
AI translation · View original & related papers at
chinaxiv.org/items/chinaxiv-202508.00347

The Connotation and Characteristic Dimensions of Contemporary Spiritual Support for the Elderly

Authors: Fan Yunge, Ma Zijuan, Weishi Lin, Zhang Rui, Dongfang Wang, Fan Fang, Wang Dongfang, Fan Fang

Date: 2025-08-25T00:00:00+00:00

Abstract

With the improvement of material living standards among China's elderly population, their spiritual needs have become increasingly prominent, making spiritual support a critical issue in addressing contemporary population aging. However, systematic investigation into the connotation, characteristic dimensions, and measurement instruments of spiritual support for contemporary older adults remains lacking. This study integrates theoretical analysis with empirical research to deepen understanding of the mechanisms underlying spiritual support. Through qualitative interviews, grounded theory analysis, and questionnaire surveys, we examined the core components of spiritual support for older adults. The findings indicate that spiritual support encompasses five dimensions: health security (sense of security), interpersonal communication (sense of belonging), cultural activities (sense of competence), independence and freedom (sense of autonomy), and existential meaning (sense of value), based on which a measurement questionnaire was developed. Three empirical studies, surveying a cumulative total of 1,354 older adults, validated the questionnaire's reliability and validity, clarified the five characteristic dimensions of spiritual support, and confirmed its long-term predictive effect on older adults' physical and mental health. In conclusion, this study elucidates the connotation and structure of spiritual support for contemporary older adults in China, provides an effective measurement tool for assessing perceived spiritual support among older adults, and offers empirical evidence for future theoretical research and practical interventions.

Full Text

The Concept and Dimensional Characteristics of Spiritual Support for Older Adults in Contemporary China

FAN Yunge, MA Zijuan, LIN Weishi, ZHANG Rui, WANG Dongfang, FAN Fang

(School of Psychology and Center for Studies of Psychological Application, South China Normal University, Guangzhou 510631, China)

Abstract

As the material living standards of China's elderly population continue to improve, their spiritual needs have become increasingly prominent, making spiritual support a critical issue in addressing contemporary population aging. However, systematic investigation of the connotation, characteristic dimensions, and measurement tools for spiritual support of older adults remains lacking. This study combines theoretical analysis with empirical research to deepen understanding of the mechanisms underlying spiritual support. Through qualitative interviews, grounded theory analysis, and questionnaire surveys, we explored the core components of spiritual support for older adults. The results indicate that spiritual support encompasses five dimensions: health security (sense of security), social interaction (sense of belonging), cultural activities (sense of competence), independence (sense of autonomy), and meaning in life (sense of value). Based on these findings, we developed a measurement questionnaire. Three empirical studies involving a total of 1,354 older adults validated the reliability and validity of the questionnaire, clarified the five characteristic dimensions of spiritual support, and confirmed its long-term predictive effect on physical and mental health. In summary, this study clarifies the connotation and structure of spiritual support for contemporary Chinese older adults, provides an effective measurement tool for assessing perceived spiritual support, and offers empirical evidence for future theoretical research and practical interventions.

Keywords: spiritual support, spiritual needs, older adults, physical and mental health

Population aging has become a serious challenge facing human society, and rapid aging not only places enormous pressure on socioeconomic development but also raises new ethical demands regarding moral behavior and social norms [?]. As material living standards for China's elderly population have steadily improved in recent years, their spiritual needs have become increasingly prominent, making spiritual support a crucial issue in addressing contemporary aging society [?]. Article 14 of China's Law on the Protection of the Rights and Interests of Older Adults stipulates that "supporters shall fulfill their obligations to provide financial support, daily care, and spiritual comfort to older adults, and attend to their special needs." However, the current public understanding in China tends to view support merely as material care while neglecting spiritual con-

cern. Furthermore, the absence of unified standards regarding the connotation and characteristic dimensions of spiritual support for contemporary older adults makes quantitative assessment of perceived spiritual support difficult, which further leads to neglect of older adults' spiritual needs by their caregivers.

