Journal of Counseling Psychology

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Online First Publication, March 30, 2023. https://dx.doi.org/10.1037/cou0000661

AMERICAN PSYCHOLOGICAL ASSOCIATION

Journal of Counseling Psychology

ISSN: 0022-0167

https://doi.org/10.1037/cou0000661

Validation of the Cooper–Norcross Inventory of Preferences (C-NIP) in Chinese Lay Clients and Mental Health Professionals: Factor Structure, Measurement Invariance, and Scale Differences

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The Cooper–Norcross Inventory of Preferences (C-NIP) is one of the most widely used measures of psychotherapy preferences. However, its psychometric properties have not been examined in non-Western samples. Research on disparities between the preferences of mental health professionals and their clients is also limited. We evaluated the C-NIP's psychometric properties and measurement invariance in Chinese lay clients and mental health professionals and evaluated the latent mean differences between clients' and professionals' scores on the C-NIP's four scales (preference for therapist vs. client directiveness, emotional intensity vs. emotional reserve, past vs. present orientation, and warm support vs. focused challenge). This cross-sectional investigation involved 301 lay clients and 856 mental health professionals who completed the Chinese version of the C-NIP. Confirmatory factor analysis (CFA) and exploratory structural equation modeling (ESEM) were used to examine the factor structure of the C-NIP. ESEM provided stronger evidence than CFA for the four-factor model in both samples. The four scales had adequate internal consistency in both the lay clients (αs = .68–.89) and the mental health professionals (αs = .70–.80). Partial scalar invariance was established across these two populations. Chinese mental health professionals preferred less therapist directiveness, past orientation, and warm support—but more emotional intensity—than Chinese lay clients (ds = 0.25–0.90). Culture-specific cutoff values (norms) to identify strong therapy preferences were established. This study supports the application of the C-NIP to non-Western populations and suggests that discrepancies between the preferences of lay clients and mental health professionals are a cross-cultural phenomenon.

Public Significance Statement

This study confirms the factor structure and measurement invariance of the Cooper–Norcross Inventory of Preferences (C-NIP) in Chinese psychotherapy populations. The study further reveals systematic differences between lay clients' and mental health professionals' treatment preferences in the Chinese clinical context. These disparities suggest that professionals should be cautious in projecting their therapy preferences onto their clients.

Keywords: therapy preferences, psychotherapy, psychometric properties, measurement invariance, Chinese culture

Supplemental materials: https://doi.org/10.1037/cou0000661.supp

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The authors thank Wei Wu for data analysis, Mengxin Jing for data collection, and Tomáš Řiháček for article review and comments. This work was supported by the National Social Science Foundation of China (18BSH129), the Research Project of Shanghai Science and Technology Commission (20DZ2260300), and the Fundamental Research Funds for the Central Universities, ECNU Academic Innovation Promotion Program for Excellent Doctoral Students (YBNLTS2022-036). Mick Cooper and John C. Norcross codeveloped the Cooper–Norcross Inventory of Preferences (C-NIP) and receive a licensing fee for its commercial use. The C-NIP is in the public domain for individual users under the license CC BY-NC-ND 4.0.

This study was not preregistered. The data sets generated during and/or analyzed during the present study are available from the corresponding author on reasonable request.

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Despite the overall effectiveness of psychotherapy (McAleavey et al., 2019), many clients do not improve in therapy. In a meta-analysis of 669 studies, client dropout rates averaged 20% and reached 74% in some clinical settings (Swift & Greenberg, 2012). Up to 15% of clients deteriorate by the end of psychotherapy (Lambert, 2010). These issues challenge the utility and effectiveness of psychotherapy.

Integrating client preferences into clinical practice is one research-supported way to improve psychotherapy outcomes (Lindhiem et al., 2014; Norcross & Cooper, 2021). A recent meta-analysis (Swift et al., 2018) of 53 studies on the impact of preference accommodation on treatment outcomes identified a meaningful effect ($d = 0.28$). Preference accommodation nearly halved dropout rates ($OR = 1.79$). Integrating client preferences and characteristics into psychotherapy is one of three necessary features of evidence-based practice (American Psychological Association, Presidential Task Force on Evidence-Based Practice, 2006; Norcross et al., 2016).

Client Preferences and Measures

Client preferences refer to the specific conditions and activities that clients desire in their psychotherapy. These preferences have been broadly classified into three types: treatment preferences, preferences about the therapist, and activity preferences (Swift et al., 2018). *Treatment preferences* refer to the types of intervention the client desires to receive in treatment, such as medication versus psychotherapy or a particular psychotherapy orientation (e.g., client-centered or psychodynamic). *Preferences about the therapist* refer to the type of therapist the client wants to work with, such as a certain gender, race, sexual orientation, or religion. *Activity preferences* refer to the activities that clients desire to engage in throughout the therapy process, such as therapeutic methods (e.g., homework), preferred topics (e.g., early childhood), or therapist style (e.g., directive or emotion-focused; Cooper et al., 2019). Swift et al.'s (2018) meta-analysis found no difference in the association with treatment outcomes across these three types of preference.

Several measures have been developed to assess client preferences. These include the Psychotherapy Preferences and Experiences Questionnaire (Sandell et al., 2011), the Preference for College Counseling Inventory (Hatchett, 2015), the Counseling Preference Form (Goates-Jones & Hill, 2008), and the Therapy Personalization Form (Bowens & Cooper, 2012). However, these measures have been criticized because there is limited evidence of robust psychometric properties or the measure is too long for routine clinical practice (Cooper & Norcross, 2016).

Cooper–Norcross Inventory of Preferences

In response to these concerns, Cooper and Norcross (2016) developed the Cooper–Norcross Inventory of Preferences (C-NIP). The authors first created a list of 40 therapy preference items by adapting items from existing instruments, developing items based on the research literature and their clinical experience, and asking colleagues to nominate items based on their work as psychotherapists. These 40 items were administered to a sample of 860 English-speaking adults (85% from the United Kingdom and the United States). Using principal component analysis, Cooper and Norcross (2016) identified 18 items that represented four robust dimensions of clients' activity preferences: therapist directiveness versus client directiveness (TD–CD, five items), emotional intensity versus emotional reserve (EI–ER, five items), past orientation versus present orientation (PaO–PrO, three items), and warm support versus focused challenge (WS–FC, five items). Internal consistency coefficients were adequate for each brief scale, ranging from .60 to .85. In the unscored second part of the C-NIP, clients are presented with 11 open-ended questions. These items can provide supplementary information about other therapy preferences, such as therapist preferences and treatment preferences (Cooper & Norcross, 2016).

