

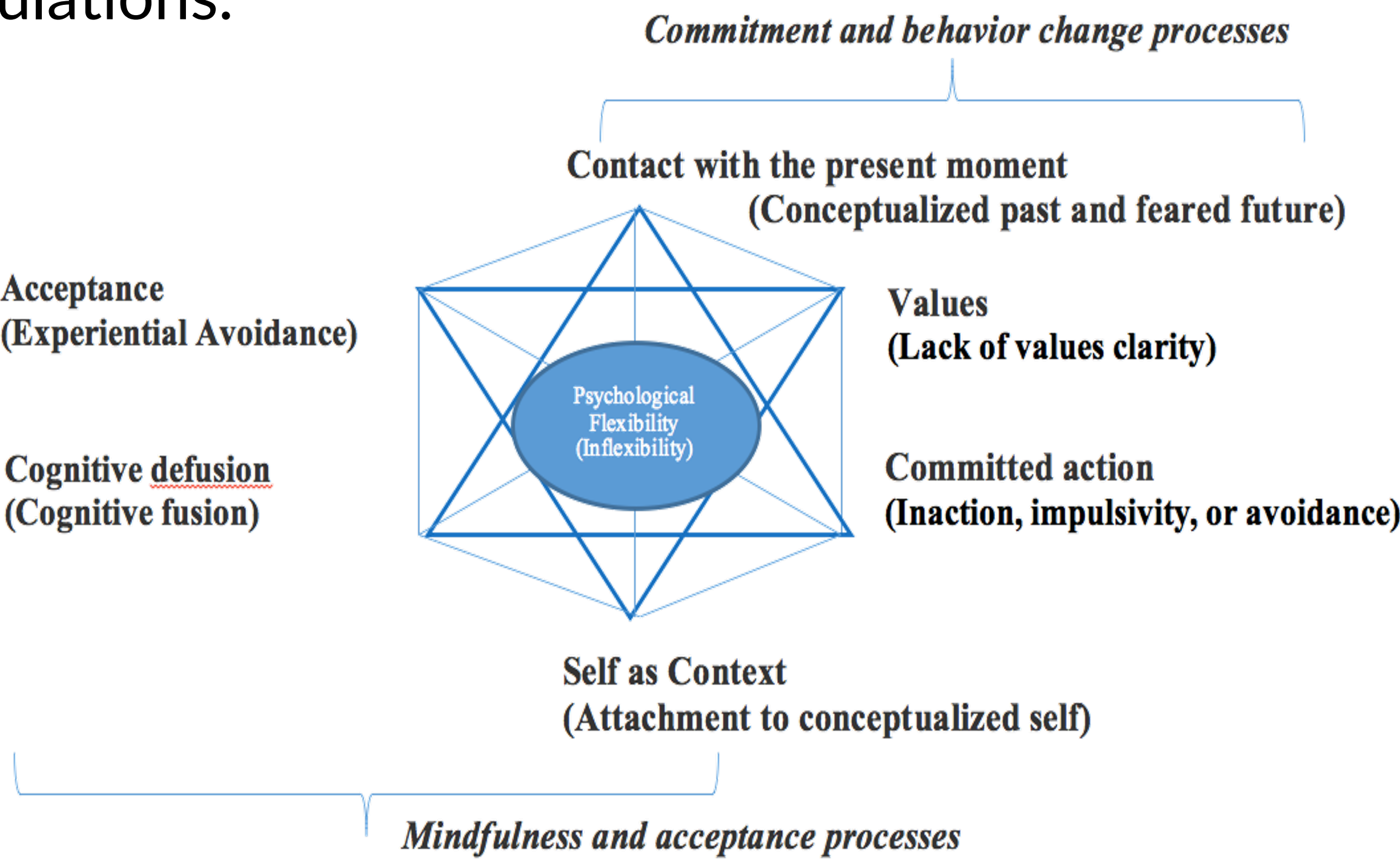
The reliability and validity of the Chinese version of the CompACT in patients with nasopharyngeal carcinoma

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INTRO

- Acceptance and Commitment Therapy (ACT) is increasingly applied in oncology, with psychological flexibility influencing treatment, rehabilitation, and well-being. The Chinese CompACT (CompACT-C) has been validated in breast cancer but not in nasopharyngeal carcinoma (NPC) populations.