1.1 The Connotation of Spiritual Support

Spiritual support is a multidimensional concept with both broad and narrow definitions [?]. Broadly defined, spiritual support refers to comprehensive care and support for older adults across emotional, cognitive, psychological, and social dimensions, extending beyond direct care from family members to include multifaceted spiritual support from society, communities, and cultural institutions. Narrowly defined, spiritual support primarily refers to spiritual care within families or intimate relationships, particularly direct support for older adults' emotional and psychological needs, focusing more on emotional companionship, psychological comfort, and social interaction in daily life, typically provided by children, spouses, or other family members [?]. As lifestyles and production modes continue to progress and change in contemporary China, particularly under the influence of economic development and population fertility policies, the number of older adults living apart from their children continues to expand, and the population of "empty-nest elderly" gradually increases, making it difficult to meet older adults' growing psychological needs through family members alone [?]. Therefore, compared with the narrow definition, the broad definition of spiritual support is better adapted to modern society, encompasses more comprehensive spiritual needs of older adults, and facilitates the integration of resources and efforts from families, society, and government to provide a more complete spiritual support system [?].

Generally speaking, spiritual support involves meeting the spiritual needs of older adults, which not only concerns their quality of life and psychological well-being but also represents an important manifestation of social civilization and progress that can promote social harmony and advancement [?]. In recent years, spiritual support has also been regarded as an important pathway to successful aging. According to Rowe & Kahn's [?] theory of successful aging, successful aging comprises three core dimensions: low risk of disease and disability, high physical and cognitive functioning, and active social participation. Higher levels of spiritual support can enhance older adults' frequency of social interaction and life participation, strengthen their social connections, enrich daily life content, and thereby improve life satisfaction [?]. Simultaneously, spiritual support can help older adults maintain a sense of control over life, alleviate feelings of loneliness and meaninglessness, and thus promote their psychological health [?]. Existing research indicates that lack of spiritual support is an important factor leading to psychological problems such as depression and anxiety among older adults, and may even accelerate cognitive decline and increase the risk of developing dementia [?].

The connotation of spiritual support continues to expand and deepen with the

development of the times and social culture. However, research on spiritual support in China started relatively late, and there remains no unified and clear conceptual definition of spiritual support for contemporary Chinese older adults. In the past, older adults' emotional needs primarily depended on family members, especially the care of their children. As family structures and social relationships transform, older adults' spiritual needs are also adapting to new intergenerational relationships, demonstrating more diverse and dynamic trends. For instance, contemporary older adults can also obtain emotional comfort from friends, neighbors, or even strangers [?]. Therefore, in-depth exploration of the rich connotation of spiritual support for older adults that aligns with the times is particularly critical and urgent.

1.2 Similarities and Differences Between Spiritual Support and Related Concepts

Spiritual support overlaps considerably in connotation with concepts such as emotional support, emotional comfort, and subjective well-being, and is closely related to emotional connection, psychological comfort, and life satisfaction. Specifically, emotional support emphasizes emotional understanding and social response, forming the foundational basis of external support resources for older adults' spiritual support [?]. Emotional comfort focuses on care and empathy within intimate relationships, reflecting the core mechanism of internal emotional connection in spiritual support [?]. Subjective well-being, meanwhile, reflects individuals' overall positive evaluation of life and serves as an important psychological indicator for measuring the effectiveness of spiritual support [?]. High-level spiritual support often enhances older adults' subjective well-being and life satisfaction by strengthening external emotional connections, satisfying internal senses of meaning, and enhancing self-worth. Therefore, spiritual support not only addresses higher-level spiritual needs of older adults but also integrates multiple dimensions including emotional support, social participation, and value identification, demonstrating its comprehensive and systematic nature. In terms of functional structure, emotional support and emotional comfort can be regarded as core pathways to achieving spiritual support, while subjective well-being represents the ultimate outcome of spiritual support' s effects.

1.3 The Relationship Between Spiritual Needs and Spiritual Support in Older Adults

There exists a close relationship between older adults' spiritual needs and spiritual support. Spiritual needs constitute an important component of older adults' psychological health, while spiritual support serves as a crucial pathway to fulfilling these needs. The essence of spiritual support is to satisfy older adults' spiritual needs [?]. Therefore, clarifying contemporary older adults' spiritual needs will help elucidate the connotation and characteristic dimensions of spiritual support. According to Maslow' s Hierarchy of Needs, individuals' need satisfaction follows a hierarchical pattern, which can be divided into five levels