The C-NIP has been translated into over 10 languages (Cooper & Norcross, 2021), and tests of its psychometric properties have been conducted in several countries, including Turkey (Ömer & Yalçin, 2021), Portugal (Malosso, 2019), Germany (Heinze, Weck, & Kühne, 2022), and the Czech Republic (Řiháček & Mikutová, 2022). The C-NIP is now widely used in clinical research and practice (e.g., Hess, 2017; Swift et al., 2018).

Disagreement Regarding the Factor Structure of the C-NIP

There have been inconsistent results with regard to the factor structure of the C-NIP. Support and partial support for the four-factor solution were found in samples from Turkey and Germany. Ömer and Yalçin (2021) confirmed the C-NIP's four-factor structure in a Turkish sample. Using a German sample, Heinze, Weck, and Kühne (2022) found an acceptable model fit for a four-factor solution, similar to the original factor structure, but two items (Items 6 and 9) in the EI–ER factor were reassigned to a nontargeted factor (TD–CD), and two items (Items 10 and 15) were removed due to cross-loadings.

However, studies in Portugal (Malosso, 2019) and the Czech Republic (Řiháček & Mikutová, 2022) failed to replicate the four-factor solution. In the case of Řiháček and Mikutová's (2022) study, the researchers reran the exploratory factor analysis (EFA) and identified a five-factor structure. The original C-NIP's primary three dimensions (TD–CD, PaO–PrO, and WS–FC) were retained, whereas the emotional intensity versus emotional reserve (EI–ER) dimension was split into two factors. Although this five-factor solution fit the data well, the two emerging factors each had only two items. A factor with fewer than three items is generally considered weak and unstable (Costello & Osborne, 2005). Differences in the C-NIP's factor structure across countries suggest the need for research in additional cultural contexts.

Limitations of Previous C-NIP Studies

There are several limitations in the extant C-NIP studies, which give rise to the aims of the present investigation. First, the original four-factor structure of the C-NIP was obtained via principal component analysis (Cooper & Norcross, 2016), which is appropriate for item reduction but unsuitable for testing latent factor structure. Subsequent C-NIP studies typically used CFA, which requires each item to load on one target factor, whereas all loadings on secondary factors (cross-loadings) are constrained to zero (Asparouhov & Muthén, 2009). However, the EFA results reported in the original research on the C-NIP showed multiple items with nonnegligible cross-loadings on their nontargeted factors (contrary to the assumptions of CFA; Cooper & Norcross, 2016). Given the cross-loadings, the CFA approach could easily result in a poor model fit (Marsh et al., 2014).

Exploratory structural equation modeling (ESEM), which integrates the advantages of EFA (allows cross-loading) and CFA (model-based; Asparouhov & Muthén, 2009), has been recommended for identifying factors in a multidimensional construct, such as client preference (Heinze, Weck, & Kühne 2022). The methodological research suggests that ESEM can provide a more flexible and accurate estimation of the factor structure, providing a better fit to the data (Marsh et al., 2010). This approach thus increases the likelihood that subsequent advanced analyses (e.g., tests of measurement invariance) are conducted correctly (Marsh et al., 2010). Thus, one purpose of this study was to use ESEM to test the factor structure of the C-NIP.

Second, the C-NIP was developed for clinical purposes (Cooper & Norcross, 2016), but nearly all subsequent studies of its psychometric properties have been conducted on nonclinical samples, including university students (Ömer & Yalçin, 2021), general population (Heinze, Weck, & Kühne, 2022; Malosso, 2019; Řiháček & Mikutová, 2022), or primarily (72%) mental health professionals (Cooper & Norcross, 2016). The psychometric properties of the C-NIP have not been sufficiently examined in client populations. To solidify confidence in its clinical use, further studies are needed to determine if the C-NIP is a robust measure when used with bona fide psychotherapy clients.

Activity Preferences Across Cultures

In Western samples, Cooper and Norcross (2016) found the aforementioned four dimensions of client activity preferences. Subsequent studies found that Western clients tended to prefer therapist directiveness (e.g., learning skills), emotional expression, and focused challenge in their treatment (Cooper et al., 2019; Heinze, Weck, & Kühne, 2022). They also tended to desire treatment that was oriented toward the present (Cooper et al., 2022; Heinze, Weck, & Kühne, 2022).

To date, client preferences have not been systematically investigated in non-Western cultures. An initial question, therefore, is whether the C-NIP's four-factor structure of activity preferences is compatible with non-Western clients. The present study of a Chinese version of the C-NIP is the first research of its kind in a non-Western sample. China has different social values (interdependent vs. independent), cultural foundations (e.g., collectivism vs. individualism), and socioeconomic conditions (e.g., developing vs. developed) than the United Kingdom and the United States. These cultural characteristics probably manifest in clinical settings (Duan et al., 2022; Qian et al., 2001), shaping clients' therapy preferences (Duan et al., 2022). In fact, cross-cultural research suggests that any underlying construct may not be the same across cultures (Boer et al., 2018). This makes it necessary to investigate the C-NIP's factor structure in non-Western cultures like China.

Even if the C-NIP's internal structure holds in the Chinese context, there might be differences in the preferences of Western and non-Western clients due to cultural considerations. Compared with a more collaborative therapeutic relationship in Western countries, for example, Chinese clients might desire more therapist directiveness. Additionally, the fear of "losing face" is more salient in collectivistic-orientated societies like China compared with Western countries (Mak et al., 2009). On this basis, we expect Chinese clients to desire warm support rather than focused challenge in their therapy. Culture also shapes the extent to which people express emotion to others: individualistic cultures are freer to express their emotions (both verbally and nonverbally) than people from non-Western, collectivist cultures (Cordaro et al., 2018; Fernández et al., 2000). These findings suggest that Chinese clients might desire less emotional intensity in psychotherapy compared to their Western counterparts. Finally, there is research evidence that people from Western and non-Western cultures have different time orientations; that is, people from non-Western cultures (e.g., China) tend to focus on the past and store information important to the past more than those from present- or future-oriented Western cultures (Lee et al., 2017; see Spears et al., 2000, for a review). From this perspective, Western clients might be more concerned about how their choices or problems in the present will influence their future. In contrast, non-Western clients might believe that only by solving their past problems will they see an improved future.

Preference Differences Between Clients and Mental Health Professionals

Mental health professionals' approaches to psychotherapy are typically based on their personal preferences, theoretical orientations, and clinical experiences (Heinonen & Orlinsky, 2013; Morrow-Bradley & Elliott, 1986; Stewart & Chambless, 2007). There is a danger that professionals will "project" or generalize their treatment preferences onto their clients, whose preferences may be different.