METHODS

- Using convenience sampling, 310 NPC patients (mean age 47.9 ± 11.5 years; 75.2% male) from a tertiary hospital in Guangdong completed the CompACT-C and AAQ-II. Confirmatory factor analysis (CFA) tested the original three-factor structure. Internal consistency, two-week test-retest reliability, and convergent validity with AAQ-II were evaluated.

Table 1
Characteristics of the study participants (N=310).

Variables (Mean ± SD, range)	N (%)
Age (47.88 ± 11.45, 18-74)	
<25	6 (1.9)
25-45	138 (44.5)
46-65	145 (46.8)
>65	21 (6.8)
Gender	
Male	233 (75.2)
Female	77 (24.8)
Educational level	
Primary or below	41 (13.2)
Junior high school	112 (36.1)
Senior high school	54 (17.4)
College	56 (18.1)
Bachelor or above	47 (15.2)
Marital status	
Single	23 (7.4)
Married	276 (89.0)
Divorced	11 (3.5)
Employment status	
Employed (non-agricultural)	144 (46.4)
Unemployed or Farming	118 (38.1)
Retired	48 (15.5)
Monthly income (CNY)	
<5000 (<700 USD)	112 (36.1)
5000-10000 (700-1400 USD)	148 (47.7)
>10000 (>1400 USD)	49 (15.8)
Residence	
Rural	144 (46.5)
Urban	166 (53.5)
Medical insurance	
No insurance	7 (2.3)
Zhuhai City Medical Insurance	106 (34.2)
Provincial Medical Insurance	89 (28.7)
Out-of-province Medical Insurance	108 (34.8)
Stage of tumour	
Stage I	7
Stage II	39
Stage III	55
Stage IV	42
Treatment	
Radiotherapy	18 (5.8)
Chemotherapy	130 (41.9)
Combined modality	49 (15.8)
Surgery	35 (11.3)
Immunotherapy	27 (8.7)
Other (including palliative care, etc.)	51 (16.5)

Note: USD: United States Dollar; CNY, Chinese Yuan; 1 CNY = 0.14 USD.

RESULTS

- The initial three-factor model showed poor fit (RMSEA=0.073, CFI=0.766, SRMR=0.109). After removing items 13, 20, and 22 and reassigning item 18 from Openness to Behavioral Awareness, model fit improved substantially ($\chi^2=338.999$, $df=167$, $\chi^2/df=2.03$, RMSEA=0.048, CFI=0.918, TLI=0.906, SRMR=0.071). The revised CompACT-C demonstrated acceptable internal consistency (Cronbach's $\alpha=0.780$), satisfactory test-retest reliability, and convergent validity with AAQ-II ($r=-0.570$, $p<0.001$).