from low to high: physiological needs, safety needs, social needs, esteem needs, and self-actualization needs [?]. Based on this, some researchers have theoretically proposed that older adults' spiritual needs should include five hierarchical levels: emotional needs, cultural and entertainment needs, educational needs, interpersonal needs, political needs, and self-actualization needs, with different levels potentially being interdependent and overlapping [?]. You [?], based on Maslow' s hierarchy and Erikson' s theory of psychosocial development and considering the characteristics of China' s older population, categorized older adults' spiritual needs into needs for emotion and belonging, needs for spiritual reliance and sustenance, emotional needs for being loved and respected, and needs for peaceful end-of-life preparation. Additionally, Ming [?], using Fei Xiaotong' s "differential mode of association" theory as a background, noted that older adults' spiritual needs generally include emotional needs, entertainment needs, knowledge needs, interaction needs, and value needs, which spread outward like ripples in water, becoming broader as they extend outward. Through comprehensive and in-depth exploration of older adults' spiritual needs, we can clarify the pathways for achieving spiritual support from the perspective of contemporary older adults themselves.

To meet older adults' spiritual needs, researchers have proposed that spiritual support can be achieved through emotional support, social activities, value realization, spiritual comfort, and self-actualization [?]. Furthermore, Mu [?], through thorough literature review and systematic research, constructed a triangular structure of spiritual support for older adults: namely, needs for self-esteem, needs for anticipation, and needs for affection, with corresponding "satisfactions" being respect for personality, reassurance of achievement, and emotional comfort. Meng & Wang [?] pointed out that spiritual support should not only refer to older adults passively receiving help but also involve older adults actively initiating interactions. However, previous research has mostly analyzed older adults' spiritual needs from theoretical perspectives, lacking empirical validation, which may be insufficiently comprehensive and somewhat subjective.

1.4 Characteristic Dimensions of Spiritual Support for Older Adults

Support for older adults includes both material and spiritual dimensions. Compared with material support, spiritual support for older adults exhibits higher-level characteristics. Material support primarily satisfies older adults' survival needs regarding food, clothing, housing, and transportation, whereas spiritual support focuses on their psychological state and degree of life happiness, representing more prominent needs that emerge after lower-level material needs are satisfied [?]. Material support forms the foundation for spiritual support, yet spiritual support possesses its own independence, with the two being both complementary and independent [?]. However, spiritual support involves considerable uncertainty. While material support can typically be measured through specific material carriers, spiritual support is achieved through verbal communication, emotional care, and empathetic understanding, making it relatively

abstract and difficult to quantify, relying primarily on older adults' subjective evaluation [?].

From an individual perspective, older adults possess certain self-support capabilities and can meet their own spiritual needs through self-adjustment and self-improvement [?]. For example, older adults can maintain positive and optimistic attitudes and good mental states by cultivating hobbies, learning new knowledge and skills, and engaging in appropriate physical exercise. According to Self-Determination Theory, individuals have three basic psychological needs: autonomy, competence, and relatedness [?]. Autonomy refers to the psychological freedom of experiencing one' s will and choices in activities; competence refers to the sense of controlling one' s environment and developing abilities; and relatedness involves connecting with others and experiencing love and being loved. Older adults can satisfy their needs for autonomy and competence through active participation in various activities and helping others, thereby demonstrating their self-worth.

Family members and close friends can provide assurance for older adults' sense of relatedness. The family constitutes the main body of spiritual support, while friend support also represents an important source of spiritual support for older adults [?]. Socioemotional Selectivity Theory posits that as individuals age, their information processing and social goals continuously adjust [?]. Older adults, recognizing their limited time, tend to focus on maintaining intimate relationships with family members to pursue life satisfaction [?]. Moreover, older adults typically place particular emphasis on satisfying emotional and affective needs, tending to invest more time in interactions with familiar and rewarding social partners. This selective narrowing of social interaction maximizes positive emotional experiences and minimizes emotional risks during aging [?]. Therefore, older adults are more inclined to meet their emotional needs through interactions with children and emotionally meaningful social companions.

Social culture also plays a multifaceted role in older adults' spiritual support by shaping values, providing mental health resources, and constructing social networks. According to Ecological Systems Theory, individuals live within multi-layered environmental systems (such as family, society, and culture) that jointly influence older adults' spiritual support through direct and indirect means [?]. As China' s social mobility continues to expand and multicultural integration follows, certain challenges have emerged for older adults' social adaptation [?]. Communities and institutions should actively organize various activities to provide platforms for communication and interaction, respect older adults' cultural traditions and beliefs, enhance their sense of social belonging, and create inclusive environments for spiritual support [?].