To test these potential differences, Cooper et al. (2019) investigated the psychotherapy preferences of laypersons and mental health professionals, as clients, in the Western context. Participants from two layperson samples (*Ns* = 228 and 1,305) and mental health professionals ($N = 615$) completed the C-NIP. The researchers found large differences between laypersons' and mental health professionals' activity preferences on two C-NIP dimensions: layperson clients desired more therapist directiveness (*g*s = 0.92–1.43) but less emotional intensity (*g*s = 0.40–0.57) than the mental health professionals. More recently, Heinze, Weck, Hahn, et al. (2022) compared the activity preferences (as measured by the C-NIP) of psychotherapy trainees (as clients, $N = 466$) and laypeople ($N = 969$) in Germany. Similar to Cooper et al. (2019), they found that psychotherapy trainees preferred less therapist directiveness ($d = 0.58$), higher emotional intensity ($d = 0.74$), and more focused challenge ($d = 0.35$) than laypeople.

These findings were promising, but these two studies were limited in sample selection and methods. First, the researchers sampled primarily laypersons rather than clients in treatment, limiting the findings' generalizability. Second, the mental health professionals were a convenience sample recruited via social media and were probably not representative of the wider population of practitioners. Third, the researchers directly compared the average preference scores of the layperson clients and mental health professionals without establishing the measurement invariance of the C-NIP across groups. Testing measurement invariance is a prerequisite for making unbiased comparisons between the latent mean C-NIP scores across groups (Putnick & Bornstein, 2016). Fourth and finally, the studies were conducted in Western contexts, and we do not know whether these findings will generalize to non-Western cultures.

To the best of our knowledge, no studies have investigated differences in the psychotherapy preferences of mental health professionals and nonmental health professionals, as clients, in a non-Western context. However, indirect evidence suggests that there may

be preference differences between those two groups. Given their clinical training and experience, non-Western professionals are probably more aware than laypersons of the benefits of emotional expression and focused challenges in psychotherapy (Cooper et al., 2022; Peluso & Freund, 2018), and we therefore predict differences in these dimensions. Further, influenced by Western theories and teachings, Chinese psychotherapists may be unlikely to have a favorable view of therapist directiveness (Duan et al., 2012), but Chinese laypersons may well value it (Duan et al., 2022). Thus, we hypothesize that mental health professionals, as clients themselves, would prefer less therapist directiveness than lay general psychotherapy clients within a Chinese context.

The Present Study

The present study was designed to examine the psychometric properties of a Chinese version of the C-NIP among lay clients and mental health professionals, and investigate possible differences between Chinese professionals' and lay clients' preferences for psychotherapy. Three hypotheses guided our analyses. Hypothesis 1 was that ESEM would provide stronger evidence than CFA for the four-factor C-NIP model in both samples. Hypothesis 2 was that C-NIP would show measurement invariance (at least partial scalar invariance) across the tested two groups. Hypothesis 3 was that Chinese mental health professionals would prefer less therapist directiveness, past orientation, and warm support but more emotional intensity than Chinese lay clients. As a supplemental analysis, we also established culture-specific cutoff scores for strong therapy preferences that could be used for clinical purposes in China.

Method

Participants

Lay Clients (N = 301)

We recruited adults receiving individual treatment in 12 psychological clinics across China. In total, 343 clients consented to be in the study; however, 42 were excluded from the analysis for the following reasons: missing one or more items on the C-NIP ($n = 20$), being outside of the age eligibility (<18 years, $n = 16$), and responding randomly (e.g., "straight-lining" despite the dimension differences; $n = 6$). The remaining 301 lay clients were between 18 and 64 years old ($M = 28.3$, $SD = 8.7$). There were 206 women (68.4%). There were 138 clients (46.0%) who were about to begin psychotherapy (before their first session), and 85 (28.0%) who had attended at least two sessions (range: 2–248; 78 participants did not respond to this question). More information about the demographic characteristics of the lay clients can be found in Table 1.

Mental Health Professionals (N = 856)

We recruited Chinese mental health professionals from 154 cities and surrounding areas across 29 provinces and municipalities in China. Initially, 998 mental health professionals consented to participate, but 103 did not complete any items after consenting, and 39 did not complete the C-NIP. The remaining sample ($N = 856$) was composed of mental health professionals between the ages of 20 and 79 ($M = 39.84$; $SD = 9.16$); there were 710 women (82.94%). We could not rule out the possibility that there was some overlap between the professional sample and the client sample. All of these participants were licensed or certified at the national or provincial level. Their experience as mental health professionals ranged from 0.1 to 34.3 years ($M = 8.22$, $SD = 6.31$; 23 participants did not respond to the question).

Mental health professionals' theoretical orientations were self-reported using a 5-point scale, from *low* (1) to *high* (5), on three approaches. For psychoanalytic/psychodynamic orientation, the average rating was 3.26 ($SD = 1.28$); for cognitive/cognitive behavioral, it was 3.39 ($SD = 1.18$); and for humanistic/person-centered it was 3.76 ($SD = 1.05$). A one-way repeated measures analysis of variance indicated significant differences in endorsement of orientations, $F(1, 772) = 38.49$, $p < .001$ (83 respondents were missing). Post hoc t tests indicated that the humanistic orientation was endorsed more highly than both the psychodynamic $t(772) = 8.48$, $p < .001$, $d = 0.42$, and cognitive/behavioral orientations, $t(772) = 7.45$, $p < .001$, $d = 0.3$; with no difference between the cognitive/behavioral and psychodynamic.

More information about the demographic and professional characteristics of the mental health professionals can be found in Table 1.

Table 1
Characteristics of the Two Samples

Characteristics	Lay clients ($n = 301$)	Mental health professionals ($n = 856$)
Age (years)		
M (*SD*)	28.25 (8.67)	39.84 (9.16)
Range	18–64	20–79
Missing	18 (5.9%)	14 (1.6%)
Gender		
Women	206 (68.4%)	710 (82.9%)
Men	81 (26.9%)	144 (16.9%)
Missing	14 (4.7%)	2 (0.2%)
Education		
High school degree or below	9 (3.0%)	—
College degree	225 (74.8%)	342 (40.0%)
Master's degree or above	50 (16.0%)	510 (59.6%)
Missing	17 (5.6%)	4 (0.4%)
Past therapy experience[a]		
Had past experience	151 (50.2%)	596 (69.6%)
No past experience	113 (37.5%)	255 (29.8%)
Missing	37 (12.3%)	5 (0.6%)
Working settings		
Education system	—	553 (64.6%)
Mental health system	—	87 (10.2%)
Private practice	—	189 (22.1%)
Judicial system	—	20 (2.3%)
Missing	—	7 (0.8%)

[a] For this variable, laypersons received or did not receive psychotherapy before the current treatment, and mental health professionals received or did not receive personal therapy.