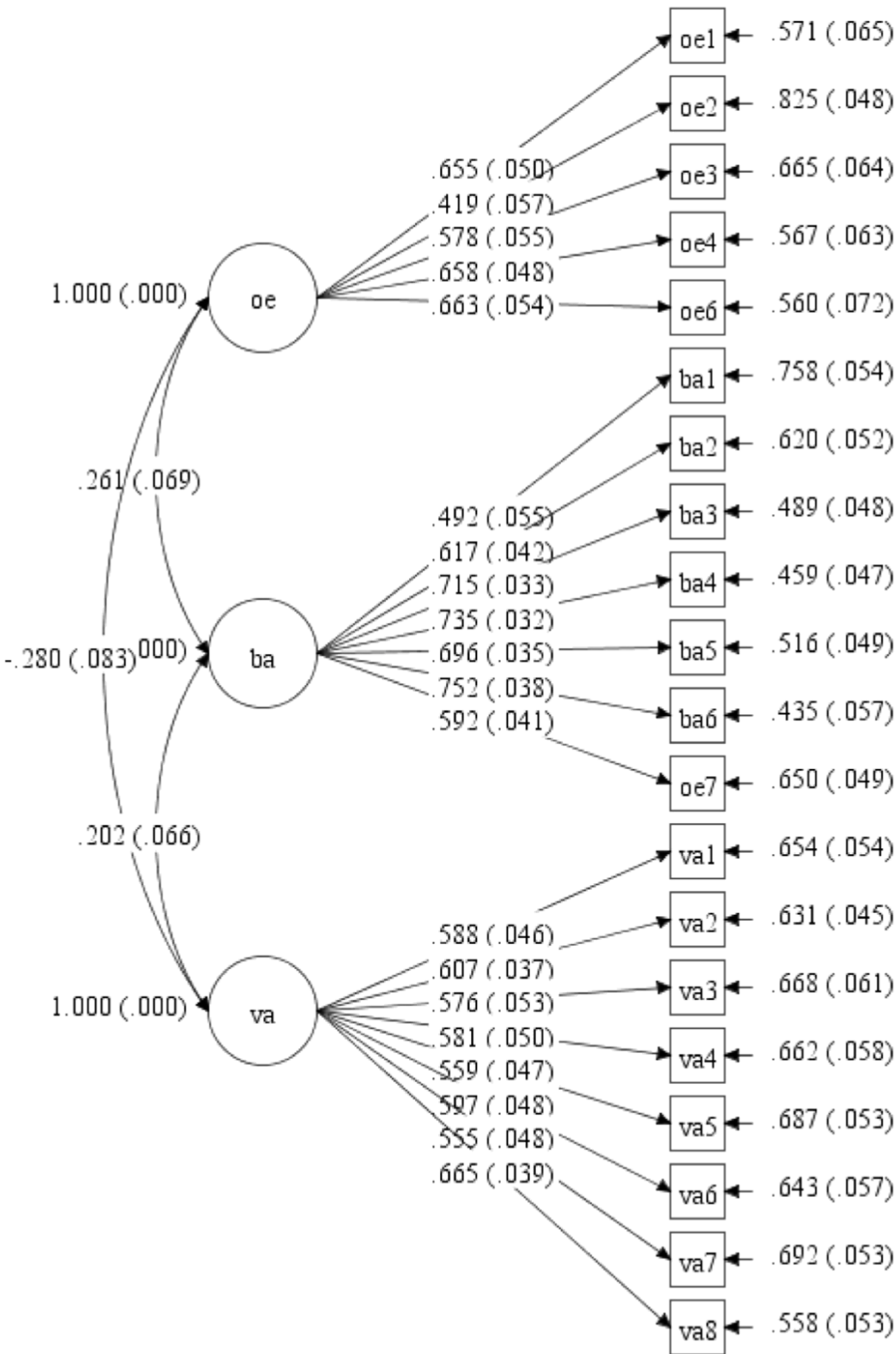


Fig. 2. Results of confirmatory factor analysis of the three-factor structure of the CompACT-C (N = 310, $p = 0.05$).

Note: Model fit indices: $\chi^2 = 338.999$, $df = 167$, NC (χ^2/df) = 2.030 (desired value 1.0-3.0), RMSEA = 0.048 (desired value < 0.08), CFI = 0.918 (desired value > 0.90, acceptable value > 0.80), TLI = 0.906 (desired value > 0.90, acceptable value > 0.80), SRMR = 0.071 (desired value < 0.08, acceptable value < 0.10). OE: openness to experience; BA: behavioural awareness; VA: valued action; df : degree of freedom; NC: normed chi-squared; RMSEA: root mean square error of approximation; CFI: comparative fit index; TLI: Tucker-Lewis index; SRMR: standard root mean square residual values.

DISCUSSION

- The CompACT-C shows acceptable reliability and validity for assessing psychological flexibility in NPC patients and is suitable for research use.