

ORIGINAL RESEARCH ARTICLE

Empowering health through tradition: A grounded theory study on the impact of traditional Chinese physical activities on the well-being of full-time mothers

DOI: 10.29063/ajrh2025/v29i8s.8

Cheng Xing^{1,2} and Zainal Abidin, N.E.^{2*}

Institute of Physical Education, Neijiang Normal University, Neijiang 641100, Sichuan, China ¹, Faculty of Sports and Exercise Science, Universiti Malaya, Kuala Lumpur 50603, Malaysia²

*For Correspondence: Email: eezazainal@um.edu.my

Abstract

This study explores the impact of Traditional Chinese Physical Activities (TCPAs), such as Tai Chi and group dancing, on the well-being of non-working full-time mothers. Using a grounded theory approach, semi-structured in-depth interviews were conducted with 40 full-time mothers actively engaged in TCPAs. Data were analyzed through open, axial, and selective coding. Findings revealed that TCPAs function as embodied socio-cultural practices, enhancing emotional regulation, physical vitality, and social belonging. Three key pathways of influence were identified: structural embodiment, communal belonging, and cultural identity reinforcement, forming the core of the "empowerment through embodied tradition" theory. The study highlights the significance of TCPAs in improving full-time mothers' well-being—a demographic often overlooked in public health policies. It recommends that urban planners and health promoters adopt community-based, culturally rooted strategies to enhance accessibility to these activities. (*Afr J Reprod Health 2025; 29 [8s]: 70-82*).

Keywords: Women's Health, Social Bonding, Community, Psychology Health

Résumé

Cette étude examine l'impact des activités physiques traditionnelles chinoises (TCPAs), comme le Tai Chi et la danse en groupe, sur le bien-être des femmes au foyer. En utilisant une approche de théorie ancrée, des entretiens semi-structurés ont été menés auprès de 40 femmes pratiquant régulièrement les TCPAs. Les données ont été analysées par codage ouvert, axial et sélectif. Les résultats montrent que les TCPAs agissent comme des pratiques incarnées et socio-culturelles, améliorant la régulation émotionnelle, la vitalité physique et l'intégration sociale. Trois mécanismes clés ont été identifiés: l'incarnation structurelle, l'appartenance communautaire et le renforcement de l'identité culturelle, formant la théorie de « l'autonomisation par la tradition incarnée ». L'étude souligne l'importance des TCPAs pour le bien-être des femmes au foyer, un groupe souvent négligé dans les politiques de santé publique. Elle recommande aux urbanistes et promoteurs de santé d'adopter des stratégies communautaires et culturellement ancrées pour améliorer l'accès à ces activités. (*Afr J Reprod Health 2025; 29 [8s]: 70-82*).

Mots-clés: Santé des femmes, Lien social, Communauté, Santé psychologique

Introduction

The well-being of full time mothers, who often shoulder significant domestic and caregiving responsibilities, is crucial for maintaining family and societal health. However, the physical and psychological demands of homemaking—such as repetitive chores, emotional labor, and lack of structured exercise—can lead to chronic stress, musculoskeletal disorders, and mental health challenges^{1,2}.

TCPAs such as Tai Chi and square dancing are deeply embedded in cultural and communal life across China. However, their role in supporting the well-being of full-time mothers, defined in this study as adult women primarily engaged in unpaid domestic labor and caregiving responsibilities, often outside formal employment, remains underexplored. This demographic is frequently at risk of physical inactivity, social isolation, and emotional strain, making it critical to understand how traditional practices contribute to their well-

being. While modern exercise regimens (e.g., gym workouts, aerobics) have been widely promoted for health improvement, adherence among full-time mothers remains low due to time constraints, accessibility issues, and cultural preferences³. In this context, Traditional Chinese Physical Activities (TCPAs), including Tai Chi, Qigong, and Baduanjin, emerge as promising alternatives due to their gentle, adaptable, and holistic approach to well-being.

TCPAs are deeply rooted in Traditional Chinese Medicine (TCM) principles, emphasizing the harmony of body, mind, and Qi (vital energy)⁴. Unlike high-intensity workouts, these low-impact exercises integrate slow movements, breathing techniques, and meditation, making them particularly suitable for individuals with varying fitness levels, including full-time mothers. Empirical studies have demonstrated that TCPAs improve physical health (e.g., balance, flexibility, pain relief), mental health (e.g., stress reduction, anxiety alleviation), and even social connectedness when practiced in groups⁵. Given these benefits, TCPAs may offer a culturally resonant and sustainable way to enhance full-time mothers' well-being.

Despite growing interest in TCPAs, most research has focused on elderly populations or clinical patients, with limited attention to full-time mothers—a group that plays a vital yet often overlooked role in household stability. Moreover, existing studies predominantly adopt quantitative methods, leaving a gap in understanding the subjective experiences and sociocultural dimensions of TCPA participation among full-time mothers.

To address this, the present study employs a grounded theory approach to explore how TCPAs influence full-time mothers' well-being, capturing their lived experiences, perceived benefits, and barriers to engagement. By investigating TCPAs through the lens of full-time mothers, this study contributes to three key areas: 1) Health promotion – Providing evidence on how TCPAs can serve as an accessible, culturally relevant wellness strategy for full-time mothers; 2) gendered well-being – Addressing the unique health needs of women in domestic roles, who are often underrepresented in exercise research; and 3)

traditional knowledge integration – Bridging ancient practices with contemporary health science to foster holistic well-being.

