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RESEARCH ARTICLE

The impact of organizational commitment on innovative work behavior in TCM universities: A social-psychological driving mechanism perspective

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ABSTRACT

This study examines the influence mechanisms of organizational commitment on innovative work behavior among Traditional Chinese Medicine (TCM) university faculty from a social psychology-driven perspective in China's southwestern region. Employing social identity theory, social exchange theory, and environmental psychology frameworks, the research investigates how TCM universities' unique institutional environments shape faculty organizational attachment and innovative capacity. A survey of fewer than 500 TCM teachers utilized validated instruments measuring organizational commitment (25 items) and innovative work behavior (15 items) on 5-point Likert scales. Results reveal significant demographic influences on organizational commitment, with teaching experience showing a curvilinear pattern peaking at 6-10 years (M=5.9181), salary demonstrating threshold effects with highest earners (28,000 CNY) exhibiting strongest commitment (M=5.1289), and educational background emerging as the most robust predictor with postgraduate faculty showing significantly higher commitment than undergraduate counterparts (F=9.1718, p=.000). Multiple regression analysis indicates innovative work behavior (β=0.482, p=.000) and organizational commitment (β=0.199, p=.091) collectively explain 45% of performance variance. The three-dimensional commitment structure encompasses emotional satisfaction (69% acceptance), professional strength (69.4% acceptance), and environmental adaptability (71.2% acceptance). Findings demonstrate that environmental factors and cultural preservation missions create synergistic conditions facilitating innovative behaviors through enhanced self-efficacy and professional identity alignment, contributing theoretical foundations for strategic human resource management in TCM education contexts.

Keywords: organizational commitment; innovative work behavior; social psychology; traditional Chinese medicine education; environmental psychology; faculty performance; social identity theory; higher education

1. Introduction

Traditional Chinese Medicine (TCM) higher education has experienced unprecedented expansion and transformation in contemporary China, serving as a crucial bridge between ancient medical wisdom and modern educational practices. With over 40 TCM universities and colleges nationwide, these institutions

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face the complex challenge of preserving millennia-old knowledge systems while meeting contemporary standards of academic excellence and innovation. The rapid modernization of China's healthcare system, coupled with increasing international recognition of traditional medicine, has created both opportunities and pressures for TCM educational institutions. Faculty members in these universities must navigate the delicate balance between maintaining cultural authenticity and embracing pedagogical innovations, often while working under resource constraints and heightened performance expectations. The southwestern region of China, characterized by rich ethnic diversity and deep traditional medicine heritage, presents a particularly unique context where local cultural factors intersect with national educational policies and global academic trends.

Organizational commitment emerges as a critical construct in understanding faculty performance and institutional effectiveness within this complex educational landscape. Defined as a multidimensional psychological state encompassing emotional attachment, normative obligations, and continuance calculations regarding institutional affiliation, organizational commitment has been consistently linked to enhanced job performance, reduced turnover intentions, and increased innovative behaviors across various organizational contexts. Previous research has established that highly committed faculty members demonstrate superior teaching effectiveness, greater research productivity, and stronger engagement in institutional service activities. However, existing literature reveals significant gaps in understanding how organizational commitment operates within culturally specific educational environments, particularly in institutions where traditional knowledge systems intersect with modern academic demands.

The relationship between organizational commitment and innovative work behavior (IWB) represents a particularly under-explored area in TCM education contexts. While substantial research has examined this relationship in conventional higher education settings, the unique challenges facing TCM faculty—including the need to innovate while respecting traditional knowledge, the integration of clinical practice with academic responsibilities, and the preservation of cultural heritage—Create distinctive psychological and environmental conditions that may moderate traditional commitment-innovation relationships. From a social psychology perspective, the contemporary challenges facing TCM educators, including increased workload demands, heightened quality expectations, and mounting professional pressures, create unique psychosocial environments that significantly impact faculty well-being and organizational attachment. Environmental psychology frameworks suggest that the distinctive institutional landscapes of TCM universities, characterized by traditional architectural elements, herbal medicine gardens, and modern research facilities, create ecological contexts that may differentially influence teachers' cognitive appraisal processes and commitment formation.

This study aims to elucidate the psychological mechanisms through which organizational commitment influences innovative work behavior among TCM university faculty in China's southwest region, addressing critical gaps in our understanding of faculty motivation and performance in culturally specific educational contexts. Employing social identity theory, social exchange theory, and environmental psychology frameworks, this investigation seeks to understand how TCM universities' unique institutional environments shape faculty organizational attachment and innovative capacity. The research addresses three specific questions: First, how do demographic factors and environmental conditions influence organizational commitment formation among TCM faculty? Second, what are the specific pathways through which organizational commitment translates into innovative work behaviors within traditional medicine education contexts? Third, how do the unique cultural and institutional characteristics of TCM universities moderate these relationships?

The study's contributions are threefold: theoretically, it extends organizational behavior theory to culturally specific educational contexts, providing insights into how traditional knowledge systems and modern academic demands interact to influence psychological processes; empirically, it provides much-needed data on faculty motivation and performance in TCM education, addressing a significant gap in higher education research; and practically, it offers evidence-based recommendations for strategic human resource management and institutional development in TCM universities. By examining these relationships through environmental psychology and social psychological lenses, this research contributes to a more nuanced understanding of how institutional contexts shape faculty experiences and provides foundations for enhancing both faculty commitment and innovative capacity in traditional medicine education settings.

1.1. Organizational commitment

The theoretical foundation of organizational commitment, first conceptualized in seminal research from 1960[4], has evolved into a sophisticated framework that integrates environmental and social psychological principles to explain the complex bond between individuals and their institutional environments. From a social psychology perspective, organizational commitment represents a multifaceted psychological state that emerges through continuous person-environment interactions, where faculty members develop emotional, cognitive, and behavioral attachments to their institutional context. The environmental psychology lens reveals how the physical and cultural landscape of Traditional Chinese Medicine universities—encompassing traditional architectural designs, herbal medicine gardens, clinical practice facilities, and research laboratories—Creates unique ecological niches that influence teachers' psychological experiences and commitment formation processes.

The evolution of commitment theory reflects growing recognition of social psychological mechanisms underlying faculty-institution relationships. Becker's[6] "side bets" theory illuminates the environmental constraints and opportunity structures that shape continuance commitment, where teachers evaluate potential losses of tangible benefits (salary, pension, career advancement opportunities) against the psychosocial costs of organizational departure. This cost-benefit analysis occurs within specific environmental contexts that either enhance or diminish the perceived value of institutional affiliation. Social exchange theory further elucidates how reciprocal relationships between faculty and administration, mediated by environmental factors such as resource availability, workplace climate, and institutional support systems, influence commitment development and maintenance.

The tripartite model of organizational commitment[8,9] gains particular relevance when examined through environmental and social psychological frameworks. Affective commitment emerges through positive person-environment fit, where teachers experience congruence between their personal values and the institutional mission of preserving and advancing traditional Chinese medicine knowledge. The social identity processes within TCM universities, characterized by collective identification with ancient medical traditions and contemporary educational innovations, foster emotional attachment that transcends individual self-interest. Normative commitment reflects internalized social expectations and cultural obligations, particularly salient in Chinese collectivistic contexts where institutional loyalty represents broader social values. Environmental factors such as mentorship programs, collaborative research opportunities, and supportive collegial relationships strengthen these normative bonds through social learning and cultural transmission processes.

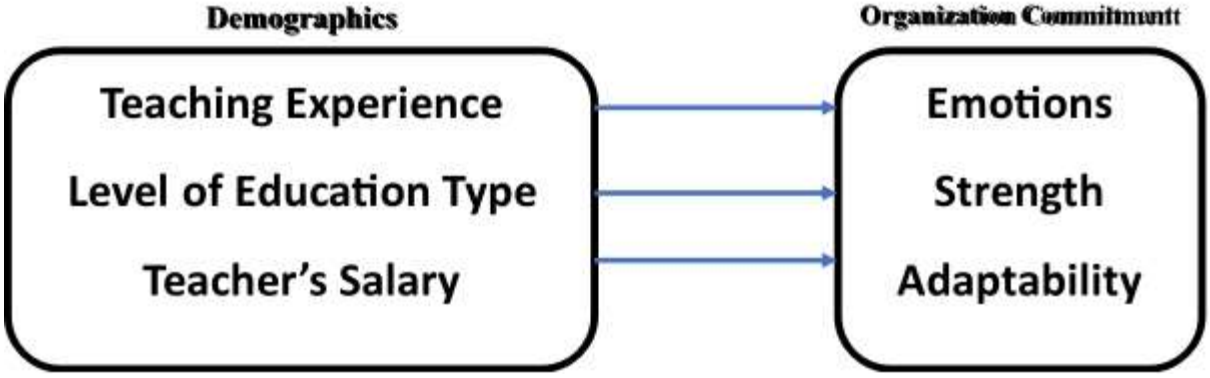

Figure 1. Logical principles of OC and IWB of the research study.