Procedure

The study was approved by the Research Ethics Committee at the first author's institution (HR2-0074-2021). This study was not preregistered. All participants provided written informed consent. They were told of their right to withdraw from the study at any time without penalty. Participants were informed that their responses would be used for research purposes only.

The recruitment procedure was different for the psychotherapy client and professional samples. To maximize sample representativeness, we

recruited lay clients at various stages of treatment from 12 clinics across China. After giving written informed consent, lay clients completed a Chinese version of the C-NIP in the waiting room. The new clients were invited to complete the C-NIP prior to treatment, and those in ongoing psychotherapy completed it at their current session. The measure was given by administrative staff at each clinical site.

The mental health professional sample was obtained through an online survey (powered by Wenjuanxing, a platform providing functions equivalent to SurveyMonkey). Notices about the research were placed only on national social media platforms limited to the target population (e.g., WeChat groups for therapists and counselors). At the beginning of the survey, there was a screening question about the participants' professional role: "Are you a mental health professional?" (Yes/No). Those who answered "No" were directed to the survey's end (no data were collected), whereas those who answered "Yes" were referred to the formal online survey. Consenting participants were asked to complete the measure online as clients.

Measure

The C-NIP was used to assess client activity preferences for their psychotherapy (Cooper & Norcross, 2016). The inventory has four scales: therapist versus client directiveness, emotional intensity versus emotional reserve, past versus present orientation, and warm support versus focused challenge. Participants report their preference for 18 therapy-related activities on a 7-point scale (−3 to 0 to 3), with −3 and 3 indicating a *strong preference* against or for the activity, −2 and 2 indicating a *moderate preference*, −1 and 1 indicating a *slight preference*, and 0 indicating *no preference*.

Two bilingual clinical psychologists independently translated the C-NIP from English into Chinese and through discussion reached a consensus on language discrepancies. This Chinese version was then back-translated into English by a fluent English–Chinese bilingual speaker who was not part of the research team. The linguistic equivalence between the back-translation and the original English version was evaluated by the third author. Last, 12 adults who were not part of the larger study completed the Chinese C-NIP to investigate whether each translated item was clear. Seven of the 12 reported confusion on Items 2 or 15. Thus, brief explanations for these terms were included at the beginning of the final Chinese version of the C-NIP.

Statistical Analyses

Tests of multilevel analysis, construct validity, and measurement invariance were performed with Mplus 8.3. Descriptive analyses, independent-samples *t* tests, internal consistency (Cronbach's α and McDonald's ω) analyses, and the development of cutoff scores were conducted with SPSS 21.0.

For the CFA and ESEM analyses, we evaluated model fit using the comparative fit index (CFI), root-mean-square error of approximation (RMSEA), and standardized root-mean-square residual (SRMR). Cutoff values for CFI greater than .90 and .95, respectively, typically reflect an acceptable and excellent fit to the data (Bentler, 1990; Hu & Bentler, 1999). Cutoff values less than or close to .08 for SRMR and .06 for RMSEA reflect a good fit to the data (Hu & Bentler, 1999). All parameter estimates were obtained using robust maximum likelihood estimation, with an oblique geomin rotation in ESEM.

Measurement invariance across lay clients and mental health professionals was evaluated. Configural, metric, and scalar invariance were evaluated as evidence of invariance, a prerequisite for making direct mean comparisons across groups (Chen et al., 2020; Vandenberg & Lance, 2000). First, a baseline model was estimated without any constraints to test whether the C-NIP had the same factor structure across groups (configural invariance). Once configural invariance was established, metric invariance was tested to determine whether the scale had equal factor loadings across groups. Satisfying the requirements of metric invariance suggested that the unit of the measurement was the same across groups and comparing factor variance and structural relations across groups was appropriate. Since metric invariance was held, scalar invariance was tested to determine whether the item intercepts and factor loadings were equal across groups. Satisfying the criteria for scalar invariance suggested that scores from different groups have the same origin and unit of measurement. Thus, differences in observed item means across groups can be attributed to differences in the latent factor means (Chen et al., 2020).

Invariance was assessed by measuring the change in fit compared to the previous level of measurement invariance. Specifically, ΔCFI and ΔRMSEA values were used to evaluate the model fit with increased constraints. $|\Delta CFI| < .01$ and $|\Delta RMSEA| < .015$ indicate a good fit (Chen, 2007).

Clinical cutoff values for each C-NIP scale were established using only the lay client sample. The method of developing cutoffs was the same as that used in developing the original measure for U.S. and U.K. adults (Cooper & Norcross, 2016): (a) calculate the empirical lower and upper quartiles of the sample distributions of each C-NIP scale; (b) calculate quartile scores based on *Z*-scores, assuming that the mean score was 0 (and assuming a standard normal distribution for each scale); and (c) calculate the average of the two lower quartiles (25% cutoff) and the two higher quartiles (75% cutoff). This approach represents a compromise between splitting the sample based on the empirical distribution of values and considering the population's overall preference for each scale (Cooper & Norcross, 2016). The data set generated and analyzed in the present study is available from the corresponding author on reasonable request.

Results

Preliminary Analyses

First, given that the samples of mental health professionals and lay clients were predominantly female, we evaluated potential gender differences in C-NIP scores in the two samples. The results showed no gender difference on average scale scores in either sample, except on PaO–PrO in the professional sample ($M_{men} = 0.30$, $M_{women} = -0.65$, $d = 0.20$, $p = .029$; a small effect size). In sum, there was little evidence of a gender difference in Chinese C-NIP scores.

Second, given that lay clients were nested within clinics, we used multilevel analysis (clinic level) to determine whether nesting significantly affected the results. We tested a null model that included only the intercept in calculating C-NIP intraclass correlations (ICC). The results showed that clinic variability was nonsignificant across the four C-NIP scales (ICC ≤ .046; lower than the recommended threshold of .10 for multilevel modeling; Muthén, 1997). This finding

indicated that there were no significant differences in C-NIP scores across clinics. However, it was not possible to use mental health professionals as a nesting level due to our research and recruitment design.