This study not only expands the theoretical understanding of TCPAs but also offers practical insights for policymakers, health educators, and community programs aiming to empower full-time mothers through sustainable, culturally attuned health interventions.

Literature review

The well-being challenges of full-time mothers

Full-time mothers, who are predominantly women, endure multifaceted physical and psychological strains due to the invisible and often undervalued nature of domestic labor. Repetitive and physically demanding tasks inherent to homemaking—such as prolonged standing, lifting, and cleaning—significantly increase the risk of chronic musculoskeletal disorders, particularly in the lower back, neck, and shoulders². These physical burdens are compounded by the absence of structured rest periods, as full-time mothers frequently prioritize familial needs over self-care, exacerbating fatigue and bodily wear.

Beyond physical tolls, the psychological well-being of full-time mothers is disproportionately affected by social isolation, emotional labor, and the lack of societal recognition for unpaid domestic work. The constancy of caregiving responsibilities, coupled with limited opportunities for personal respite, has been linked to heightened levels of stress, anxiety, and depressive symptoms⁶. Gendered expectations further exacerbate these challenges, as cultural norms often frame self-sacrifice as intrinsic to the homemaker role, discouraging help-seeking behaviors or time allocation for health-promoting activities.

Despite these documented challenges, full-time mothers remain an overlooked demographic in public health interventions. The majority of wellness programs target employed populations or clinical groups, neglecting the unique needs of those managing households full-time⁷. This gap persists even as evidence suggests that full-time

mothers' well-being is critical to familial stability and intergenerational health outcomes, highlighting an urgent need for tailored, accessible interventions.

Mental and emotional benefits of TCPAs

The mental and emotional benefits of TCPAs have been increasingly recognized in contemporary research, particularly for populations experiencing chronic stress or psychological distress. Studies have demonstrated that mind-body exercises such as Tai Chi and Qigong can significantly reduce symptoms of anxiety and depression by modulating physiological stress responses^{8,9}. These practices incorporate slow, deliberate movements synchronized with deep breathing, which have been shown to downregulate cortisol levels and enhance parasympathetic nervous system activity, thereby promoting relaxation and emotional regulation. For full-time mothers, who frequently experience emotional labor and role-related stress, such interventions may serve as a sustainable self-care strategy to mitigate psychological strain.

Beyond stress reduction, TCPAs foster mindfulness and present-moment awareness, which are critical for counteracting the repetitive and often monotonous nature of domestic work. Research indicates that the meditative components of TCPAs cultivate a heightened sense of bodily awareness and mental clarity, which can disrupt cycles of rumination and negative thought patterns¹⁰. This is particularly relevant for full-time mothers, whose daily routines may lack cognitive stimulation or opportunities for mental disengagement from household demands. Furthermore, the communal aspect of group-based TCPA practice can alleviate feelings of social isolation by providing structured opportunities for interpersonal connection and mutual support.

While the psychological benefits of TCPAs are well-documented in elderly and clinical populations, their specific effects on full-time mothers remain underexplored. Given that full-time mothers face unique stressors—such as unpaid labor, role confinement, and limited autonomy—TCPAs may offer a culturally congruent approach to enhancing emotional resilience. However, further research is needed to examine how these

practices are perceived and adopted by full-time mothers, as well as their long-term efficacy in improving mental well-being within this demographic.

Socio-cultural dimensions of TCPA adoption among full-time mothers

The adoption and sustained practice of TCPAs among full-time mothers must be understood within broader socio-cultural contexts that shape health behaviors. Cultural values play a pivotal role in exercise participation, particularly in collectivist societies where family obligations often take precedence over individual self-care^{11,12}. TCPAs, with their roots in Confucian and Daoist philosophies emphasizing harmony and balance, may resonate more strongly with full-time mothers than Western exercise regimens, as they align with traditional values of moderation and holistic wellness. This cultural congruence could enhance both the acceptability and long-term adherence to TCPAs in this population.

However, structural barriers persist in TCPA accessibility for full-time mothers. Traditional gender roles frequently position women as primary caregivers, restricting their time and mobility for regular exercise participation¹³. While TCPAs are often promoted as flexible and time-efficient, the reality of full-time mothers' schedules - characterized by fragmented, unpredictable periods of availability - may still present challenges to consistent practice. Additionally, the social stigma surrounding leisure time use among full-time mothers, particularly in more traditional communities, may create psychological barriers to TCPA adoption¹⁴. These socio-cultural factors must be addressed to facilitate meaningful engagement with TCPAs.

The community aspect of TCPA practice offers unique benefits for full-time mothers' social well-being. Unlike solitary home exercises, group-based TCPA sessions provide structured opportunities for social interaction and peer support, which are particularly valuable for full-time mothers who experience social isolation¹⁵. Qualitative studies suggest that the communal nature of these activities can foster a sense of belonging and collective identity, potentially

mitigating feelings of loneliness common among full-time mothers¹⁶. Furthermore, the shared cultural framework of TCPAs may enhance social cohesion among participants, creating natural support networks that extend beyond exercise sessions^{17,18}.