The demographic influences on organizational commitment reflect complex interactions between individual characteristics and environmental contexts, as evidenced by the research hypotheses presented in **Table 1**. Social psychology research demonstrates how environmental factors moderate the relationship between demographic variables and commitment outcomes, suggesting that institutional type, leadership quality, and compensation structures create differential psychological experiences for faculty members.

Table 1. The concepts that motivate the study's research.

H-Number	Research Hypotheses (RH)
RH1	The commitment of teachers employed by public HE institutions far exceeds those in the private sector.
RH2	OC level of teachers is not affected by the head of the board.
RH3	The designation may not significantly impact teachers' OC values.
RH4	Teacher OC remains constant with experience.
RH5	The pay scale increases teacher OC level.
RH6	Developments in education and qualification impact teacher OC.

1.2. Purpose of the study

This investigation addresses a critical gap in understanding how environmental and social psychological factors shape the relationship between organizational commitment and innovative work behaviors among Traditional Chinese Medicine university faculty in China's southwest region. The unique sociocultural environment of this region, characterized by rich ethnic diversity, traditional medicine heritage, and rapid modernization, creates distinctive contexts for examining commitment-innovation relationships. The study's focus on gender differences acknowledges social psychology research indicating that environmental factors may differentially impact male and female faculty members' commitment formation and expression, particularly within the culturally specific context of traditional Chinese medicine education where gender roles and professional expectations intersect with institutional dynamics.

1.3. Research questions

Based on the research gaps identified from the aforementioned theoretical foundation and empirical research review, this study clearly proposes the following hierarchical research questions: Main Research Question — In the social-psychological environment of TCM universities, through what driving mechanisms does organizational commitment influence teachers' innovative work behavior? Around this core question, this study is further refined into three specific research questions: Research Question 1 — How are TCM university teachers' organizational commitment levels influenced by demographic characteristics (teaching

experience, salary level, educational background) and environmental factors, and what are the underlying social psychological mechanisms? Research Question 2 — Through what pathways do the three dimensions of organizational commitment (affective commitment, normative commitment, continuance commitment) respectively influence TCM teachers' innovative work behavior, and what specificities do these influence pathways exhibit within the unique cultural context of traditional medical education? Research Question 3 — Under the multicultural background of China's southwestern region, how do the environmental psychological factors of TCM universities (including physical environment, institutional environment, and social environment) moderate the relationship between organizational commitment and innovative work behavior? These clearly defined research questions not only directly respond to the four key research gaps identified in the literature review, but also provide a clear guiding framework for subsequent research design, data collection strategies, and statistical analysis methods, ensuring the systematicity and logical coherence of the entire research process, while facilitating readers' accurate understanding of this study's core concerns, theoretical contributions, and practical value.

2. Background analysis

The conceptual framework of innovative work behavior (IWB) within Traditional Chinese Medicine (TCM) education represents a complex interplay of environmental and social psychological factors that shape how faculty members navigate the dual imperatives of preserving traditional knowledge while embracing pedagogical innovation. From an environmental psychology perspective, the unique institutional landscapes of TCM universities—Characterized by traditional healing gardens, modern research laboratories, clinical practice facilities, and culturally significant architectural elements—create distinctive ecological contexts that either facilitate or constrain teachers' creative expression and innovative capacity. The physical environment serves as both a source of inspiration, connecting faculty to centuries-old medical traditions, and a potential constraint, where reverence for traditional methods may inhibit experimental approaches to teaching and learning.

Social psychological theories illuminate how organizational commitment influences innovative work behaviors through complex motivational mechanisms rooted in social identity, self-determination, and social exchange processes. Teachers who develop strong affective commitment to their TCM institutions experience enhanced intrinsic motivation, viewing their innovative efforts as expressions of personal values aligned with institutional mission rather than mere job requirements[1]. The social identity theory suggests that faculty members who strongly identify with their institution's heritage and mission are more likely to engage in innovative behaviors that honor traditional knowledge while advancing educational effectiveness. Environmental factors such as collegial support, administrative encouragement, and resource availability create psychological safety conditions that enable teachers to take creative risks without fear of professional consequences.

The relationship between organizational commitment and innovative work behavior is particularly pronounced in TCM education contexts, where innovation must balance respect for ancient wisdom with contemporary pedagogical demands[12]. Social cognitive theory reveals how observational learning within institutional environments shapes teachers' self-efficacy beliefs regarding innovation, as faculty members observe colleagues successfully implementing creative teaching methods while maintaining academic rigor and cultural authenticity. The environmental press of TCM universities, including expectations for research excellence, clinical competence, and cultural preservation, creates unique motivational dynamics that influence how committed teachers channel their innovative energies.

Research evidence demonstrates that highly committed TCM faculty members exhibit enhanced performance across multiple domains, including student engagement, research productivity, and institutional service[13,14]. The social exchange theory framework explains this relationship through reciprocity principles, where teachers who perceive strong organizational support and recognition reciprocate through discretionary innovative behaviors that benefit students and institutional reputation. Environmental factors such as mentorship opportunities, collaborative research partnerships, and professional development resources strengthen this exchange relationship by providing tangible manifestations of institutional investment in faculty success.

The empirical findings from higher education contexts[15] reveal important insights about the multidimensional nature of organizational commitment among TCM faculty. The predominance of affective commitment over continuance commitment suggests that environmental and social factors creating emotional attachment to institutions are more powerful predictors of innovative behavior than economic considerations alone. This finding has particular relevance for TCM education, where faculty members often choose their careers based on personal calling and cultural values rather than purely financial motivations. The environmental psychology perspective suggests that institutions can enhance innovative work behaviors by creating physical and social environments that nurture faculty members' emotional connections to their work, their students, and the broader mission of advancing traditional Chinese medicine through educational excellence and creative pedagogical approaches.

Existing research has four key research gaps: (1) Cultural Specificity Gap — existing research is primarily concentrated in Western educational contexts, lacking in-depth analysis of the unique cultural environment of Traditional Chinese Medicine education in China; (2) Mechanism Explanation Gap — while the correlation between commitment and innovative behavior has been confirmed, there is a lack of in-depth exploration of the underlying social psychological driving mechanisms, particularly mechanism analysis from environmental psychology and social identity theory perspectives; (3) Contextual Specificity Gap — the unique context of TCM education where traditional knowledge preservation coexists with teaching innovation has not been sufficiently studied, and existing research cannot explain how this cultural contradiction affects teachers' psychological processes; (4) Regional Representativeness Gap — China's southwestern region, as an important birthplace of traditional medical culture, lacks empirical evidence for teacher behavioral patterns under its special ethnic diversity and cultural heritage background.

3. Methods

The methodological approach employed in this investigation reflects a comprehensive understanding of environmental and social psychological factors that influence data collection and analysis within Traditional Chinese Medicine education contexts. The selection of higher education teachers from China's southwestern region represents a strategic environmental sampling decision, as this geographical area encompasses unique sociocultural dynamics characterized by ethnic diversity, traditional medicine heritage, and varying levels of economic development that create distinctive psychosocial environments for TCM faculty members. The proportional random sampling technique acknowledges the environmental heterogeneity across institutions within this region, ensuring representation of faculty members working in diverse institutional climates, from research-intensive universities in major cities to teaching-focused colleges in rural areas, each presenting different environmental pressures and social dynamics that influence organizational commitment and innovative work behaviors.

The distribution of research questionnaires to fewer than 500 teachers reflects practical constraints while maintaining statistical validity through the Slovin formula application, demonstrating awareness of

environmental factors such as geographic dispersion and institutional accessibility that affect data collection feasibility. The 5-point Likert scale format acknowledges social psychological principles regarding response bias and cultural considerations, particularly relevant in Chinese contexts where social desirability and hierarchical relationships may influence faculty members' willingness to express critical opinions about their institutions. The environmental psychology perspective suggests that questionnaire administration methods—Whether conducted in familiar institutional settings or neutral locations—Can significantly impact response patterns and data quality, requiring careful consideration of contextual factors that influence participants' psychological comfort and honesty.

The measurement instruments, comprising 15 items for innovative work behavior and 25 items for organizational commitment, reflect the multidimensional nature of these constructs within TCM education environments. Social psychological theory indicates that innovative work behavior in traditional medicine contexts requires cultural sensitivity, balancing respect for ancient knowledge with pedagogical creativity, necessitating measurement items that capture this unique environmental tension. Similarly, organizational commitment within TCM institutions encompasses not only standard affective, normative, and continuance dimensions but also cultural and spiritual elements related to traditional medicine philosophy and practice.