Third, given that the clients were diverse in the number of psychotherapy sessions they completed before taking the C-NIP, a correlation analysis explored the relation between the number of sessions (transformed into normal distribution using log sessions) and C-NIP scores. The results indicated that the number of psychotherapy sessions (for lay clients) completed was associated with TD–CD ($r = -.41$, $p < .001$) and WS–FC ($r = .18$, $p = .007$), but not with EI–ER ($r = .13$, $p = .053$) or PaO–PrO ($r = .13$, $p = .09$). We also compared the C-NIP scores for clients completing it before treatment against those who had already completed two or more psychotherapy sessions. The former group had higher scores on TD–CD ($M_{\text{former}} = 4.23$, $M_{\text{later}} = 1.59$, $d = 0.49$, $p < .001$) but lower scores on EI–ER ($M_{\text{former}} = 3.70$, $M_{\text{later}} = 5.04$, $d = 0.27$, $p = .047$) and WS–FC ($M_{\text{former}} = 2.64$, $M_{\text{later}} = 5.02$, $d = 0.45$, $p = .001$); the difference on PaO–PrO was nonsignificant ($p = .22$). Together, these findings indicated that clients who had been in psychotherapy for longer had lower preferences for therapist directiveness and greater preferences for warm support.

Factor Structure

The confirmatory ESEM confirmed the four-factor C-NIP solution in both samples. The model showed an adequate fit for the lay client sample, $\chi^2(87) = 201.841$, $p < .001$; CFI = .913, SRMR = .037, RMSEA = .066, 90% CI [.054, .078], and the mental health professional sample, $\chi^2(87) = 186.981$, $p < .001$; CFI = .960, SRMR = .024, RMSEA = .037, 90% CI [.029, .044].

The ESEM factor loadings are presented in Tables 2 and 3 for the lay client sample and the mental health professional sample, respectively. Regarding the lay client sample, all items had high and significant loadings on their respective factors except item 10 ($\lambda = .27$), with a factor loading that was slightly lower than the recommended cutoff of .30 on the target factor. In the professional sample, all items loaded highly and significantly on the target factor.

We also ran the data with the CFA approach. Whereas ESEM and CFA produced comparable factor correlation models in both samples, CFA failed to fit the four-factor solution in either sample (see Supplemental Material A, for model fit and Supplemental Material B, for factor correlations). Together, these results indicated that the ESEM model was preferable to the CFA model. The findings support Hypothesis 1. Thus, we used the ESEM model (Item 10 was kept for comparison purposes) in the subsequent analyses to test measurement invariance.

Internal Reliability

In the lay client sample, internal consistency values for the C-NIP scales were TD–CD $\alpha = .68$ ($\omega = .73$); EI–ER $\alpha = .75$ ($\omega = .75$); PaO–PrO $\alpha = .89$ ($\omega = .89$); and WS–FC $\alpha = .75$ ($\omega = .75$). In the professional sample, internal consistency values for the C-NIP scales were TD–CD $\alpha = .72$ ($\omega = .73$), EI–ER $\alpha = .75$ ($\omega = .75$), PaO–PrO $\alpha = .80$ ($\omega = .80$), and WS–FC $\alpha = .70$ ($\omega = .70$).

We further investigated if the internal consistencies of the four scales would be improved by removing any item. The results indicated that Cronbach's α for the EI–ER subscale increased negligibly from .75 to .76 after removing Item 10 in the professional sample but not in the lay client sample. The internal consistency of the other three scales did not improve by removing any item in either sample.

Table 2
Standardized Factor Loadings for the Four-Factor ESEM Model in the Lay Client Sample

Item	ESEM			
	TD–CD	EI–ER	PaO–PrO	WS–FC
1. Focus on goals versus not focus on goals	**.56*****	.20*	−.01	.10
2. Give structure versus allow unstructured	**.62*****	−.03	.04	.08
3. Teach skills versus not teach skills	**.73*****	−.08	−.11	−.04
4. Give homework versus not give homework	**.52*****	.09	−.04	−.18*
5. Take lead versus allow client to lead	**.32*****	−.11	.15	−.26**
6. Encourage difficult emotions versus not encourage	.03	**.48*****	.17*	−.15
7. Talk about therapy relationship versus not talk	−.02	**.85*****	−.04	−.07
8. Focus on relationship versus not focus on relationship	−.05	**.82*****	−.02	.05
9. Encourage strong feelings versus not encourage	.06	**.50*****	.07	.10
10. Focus on feelings versus focus on thoughts	−.01	.27**	.21**	.25**
11. Focus on past versus focus on present	−.03	.02	**.85*****	.02
12. Reflect childhood versus reflect adulthood	.01	−.01	**.81*****	−.05
13. Focus on past versus focus on future	.03	−.00	**.89*****	.05
14. Be gentle versus be challenging	.10	.09	.05	**.46*****
15. Be supportive versus be confrontational	.14	.05	.06	**.63*****
16. Not interrupt versus interrupt	−.03	−.00	−.01	**.69*****
17. Not challenge beliefs and views versus challenge beliefs and views	.01	−.04	−.10	**.69*****
18. Support behavior unconditionally versus challenge behavior	−.12	−.05	.15*	**.57*****

Note. $N = 301$. TD–CD = therapist directiveness versus client directiveness; EI–ER = emotional intensity versus emotional reserve; PaO–PrO = past orientation versus present orientation; WS–FC = warm support versus focused challenge; ESEM = exploratory structural equation modeling. Loadings ≥.30 are in boldface.
$^{*}p < .05$. $^{**}p < .01$. $^{***}p < .001$.

Table 3
Standardized Factor Loadings for the Four-Factor ESEM Model in the Mental Health Professional Sample

Item	ESEM			
	TD–CD	EI–ER	PaO–PrO	WS–FC
1. Focus on goals versus not focus on goals	**.51*****	.12**	−.03	.04
2. Give structure versus allow unstructured	**.59*****	−.01	.08*	.02
3. Teach skills versus not teach skills	**.68*****	.02	−.11	.06
4. Give homework versus not give homework	**.67*****	−.01	−.04	−.07*
5. Take lead versus allow client to lead	**.46*****	−.23***	.17***	−.02**
6. Encourage difficult emotions versus not encourage	.05	**.66*****	.17*	−.09
7. Talk about therapy relationship versus not talk	−.02	**.69*****	−.03	−.00
8. Focus on relationship versus not focus on relationship	−.04	**.68*****	−.02	−.01
9. Encourage strong feelings versus not encourage	.08	**.64*****	.03	.04
10. Focus on feelings versus focus on thoughts	−.07	**.40****	.11**	.23**
11. Focus on past versus focus on present	.03	−.02	**.78*****	−.02
12. Reflect childhood versus reflect adulthood	−.02	.06	**.69*****	.02
13. Focus on past versus focus on future	−.01	.01	**.80*****	.03
14. Be gentle versus be challenging	.14**	.07*	−.04	**.53*****
15. Be supportive versus be confrontational	.12*	.05	−.05	**.56*****
16. Not interrupt versus interrupt	−.20***	.01	.07	**.52*****
17. Not challenge beliefs and views versus challenge beliefs and views	−.01	−.18***	.02	**.69*****
18. Support behavior unconditionally versus challenge behavior	.01	−.04	.01	**.54*****

Note. $N = 856$. TD–CD = Therapist directiveness versus client directiveness; EI–ER = emotional intensity versus emotional reserve; PaO–PrO = past orientation versus present orientation; WS–FC = warm support versus focused challenge; ESEM = exploratory structural equation modeling. Loadings ≥.30 are in boldface.
$^{*}p < .05$. $^{**}p < .01$. $^{***}p < .001$.