Emerging research highlights the importance of culturally sensitive program design in promoting TCPA participation among full-time mothers. Studies indicate that interventions incorporating family-oriented approaches, such as mother-child TCPA sessions or programs held in community spaces familiar to full-time mothers, demonstrate higher engagement rates^{19,20}. Additionally, framing TCPAs as stress-reduction tools for better family caregiving, rather than solely as personal wellness activities, may increase their appeal by aligning with full-time mothers' existing value systems. These findings suggest that TCPA promotion strategies must account for both the cultural assets and constraints that shape full-time mothers' health behaviors.

Methods

This study employed a qualitative grounded theory approach to explore how participation in traditional Chinese physical activities influences the well-being of full-time mothers. The research design centered around semi-structured in-depth interviews to capture nuanced, experience-rich narratives directly from participants.

Participant recruitment and sampling strategy

A total of 40 female full-time mothers actively engaged in traditional Chinese physical activities—such as square dancing, tai chi, and morning exercises in parks—were recruited using a snowball sampling strategy. Initial participants were identified from community-based venues including public squares, health parks, and online/offline homemaker networks, and subsequent participants were referred by earlier respondents. This method enabled access to a diverse yet contextually rich participant pool.

All participants were assigned identifiers ranging from P1 to P40 to ensure confidentiality. Inclusion criteria required participants to be adult full-time mothers with at least six months of sustained

involvement in traditional physical activity practices.

Data collection

Each interview lasted between 30 to 60 minutes and was conducted in the participants' preferred environment to encourage openness and comfort. The interviews followed a semi-structured guide that had undergone Item-Objective Congruence (IOC) validation to ensure relevance and content clarity. The interview guide covered four thematic domains: (1) physical activity patterns, (2) perceived physical and emotional changes, (3) social and community experiences, and (4) cultural meanings and identity. Sample questions addressed topics such as participants' daily routines, health perceptions, emotional responses, and their cultural associations with traditional practices. All questions were open-ended and prompted elaboration. Each session encouraged initial rapport-building before transitioning into the structured guide. Audio recordings were transcribed verbatim, yielding over 100,000 Chinese characters of textual data. These transcripts were subsequently translated into English for consistency in analytic procedures.

Data analysis

Data analysis was carried out using a multi-layered grounded theory procedure involving:

Word Frequency and Keyword Analysis: Conducted to identify recurring linguistic patterns and focal constructs in the participants' narratives.

Open Coding: Initial coding of data segments to generate conceptual labels, performed iteratively.

Axial Coding: Grouping and interrelating codes to form categories and subcategories that represent higher-order themes.

Selective Coding and Theoretical Construction: Synthesizing core categories into a grounded theoretical framework explaining the mechanisms through which traditional physical activities contribute to full-time mothers' well-being.

Theoretical Saturation Testing: Analysis continued until no new categories or dimensions emerged, confirming theoretical saturation.

To ensure analytic rigor, a constant comparative method was employed throughout coding stages,

and multiple coders were involved to cross-validate interpretations.

Ethical consideration

This study involved non-invasive, low-risk qualitative research through semi-structured in-depth interviews with adult participants. The research did not involve any clinical interventions, vulnerable populations, or the collection of sensitive personal data such as health status, financial records, or legal identifiers. All participants were healthy, community-dwelling full-time mothers voluntarily engaged in public traditional physical activities such as Tai Chi and square dancing in open spaces.

At the time of data collection, institutional policies at the authors' affiliated universities did not mandate formal ethical review for minimal-risk, non-clinical, non-identifiable behavioral research. Therefore, formal ethical approval from an institutional review board (IRB) was not sought. Nonetheless, the research design and implementation adhered strictly to internationally recognized ethical standards for qualitative research. All participants were fully informed of the study's purpose, procedures, and their right to withdraw at any time without penalty. Both verbal and written informed consent were obtained prior to participation. Anonymity and confidentiality were ensured by using coded identifiers (P1–P40), and no personal names or traceable data were recorded or reported.

The study followed the ethical guidelines outlined by the American Psychological Association (APA, 2017) and adhered to principles of voluntariness, respect, and data protection throughout.

Participant characteristics

A total of 40 full-time mothers were recruited using purposive sampling. All participants were actively engaged in traditional Chinese physical activities, such as Tai Chi, square dancing, or morning park exercises. Participants ranged in age from 35 to 69 years ($M = 52.3$), and their duration of engagement in such practices varied from 1 to 14 years ($M = 6.8$). Educational attainment included primary education (25%), secondary education (27.5%),

high school (25%), and college-level qualifications (22.5%). The majority were married (52.5%), followed by widowed (32.5%) and divorced (15%). A summary of participant demographics is presented in Table 1.

Table 1: Information of the participants

Variable	Categories / Values	Distribution
Sample Size	Total number of participants	40
Age	Range: 35–69; Mean: 52.3	-
Years of Exercise Activity Type	Range: 1–14 years; Mean: 6.8	-
	Tai Chi	35%
	Square Dance	32.5%
	Morning Park Exercise	32.5%
Education Level	Primary	25%
	Secondary	27.5%
	High School	25%
	College	22.5%
Marital Status	Married	52.5%
	Widowed	32.5%
	Divorced	15%

Results

Coding process

Open coding analysis

In the initial stage of grounded theory analysis, open coding was employed to fragment and conceptually label the participants' narratives through line-by-line reading of interview transcripts. This process resulted in a total of 60 open codes—30 related to TCPAs and 30 pertaining to the well-being of full-time mothers.