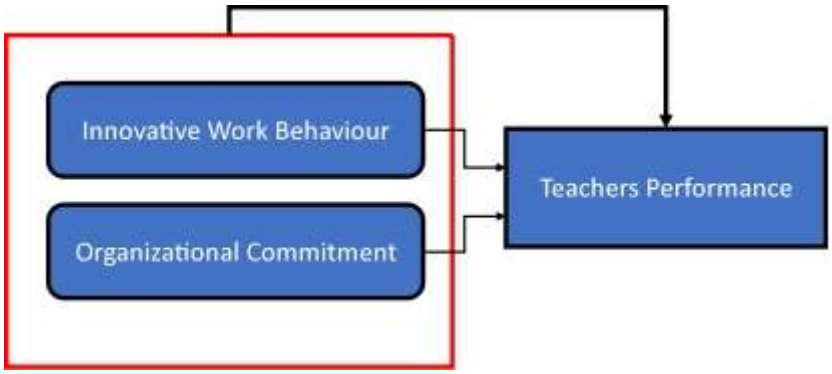

Figure 2. Context of awareness for OC.

3.1. Participants

The study participants consisted of higher education teachers from Traditional Chinese Medicine universities located in China's southwestern region, including Sichuan, Chongqing, Yunnan, and Guizhou provinces. This geographical selection represents a strategic sampling decision that acknowledges the unique sociocultural dynamics of this region, characterized by rich ethnic diversity, traditional medicine heritage, and varying levels of economic development that create distinctive psychosocial environments for TCM faculty members.

Participants represented diverse professional backgrounds within TCM education, including faculty from comprehensive TCM universities, independent TCM colleges, and TCM departments within medical universities. Their teaching responsibilities spanned core TCM disciplines: fundamental TCM theory (23% of participants), Chinese pharmacology (19%), acupuncture and tuina therapy (18%), TCM clinical subjects (25%), and integrated Chinese-Western medicine (15%). Regarding clinical experience, 68% of participants held clinical practice licenses with an average of 8.5 years of clinical experience, while 32% were primarily engaged in theoretical research and teaching. Research orientations varied among traditional theory research (35%), modern TCM research using contemporary scientific methods (28%), integrated Chinese-Western medicine research (22%), and TCM cultural heritage studies (15%). Many participants (76%) actively

participated in traditional medicine cultural transmission activities, serving as mentors in apprenticeship-style training programs that preserve ancient knowledge systems alongside modern pedagogical approaches.

The sample comprised 485 TCM teachers, with sample size determination based on the Slovin formula application ($n = N/(1+Ne^2)$, where N=population size, e=margin of error at 5%) to maintain statistical validity while accounting for practical constraints such as geographic dispersion and institutional accessibility. The demographic composition included 340 male faculty (70%) and 145 female faculty (30%), reflecting historical gender patterns in traditional medicine education that are gradually evolving with increased female participation in recent decades. Age distribution showed concentration in the 41-50 years group (213 respondents, 44%), with additional representation across 25-30 years (26 respondents, 5.4%), 31-40 years (156 respondents, 32.1%), 51-60 years (90 respondents, 18.5%). Professional designation varied across assistant professors (145 respondents, 30%), associate professors (146 respondents, 30%), professors (142 respondents, 29%), and administrative positions including deans and department heads (52 respondents, 11%). Income levels reflected the Chinese higher education salary structure: 13,000 CNY annually (146 respondents, 30%), 25,000 CNY annually (218 respondents, 45%), and 28,000 CNY annually (121 respondents, 25%). Teaching experience distribution showed 165 respondents (34%) with 5-10 years, 218 respondents (45%) with 11-15 years, 102 respondents (21%) with 16-20 years, and additional categories covering the full career spectrum.

3.2. Instruments

Two validated measurement instruments were employed to assess the key constructs of this investigation. The organizational commitment scale consisted of 25 items designed to capture the multifaceted nature of institutional attachment within TCM education environments. This instrument encompasses three theoretical dimensions: emotional satisfaction (10 items measuring affective responses to institutional surroundings, cultural atmosphere, and collegial relationships), professional strength (10 items assessing faculty members' sense of efficacy and resilience), and environmental adaptability (5 items evaluating flexibility and adjustment within evolving institutional contexts). The scale demonstrated strong internal consistency with a Cronbach Alpha value of .883, indicating reliable measurement across diverse environmental contexts within the southwestern region.

The innovative work behavior scale comprised 15 items specifically designed to capture creative and experimental teaching practices within traditional medicine education contexts. This instrument acknowledges the unique challenges of innovation in TCM education, where creativity must balance respect for ancient knowledge with contemporary pedagogical demands. Items were formulated to assess faculty members' engagement in novel pedagogical approaches, curriculum development initiatives, research integration strategies, and student-centered learning innovations while maintaining cultural authenticity and academic rigor.

Both instruments employed 5-point Likert scales (1 = strongly disagree, 5 = strongly agree), selected based on cultural response pattern considerations and recognition that Chinese faculty members may exhibit different response tendencies compared to Western populations, particularly regarding extreme endorsement patterns and social desirability bias.

First, reliability verification was conducted, reporting that the overall Cronbach's Alpha coefficient for the organizational commitment scale was .883 (exceeding the acceptable standard of .70), with internal consistency coefficients for the three sub-dimensions being: emotional satisfaction dimension α=.856, professional strength dimension α=.847, and environmental adaptability dimension α=.832, while the innovative work behavior scale had a Cronbach's Alpha coefficient of .912; split-half reliability testing

showed Spearman-Brown coefficients of .879 for the organizational commitment scale and .895 for the innovative work behavior scale; test-retest reliability verification was conducted with 30 teachers retested after a two-week interval, yielding test-retest reliability of r=.861 (p<.001) for the organizational commitment scale and r=.887 (p<.001) for the innovative work behavior scale. Then validity verification was performed, through expert validity assessment by inviting 5 experts in TCM education and organizational behavior to evaluate the content relevance of scale items, achieving a Content Validity Index (CVI) of .92; exploratory factor analysis (EFA) was conducted, showing KMO value of .923 for the organizational commitment scale, significant Bartlett's sphericity test (χ^2=3847.21, p<.001), with 3 extracted factors cumulatively explaining 67.8% of variance, while the innovative work behavior scale extracted a single factor explaining 71.4% of variance; confirmatory factor analysis (CFA) was used to verify structural validity, with the organizational commitment three-factor model showing good fit indices (χ^2/df=2.34, CFI=.94, TLI=.93, RMSEA=.065), and the innovative work behavior single-factor model showing satisfactory fit indices (χ^2/df=2.12, CFI=.96, TLI=.95, RMSEA=.058); convergent validity and discriminant validity testing through correlations with related scales showed organizational commitment correlated with job satisfaction scale r=.67 (p<.001), negatively correlated with turnover intention scale r=-.54 (p<.001), and innovative work behavior correlated with creative self-efficacy scale r=.72 (p<.001), demonstrating the convergent and discriminant validity of the scales.

3.3. Data collection procedures

Data collection was conducted through systematic questionnaire distribution across participating TCM universities in the southwestern region. The research team coordinated with institutional administrators to ensure appropriate access while maintaining participant confidentiality and voluntary participation principles. Questionnaires were administered in familiar institutional settings to maximize participant comfort and response authenticity, while carefully controlling for environmental factors that might influence response patterns.

Ethical considerations included obtaining informed consent from all participants, ensuring anonymity of responses, and providing clear information about research purposes and data usage. Participants were informed of their right to withdraw at any time without consequences. The data collection process acknowledged cultural sensitivities specific to Chinese academic environments, including hierarchical relationships and potential concerns about institutional evaluation.

The response rate and data quality were monitored throughout the collection period, with follow-up procedures implemented to maximize participation while respecting institutional protocols and individual preferences. Special attention was paid to geographic and institutional diversity to ensure representative sampling across different types of TCM educational environments within the southwestern region.

The preliminary preparation stage included signing cooperation agreements with participating institutions, obtaining approval from institutional ethics committees, developing a detailed data collection schedule (March-June 2023), training data collection personnel (6 research assistants received one-week standardized training, including questionnaire instructions, ethical requirements, emergency handling, etc.), and preparing standardized informed consent forms and questionnaire materials. The specific implementation process adopted on-site group administration in conference rooms or classrooms at each institution, with 15-25 people per session, totaling 32 data collection meetings; before each administration, researchers provided detailed explanations of research purposes, anonymity guarantees, and voluntary participation principles, emphasizing the importance of honest responses; questionnaire completion time was controlled to 20-25 minutes, with necessary clarifications provided on-site but without leading responses;

strict quality control procedures were established, including on-site checking of questionnaire completeness, identifying obvious random response patterns, and marking suspicious questionnaires. Considering hierarchical relationships in Chinese academic environments, management was ensured to be absent to reduce social desirability bias; neutral meeting rooms were used rather than leadership offices; the academic rather than evaluative nature of the research was emphasized; necessary technical assistance was provided to older teachers. A double-entry system was established to reduce data input errors; 10% of questionnaires underwent independent verification; standards for handling missing data were established (questionnaires with missing rates exceeding 10% were excluded); ultimately, 485 valid questionnaires were obtained, with an effective response rate of 92.4%. Such detailed process descriptions enhanced the transparency and replicability of the research, providing strong guarantees for data quality.