Measurement Invariance

As can be seen in Table 4, full metric invariance was established across lay clients and mental health professionals. This was indicated by comparable values of ΔCFI (≦.01) and ΔRMSEA (<.015) between the configural and metric invariance models. This suggested that the meaning of the C-NIP items was similar in the two groups.

However, the ΔCFA between the metric and scalar invariance models (−.02) indicated a lack of full scalar invariance across samples. Modification indices suggested that the model fit would significantly improve after releasing the constraints for two items (Items 4 and 15). As shown in Table 4 (M3.2), after freeing the equality constraints of these two intercepts, the ΔCFA (−0.008) and ΔRMSEA (−0.003) were both within acceptable thresholds, thus indicating partial scalar invariance. This finding suggested that the intercepts of most items were similar in the two groups. The lay clients and the mental health professionals generally had similar responses on the C-NIP items. This result supports Hypothesis 2. The results enabled subsequent tests of group differences on the four C-NIP scales.

Comparison of Professionals' and Clients' Preferences

Table 5 presents the average scores and the magnitude of differences between lay clients and mental health professionals on the four C-NIP scales.[1] Both Chinese lay clients and mental health professionals tended to prefer therapist directiveness, emotional intensity, and warm support. Regarding the PaO–PrO dimension, the lay clients showed a slight preference for a past orientation, whereas the mental health professionals showed a slight preference for a present orientation.

Independent samples t tests indicated statistically significant and clinically meaningful differences ($d_s > 0.20$) between the two samples on all the C-NIP scales. The magnitude of the effect sizes ranged from small (0.25) for group differences in TD–CD scores to large (0.90) for group differences in EI–ER scores. Specifically, the lay clients desired more therapist directiveness ($d = 0.25$), past orientation ($d = 0.51$), and warm support ($d = 0.36$), but less emotional intensity ($d = 0.90$), than did the mental health professionals (see Table 5).

To explore preference differences in the early stage of treatment, we extracted a subsample of lay clients who completed the C-NIP at any of the first three sessions of therapy ($n = 158$). The C-NIP score differences between this subsample and the professional sample were recalculated. Again, the results showed that preference differences were meaningful across the four C-NIP scales ($d_s = 0.29$–1.08). The differences were larger on TD–CT ($d = 0.52$ vs. 0.25) and EI–ER ($d = 1.08$ vs. 0.90) but slightly smaller in the WS–FC ($d = 0.29$ vs. 0.36) compared to the results obtained from the whole lay client and professional samples. The score differences on PaO–PrO were minimal ($d = 0.54$ vs. 0.51). These results support Hypothesis 3.

Cutoff Scores

Table 6 shows the scale statistics and provisional cutoff scores for each scale on the Chinese version of the C-NIP. Compared to the Western norms (United States and United Kingdom; Cooper & Norcross, 2016), the Chinese cutoffs were higher (descriptively) in past orientation and warm support but lower in therapist directiveness and emotional intensity.

[1] The correlation between four C-NIP factor scores and corresponding scale scores (by adding items to each scale) was nearly 1.0 ($r = .943$–$.991$) in the two samples. Thus, we maintained the original scale total scores in the analyses, as they were easier to calculate and interpret.

Table 4
Measurement Invariance Across Samples

Subgroup comparison	χ^2	*df*	CFI	RMSEA	M comparison	ΔCFI	ΔRMSEA
M1 Configural invariance	387.854	174	0.945	0.046	—	—	—
M2 Full metric invariance	467.365	230	0.939	0.042	M2–M1	−0.006	−0.004
M3.1 Full scalar invariance	556.510	244	0.919	0.047	M3.1–M2	−0.02	0.005
M3.2 Partial scalar invariance[a]	508.050	242	0.931	0.044	M3.2–M2	−0.008	−0.003

Note. All χ^2 estimates were significant at $p < .001$. ΔCFI and ΔRMSEA represent change from first model (left side of column) to second model (right side of column). CFI = comparative fit index; RMSEA = root-mean-square error of approximation.
[a] The partial scalar model was evaluated with the relaxation of intercepts of Items 4 and 15. See more information about the *df* calculations in the Supplemental Material C.

Discussion

The present study contributes to the research on the C-NIP in several ways. First, we investigated and extended the same factor structure of the C-NIP from Western samples to Chinese psychotherapy samples. Second, we compared two samples—lay psychotherapy clients and mental health professionals—on the C-NIP scales and found they differed substantially in their preferences for what happens in psychotherapy. In addition, we established the partial scalar invariance of the C-NIP across these two groups. Last, we demonstrated scale statistics and cutoff scores for strong preferences for each dimension/scale in the Chinese clinical sample.

Psychometric Properties of the C-NIP in Client and Professional Samples

ESEM provided stronger evidence than CFA for the four-factor model in both samples. CFA did not show a good model fit for the original four-factor solution in either sample, consistent with earlier research on the C-NIP (Malosso, 2019; Řiháček & Mikutová, 2022). The CFA approach requires each item to load on a single factor; divergence from this assumption might result in a poor CFA model fit. The significantly better fit of the ESEM relative to the CFA suggests that some C-NIP items are not unidimensional, and there are systematic item cross-loadings on more than one factor. By allowing cross-loadings, ESEM produced a better model fit, but our understanding of the measure and its fundamental meaning does not change. On the one hand, cross-loadings appear to be common in applied research (Marsh et al., 2013) when the construct is multidimensional (as is the case for psychotherapy preferences). On the other hand, there are well-established theoretical and empirical reasons to separate the four latent factors measured by the C-NIP (Cooper & Norcross, 2016).