While the open codes were initially categorized into two broad domains—TCPAs and well-being outcomes—themes that emerged during analysis often intersected these domains. The following four themes represent the primary interpretative dimensions that connect embodied practice with psychosocial impact, and thus directly address the study's objectives. Through constant comparison and clustering, these open codes revealed four preliminary themes that align with the study objective of understanding how TCPAs influence holistic well-being:

Structured movement and daily rituals

Participants frequently described TCPAs—such as Tai Chi, square dancing, and morning exercises—as rhythmic and predictable routines (e.g., “Tai Chi routine” (P22), “Morning rituals” (P32), “Dance repetition” (P11)). These practices created temporal structure and bodily discipline, fostering a sense of daily rhythm and stability.

Emotional regulation and inner vitality

A number of codes pointed to emotional and physical restoration, including “Stress relief” (P2), “Improved sleep” (P19), “Energy boost” (P32), and “Mood balance” (P12). Participants reported that TCPAs helped them reduce anxiety and regain emotional balance, contributing to greater resilience and mental clarity. For instance, P12 shared, “When I feel overwhelmed at home, practicing Tai Chi outside helps me breathe better and clears my mind.” Similarly, P19 described, “Since I started the morning exercises, I sleep better and feel less irritated during the day.” These reflections illustrate how TCPAs are not just physical routines but tools of emotional regulation. Participants emphasized how such practices foster calmness, inner clarity, and renewed energy that carried over into their caregiving roles.

Social bonding and community inclusion

Many participants highlighted the collective nature of TCPAs, referring to “Community dancing” (P16), “Group formation” (P36), and “Stronger community ties” (P25). These codes reflect enhanced social connectedness, peer support, and a sense of belonging—important outcomes for full-time mothers often experiencing isolation.

Cultural continuity and identity affirmation

Several codes captured the cultural significance of TCPAs, such as “Cultural preservation” (P19), “Martial form adaptation” (P39), and “Elderly-led routines” (P20). Participants viewed these practices not just as physical exercise, but as a way of reconnecting with intergenerational knowledge and affirming their role in cultural continuity.

These emergent themes provided a grounded analytical foundation for the next phase of axial coding and theoretical integration. They also directly address the study’s core objective: to uncover how traditional, embodied physical practices contribute to the psychosocial well-being of full-time mothers through mechanisms of structure, affect regulation, social inclusion, and cultural identity.

Table 2 presents representative open codes categorized under the two broader domains: TCPAs and Well-being of full-time mothers.

Figure 1 illustrates a visual representation of the most frequently occurring open codes derived from the grounded theory analysis of interview transcripts. The word cloud aggregates keywords across both major thematic categories—TBAs and Well-being of full-time mothers—and depicts their prominence based on textual frequency.

Notably, high-frequency terms such as “routine,” “improved,” “exercise,” “community,” and “dancing” reflect the central experiential constructs expressed by participants. The prominence of “routine” and “daily” underscores the structured and habitual nature of traditional practices such as Tai Chi and square dancing. Meanwhile, words like “health,” “relief,” “uplift,” and “bonding” suggest the multifaceted psychosocial and physiological benefits perceived by the full-time mothers.

The frequency and semantic clustering of terms reveal that these traditional practices serve not only as physical exercise but also as mechanisms for emotional regulation, social connectedness, and daily purpose. This lexical pattern affirms the grounded categories generated through open coding and sets the stage for axial coding and theory construction.

Axis coding process

In the axial coding phase, the open codes generated earlier were conceptually reorganized to identify core categories and thematic patterns that reflected underlying structures within the data. As shown in Table 3 for the category of TCPAs six prominent axial codes emerged. These included notions of

Table 3: Axial Codes

Category	Axial Code (Thematic Category)	Representative Open Codes (Examples)
Traditional Chinese Physical Activities	Structured Movement Rituals	Tai Chi routine, Morning rituals, Posture correction
	Collective Participation	Square dancing, Community dancing, Group formation
	Cultural Continuity and Identity	Traditional movements, Cultural preservation, Martial form adaptation
	Intergenerational Learning	Elderly-led routines, Peer influence, Learning from older women
	Accessibility and Flexibility	Routine flexibility, public square training, Open air fitness
Well-being of full-time mothers	Embodied Health Practice	Breathing techniques, Balance training, Low-impact motion
	Psychosocial Empowerment	Reduced loneliness, Stronger community ties, social bonding
	Emotional Regulation	Emotional uplift, Anxiety reduction, Improved mood
	Health Perception and Self-care	Better sleep, Daily energy, Awareness of health status
	Motivational Uplift	Daily joy, Reason to go out, Sense of purpose

of accessibility and flexibility underscored how these practices were inclusive, adaptable, and accessible in open spaces without financial or institutional barriers. Finally, the notion of embodied health practice framed traditional movement not merely as exercise but as a form of preventive and restorative physical care interwoven with local knowledge systems.

For the category of Well-being of full-time mothers, four axial codes were constructed. The most dominant theme was psychosocial empowerment, as participants reported enhanced self-confidence, increased social connection, and relief from feelings of isolation. Emotional regulation emerged as another critical dimension, with participants frequently noting improved mood, decreased anxiety, and greater emotional balance following regular physical engagement. The theme of health perception and self-care reflected how traditional activity fostered bodily awareness, better sleep, and a sense of vitality, encouraging women to take a more active role in managing their well-being. Finally, motivational uplift captured how these routines provided participants with daily goals, structure, and an enduring sense of purpose, often serving as the psychological anchor around which their days were organized.

