

The effectiveness of Acceptance and Commitment Therapy on depression, anxiety and acceptance among advanced cancer patients: a systematic review and meta-analysis



Huiyuan Li, Cho Lee Wong*, Xiaohuan Jin, Jieling Chen, Yang Bai
The Nethersole School of Nursing, Faculty of Medicine, The Chinese University of Hong Kong, Esther Lee Building, Shatin, N.T., Hong Kong, China, * Corresponding author

Introduction

Advanced cancer is an incurable and life-threatening disease that places a heavy burden on patients' psychological well-being. This study systematically summarized the current studies and aimed to explore the immediate effect of Acceptance and Commitment Therapy (ACT).

Methods

Nine electronic databases were searched by key words. Two independent reviewers assessed the quality of eligible studies by The Joanna Briggs Institute critical appraisal checklist. Meta-analysis was conducted when at least three studies reported the same outcome, with subgroup analysis for modality of ACT and presence of dyadic involvement, otherwise, narrative synthesis was used. Sensitivity analysis was performed to test the influence of study quality and control type.

Results

Six studies involved 261 participants were identified (Fig. 1). The results found face-to-face individual ACT significantly improved depression (face-to-face: standard mean difference, SMD: -0.79 ; 95% confidence interval, 95%CI: -1.32 to -0.27 ; $p = 0.003$; $I^2 = 15\%$; individual: SMD: 0.58 ; 95%CI: -1.08 to -0.08 ; $p = 0.02$; $I^2 = 43\%$) post-intervention (Fig. 2. (a), (b)). However, a favourable but non-significant effect by face-to-face individual ACT on decreasing anxiety post-intervention was found (SMD: -0.27 ; 95%CI: -0.87 to 0.33 ;