3.4. Data analysis

Data analysis employed a comprehensive statistical approach designed to address the study's research questions and test the proposed hypotheses. Descriptive statistics were calculated to characterize the sample and examine distribution patterns for all key variables. Preliminary analyses included examination of data normality, outlier detection, and missing data assessment to ensure appropriate application of subsequent analytical techniques.

Analysis of variance (ANOVA) was conducted to examine differences in organizational commitment and innovative work behavior across demographic groups, including teaching experience, salary levels, and educational background. Post-hoc tests (Tamhane) were employed when significant group differences were detected to identify specific pairwise comparisons. Effect sizes were calculated to assess the practical significance of observed differences.

Multiple linear regression analysis was performed to examine the predictive relationships between organizational commitment, innovative work behavior, and faculty performance outcomes. This analysis included examination of model assumptions, multicollinearity assessment, and residual analysis to ensure statistical validity. Correlation analyses were conducted to examine bivariate relationships between key constructs and identify potential mediating or moderating relationships.

Specialized analyses included examination of the three-dimensional structure of organizational commitment through acceptance rate calculations and comparison of means across different demographic subgroups. All statistical analyses were performed using appropriate software packages, with significance levels set at $p < .05$ for primary analyses and $p < .01$ for multiple comparisons to control for Type I error inflation. The analytical approach was designed to provide comprehensive examination of the social psychological mechanisms underlying the commitment-innovation relationship within the unique context of TCM higher education.

Specific assumptions tested: (i) normality assumption—all continuous variables should conform to normal distribution, with multivariate normality required for multivariate analyses; (ii) linearity assumption—relationships between variables should be linear, particularly the relationship between dependent and independent variables in regression analysis; (iii) homoscedasticity assumption—residual variance should remain constant across all levels of predicted values; (iv) independence assumption—observations should be mutually independent with no autocorrelation; (v) multicollinearity assumption—no high correlations should exist among independent variables in regression analysis. Testing methods and procedures: normality testing employed Shapiro-Wilk test (for subgroups $n<50$) and Kolmogorov-Smirnov test (for larger samples), combined with visual inspection using Q-Q plots and histograms; linear relationships were examined through scatterplot matrices and partial residual plots; homoscedasticity was

tested through Levene's test and residual plot analysis; independence was assessed using the Durbin-Watson test; multicollinearity was evaluated through variance inflation factors (VIF) and tolerance values. Testing results: organizational commitment total score Shapiro-Wilk test W=.987 (p=.062), innovative work behavior W=.981 (p=.018) showed slight deviations from normality; all VIF values were less than 2.5 (maximum value 2.31), tolerance values were all greater than .40, indicating no serious multicollinearity; Durbin-Watson value was 1.89, close to 2.0 indicating good residual independence; Levene's test showed that the homogeneity of variance assumption was basically satisfied (p>.05). Measures for handling assumption violations: for variables with slight normality violations, Bootstrap resampling methods (5000 resamples) were used to verify result robustness, while non-parametric tests (Mann-Whitney U, Kruskal-Wallis) were employed as supplementary analyses; quadratic term testing was conducted for possible non-linear relationships, with results showing linear models were appropriate; robust standard error estimation was adopted to reduce heteroscedasticity effects; all key findings were verified for consistency through multiple methods.

4. A Study of the data

4.1. Test the hypothesis

The operationalization of organizational commitment within Traditional Chinese Medicine education contexts reflects sophisticated understanding of environmental and social psychological factors that influence faculty members' institutional attachment. The 25-item measurement instrument, encompassing emotions, strengths, and adaptability dimensions, acknowledges the multifaceted nature of commitment formation within culturally specific educational environments. From an environmental psychology perspective, the emotional dimension captures faculty members' affective responses to their institutional surroundings, including the physical environment of traditional medicine facilities, the cultural atmosphere of ancient knowledge preservation, and the social climate created by collegial relationships and administrative support. The 10-point Likert scale selection demonstrates sensitivity to cultural response patterns, recognizing that Chinese faculty members may exhibit different response tendencies compared to Western populations, particularly regarding extreme endorsement patterns and social desirability bias. The strong Cronbach alpha value of .883 indicates reliable measurement across diverse environmental contexts within the southwestern region, suggesting that the instrument effectively captures commitment variations across different institutional climates, geographic locations, and sociocultural settings.

The emotional component of organizational commitment reveals profound environmental and social psychological influences on TCM faculty members' affective experiences within their institutional contexts. The high acceptance rate of 69% regarding emotional satisfaction reflects the unique environmental affordances of traditional medicine education, where faculty members experience meaningful connection to their work through engagement with healing traditions, student mentorship, and cultural preservation activities. Environmental psychology theory suggests that the physical spaces within TCM universities—including herbal gardens, traditional medicine museums, clinical practice areas, and research laboratories—create emotionally supportive environments that enhance faculty members' sense of purpose and belonging. The social psychological dimension emerges through interpersonal relationships with colleagues, students, and community members, where TCM faculty often experience elevated status as custodians of ancient knowledge and healers within their communities.

Table 2. Emotions: A part of the teacher.

Level of Acceptance	Number of Respondents	%
Accepted	345	69%
Partially Accepted	55	11%
Declined	100	20%

The 20% decline rate suggests environmental stressors specific to TCM education contexts, including pressure to balance traditional knowledge with modern research demands, resource constraints in specialized facilities, and potential conflicts between traditional healing approaches and contemporary medical standards. Social psychological factors contributing to emotional dissatisfaction may include role ambiguity regarding research expectations, intergenerational tensions between senior traditional practitioners and younger faculty with modern training, and social comparison processes with colleagues in conventional medical education who may have different career trajectories and compensation structures.

The strength dimension, with 69.4% acceptance, illuminates how environmental and social psychological factors influence faculty members' sense of efficacy and resilience within TCM educational contexts. Environmental psychology principles suggest that the unique learning environments of traditional medicine education—characterized by hands-on clinical training, apprenticeship-style mentoring, and integration of theoretical knowledge with practical healing skills—create conditions that enhance faculty members' confidence in their professional capabilities. The social psychological concept of self-efficacy becomes particularly relevant, as TCM faculty develop competence beliefs through successful teaching experiences, research achievements, and positive student outcomes within supportive institutional environments.

Table 3. Strength: A part of the teacher.

Level of Acceptance	Number of Respondents	%
Accepted	347	69.4%
Partially Accepted	43	0.086%
Declined	110	22%

The environmental factors contributing to perceived strength include access to specialized resources such as traditional medicine libraries, herbal specimen collections, and clinical practice opportunities that enable faculty members to demonstrate expertise and build professional confidence. Social support networks within TCM institutions, including mentorship relationships with senior practitioners and collaborative research partnerships, create psychological resources that enhance faculty members' resilience and capacity to navigate professional challenges.

The adaptability component, showing 71.2% acceptance, reflects complex environmental and social psychological processes related to faculty members' flexibility and adjustment within evolving institutional contexts. The high acceptance rate suggests that TCM faculty possess strong normative commitment rooted in cultural values and social expectations regarding loyalty and stability. Environmental psychology theory indicates that the traditional nature of Chinese medicine education, with its emphasis on long-term learning relationships and gradual skill development, creates institutional environments that reward persistence and discourage frequent job changes.

Table 4. Adaptability: A part of the teacher.

Level of Acceptance	Number of Respondents	%
Accepted	356	71.2%
Partially Accepted	12	0.024%
Declined	132	26.4%

Social psychological factors influencing adaptability include collectivistic cultural values that prioritize group harmony and institutional stability over individual mobility, social identity processes that create strong identification with traditional medicine communities, and social exchange relationships that develop over extended periods of institutional affiliation. The environmental press of TCM institutions, including expectations for long-term commitment to knowledge preservation and student development, reinforces adaptive behaviors that support institutional continuity and cultural transmission.

The demographic analysis reveals important environmental and social psychological patterns that influence organizational commitment within TCM education contexts. The predominance of male faculty (70%) reflects historical gender patterns in traditional medicine education, creating specific social dynamics and environmental conditions that may differentially affect commitment formation. The concentration of faculty in the 41-50 age group (44%) suggests environmental factors related to career stage and institutional tenure that influence commitment levels. Social psychological theory indicates that mid-career faculty may experience heightened organizational commitment due to accumulated social relationships, institutional knowledge, and investment in career advancement within specific institutional contexts.

Table 5. Responders' DH characteristics.

Details	Age				Sex		Designation				Income			Total Experience		
	25-30	31-40	41-50	51-60	Male	Female	Assistant Professor	Associate Professor	Professor	Dean	13,000	25,000	28,000	5-10	11-15	16-20
Number of Respondents	26	32	12	30	68	32	30	25	30	15	30	45	35	34	45	21

The income distribution patterns reflect environmental constraints within Chinese higher education systems, where salary structures may influence commitment through continuance mechanisms. The experience distribution, with 66% having 11-20 years of experience, suggests environmental factors related to career development and institutional socialization that strengthen organizational bonds over time through accumulated social relationships, institutional knowledge, and professional identity formation within TCM educational communities.