Together, these axial categories formed the conceptual scaffolding necessary for the development of a grounded theoretical model, illuminating the dynamic and multi-dimensional

ways traditional physical practices influence the holistic well-being of full-time mothers. Figure 2

Selective coding and theoretical model construction

Building on the axial coding structure, selective coding was employed to synthesize a central core category that integrated the primary themes and relationships emerging from the data. The core phenomenon identified was: Empowerment through embodied tradition: how participation in traditional Chinese physical activities enhances holistic well-being among full-time mothers.”

This core category subsumes both the behavioral and psychosocial dimensions identified in earlier stages of analysis, linking routine physical engagement with broader affective, social, and identity-related transformations. Traditional physical practices—such as Tai Chi, square dancing, and morning exercise—were not merely viewed as bodily movements but as culturally situated, socially embedded rituals that grounded participants in a sense of time, place, and communal continuity. These embodied routines provided accessible and culturally resonant pathways for full-time mothers to restore physical health, regulate emotions, and experience a renewed sense of purpose in daily life.

Theoretical integration revealed three major conditional pathways through which empowerment was facilitated:

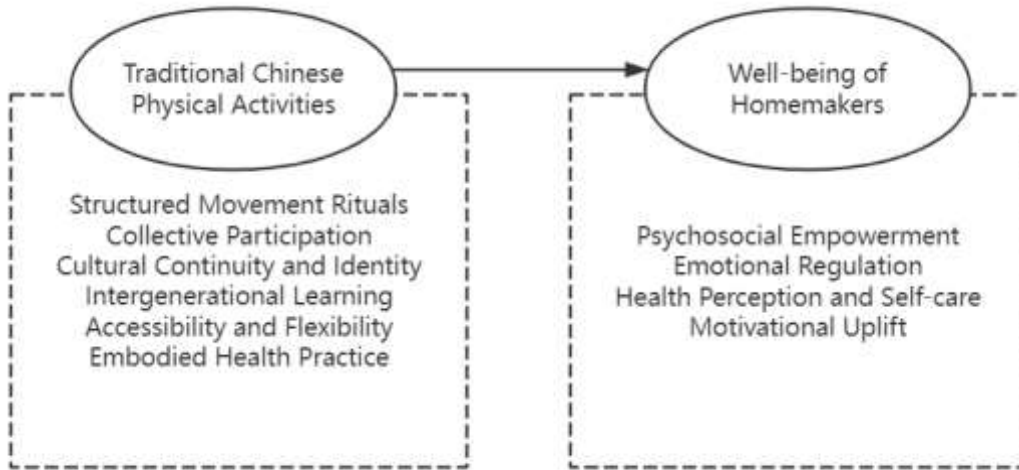


Figure 2: Axial coding framework

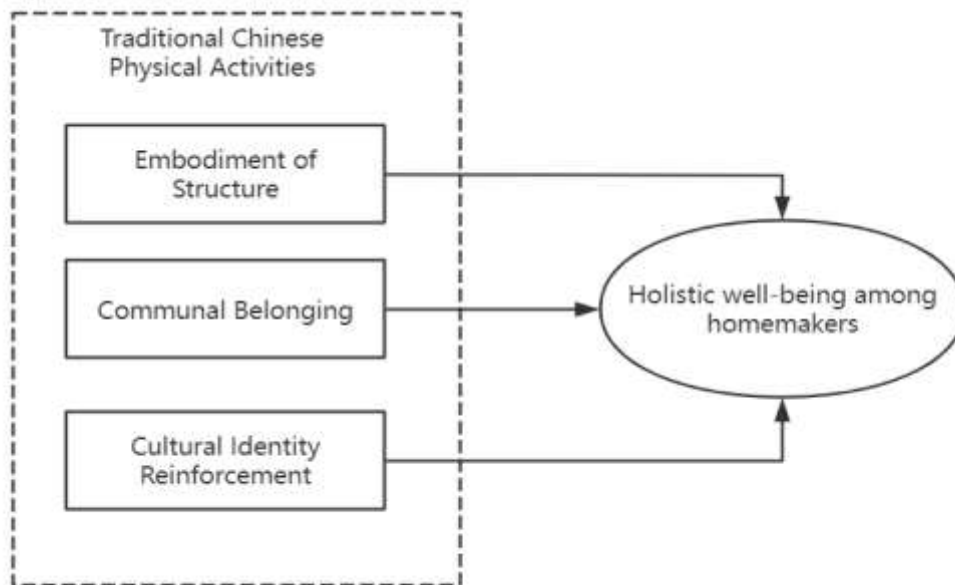


Figure 3: Selective coding and theoretical framework

Embodiment of Structure: The repetitive, rhythmic nature of traditional activities offered temporal structure, bodily discipline, and emotional regulation, creating psychological stability and physical grounding.

Communal Belonging: Through collective participation, full-time mothers engaged in meaning-making practices that fostered inclusion, mutual support, and social empowerment, particularly for those facing domestic isolation.

Cultural Identity Reinforcement: These activities symbolically reaffirmed the participants' generational knowledge, local traditions, and gendered roles, giving them a sense of cultural legitimacy and self-worth.

