporting funding and with a sample >100 had positive and statistically significant association with the reporting of random sequence generation, sequence concealment and the use of blinding. It was also found that dissertations had a much higher chance of reporting methodological items comparing to journal articles and conference papers.

Conclusions

The results pointed out the potential to improve reporting quality by stressing the adherence of reporting standards among Chinese publishers and the importance of having adequate resource to conduct the trials. The awareness and understanding on standardized reporting should be further and constantly valued among TCM researchers in China.

Table. Logistic regression results for factors influencing reporting quality

	Diagnosis standard (n=5623)	Gold diagnosis of cancer (n=5623)	Inclusion/exclusion criteria (n=5623)	Cancer staging (n=5623)	Random sequence generation (n=5623)	Sequence Concealment (n=3376)	Use of blinding (n=5623)
Reporting rates	62.71%	78.00%	55.15%	46.91%	28.53%	3.85%	3.40%
Odds ratio (95% Confidence interval)							
Publication types (ref. graduate dissertations)							
Journal articles	0.09(0.07,0.12)*	0.22(0.16,0.31)*	0.01(0.004,0.02)*	0.43(0.35,0.51)*	0.31(0.26,0.38)*	0.10(0.06,0.16)*	0.15(0.10,0.22)*
Conference papers	0.12(0.07,0.20)*	0.20(0.12,0.34)*	0.01(0.005,0.03)*	0.59(0.38,0.91)*	0.41(0.25,0.67)*	0.46(0.16,1.33)	0.26(0.08,0.84)*
After 2010 (ref. 2010 and before)	0.36(0.32,0.41)*	0.86(0.75,0.99)*	3.65(3.22,4.13)*	1.03(0.92,1.15)	2.67(2.33,3.07)*	0.94(0.85,1.04)†	1.13(0.82,1.56)
Core journal	1.31(1.10,1.56)*	1.34(1.10,1.63)*	1.24(1.04,1.47)*	1.64(1.39,1.92)*	1.58(1.32,1.89)*	2.32(1.34,4.02)*	1.82(1.21,2.72)*
Reported funding	1.69(1.45,1.97)*	1.31(1.10,1.56)*	2.50(2.14,2.92)*	1.21(1.05,1.40)*	2.49(2.14,2.89)*	2.62(1.60,4.29)*	2.51(1.74,3.62)*
Use herbal interventions	2.33(1.97,2.77)*	2.03(1.71,2.42)*	1.21(1.02,1.45)*	3.12(2.60,3.75)*	0.93(0.78,1.11)	0.77(0.47,1.26)	0.75(0.50,1.12)
>= 100 participants (ref. < 100)	0.83(0.72,0.95)*	0.86(0.75,0.98)*	1.12(0.98,1.29)	0.86(0.76,0.98)*	1.17(1.01,1.36)*	1.36(0.87,2.14)*	1.87(1.34,2.60)*

* indicates the results were statistically significant (p<0.05)

† Reporting of sequence concealment was extracted from 2011 to 2016, and the sample size in this time period was 3376.

‡ Since data of sequence concealment model was available since 2011, the variable year were treated as continuous variable in this model.



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Reporting quality and its influencing factors in randomized controlled trials on traditional Chinese medicine cancer care: An analysis of 5,623 studies published in Chinese

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