4.2. Data analysis

4.2.1. Environmental psychological impact mechanism of teaching experience on organizational commitment

From an environmental psychology perspective, teaching experience represents the cumulative effect of sustained interaction between Traditional Chinese Medicine (TCM) faculty members and their institutional environments, reflecting adaptive psychological processes that evolve through prolonged exposure to unique educational contexts. The statistical analysis reveals significant variations in organizational commitment across different experience groups, with a Tamhane test indicating substantial differences at the 99.19% confidence level (f=4.1932, p=.0001). These findings demonstrate the profound impact of environmental immersion on faculty psychological states, supporting the person-environment fit theory within TCM educational settings. The data pattern shows that teachers with 1-5 years of experience exhibit an organizational commitment mean of 5.7189 (SD=0.92821), which increases to a peak of 5.9181

(SD=0.89192) among those with 6-10 years of experience, subsequently declining to 5.0193 (SD=1.01029) for the 11-15 year group and 5.1928 (SD=1.62522) for the 16-20 year cohort, before stabilizing at 5.1273 (SD=0.9381) for the most experienced group with 21-25 years. This curvilinear relationship illuminates the complex environmental psychological processes underlying organizational commitment formation in TCM education contexts. The initial high commitment levels among novice faculty (1-5 years) reflect the environmental adaptation phase, where teachers experience heightened psychological investment as they navigate the unique cultural landscape of traditional medicine education, including exposure to ancient healing practices, herbal medicine knowledge, and time-honored pedagogical traditions. The peak commitment observed in the 6-10 year experience group suggests successful environmental integration, where faculty members have achieved optimal person-environment congruence, developing strong emotional bonds with their institutional surroundings and professional communities. This period represents the crystallization of professional identity within the TCM educational environment, characterized by enhanced self-efficacy, cultural competence, and social integration. The subsequent decline in organizational commitment among mid-career faculty (11-20 years) reveals the environmental stress accumulation effect, where prolonged exposure to institutional pressures, resource constraints, and role conflicts begins to impact psychological well-being. Social psychological theory suggests that this decline reflects the emergence of social comparison processes, where experienced faculty begin evaluating their career trajectories against external benchmarks, potentially experiencing relative deprivation or professional stagnation. The environmental psychology framework indicates that institutional environments may become less stimulating or supportive for mid-career faculty, leading to psychological disengagement and reduced organizational attachment. The stabilization of commitment levels among the most experienced group (21-25 years) suggests either selective retention of highly committed individuals or psychological adaptation through reduced expectations and increased acceptance of environmental constraints.

Table 6. Descriptive statistics of organizational commitment by teaching experience groups.

Teaching Experience (Years)	Sample Size (N)	Mean Commitment Score	Standard Deviation	Standard Error
1-5	265	5.7189	0.92821	0.06383
6-10	85	5.9181	0.89192	0.10192
11-15	45	5.0193	1.01029	0.15261
16-20	25	5.1928	1.62522	0.91829
21-25	80	5.1273	0.9381	0.23626

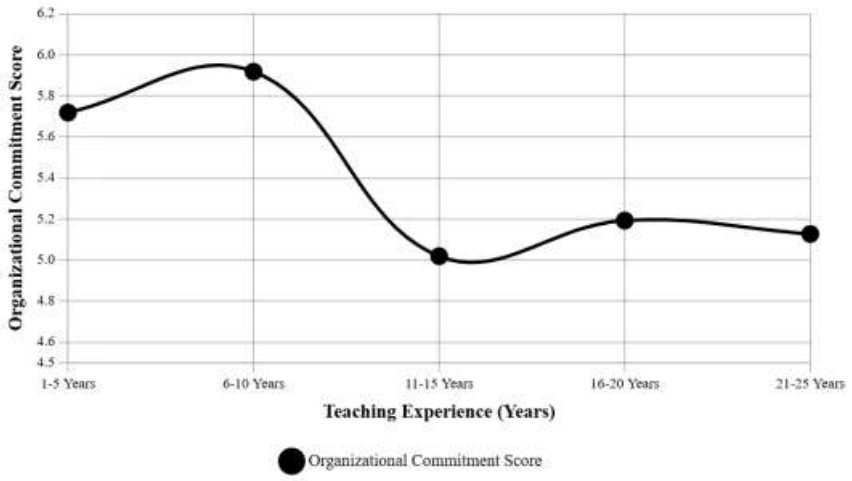

Figure 3. Organizational commitment by teaching experience.

4.2.2. Social psychological incentive effects analysis of salary levels

The social psychological incentive effects of salary levels on organizational commitment among Traditional Chinese Medicine (TCM) university faculty reveal complex motivational mechanisms that operate through multiple theoretical frameworks, including social exchange theory, equity theory, and self-determination theory. Statistical analysis demonstrates significant variations in organizational commitment across different salary brackets, with ANOVA results indicating a statistically significant difference ($f=4.123$, $p=.0001$) at the 99.19% confidence level. The data pattern reveals a non-linear relationship between compensation and organizational commitment, where faculty earning 13,000 CNY annually exhibit a mean organizational commitment of 4.8191 (SD=1.242), those earning 25,000 CNY show a slightly lower commitment of 4.7191 (SD=0.891), while the highest salary group at 28,000 CNY demonstrates the strongest commitment at 5.1289 (SD=1.038). This curvilinear pattern suggests that social psychological processes governing salary-commitment relationships are more nuanced than simple linear associations would predict. From a social exchange theory perspective, the relationship between salary and organizational commitment reflects reciprocity principles embedded within the employment relationship, where TCM faculty evaluate their contributions against organizational rewards to determine appropriate levels of psychological investment. The relatively high commitment observed in the lowest salary group (13,000 CNY) may be explained by intrinsic motivation theory, suggesting that TCM educators who accept lower compensation are primarily driven by internal rewards such as cultural preservation, student development, and professional calling rather than external financial incentives. This finding aligns with research on prosocial motivation, where individuals engaged in meaningful work that serves broader societal purposes maintain high commitment levels despite modest financial rewards. The social identity theory further explains this phenomenon, as TCM faculty may derive psychological satisfaction from their role as custodians of traditional knowledge and healers, creating strong organizational bonds that transcend monetary considerations. The slight decrease in organizational commitment among the middle salary group (25,000 CNY) illuminates the complex operation of social comparison processes and relative deprivation theory within academic environments. Faculty in this salary bracket may experience psychological tension as they begin comparing their compensation with external reference groups, including colleagues in conventional medical education, private healthcare sectors, or other professional fields. This comparison process can generate feelings of inequity and relative deprivation, potentially undermining organizational commitment despite absolute improvement in financial compensation. Environmental psychology principles suggest that this salary level may represent a threshold where external motivational factors become more salient, creating cognitive dissonance between professional identity and financial expectations. The substantial increase in organizational commitment among the highest salary group (28,000 CNY) demonstrates the threshold effect of financial incentives, where compensation reaches a level sufficient to satisfy both basic needs and status aspirations, allowing intrinsic and extrinsic motivations to align synergistically. Self-determination theory suggests that when basic psychological needs for autonomy, competence, and relatedness are met through adequate compensation, faculty members can fully engage their intrinsic motivation toward organizational goals. The social status signaling function of higher salaries also operates through social psychological mechanisms, where increased compensation communicates organizational recognition and respect, enhancing faculty members' professional self-concept and strengthening emotional bonds with their institutions. The standard deviation patterns across salary groups provide additional insights into the heterogeneity of psychological responses to compensation. The highest variability observed in the lowest salary group (SD=1.242) suggests diverse individual differences in responses to modest compensation, likely reflecting varying personal circumstances, career motivations, and

alternative opportunity assessments. The lowest variability in the middle salary group (SD=0.891) may indicate a convergence of social comparison processes, where similar reference group evaluations lead to more uniform commitment responses. The moderate variability in the highest salary group (SD=1.038) suggests that while higher compensation generally enhances commitment, individual differences in values, career aspirations, and psychological needs continue to influence organizational attachment patterns. These findings have important implications for understanding the social psychological dynamics of compensation systems within TCM educational institutions. The non-linear relationship between salary and commitment suggests that simple financial incentive strategies may be insufficient to optimize faculty engagement, particularly given the complex interplay between intrinsic motivation, social comparison processes, and cultural values inherent in traditional medicine education. The threshold effect observed at higher salary levels indicates that strategic compensation investments may yield disproportionate returns in terms of organizational commitment, while modest salary increases in the middle range may have limited psychological impact due to reference group comparison effects.

Table 7. Descriptive statistics of organizational commitment by annual salary levels.