These interconnected dimensions formed the basis of the emergent Grounded Theory Model, visually depicted as a dynamic system in which Traditional Chinese Physical Activities act as the primary vehicle for achieving multi-level empowerment in

full-time mothers. Figure 3 illustrates a non-linear, recursive process in which bodily practices mediate and amplify psychological, social, and cultural well-being.

Theoretical saturation check

To ensure the rigor and validity of the grounded theory model, a theoretical saturation check was systematically conducted. After the emergence of core categories and construction of the selective coding framework, additional interview data from the later participants (specifically P35 to P40) were reanalyzed with the purpose of identifying any new conceptual themes, properties, or relational patterns.

The analysis revealed no novel axial categories or open codes beyond those already established. The narratives from the final six participants consistently mapped onto the existing theoretical structure, with all new data fitting within the dimensions of embodiment of structure, communal belonging, and cultural identity reinforcement as core pathways influencing full-time mothers' well-being. Minor variations in language or personal context were observed but did not alter the overarching categories or inter-category relationships.

This absence of emergent conceptual novelty affirms that theoretical saturation was achieved, supporting the robustness and completeness of the developed grounded theory. The central model adequately accounted for the full spectrum of meanings conveyed in participants' accounts, with no gaps identified that required further inductive exploration.

Theoretical interpretation

The grounded theory model developed in this study—“Empowerment through embodied tradition”—offers a sociocultural situated explanation of how TCPAs function as an integrated source of well-being for full-time mothers. Beyond physical movement, these practices constitute a ritualized, communal, and symbolic system that enables individuals to manage both their bodies and emotions within meaningful social and cultural frameworks.

This model demonstrates that well-being among full-time mothers is not solely an outcome of biomedical health benefits, but rather the product of a more complex, mediated process involving bodily rhythms, community participation, and identity affirmation. The theoretical framework thus shifts the discourse from exercise as a mechanistic input to tradition as a multilayered wellness resource.

By linking movement to meaning, repetition to regulation, and culture to care, the study underscores the transformative potential of embodied cultural practices in contexts often overlooked by dominant health paradigms. As such, this theory contributes to emerging intersections between public health, cultural studies, and gendered wellness, particularly in aging or transitional populations such as full-time mothers.

Discussion

This study reveals that TCPAs contribute to full-time mothers' well-being through four interrelated mechanisms: daily structure, emotional regulation, social bonding, and cultural continuity. Participants consistently described their engagement with Tai Chi, square dancing, or morning exercises as ritualized and rhythm-driven, providing a stable framework for organizing their day. This structured movement cultivated a sense of temporal control and bodily awareness, aligning with previous findings that ritualized physical routines promote psychological stability and behavioral adherence. Importantly, these practices emerged from cultural habitus rather than imposed intervention, indicating that TCPAs naturally integrate into women's daily lives as accessible and meaningful health practices.

Emotional and social benefits were particularly salient. Many participants reported reduced anxiety, improved mood, and enhanced energy after regular participation, attributing these effects to the meditative quality of the movements and the collective atmosphere. Expressions such as “I sleep better” or “we laugh together every morning” reflect how TCPAs support emotional resilience and re-engagement with community. Unlike formal healthcare models, these practices operate as informal, peer-led wellness spaces that rebuild social ties for women navigating post-domestic isolation. The findings suggest that

embodied cultural practices may function as low-cost, context-sensitive alternatives for emotional and social support in urban environments.

Finally, TCPAs served as vehicles for cultural identity affirmation. Several participants referenced their mothers or grandmothers performing the same routines, underscoring a sense of heritage continuity through embodied repetition. In this context, movement is not merely functional—it is symbolic, ritualized, and identity-forming. This supports the grounded theory model of “empowerment through embodied tradition,” which reframes physical activity not as a biomedical tool, but as a culturally embedded system of meaning-making. Through rhythmic movement, women reconstructed their agency, social presence, and connection to tradition in ways often overlooked by dominant health paradigms.

Interpretation of findings

The findings indicate that TCPAs are not simply bodily exercises but function as culturally embedded wellness practices. Participants described TCPAs as part of their daily routine, with regular engagement contributing to improved sleep, reduced stress, and enhanced emotional balance²¹. These experiences were reflected in the axial codes of structured movement rituals and emotional regulation, confirming that consistent rhythm and repetition play a key role in psychological stabilization.

Beyond individual benefits, participants highlighted how TCPAs created opportunities for social interaction and community participation, especially valuable for women who had withdrawn from formal employment or whose caregiving roles limited external engagement. This supports the axial dimensions of communal belonging and psychosocial empowerment, suggesting that traditional movement spaces serve as informal but effective platforms for social health promotion²². Moreover, the participants' narratives revealed a deeper connection between TCPAs and cultural identity, particularly among older women who viewed these activities as continuations of ancestral practices. The emergent code of cultural identity reinforcement thus illustrates how TCPAs meet not only physical and emotional needs but also fulfill

symbolic roles related to heritage, continuity, and gendered expression.

This study contributes novel insights to the social determinants of health and the intersection of culture and embodied practice. While previous studies have documented the physical and mental health benefits of Tai Chi or dance among elderly populations²³⁻²⁵, most research has taken a clinical or intervention-based lens, often reducing such practices to standardized health outcomes.