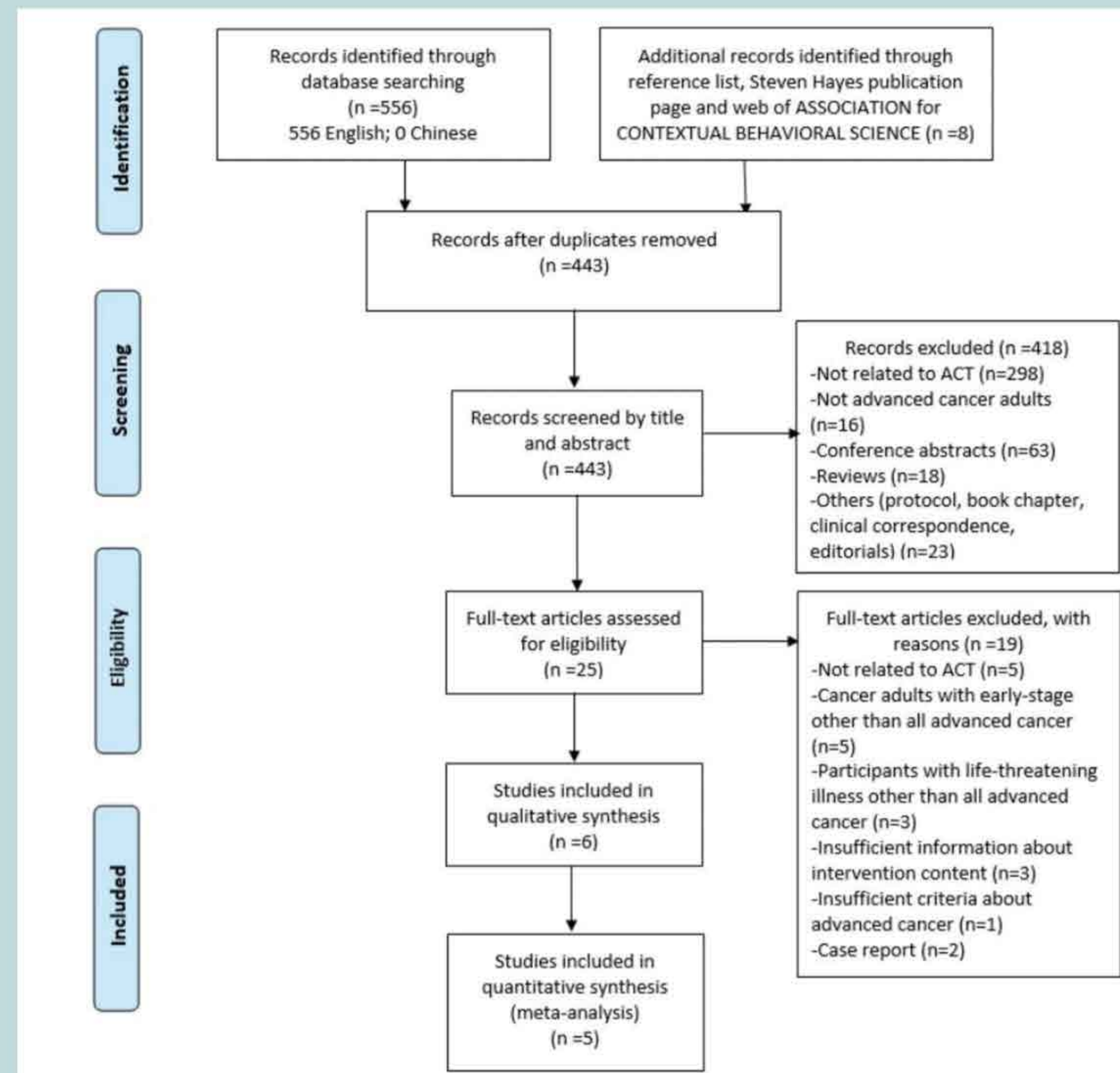


Fig. 1. Flow diagram for study retrieval and selection

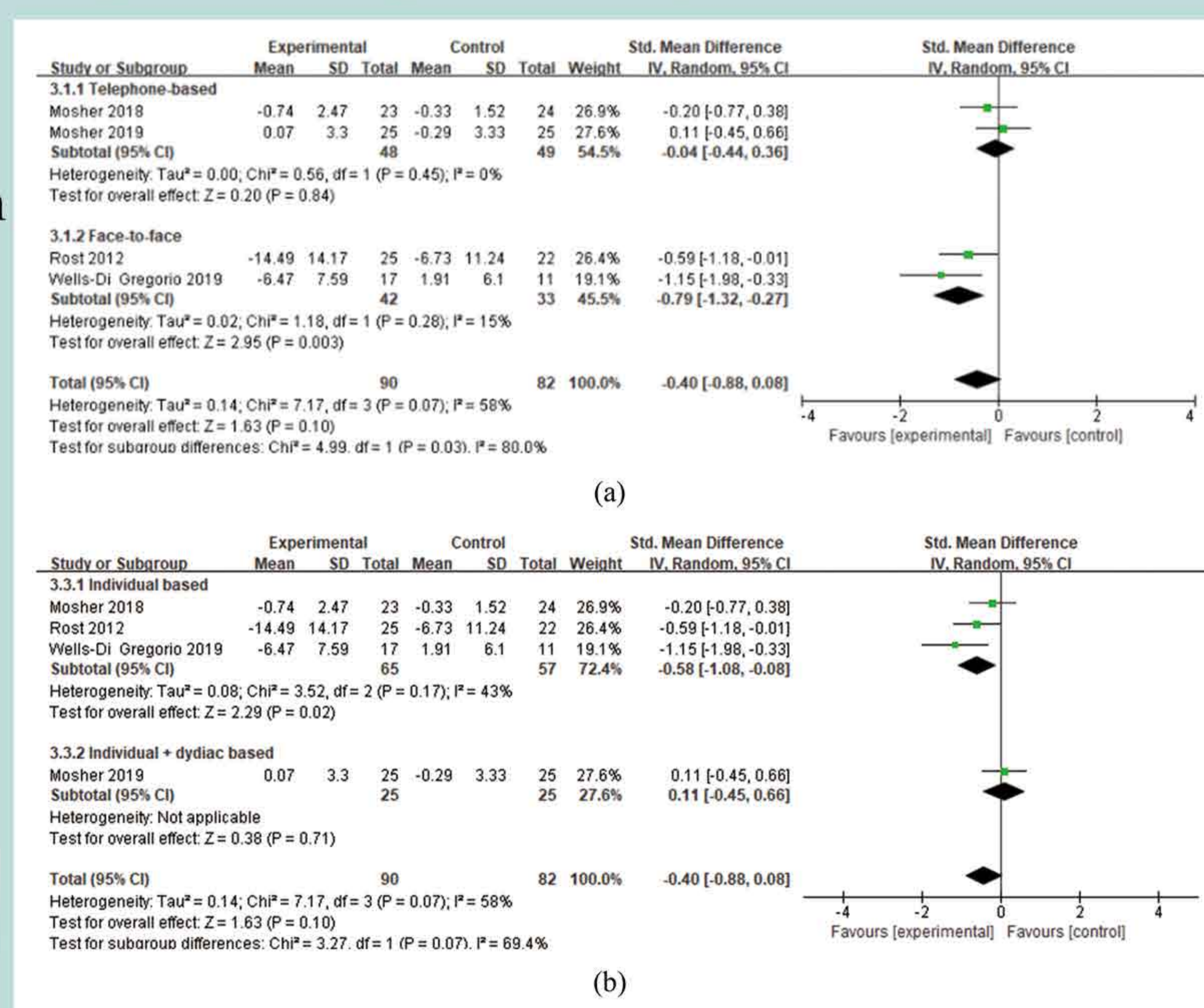


Fig. 2. (a) (b) Forest plot of the