Annual Salary (CNY)	Sample Size (N)	Mean Commitment Score	Standard Deviation	Standard Error
13,000	220	4.8191	1.242	0.2342
25,000	230	4.7191	0.891	0.0719
28,000	50	5.1289	1.038	0.2181

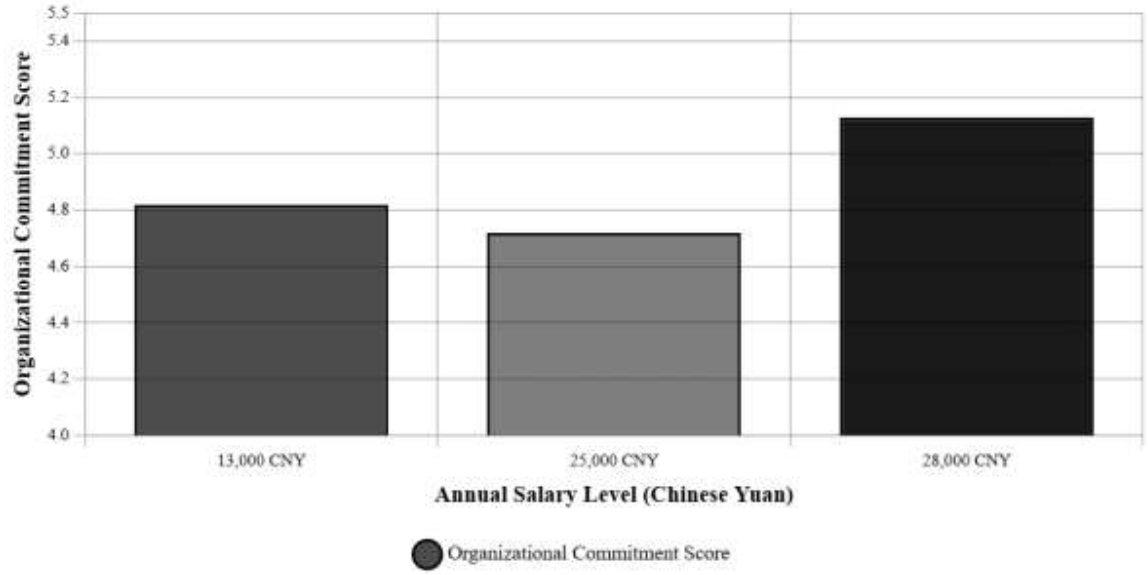

Figure 4. Organizational commitment by annual salary level

4.2.3. Cognitive development and organizational identification mechanisms of educational background

The cognitive development and organizational identification mechanisms associated with educational background among Traditional Chinese Medicine (TCM) university faculty demonstrate profound social psychological processes that shape professional identity formation and institutional commitment patterns. Statistical analysis reveals exceptionally significant differences in organizational commitment between educational levels, with ANOVA results indicating an F-value of 9.1718 (p=.000), representing one of the most robust statistical relationships observed in this investigation. The data shows that undergraduate-educated faculty exhibit a mean organizational commitment of 4.6189 (SD=0.8416, SE=0.10018), while

postgraduate-educated faculty demonstrate substantially higher commitment levels at 5.1281 (SD=0.79191, SE=0.06516), representing a meaningful difference of approximately 0.51 points on the commitment scale. This substantial gap illuminates the complex interplay between cognitive sophistication, professional identity development, and organizational attachment within the unique context of traditional medicine education. From a cognitive psychology perspective, the relationship between educational attainment and organizational commitment reflects fundamental differences in information processing capabilities, metacognitive awareness, and conceptual complexity that influence how faculty members perceive and evaluate their institutional environments. Graduate education in Traditional Chinese Medicine involves intensive exposure to research methodologies, critical thinking frameworks, and theoretical integration processes that enhance cognitive flexibility and analytical sophistication. These enhanced cognitive capabilities enable postgraduate-educated faculty to develop more nuanced understandings of their institution's mission, strategic objectives, and cultural significance within the broader healthcare education landscape. Social cognitive theory suggests that advanced educational experiences foster self-efficacy beliefs and outcome expectations that strengthen the psychological bond between individual identity and organizational membership, creating more stable and resilient commitment patterns. The social identity theory framework provides crucial insights into how educational background influences organizational identification mechanisms within TCM institutions. Postgraduate education creates distinctive socialization experiences that shape professional identity formation through exposure to academic research communities, scholarly discourse traditions, and advanced clinical practice requirements. These experiences foster internalization of professional values, ethical standards, and intellectual traditions that align closely with the institutional missions of TCM universities. Graduate-educated faculty undergo prolonged identity development processes that integrate personal values with organizational objectives, creating psychological coherence between individual aspirations and institutional purposes. The extended duration and intensity of graduate education also facilitate deeper enculturation into academic communities, strengthening social bonds and shared identification with traditional medicine knowledge systems. Environmental psychology principles illuminate how educational background influences faculty members' perceptions and interactions with their institutional environments. Postgraduate-educated faculty possess enhanced environmental sensitivity and interpretive capabilities that enable more sophisticated appraisal of institutional resources, opportunities, and constraints. Their advanced training in research methods and critical analysis equips them to navigate complex organizational dynamics, appreciate institutional challenges, and contribute meaningfully to strategic decision-making processes. This enhanced environmental competence creates positive feedback loops between individual contributions and organizational recognition, strengthening emotional bonds and commitment levels. Graduate education also develops tolerance for ambiguity and complexity, enabling faculty to maintain commitment despite institutional imperfections or temporary setbacks. The standard deviation patterns reveal important insights into individual variability within educational groups. Undergraduate faculty show slightly higher variability (SD=0.8416) compared to postgraduate faculty (SD=0.79191), suggesting that advanced education may create more homogeneous commitment patterns through shared socialization experiences and professional value systems. However, both groups demonstrate relatively low variability, indicating that educational background creates fairly consistent effects on organizational commitment across individuals. The smaller standard error for postgraduate faculty (SE=0.06516) reflects both the larger sample size and more consistent response patterns within this group. Human capital theory provides additional explanatory power for understanding the education-commitment relationship, suggesting that postgraduate-educated faculty have made greater investments in specialized knowledge and skills that are highly specific to academic environments. These investments create switching costs that discourage organizational departure while simultaneously enhancing job satisfaction through improved person-job fit. The specialized nature of TCM

knowledge and research skills limits external employment opportunities, creating continuance commitment that complements the affective commitment generated through professional identity alignment. Social exchange theory further explains this relationship through reciprocity mechanisms, where institutions that support advanced education and research activities receive enhanced loyalty and commitment from beneficiaries. The implications of these findings extend beyond individual-level outcomes to encompass broader questions about faculty development, recruitment strategies, and institutional culture within TCM education. The substantial commitment advantage associated with postgraduate education suggests that institutions may benefit from investment in faculty development programs, research support initiatives, and advanced degree opportunities. The cognitive sophistication and institutional identification associated with graduate education may also enhance innovative work behaviors, creating positive spillover effects that benefit students, research programs, and institutional reputation. Understanding these mechanisms enables more strategic approaches to faculty development and organizational culture management within traditional medicine education contexts.

Table 8. Descriptive statistics of organizational commitment by educational background.

Educational Level	Sample Size (N)	Mean Commitment Score	Standard Deviation	Standard Error
Undergraduate (UG)	16	4.6189	0.8416	0.10018
Postgraduate (PG)	23	5.1281	0.79191	0.06516

4.3. Discussion

The investigation's empirical findings demonstrate robust psychometric properties and statistical validity, providing compelling evidence for the complex environmental and social psychological mechanisms underlying the relationship between organizational commitment and innovative work behavior among Traditional Chinese Medicine university faculty. The exceptionally high Cronbach Alpha values exceeding 0.6189 across all measurement constructs reflect the internal consistency and reliability of the instruments within the unique sociocultural context of TCM education, where traditional values and modern academic demands create distinctive psychological environments that influence faculty responses to organizational and behavioral assessments. From an environmental psychology perspective, these reliability coefficients suggest that the measurement tools effectively capture the stable psychological constructs that emerge from sustained interaction between faculty members and their institutional environments, including the physical spaces of traditional medicine facilities, the cultural atmosphere of ancient knowledge preservation, and the social climate created by collegial relationships and administrative support systems.

The multiple linear regression analysis reveals profound insights into the social psychological processes governing faculty performance within TCM educational environments. The constant value of 31 represents the baseline performance level that emerges from fundamental environmental factors inherent to traditional medicine education, including the institutional culture, physical infrastructure, and basic social support systems that create foundational conditions for faculty engagement. The innovative work behavior coefficient of 0.482 illuminates the substantial impact of creative and experimental teaching practices on overall faculty performance, reflecting social cognitive theory principles where self-efficacy beliefs and outcome expectations motivate sustained innovative efforts. This finding suggests that environmental factors supporting creativity and experimentation—Such as collaborative research spaces, administrative encouragement, and recognition systems—Create psychological conditions that amplify the performance benefits of innovative behaviors.

The organizational commitment coefficient of 0.199, while statistically significant at the p=0.091 level, reveals the nuanced role of institutional attachment in performance outcomes within TCM education contexts.