In summary, we believe that spiritual support for older adults is a multidimensional concept involving individuals, families, friends, culture, and society. In the process of meeting older adults' spiritual and emotional needs through spiritual support, older adults possess both subjective agency and dependence on external environmental support and attention. The concept of spiritual support

not only exhibits higher-level and independent characteristics but also involves uncertainty and complexity, primarily manifested in the lack of systematic and quantifiable measurement tools that can comprehensively capture the multidimensional features and dynamic changes of spiritual support.

1.5 Core Research Questions

As older adults accumulate life experience, their emotional lives become richer. Although not as passionate and extroverted as younger people, their emotions are more delicate and sensitive, with stronger desires for spiritual need satisfaction, particularly hoping to receive care and love from others, and longing to be valued and to gain self-worth [?]. In recent years, as population aging accelerates, researchers from different fields have gradually begun to pay attention to older adults' spiritual needs and spiritual support issues [?]. However, the scope of spiritual support is broad and involves diverse subjects. Currently, scholars have not reached unified standards regarding the connotation and dimensions of spiritual support, and quantitative indicators for assessing older adults' perceived spiritual support levels are still lacking. Previous research has mostly explored the connotation and characteristic dimensions of spiritual support through theoretical construction, which possesses strong subjectivity and may limit the generalizability of findings.

Therefore, this study employs empirical methods to explore the connotation and characteristic dimensions of spiritual support for contemporary older adults, develops a spiritual support scale based on older adults' own perspectives, and validates the scale' s reliability and validity across samples, thereby providing theoretical foundations and effective tools for future exploration of spiritual support implementation pathways for older adults in the context of aging.

Study 1: Qualitative Exploration of the Connotation and Dimensions of Spiritual Support

2.1 Research Purpose

This study aims to employ qualitative research methods to explore the connotation and characteristic dimensions of spiritual support for older adults. Using grounded theory analysis, we conducted in-depth interviews with older adults in home-based care and institutional care settings, as well as their children and caregivers, to obtain first-hand information regarding perceptions and understanding of spiritual support for older adults. We further coded the textual data to explore the connotation and characteristic dimensions of spiritual support for contemporary older adults.

2.2.1 Interview Participants

This study followed an intensity sampling strategy [?] and selected older adults in home-based care and their children, as well as older adults in institutional

care and their children and caregivers as interview participants. Based on the research approach of “older adults as the core with diverse supplementary perspectives,” this study selected a total of 81 interview participants, including 52 older adults (32 in home-based care and 20 in institutional care), 18 adult children of older adults (13 children of home-based care older adults and 5 children of institutional care older adults), and 11 caregivers in institutional care settings. The inclusion of children and caregivers aimed to provide supplementary information sources, offering peripheral perspectives on older adults’ spiritual support cognition, implementation pathways, and barriers. All participating older adults were in good physical health, without major physical illnesses, and were self-sufficient. Their demographic information is presented in Table 1 .

2.2.2 Data Collection and Interview Process

This study primarily used interviews to collect data. To ensure participants could clearly and accurately understand the interview content, the research team (comprising 2 doctoral supervisors, 1 master’ s supervisor, and 1 psychology graduate student) developed a preliminary interview outline through discussion before formal interviews. Two participants were selected for pilot interviews, and based on the interview situation and participants’ suggestions, the preliminary outline was revised to form the final interview outline (see Table 2). Formal interviews were semi-structured, with researchers conducting face-to-face in-depth interviews based on the interview outline while flexibly adjusting questions as appropriate. Interviews concluded when information saturation was reached—that is, when continued interviews could no longer provide new valuable content. Subsequently, interview content was transcribed verbatim, and data analysis was conducted using grounded theory.

The interview outline for the connotation and characteristic dimensions of spiritual support included questions such as: “What are your main spiritual needs?”, “What aspects should contemporary spiritual support for older adults include?” , and “Based on your current situation, from which aspects would you like to receive more spiritual comfort?” Similar questions were adapted for adult children and caregivers to elicit their perspectives on providing spiritual support.