effect of ACT on depressive symptom post-intervention.

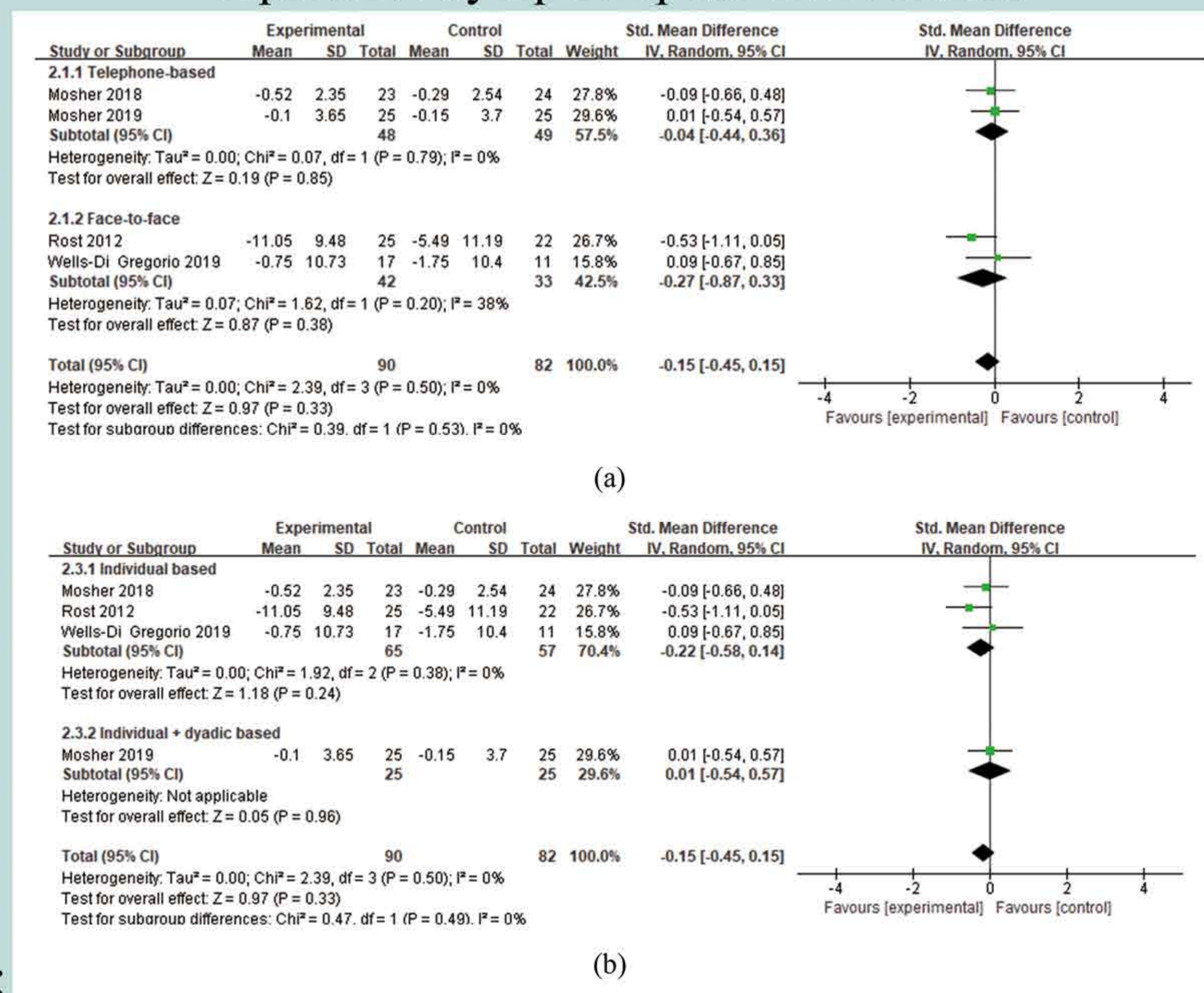


Fig. 3. (a) (b) Forest plot of the effect of ACT on anxiety post-intervention.