The use of CFA rather than ESEM in earlier studies may have contributed to failures to replicate the four-factor structure of the C-NIP. Differences in samples might also have contributed to discrepant findings across studies. All the existing C-NIP studies, except for the original one (EFA based on a mixed sample with 72% mental health professionals; Cooper & Norcross, 2016), used general, nonclinical populations instead of clinical samples to investigate the factor structure of the C-NIP. However, nonclinical participants are less familiar with psychotherapy than psychotherapy clients and mental health professionals. They may not understand the C-NIP items well. The participants may answer the items according to their guesses rather than the items' intended meanings. This may result in a poorer model fit (Heinze, Weck, & Kühne, 2022; Malosso, 2019). Therefore, we suggest that future researchers provide some explanations for items that might prove difficult to understand (e.g., *be confrontational, structured*). Ideally, however, the client sample will constitute actual therapy clients, as in the present study.

The ESEM model fit was less than perfect in the lay client sample when using a more rigorous CFI cutoff criterion (i.e., CFI > .95; Hu & Bentler, 1999). This suboptimal fit might be due to nonsalient or low factor loadings on Items 5 and 10 in this sample. However, the fit statistic thresholds suggested by Hu and Bentler (1999) were based on simulation research and might have limited generalizability to the measurement model in applied research (Brown, 2015). Many clinical measures also adopt a more liberal CFI criterion (e.g., CFI > .90; Coleman et al., 2022; Klocek et al., 2022). Moreover, Brown (2015) noted that it might be less of a concern if other indices indicate a "good" model fit when one fit index is suboptimal. In the present study, RMSEA and SRMR values generally showed a good or close to good model fit, following Hu and Bentler's (1999) recommended criteria. Thus, the model fit for the lay client sample in the present study can be considered acceptable.

Table 5
Comparison of the C-NIP Scale Scores for Mental Health Professionals and Lay Clients

C-NIP scale	Mental health professionals *M* (*SD*)	Lay clients *M* (*SD*)	*t* value (*df*)	Effect size (*d*)
Therapist versus client directiveness	1.24 (6.60)	2.80 (5.62)	−3.66*** (1,155)	0.25
Emotional intensity versus emotional reserve	8.97 (4.81)	4.56 (5.02)	13.49*** (1,155)	0.90
Past orientation versus present orientation	−0.50 (4.76)	1.75 (4.08)	−7.31*** (1,155)	0.51
Warm support versus focused challenge	1.41 (6.22)	3.48 (5.40)	−5.13*** (1,155)	0.36

Note. Higher scores indicate greater preference for left-hand term in scale name. C-NIP = Cooper–Norcross Inventory of Preferences.
*** $p < .001$.

Table 6
Scale Statistics of the C-NIP for Chinese Clients

C-NIP scale	*M*	*SD*	25th percentile	75th percentile	Strong pref. (R)	No strong pref.	Strong pref. (L)
Therapist directiveness versus client directiveness	2.80	5.62	0	7	−15 to −2	−1 to 5	6–15
Emotional intensity versus emotional reserve	4.56	5.02	1	8	−15 to −2	−1 to 5	6–15
Past orientation versus present orientation	1.75	4.08	0	5	−9 to −2	−1 to 3	4–9
Warm support versus focused challenge	3.48	5.40	0	7	−15 to −2	−1 to 5	6–15

Note. Strong pref. (R) = strong preference for right-hand term in scale name; strong pref. (L) = strong preference for left-hand term in scale name; C-NIP = Cooper–Norcross Inventory of Preferences.

In the ESEM analysis, Item 10 (*focused on feelings vs. focused on thoughts*) showed a nonsalient loading on the EI–ER factor in the lay client sample, although the factor loading for this item was salient in the professional sample. This finding is in line with other reports that this item had a weak loading (<.30) on the intended EI–ER factor (Heinze, Weck, & Kühne, 2022; Řiháček & Mikutová, 2022). One possible reason for the incompatibility between Item 10 and the other four items is that Item 10 is the only bipolar item (both poles defined positively) on this dimension, whereas the remaining four items are all unipolar items (e.g., *talking about relationship vs. not talking about relationship*; Řiháček & Mikutová, 2022). Thus, respondents may use different mental processing to answer Item 10 compared with the rest of the four items on the EI–ER scale.

The internal reliabilities (Cronbach's α) for the four C-NIP scales ranged from .68 to .89 in the client sample and from .70 to .80 in the professional sample. The Cronbach's α for the TD–CD scale in the client sample was slightly lower than the recommended standard of .70. This value was lower than the original authors' reports (α = .84; Cooper & Norcross, 2016), but it was close to the value in a Czech sample (α = .67; Řiháček & Mikutová, 2022). Overall, the internal consistencies for the C-NIP scales in this study are adequate, especially given the small number of items (3–5 items) on each scale (Ursachi et al., 2015). Further, because Item 10 showed a nonsalient loading on its target factor (EI–ER), and because there were cross-loadings, the internal consistency of the EI–ER subscale did not decrease when this item was removed. Thus, it seems reasonable to drop Item 10 and use a more refined 17-item C-NIP in the Chinese version.

Measurement Invariance and Generalizability of the C-NIP in Psychotherapy Samples

The partial scalar invariance of the C-NIP across lay clients and mental health professionals was established. The multiple-group invariance analysis found that the intercepts of all the items were equivalent except for two items (Items 4 and 15). Given that most items on the C-NIP (89+%) were invariant, we concluded that the C-NIP was strongly invariant over professional and lay clients. This means that the mental health professionals and lay clients generally responded the same to the C-NIP items, and it is appropriate to compare the C-NIP scale between those two groups. Moreover, the current results indicated a stable factor structure across lay and professional groups. The findings support the generalizability of the C-NIP's four-factor solution across populations.

Cross-Cultural Issue

The Chinese lay clients generally preferred therapist directiveness and emotional intensity in their therapy. This trend is consistent with previous findings that Western clients preferred to learn skills and express emotions in their treatment (Cooper et al., 2019, 2022). However, when the average scale scores in the present study were compared with scores from the United Kingdom (Cooper et al., 2022; Cooper & Norcross, 2016), it appeared that Chinese lay clients wanted less emotional intensity, but more past orientation and warm support, than Western lay clients. This pattern is consistent with the prior research that Asian clients tend to refrain from emotional expression compared to their western counterparts (Fowler et al., 2011) and that Chinese people are more concerned with the past than Western people (Lee et al., 2017).

One unexpected finding was that the Chinese lay clients demonstrated less of a preference for therapist directiveness than their Western counterparts did. This finding goes against the general assumption that Asian clients want more directiveness compared to Western clients (Fowler et al., 2011; Wong et al., 2007), but it is consistent with one study indicating that Chinese clients evaluated therapist directiveness less positively than American clients did (Duan et al., 2012). A possible reason is that, because Chinese clients are used to hearing directives from parents and authorities, and because they are selective in evaluating directives, their threshold or standard for acceptable directiveness might be higher than that of their Western peers (Duan et al., 2012).