2.2.3 Data Analysis

As no unified operational definition exists for the connotation of spiritual support for contemporary older adults, this study employed grounded theory to conduct theoretical coding of the collected interview content, aiming to explore the connotation and characteristic dimensions of spiritual support. Grounded theory is a systematic qualitative research method that constructs theories reflecting social phenomena by collecting and analyzing qualitative data grounded in textual materials, combining inductive and deductive approaches to build theory from the bottom up [?]. The data analysis process based on grounded theory includes open coding (first-level coding), axial coding (second-level coding), and selective coding (third-level coding). To ensure consistency in the coding pro-

cess, researchers repeatedly read all interview materials before formal coding to establish a preliminary coding framework. During coding, researchers continuously compared similar content across interview materials, cross-validated coding applicability, and formed a stable coding system through iterative revision [?]. Additionally, two scholars experienced in qualitative research reviewed some coded content to further enhance the rationality and scientific nature of interpretations. To ensure coding completeness, this study employed the constant comparative method, conducting line-by-line coding and comparison of all interview materials until theoretical saturation was achieved. Throughout this process, researchers continuously compared statements from different participants, inductively forming stable and comprehensive thematic categories [?]. This study utilized QSR Nvivo 20.0 qualitative analysis software to organize, edit, code, and statistically analyze the collected interview data. By importing Chinese interview transcripts, the software enabled indexing, searching, and theorizing of unstructured and non-numerical textual data, thereby constructing indices, logical relationships, and generating theory.

2.3.1 Open Coding

The purpose of open coding is to deconstruct raw data sentence by sentence, extract key concepts, and form preliminary categories. Based on careful reading and full comprehension of participants' discourse meanings, textual data content was broken down, and core meanings of each sentence were annotated to extract initial concepts [?]. Before conducting open coding, researchers assigned corresponding codes to each interview participant (e.g., FLR1 for the 1st home-based care older adult, OLR2 for the 2nd institutional care older adult, FZN3 for the 3rd home-based care older adult' s child, OZN4 for the 4th institutional care older adult' s child, OHL5 for the 5th institutional care older adult' s caregiver). Subsequently, researchers centered on the question of “the connotation of spiritual support for older adults,” continuously searching for and comparing repeatedly occurring meaning units, establishing them as different nodes, and categorizing and coding similar concepts to form preliminary categories. During this process, researchers maintained openness and flexibility, adjusting, merging, and refining categories at any time. This study extracted a total of 67 codes involving 362 reference points (see Table 3).

2.3.2 Axial Coding and Selective Coding

Based on the initial categories extracted through open coding, researchers further conducted axial coding and selective coding of textual materials centered on “the connotation of spiritual support for older adults.” Axial coding involves deeply classifying, synthesizing, and organizing textual materials based on initial categories extracted through open coding, searching for semantically related codes and constructing logical connections between categories to deepen understanding of the data [?]. In this study, since the 67 codes obtained through open coding represented different meaning units, after further organization, analysis,

and comparison, these 67 codes were categorized into 16 more refined codes. Selective coding involves further abstractly integrating and refining existing categories, generating and exploring main categories around the theme, and thereby establishing connections between categories [?]. In this study, based on these 16 codes, five new nodes were established around the theme of “the connotation of spiritual support for older adults” : “health security (sense of security),” “independence (sense of autonomy),” “cultural activities (sense of competence),” “meaning in life (sense of value),” and “social interaction (sense of belonging)” (see Table 3).

Specifically, social interaction emerged as the core category of spiritual support, with high frequency of mention by participants. Intimate relationships and social interaction constitute important pathways for meeting contemporary older adults’ emotional needs and sense of belonging. Intimate relationships (such as emotional support from children and spouses) provide stable emotional reliance and psychological comfort for older adults, while social interaction (such as friend interactions and community activity participation) expands their social connections and prevents loneliness. Second, participation in cultural activities organized by communities or institutions not only promotes social interaction and enhances sense of belonging but also provides opportunities for older adults to demonstrate abilities and social connections, strengthening their sense of competence. From older adults’ individual subjective perspective, independent and free lifestyles grant them more choices, enabling them to autonomously decide which social activities to participate in and generate a sense of control over life. With the development of the times, due to improvements in China’ s pension system and increases in older adults’ savings, they can maintain certain economic autonomy, and older adults increasingly emphasize their independence and decision-making authority in life. Moreover, the sense of belonging and competence gained through interpersonal interaction and cultural activities further enables older adults to feel respected and recognized, enhancing their sense of meaning in life and self-worth. When older adults feel their value is recognized, this in turn promotes their social participation and maintenance of positive attitudes. Health security forms the foundation of spiritual support for older adults, relying on comprehensive support from policies, technology, and communities. As age increases, older adults universally face age-related physical and psychological problems, and a sound health security system can provide emotional comfort and psychological security. Therefore, providing health security for older adults from the governmental level represents important support and a key foundation for realizing their spiritual support. Examples of interview data for each dimension are presented in Table 4 .