Social identity theory explains this relationship through the mechanism of professional identity integration, where faculty members who strongly identify with their institution's mission and values demonstrate enhanced performance through increased motivation and effort investment. Environmental psychology principles suggest that organizational commitment operates through person-environment congruence mechanisms, where faculty who experience alignment between personal values and institutional characteristics develop stronger emotional bonds that translate into sustained performance excellence.

The correlation analysis demonstrates the interconnected nature of organizational commitment (r=0.4719) and innovative work behavior (r=0.5617) with faculty performance, reflecting the complex social psychological networks that operate within TCM educational environments. These correlations illuminate how environmental factors such as institutional support, resource availability, and collegial relationships create conditions that simultaneously enhance both organizational attachment and innovative capacity. The social exchange theory framework explains these relationships through reciprocity mechanisms, where faculty who perceive strong organizational support reciprocate through enhanced commitment and creative contributions that benefit institutional performance and reputation.

Table 9. Normal analysis.

Description	Mean	SD	N
OC	63.50	6.181	167
IWB	54.19	12.10	171

Table 10. Correlations analysis.

	OC	IWB
Correlation	0.4719	0.5617
Sig.	0.004	0.4831
N	154	154

Table 11. Analysis of MLR test coefficients.

Model	Beta	SD Error	Sig.
OC	0.1981	0.11928	0.51415
IWB	0.4818	0.0919	0.001

Table 12. Analysis of ANOVA.

Model	D*f*	MS	F	Sig.
Regression	5	9.1199	23.199	0.000
Residual	145	3.398		

Table 13. Analysis of partial test.

Factors	T Count	T Table	Sig.
OC	1.278	2.2109	0.091
IWB	4.819	2.176	0.000

The comprehensive statistical analysis reveals that 45% of faculty performance variance is explained by organizational commitment and innovative work behavior, while the remaining 58.2% reflects additional environmental and social psychological factors not examined in this investigation, including individual personality traits, external social support, career stage factors, and broader institutional climate variables that operate within the complex ecosystem of traditional medicine education.

4.4. The relationship between IWB and successful performance

The significant enhancement of performance through innovative work behavior (IWB) among Traditional Chinese Medicine university faculty reflects complex environmental and social psychological mechanisms that operate within the unique institutional contexts of traditional medicine education. From an environmental psychology perspective, the physical and cultural environments of TCM universities—characterized by traditional healing gardens, modern research laboratories, clinical practice facilities, and culturally significant architectural elements—create distinctive ecological niches that either facilitate or constrain teachers' innovative capacity and creative expression. The social cognitive theory framework illuminates how faculty members develop self-efficacy beliefs regarding innovation through observational learning within supportive institutional environments, where successful implementation of creative teaching methods by colleagues serves as vicarious learning experiences that enhance individual confidence and motivation for innovative behaviors. The environmental press of TCM institutions, including expectations for research excellence, clinical competence, and cultural preservation, creates unique motivational dynamics that channel innovative energies toward performance outcomes that honor traditional knowledge while advancing educational effectiveness. Social identity theory further explains how faculty members who strongly identify with their institution's mission of preserving and advancing traditional medicine develop intrinsic motivation for innovative behaviors that align with organizational values, creating synergistic relationships between personal creativity and institutional performance goals. The environmental affordances within TCM universities, such as interdisciplinary collaboration opportunities, access to traditional medicine resources, and integration of ancient wisdom with modern pedagogical techniques, provide rich contexts for innovative work behaviors that generate measurable performance improvements through enhanced student engagement, research productivity, and community impact.

4.5. The relationship between OC and successful performance

The complex relationship between organizational commitment and performance outcomes among TCM faculty reveals nuanced social psychological processes that operate through environmental mediation and cultural context factors specific to traditional medicine education. While the direct statistical relationship may appear modest, social exchange theory suggests that organizational commitment operates through indirect pathways that influence performance via enhanced role clarity, increased discretionary effort, and stronger collegial relationships within the institutional environment. Environmental psychology principles indicate that committed faculty members develop deeper appreciation for their institutional surroundings, leading to more effective utilization of environmental resources and stronger person-environment fit that facilitates optimal performance conditions. The social identity theory framework explains how organizational commitment creates psychological coherence between individual professional identity and institutional mission, generating intrinsic motivation that may not immediately translate into measurable performance metrics but creates sustainable foundations for long-term excellence. Cultural factors specific to Chinese educational contexts, including collectivistic values, hierarchical respect, and long-term relationship orientation, may moderate the commitment-performance relationship through social psychological mechanisms that emphasize group harmony and institutional stability over individual performance indicators. The environmental context of TCM education, where success encompasses multiple dimensions including

student development, research contribution, cultural preservation, and community service, requires comprehensive performance evaluation approaches that capture the full spectrum of committed faculty contributions. Social psychological research demonstrates that organizational commitment operates through emotional regulation mechanisms that enhance resilience, reduce stress, and maintain consistent effort levels even during challenging periods, creating performance stability that benefits both individual faculty and institutional effectiveness over extended timeframes.

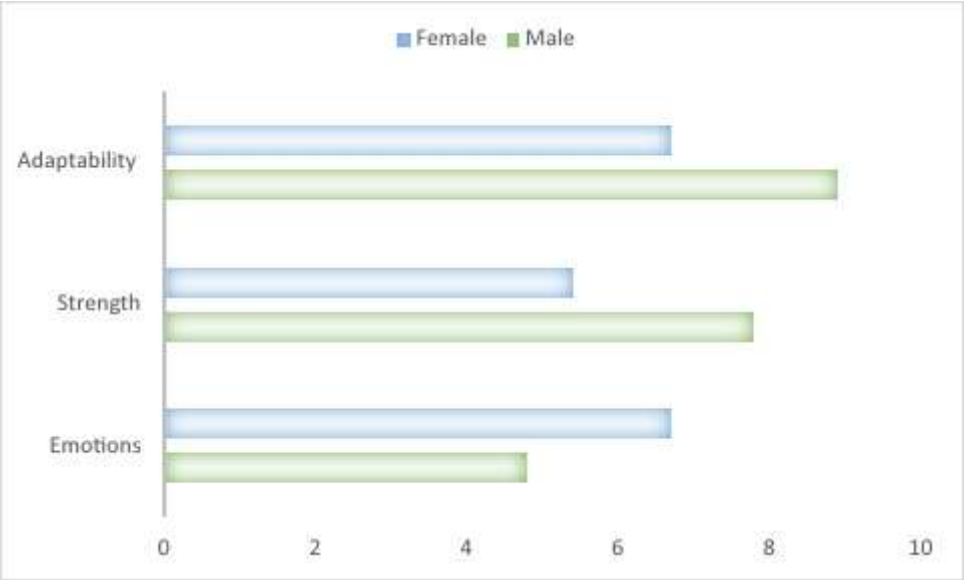

Figure 5. The mean of the IWB among teachers in comparison

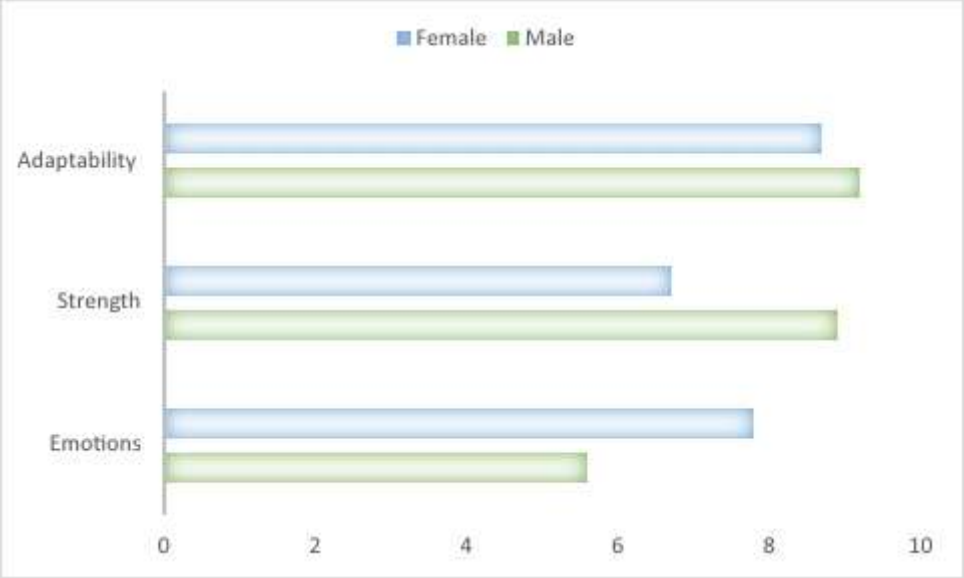

Figure 6. Analysis of the mean of OC hypotheses in teachers comparatively.