The differences in C-NIP scores between non-Western and Western clients were similar in the two types of group comparisons. First, the group difference was evident when Chinese clients' C-NIP scores (the whole sample) were compared to a sample of Western people at various stages of engagement with therapy (Cooper & Norcross, 2016). Second, the group difference was also evident, and of similar magnitude, when scores from the subset of Chinese clients who completed the C-NIP in the first session were compared to Western clients who also completed the C-NIP in the first session (Cooper et al., 2022). See Supplemental Material D, for more information.

Cooper et al. (2019) investigation showed that psychotherapists in the United Kingdom and United States preferred emotional intensity and warm support in psychotherapy. In the present study, we found the same pattern in a Chinese professional sample. In addition, in a direct comparison of the two groups' C-NIP scale scores, the Chinese professionals showed a stronger preference for warm support ($M_{\text{China}} = 1.41$, $M_{\text{U.K.}} = 0.38$, $d = 0.18$) than their Western counterparts. These results were in the expected direction.

However, a contrasting finding was that Chinese mental health professionals preferred therapist directiveness, as compared with Western mental health professionals ($M_{\text{China}} = 1.24$, $M_{\text{U.K.}} = -1.83$, $d = 0.45$). One possible explanation is that Chinese mental health professionals are more traditional and tend to see their role as more directive compared to their Western peers. Also, the Western mental health professionals in Cooper et al.'s (2019) study leaned toward person-centered/humanistic, which may not fully represent all Western therapists.

Preference Discrepancies Between Professionals and Clients

We found substantial preference differences between mental health professionals and lay clients on the four dimensions of the C-NIP. Chinese mental health professionals preferred less therapist directiveness, less past orientation, and less warm support, but more emotional intensity, than lay clients; most of the effect sizes in these comparisons were moderate to large (Cohen, 1992). Cooper et al. (2019) also found meaningful differences in the TD–CD and EI–ER dimensions between mental health professionals and lay clients in the Western context. However, the present study demonstrated substantial differences on all four C-NIP scales. These results suggest that such preference discrepancies may be a cross-cultural phenomenon. Although more cross-cultural studies are needed, our findings, together with prior work (Cooper et al., 2019), suggest that professionals in their role as practitioners should understand the differences between their own preferences and those of their clients and not assume that they are similar.

Cutoff Scores for C-NIP in China

We established provisional cutoff scores for each C-NIP scale based on clients' strong preferences in the Chinese context. These cutoff values in China differed from the original U.K. and U.S. cutoffs (Cooper & Norcross, 2016). In another C-NIP study in the Czech Republic, using the same method, Řiháček and Mikutová (2022) also identified different cutoff values from the original English version. For example, scores of 4–15 on the WS–FC indicated a strong preference for warm support in the English context (Cooper & Norcross, 2016); scores of 7–15 indicated a similar preference in the Czech context (Řiháček & Mikutová, 2022); scores of 6–15 indicated a similar preference in the Chinese context (see Table 6). These findings suggest the need to establish mean scores and cutoff values for the C-NIP in specific cultures before implementing the measure in clinical practice.

Limitations

Several limitations of our study should be noted. First, the lay client sample was mainly composed of young clients with a higher education (bachelor's degree or above) than the Chinese population at large. We are unsure whether our findings generalize to populations with fewer years of formal education. Second, the convergent validity of the C-NIP was not investigated in this study. Recent research on the psychometric properties of the C-NIP found small correlations between the C-NIP scales and Big Five personality traits, attachment anxiety, locus of control, and temporal focus (Heinze, Weck, & Kühne, 2022). Future researchers may further address the convergent validity of the C-NIP. Third, the preference differences across cultures in the present study should be treated with caution, as the cross-cultural measurement equivalence of the C-NIP between the Chinese and the Western samples has not been established. Homogeneous samples would be ideal for conducting such comparisons in future studies.

A fourth limitation is that the C-NIP was administered to some clients after they started their treatment. Clients' activity preferences might be affected by their psychotherapy experience, as clients with previous therapy tend to be more confident in identifying their preferences (Norcross & Cooper, 2021). Our findings showed that clients' activity preferences (except for WS–FC), as psychotherapy progressed, generally moved in the direction of the mental health professionals' preferences. Thus, on most scales, the preference discrepancies between professionals and clients might be reduced the later the C-NIP is administered in treatment.

Fifth, we could not match the clients with their therapists since clients completed the C-NIP anonymously. Although we found a negligible effect of the particular clinic on C-NIP scores, because of our design, we could not rule out therapist effects on their clients' C-NIP scores. Finally, the participants in both the professional and client samples were predominantly female. Although gender showed no considerable effect on C-NIP scores, it would be ideal to study samples with a more balanced gender distribution in future research.

Clinical Implications

Our findings have several implications for clinical work in non-Western cultures. First, this study helps solidify confidence in using the C-NIP in the Chinese clinical context. Although more replication is needed, this study provided preliminary C-NIP cutoff scores for Chinese professionals to identify their clients' strong preferences and then initiate a dialogue with clients based on their salient preferences. Second, the systematic differences in C-NIP scales between Chinese psychotherapy clients and professionals point to the need to recognize such disparities. Practitioners should be cautious in projecting their own therapy preferences onto their clients. Third, integrating the assessment of clients' preferences into clinical training might help Chinese professionals to be mindful of these disparities. Fourth, professionals can recognize that client preferences might vary across sessions, whereas others might be relatively stable. Chinese lay clients wanted less therapist directiveness but more warm support with increased sessions, whereas their preferences for past–present orientation and emotional intensity remained relatively stable across sessions. Professionals can assess clients' preferences regularly to monitor possible changes. Assessing and discussing clients' preferences regularly will probably reduce the divergence between clients' and professionals' desires and provide tailored services throughout treatment.

Conclusion

The present study confirmed the C-NIP's factor structure, internal reliability, and measurement invariance in Chinese psychotherapy samples. Our findings validated and expanded the applicability of the C-NIP in a clinical population and a non-Western context, demonstrating its clinical utility and cross-cultural applicability. This study also provided, for the first time, an understanding of lay clients' and mental health professionals' preference profiles and

their discrepancies in the Chinese clinical context. Given the positive outcomes of preference accommodation, the C-NIP would benefit psychotherapists desiring to integrate client preferences into the treatment process, an essential feature of evidence-based practice.

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Received May 25, 2022
Revision received November 30, 2022
Accepted January 9, 2023 ■