In contrast, our grounded theory approach reveals the lived realities of participants, emphasizing the subjective meanings they ascribe to their practices. The emergent theory positions TCPAs not merely as health tools, but as complex, adaptive systems of empowerment—rooted in culture, place, and community. This aligns with recent scholarship calling for more contextualized and participant-driven models of well-being, especially in non-Western and gendered contexts.

Another contribution lies in foregrounding full-time mothers, a group frequently overlooked in both health and urban activity research. By centering their voices, the study extends grounded theory work on embodiment and social participation, while offering policy-relevant insights into low-cost, culturally relevant public health strategies.

Implications for stakeholders

The findings from this study have important implications for multiple stakeholders involved in health promotion, community development, and cultural preservation—particularly in contexts involving full-time mothers, aging populations, and informal caregivers.

For public health practitioners and urban health planners, the results highlight the value of low-cost, culturally embedded wellness resources such as TCPAs. These practices are naturally integrated into community life, require minimal infrastructure, and yet offer multidimensional benefits—physical, psychological, and social. Incorporating TCPAs into neighborhood wellness programs, senior activity centers, or community health promotion policies can expand access to preventive health tools, especially among underserved populations like full-time mothers.

For local governments and urban designers, the study underscores the importance of accessible public spaces that support informal group movement. Parks, plazas, and open squares should be designed not only for passive recreation but also to accommodate group activities like square dancing and Tai Chi. Ensuring safe, well-lit, and culturally sensitive spaces can reinforce daily participation and reduce barriers to engagement.

For community leaders and cultural organizations, the findings reaffirm the role of TCPAs as vehicles of cultural continuity and intergenerational transmission. Initiatives that support community-led instruction, such as elder-facilitated Tai Chi groups or square dance mentorship networks, can strengthen social capital while also preserving traditional knowledge systems.

For women's advocacy groups and social work practitioners, this research calls attention to the transformative potential of embodied routines in enhancing agency, emotional regulation, and identity for full-time mothers. Programming that validates and supports these forms of movement—as legitimate, empowering, and health-sustaining—can contribute to broader gender-inclusive health strategies and post-domestic life reintegration.

Finally, for researchers and academic institutions, the study offers a grounded framework that can inform future comparative or interventional studies on non-Western wellness models. The theory of empowerment through embodied tradition encourages the design of participant-centered, culturally grounded approaches to physical activity, community engagement, and mental health.

Conclusion

In sum, this research underscores that TCPAs are far more than physical exercises; they are everyday rituals of health, connection, and meaning. For full-time mothers, these practices offer an accessible, culturally resonant route to improving physical, emotional, and social well-being. The grounded theory of empowerment through embodied tradition advances our understanding of how localized, tradition-based physical practices can support health promotion in non-clinical, community-driven settings.

Future research could build upon these findings by applying the model to other demographic groups (e.g., male retirees, rural communities) or testing interventions that leverage TCPAs for mental health and community resilience. Ultimately, recognizing and sustaining these traditional practices may be critical not only for public health, but also for cultural sustainability and social equity.

References

1. Lu J, Chen Y, and Lv Y. The effect of housework, psychosocial stress and residential environment on musculoskeletal disorders for Chinese women. *SSM - Population Health* 2023; 24, 101545. <https://doi.org/10.1016/j.ssmph.2023.101545>
2. Norouzi S, Tavafian SS, Cousins R and Mokarami H. Evaluation of postural stress and risk factors for developing work-related musculoskeletal disorders among full-time women homemakers. *Sport Sciences for Health* 2025; 21(1), 173-180. <https://doi.org/10.1007/s11332-024-01242-4>
3. Wang C, Zhang P, Zhu Y, Li J, Yang Y, Tan X, Yang L, Zeng L and Huang W. A theoretical model of sports and health integration to promote active health. *BMC Public Health* 2025; 25(1), 1039. <https://doi.org/10.1186/s12889-025-22237-x>
4. Singh K, Gupta JK, Jain D, Kumar S, Singh T and Saha S. Exploring the ancient wisdom and modern relevance of Chinese medicine: A comprehensive review. *Pharmacological Research - Modern Chinese Medicine* 2024; 11, 100448. <https://doi.org/10.1016/j.prmcm.2024.100448>
5. Laidlaw R J, McGrath R, Adams C, Kumar S and Murray CM. Improved mental health, social connections and sense of self: a mixed methods systematic review exploring the impact and experience of community reminiscence programs. *Journal of Multidisciplinary Healthcare* 2023; 4111-4132. <https://doi.org/10.2147/JMDH.S438730>
6. Chen Y, Zhang L, Zhang S, Zhang J, Yu H, Li Q and Zhou Y. Prevalence and sociodemographic configurations of anxiety and depression among caregivers of individuals with mental illness: A meta-analysis and qualitative comparative analysis. *Journal of Affective Disorders* 2025; 375, 486-495. <https://doi.org/10.1016/j.jad.2025.01.129>
7. Sharp P, Botorff JL, Rice S, Oliffe JL, Schulenkorf N, Impellizzeri F and Caperchione, CM. People say men don't talk, well that's bullshit": A focus group study exploring challenges and opportunities for men's mental health promotion. *Plos one* 2022; 17(1), e0261997. <https://doi.org/10.1371/journal.pone.0261997>
8. Shen H, Du X, Fan Y, Dai J and Wei GX. Interoceptive Sensibility Mediates Anxiety Changes Induced by Mindfulness-Based Tai Chi Chuan Movement