2.4 Theoretical Model Construction

Based on the hierarchical coding results of grounded theory and thorough analysis of interview data, this study constructed the connotative structure of spiritual support for contemporary older adults from the bottom up. As shown

in Figure 1 [Figure 1: see original paper], spiritual support can be integrated into a multidimensional structural system composed of three layers—basic support, relational interaction, and meaning construction—encompassing five interrelated characteristic dimensions: health security, social interaction, cultural activities, independence, and meaning in life. These five dimensions respectively address five categories of core emotional needs among older adults: sense of security, sense of belonging, sense of competence, sense of autonomy, and sense of value, collectively constituting the complete connotation of spiritual support. At the theoretical integration level, Maslow’s Hierarchy of Needs and Self-Determination Theory were organically integrated to construct a hierarchical structure of spiritual support. Health security, as the basic dimension, corresponds to older adults’ fundamental expectations for a stable and secure living environment and serves as the prerequisite for realizing other dimensions. Its sources of support extend beyond family children to include community services and government policy guarantees, reflecting the objectivity and institutional dependence of spiritual support. At the middle structural level, social interaction, cultural activities, and independence constitute the core activity space for older adults’ spiritual lives, focusing on satisfying their needs for social participation and environmental control. Social interaction, in particular, is widely recognized by older adults as having dual functions of emotional connection and psychological comfort, representing the core category through which older adults obtain sense of belonging and existence confirmation. Cultural activities are not only ways to continue hobbies but also important carriers for achieving social participation and role transformation, helping older adults maintain a sense of “usefulness” and competence. Independence reflects older adults’ insistence on autonomous living, and whether it is respected by family and society directly affects their psychological dignity and life satisfaction. Based on Self-Determination Theory, human health development and intrinsic motivation derive from satisfying three basic psychological needs: autonomy, competence, and relatedness [?]. Meaning in life, as the higher-order dimension of spiritual support, emphasizes how older adults reconstruct life goals and sense of value in new life stages after experiencing family role fading and social identity transformation. This dimension theoretically responds to Rowe & Kahn’s [?] “active aging” framework’s requirement for “active engagement” and injects a more culturally sensitive psychosocial support pathway into existing successful aging theories.

Overall, spiritual support for contemporary older adults is based on health security provided by social guarantees, centered on social interaction, and obtains emotional support through intimate interactions with family members, especially children, and exchanges with friends and neighbors. At the community level, diverse cultural activities can be organized as important carriers for older adults to achieve valuable social connections and interpersonal interactions. Additionally, daily life for older adults requires acceptance and respect for their autonomy and independence, encouraging them to actively arrange and control their personal lives, thereby promoting their acquisition of meaning in life

and sense of value. Therefore, implementing spiritual support for contemporary older adults requires participation from multiple subjects, integrating resources and efforts from older adults themselves, families, communities, and government to provide a comprehensive support system. Spiritual support for contemporary older adults exhibits characteristics of subjectivity, objectivity, relationality, and higher-order nature. In summary, this study preliminarily proposes the following definition of spiritual support for contemporary older adults: Based on health security, with cultural activities as important media, spiritual support promotes meaningful social interaction and interpersonal exchange, and in this process fully respects older adults' autonomy, gradually enhancing their sense of existence value and psychological satisfaction.

2.5 Summary

This study conducted qualitative analysis of interview data and used grounded theory to construct the connotative structure and theoretical explanatory framework of spiritual support for contemporary older adults. The results identified five characteristic dimensions: health security, social interaction, cultural activities, independence, and meaning in life, corresponding to older adults' emotional needs for security, belonging, competence, autonomy, and value, respectively. Specifically, spiritual support for contemporary Chinese older adults is based on health security provided by government and family, centered on social interaction, and obtains emotional support through intimate interactions with family members, especially children, and exchanges with friends and neighbors. At the community level, diverse cultural activities serve as important carriers for promoting older adults' social connections and interpersonal interactions. Furthermore, accepting and respecting older adults' autonomy and independence and encouraging them to actively arrange and control their lives helps enhance meaning in life and sense of value. In conclusion, the connotation of spiritual support for contemporary Chinese older adults is a complex concept involving multiple subjects, exhibiting coexisting characteristics of subjectivity, objectivity, relationality, and higher-order nature.