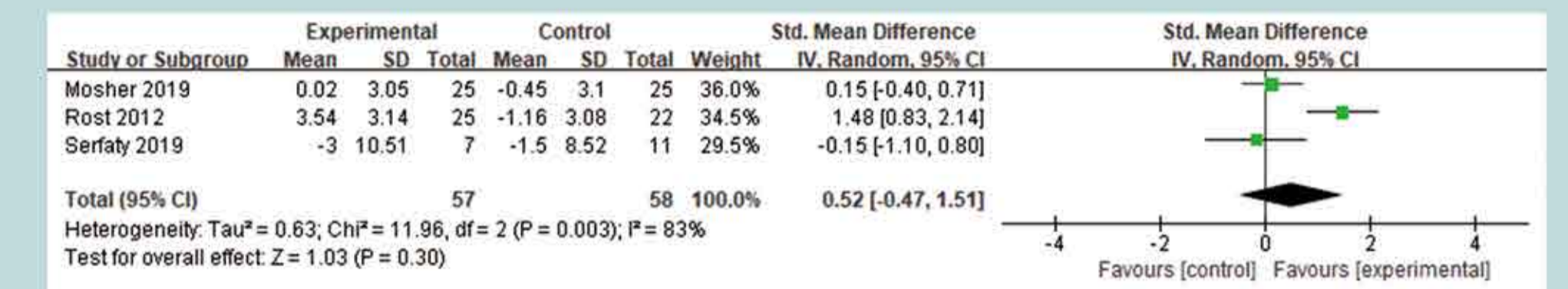


Fig.4. Forest plot of the effect of ACT on acceptance post-intervention.

Table 1 The results of sensitivity analysis

Outcome		SMD (95% CI)		
		R=0.5	R=0.25	R=0.75
Depressive symptom	Overall	-0.40 [-0.88, 0.08]	-0.32 [-0.72, 0.07]	-0.56 [-1.23, 0.11]
	Telephone-based	-0.04 [-0.44, 0.36]	-0.05 [-0.45, 0.35]	-0.02 [-0.42, 0.38]
	Face-to-face	-0.79 [-1.32, -0.27]	-0.64 [-1.12, -0.17]	-1.15 [-1.94, -0.36]
	Individual-based	-0.58 [-1.08, -0.08]	-0.47 [-0.85, -0.09]	-0.82 [-1.56, -0.07]
Anxiety	Overall	0.11 [-0.45, 0.66]	0.09 [-0.47, 0.64]	0.15 [-0.40, 0.71]
	Telephone-based	-0.15 [-0.45, 0.15]	-0.11 [-0.41, 0.20]	-0.18 [-0.55, 0.18]
	Face-to-face	-0.04 [-0.44, 0.36]	-0.04 [-0.44, 0.36]	-0.03 [-0.43, 0.36]
	Individual-based	-0.27 [-0.87, 0.33]	-0.19 [-0.65, 0.27]	-0.32 [-1.14, 0.49]
Acceptance	Overall	0.01 [-0.54, 0.57]	0.01 [-0.54, 0.57]	0.02 [-0.54, 0.57]
	Individual and dyadic based	0.52 [-0.47, 1.51]	0.45 [-0.39, 1.29]	0.67 [-0.60, 1.94]

Note. SMD, standard mean difference; CI, confidential interval; R, Correlation coefficient

$p = 0.38$; $I^2 = 38\%$) (Fig. 3. (a), (b)). Non-significant change in acceptance was found (SMD: 2.29 ; 95%CI: -0.65 to 5.22 ; $p = 0.13$) with high heterogeneity (Fig.4.) Sensitivity analysis revealed that type of control group influenced the outcomes (Table 1).

Conclusion

In conclusion, ACT can be beneficial for patients with advanced cancer to promote psychological well-being. These findings suggest implications for intervention options on modes for advanced cancer patients.

Key words

Acceptance and Commitment Therapy; Advanced cancer; depression; anxiety; Systematic review; Meta-analysis

Contact

Huiyuan LI, PhD student, The Nethersole School of Nursing, Faculty of Medicine, The Chinese University of Hong Kong, Shatin, N.T., Hong Kong SAR, China, Email: huiyuanli@link.cuhk.edu.hk