- Intervention. *Mindfulness* 2023; 14(7), 1662-1673. <https://doi.org/10.1007/s12671-023-02162-z>
9. Lo WY, Liu X, Cheung DST and Lin CC. Effects of Tai Chi and Qigong in Depressive and Anxiety Symptoms in Cancer Patients: An Overview of Systematic Reviews. *Heart and Mind* 2024; 10.4103. <https://doi.org/10.4103/hm.HM-D-24-00090>
 10. Guerrieri PM and Mosca, F. A Recent Critical History of Urban Green for Psychological Wellbeing and Physical Health. *Proceedings of the 2nd International Conference on Trends in Architecture and Construction, Singapore 2025*; 35-50. https://doi.org/10.1007/978-981-97-4788-1_3
 11. Osokpo O and Riegel B. Cultural factors influencing self-care by persons with cardiovascular disease: An integrative review. *International Journal of Nursing Studies* 2021; 116, 103383. <https://doi.org/10.1016/j.ijnurstu.2019.06.014>
 12. Yeom JW, Yeom IS, Park HY and Lim SH. Cultural factors affecting the self-care of cancer survivors: An integrative review. *European Journal of Oncology Nursing* 2022; 59, 102165. <https://doi.org/10.1016/j.ejon.2022.102165>
 13. Sosa MV, Chin E and Sethares KA. Perspectives Regarding Engagement in Physical Activity in Women: Traditional Gender Role-Based Themes. *Journal of Cardiovascular Nursing* 2024; 10.1097. <https://doi.org/10.1097/JCN.0000000000001057>
 14. Eizagirre-Sagastibeltza O, Fernandez-Lasa U and Usabiaga O. Motivations and Barriers to Leisure-Time Physical Activity Among Rural Women of Gipuzkoa. *Women in Sport and Physical Activity Journal* 2023; 32(1),1-10. <http://dx.doi.org/10.1123/wspaj.2023-0025>
 15. Temin M and Heck CJ. Close to home: evidence on the impact of community-based girl groups. *Global Health: Science and Practice* 2020; 8(2), 300-324. <https://doi.org/10.9745/GHSP-D-20-00015>
 16. Durak M, Senol-Durak E and Karakose S. Psychological Distress and Anxiety among Housewives: The Mediation Role of Perceived Stress, Loneliness, and Housewife Burnout. *Current Psychology* 2023; 42(17), 14517-14528. <https://doi.org/10.1007/s12144-021-02636-0>
 17. Jaramillo AM, Montes F, Sarmiento OL, Rios AP, Rosas LG, Hunter RF, Rodríguez AL, and King AC. Social cohesion emerging from a community-based physical activity program: A temporal network analysis. *Network Science* 2021; 9(1), 35-48. <https://doi.org/10.1017/nws.2020.31>
 18. Zimmer CHMM, Jennifer HMTA, Cari DECPR and Bennett EV. Social support among older adults in group physical activity programs. *Journal of Applied Sport Psychology*, 2023; 35(4), 658-679. <https://doi.org/10.1080/10413200.2022.2055223>
 19. De Corte KG, Van Parys H, Pauwels G, Aendekerk V, Steeman K, Van Lierde E, Jespers, I, Vandewiele H and Lemmens GM. Family involvement in psychiatry: beyond implementing family interventions. *Journal of Family Therapy* 2023; 45(3), 311-330. <https://doi.org/10.1111/1467-6427.12414>
 20. Kiwanuka F, Sak-Dankosky N, Alemayehu YH, Nanyonga RC and Kvist T. The evidence bases of nurse-led family interventions for improving family outcomes in adult critical care settings: A mixed method systematic review. *International Journal of Nursing Studies* 2022; 125, 104100. <https://doi.org/10.1016/j.ijnurstu.2021.104100>
 21. Bjornaraa J, Bowers A, Mino D, Choice D, Metz D and Wagner K. Effects of a Remotely Delivered Cognitive Behavioral Coaching Program on the Self-Rated Functional Disability of Participants with Low Back Pain. *Pain Management Nursing* 2022; 23(4), 397-410. <https://doi.org/10.1016/j.pmn.2021.08.006>
 22. Ismail AS. Youth Spaces and Places Design for the Development of Socio-spatial Communal Values. *International Journal of Art and Design* 2025; 9(1), 1-14. <https://doi.org/10.30880/ahcs.2024.05.03.003>
 23. Fong Yan A, Nicholson LL, Ward RE, Hiller CE, Dovey K, Parker HM, Low LF, Moyle G and Chan C. The Effectiveness of Dance Interventions on Psychological and Cognitive Health Outcomes Compared with Other Forms of Physical Activity: A Systematic Review with Meta-analysis. *Sports Medicine* 2024; 54(5), 1179-1205. <https://doi.org/10.1007/s40279-023-01990-2>
 24. Oh H, Song R and Kim SJ. Effects of 12-week Tai Chi program on physical function, depression, and quality of life among cognitively impaired older adults: a feasibility study. *BMC Geriatrics* 2023; 23(1), 118. <https://doi.org/10.1186/s12877-023-03840-2>
 25. Ou KI, Wong MYC, Chung PK and Chui KYK. Effect of square dance interventions on physical and mental health among Chinese older adults: a systematic review. *International journal of environmental research and public health* 2022; 19(10), 6181. <https://doi.org/10.3390/ijerph19106181>