Study 2: Development and Validation of the Perceived Spiritual Support Scale for Older Adults

3.1 Research Purpose

Based on the characteristic dimensions of spiritual support for older adults extracted through grounded theory in Study 1, this study aimed to develop a measurement questionnaire for assessing older adults' perceived spiritual support, with the goal of creating a localized assessment tool for spiritual support among Chinese older adults and further clarifying the characteristic dimensions of spiritual support for contemporary older adults.

3.2.1 Scale Development

Based on the five dimensions of spiritual support identified in Study 1—health security (sense of security), cultural activities (sense of competence), social interaction (sense of belonging), independence (sense of autonomy), and meaning in life (sense of value)—we initially drafted questionnaire items for the Perceived Spiritual Support Scale for Older Adults by referencing existing mature scale items related to these dimensions. Subsequently, we invited two health psychology experts and several psychology graduate students to revise the drafted items word by word and eliminated items that clearly exceeded older adults' comprehension range, ultimately forming a 33-item Perceived Spiritual Support Scale for Older Adults. This included 4 items for health security (sense of security), 4 items for cultural activities (sense of competence), 16 items for social interaction (sense of belonging), 4 items for independence (sense of autonomy), and 5 items for meaning in life (sense of value), with 12 reverse-scored items included to enhance questionnaire validity. To prevent response bias, the 33 items were randomly arranged to form the initial scale.

We conducted a pilot survey with 236 physically healthy older adults aged 60 and above from a community in Guangzhou to preliminarily screen items. Based on item analysis and exploratory factor analysis results, 7 items with poor fit were eliminated. Additionally, two dimensions contained only one item each, which does not meet basic psychometric requirements [?], leading to the elimination of two more items. This preliminary process resulted in a 24-item Perceived Spiritual Support Scale for Older Adults. The resulting 24-item preliminary scale was then administered to a larger sample of older adults to test its reliability and validity.

3.2.2 Participants

Sample 1: Using convenience sampling, we randomly selected one community each from Baiyun District and Conghua District in Guangzhou and invited physically healthy older adults aged 60 and above who had long-term residence in these communities to participate. Trained administrators conducted individual testing, collecting 473 questionnaires. After excluding questionnaires that did not meet age criteria, the final valid data consisted of 472 cases, with an effective response rate of 99.8%. The sample included 296 females (62.7%), with ages ranging from 65 to 99 years ($M_{age} = 73.28 \pm 5.81$ years). Regarding education level, 10.2% had no formal education, 58.9% had primary school or below, 22.0% had junior high school, 6.6% had high school/vocational school/technical school, and 1.5% had college or above. This sample was used for item analysis and exploratory factor analysis, with sample size exceeding 10 times the number of items, meeting the requirement for stable factor structure in exploratory factor analysis [?].

Sample 2: We selected one community each from Conghua District and Haizhu District in Guangzhou and invited physically healthy older adults aged 60 and

above with long-term residence to participate. Trained administrators conducted individual testing, collecting 644 questionnaires. After excluding questionnaires that did not meet age criteria, showed patterned responding, or contained logical contradictions, the final valid data consisted of 519 cases, with an effective response rate of 80.6%. The sample included 301 females (58.0%), with ages ranging from 60 to 98 years ($Mage = 72.36 \pm 5.93$ years). Regarding education level, 5.2% had no formal education, 31.2% had primary school or below, 25.8% had junior high school, 22.4% had high school/vocational school/technical school, and 9.3% had college or above. This sample was used for confirmatory factor analysis, criterion-related validity testing, and reliability analysis, with sample size exceeding 10 times the number of items, meeting requirements for confirmatory factor analysis [?].

Two weeks later, 224 participants were selected for retesting within the specified time frame, yielding 223 valid matched data pairs, with an effective matching rate of 99.6%. Among the valid matched data, 136 were female (61.0%), with ages ranging from 66 to 99 years ($Mage = 73.05 \pm 5.61$ years).