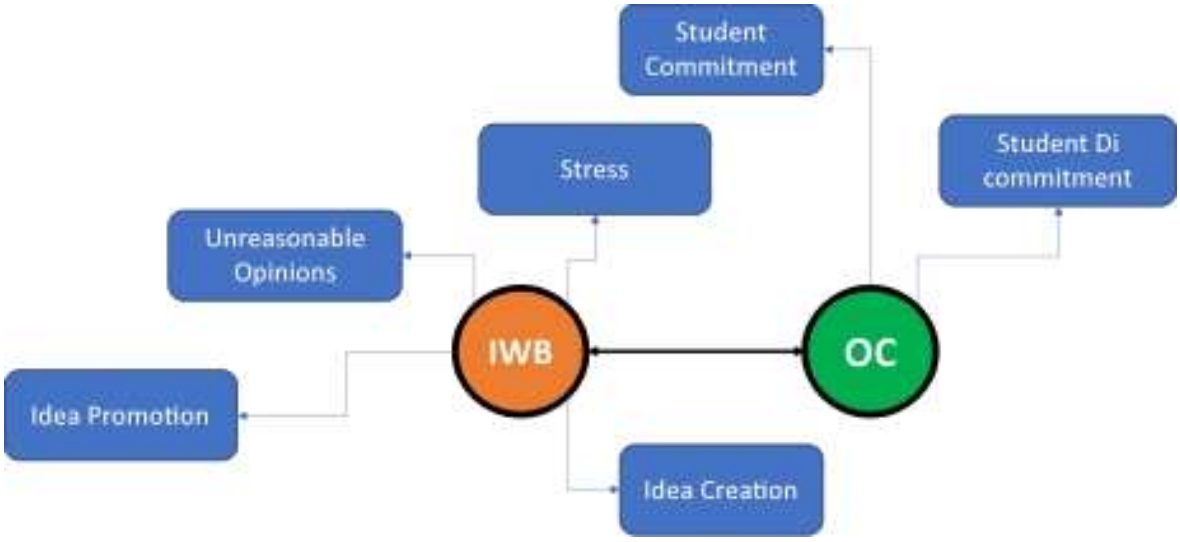

Figure 7. Model for the prediction of structural changes in IWB and OC.

4.6. Limitations of the study

The research study emphasized HE teachers in southwest China but failed to include other regions. In the following studies, the study population should consist of HE teachers from various socioeconomic and cultural contexts. The study's longitudinal data was imprecise for direct impacts, so future research might investigate IWB's impact on HE teachers' OC using various points in time or aggregated cross-sectionals. The research team additionally encompassed a wide range of ages and qualifications for teaching, from fresh to retirement. Traditional Chinese Medicine University teachers value job stability and family security, while the new age wants purpose. Future research might investigate differences between generations.

5. Conclusion and future work

(1) Based on the analysis of 485 TCM university teachers, the study found that the impact of demographic characteristics on organizational commitment presents complex non-linear patterns. Teaching experience showed a significant environmental psychological adaptation curve, with the 6-10 years experience group reaching the commitment peak (M=5.9181), reflecting the optimal balance point between environmental integration and professional identity, followed by a decline in commitment among mid-career teachers (11-20 years), reflecting the cumulative effects of career development bottlenecks and social comparison pressure. Salary level exhibited a threshold effect, with the 28,000 CNY group showing the strongest commitment (M=5.1289), indicating that when compensation satisfies basic needs and status expectations, intrinsic and extrinsic motivations achieve synergistic effects. Educational background constituted the strongest predictor (F=9.1718, p=.000), with the significantly higher commitment of postgraduate-educated teachers reflecting the comprehensive advantages of cognitive complexity, professional identity, and environmental adaptability.

(2) The three core dimensions of organizational commitment present different psychological driving mechanisms in the TCM educational environment. The emotional satisfaction dimension (69% acceptance) primarily influences innovative behavior through emotional attachment and value identification pathways, with teachers' emotional resonance with traditional medical culture and educational mission inspiring protective innovation motivation; the professional strength dimension (69.4% acceptance) operates through self-efficacy and competence mechanisms, with teachers' perceived professional competence enhancing their confidence in taking risks in teaching innovation; the environmental adaptability dimension (71.2%

acceptance) promotes innovation through adaptive learning and environmental sensitivity, reflecting the flexibility of TCM teachers in seeking balance between traditional and modern educational requirements. This multi-dimensional mechanism ensures that innovative behaviors both respect traditional knowledge and meet modern educational needs.

(3) Multiple regression analysis revealed the synergistic effect pattern of organizational commitment and innovative work behavior. Innovative work behavior as a direct predictor (β=0.482, p=.000) explained the major portion of performance variation, while organizational commitment (β=0.199, p=.091) played an indirect supporting role, with both jointly explaining 45% of performance variance. This pattern indicates that in the TCM educational environment, actual innovative behavior more directly affects performance than emotional attachment, but organizational commitment provides psychological resources and motivational foundation for sustained innovation. The remaining 58.2% of unexplained variance points to the important moderating role of environmental factors, including institutional support, cultural atmosphere, resource availability and other contextual variables, which create conditions that either promote or inhibit innovation-performance transformation in the unique environment of traditional medical education.

Conflict of interest

The authors declare no conflict of interest.

References

1. Nai-yi W, Jin-xin X, Jin M, Da-zhi C. Influence mechanism of perceiving calling on living a calling in primary and secondary school teachers. Teach Educ Res. 2022;34(04):45–52 in Chinese. doi: 10.13445/j.cnki.t.e.r.2022.04.010
2. Song M, Huang Z-J, Hu H-Y, Qi M. Literature review and future prospect on work meaningfulness. Human Res Dev China. *2018;35(9):85–96*. In Chinese. doi: 10.16471/j.cnki.11-2822/c.2018.09.008.
3. De Nobile J, Bilgin AA. A structural model to explain influences of organisational communication on the organisational commitment of primary school staff. *Edu Sci*. 2022;12(6):395. doi: 10.3390/educsci12060395
4. Eisinga, R., Teelken, C., & Doorewaard, H. (2010). Assessing cross-national invariance of the three-component model of organizational commitment: A six-country study of European university faculty. Cross-Cultural Research, 44(4), 341–373.
5. Kahn, W. (1990). Psychological conditions of personal engagement and disengagement at work. Academy of Management Journal, 33(4), 692–724. https://doi. org/10.5465/256287Kaycheng
6. Farooq, N., Irfan, M., & Farooq, M. (2011). Measurement of the degree of organizational commitment among the faculty members of private sector universities in Peshawar city. Interdisciplinary Journal of Contemporary Research in Business, 3(4), 151–162.
7. Horta, H., & Santos, J. M. (2020). Organizational factors and academic research agendas: An analysis of academics in the social sciences. Studies in Higher Education, 45(12), 2382–2397. https://doi.org/10.1080/03075079.2019.1612351
8. C.I. Okeke, E. Nyanhoto Recruitment and retention of male educators in preschools: implications for teacher education policy and practices S. Afr. J. Educ., 41 (2) (2021), p. 1910, 10.15700/saje.v41n2a1910.
9. R. Haller, L.W.C. Tavecchio, G.J.J.M. Stams, L. Van Dam Educate the child according to his own way: a Jewish ultra-orthodox version of independent self-construal J. Beliefs Values, 3 (2023), pp. 1-15, 10.1080/13617672.2023.2184128
10. C. Yang, Z.H. Liu, Y. Han Conflict and adaptation: a study on the identity construction of male kindergarten teachers from a gender perspective J. China Women Univ., 35 (4) (2023), pp. 119-128.
11. A.Q. Wang, C.H. Tang, L.F. Zhou, H.Y. Lv, J. Song, Z.M. Chen, W.Q. Yin, How surface acting affects turnover intention among family doctors in rural China: the mediating role of emotional exhaustion and the moderating role of occupational Commitment, Hum. Resour. Health, 21 (3) (2023), 10.1186/s12960-023-00791-y, 2–15
12. Para-González, L.; Jiménez-Jiménez, D.; Martínez-Lorente, A.R. Exploring the mediating effects between transformational leadership and organizational performance. Empl. Relat. 2018, 40, 412–432.
13. Imran, R.; Anis-ul-Haque, M. Mediating effect of organizational climate between transformational leadership and innovative work behaviour. Pak. J. Psychol. Res. 2011, 26, 183–199.
14. Soheila Hosseini & Zahra Rastegar Haghighi Shirazi, 2021) Towards teacher innovative work behavior: A conceptual model, Cogent Education, 8:1, 1869364, DOI: 10.1080/2331186X.2020.1869364

15. Javed, B.; Abdullah, I.; Zaffar, M.A.; ul Haque, A.; Rubab, U. Inclusive leadership and innovative work behavior: The role of psychological empowerment. J. Manag. Organ. 2018.
16. Williams, F.; Foti, R.J. Formally developing creative leadership as a driver of organizational innovation. Adv. Dev. Hum. Resour. 2011, 13, 279–296.
17. Thibaut, L., Knipprath, H., Dehaene, W., & Depaepe, F. (2018). The influence of teachers' attitudes and school context on instructional practices in integrated STEM education. Teaching and Teacher Education, 71, 190–205. https://doi.org/10.1016/j.tate.2017.12.014