3.2.3 Measures

(1) Perceived Spiritual Support Scale for Older Adults

We used the 24-item Perceived Spiritual Support Scale for Older Adults, including five dimensions: health security (“I worry about my current or future health status”), cultural activities (“I am satisfied with my current participation in cultural and recreational activities”), social interaction (“I can maintain long-term harmonious relationships with old friends in my own way”), independence (“I can freely choose my lifestyle”), and meaning in life (“I can find appropriate opportunities to realize my value”). The scale used a 4-point scoring system (1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree), with higher scores indicating better perceived spiritual support.

(2) Loneliness Scale

We used the short-form version of the UCLA Loneliness Scale (ULS-8) developed by Hays and DiMatteo [?] to measure older adults' loneliness levels. This scale is one of the most widely used self-report loneliness measures, containing 8 items such as “I feel a lack of companionship.” Each item used a 4-point rating scale (1 = never; 2 = rarely; 3 = sometimes; 4 = always), with higher scores indicating stronger loneliness. In this study, the scale' s Cronbach' s α coefficient was 0.70.

(3) Depressive Symptoms Scale

We used the Patient Health Questionnaire-9 (PHQ-9) developed by Kroenke et al. [?] to assess older adults' depressive symptoms. This widely used scale demonstrates good reliability and validity and is a common tool for evaluating depression severity. The scale contains 9 items assessing the frequency of each symptom during the past two weeks using a 4-point scale: “not at all” = 0, “several days (less than 7 days)” = 1, “more than half the days (7-10 days)” = 2, and “nearly every day” = 3, with higher scores indicating more severe depressive

symptoms. In this study, the scale's Cronbach's α coefficient was 0.94.

(4) Anxiety Symptoms Scale

We used the Generalized Anxiety Disorder-7 (GAD-7) scale developed by Spitzer et al. [?] to assess older adults' anxiety symptoms. This scale demonstrates good reliability and validity and is a common tool for evaluating anxiety. The scale contains 7 items assessing the frequency of each symptom during the past two weeks using the same 4-point scale as the PHQ-9, with higher scores indicating more severe anxiety symptoms. In this study, the scale's Cronbach's α coefficient was 0.95.

3.2.4 Statistical Methods

We used SPSS 26.0 for descriptive statistics, item analysis, exploratory factor analysis, criterion-related validity testing, and reliability analysis.

3.3.1 Item Analysis

Item analysis was conducted on Sample 1. First, using the critical ratio method, we divided participants into high spiritual support group (top 27% of scores) and low spiritual support group (bottom 27% of scores) based on average scores on the 24-item Perceived Spiritual Support Scale. Independent samples t-tests on the 24 items between these two groups revealed significant differences for all items. Subsequently, using Pearson correlation analysis, we calculated correlations between each item and the total score as well as with its respective factor score. Results showed that all item scores significantly correlated with the total score ($r_s = 0.33\sim 0.74$, $p < 0.001$) and with their respective dimension scores (health security: $r_s = 0.33\sim 0.54$, $p < 0.001$; social interaction: $r_s = 0.51\sim 0.73$, $p < 0.001$; cultural activities: $r_s = 0.56\sim 0.63$, $p < 0.001$; independence: $r_s = 0.57\sim 0.67$, $p < 0.001$; meaning in life: $r_s = 0.35\sim 0.51$, $p < 0.001$).

3.3.2 Exploratory Factor Analysis

Exploratory factor analysis was conducted on Sample 1. Bartlett's test of sphericity ($\chi^2 = 4780.291$, $df = 231$, $p < 0.001$) and Kaiser-Meyer-Olkin test ($KMO = 0.91$) indicated that items shared underlying factors and were suitable for exploratory factor analysis. Using principal component analysis with Promax rotation, we determined the number of factors based on eigenvalues ≥ 1 and scree plot examination. Items were eliminated if they met either of the following criteria: (1) factor loading absolute value < 0.4 on any factor; (2) difference in absolute loading values between two factors < 0.15 . Each time an item was eliminated, exploratory factor analysis was rerun until no items met these criteria. Based on these standards, 2 items were eliminated, retaining 22 items distributed across 5 factors, with a cumulative variance contribution rate of 63.82%. As shown in Table 5, each item demonstrated substantial loadings on its respective factor, ranging from 0.55 to 0.85.

3.3.3 Confirmatory Factor Analysis

To further evaluate the appropriateness of the five-factor model obtained from exploratory factor analysis, confirmatory factor analysis was conducted on Sample 2. Comparison of model fit indices for one-factor, two-factor, three-factor, four-factor, and five-factor models revealed that the five-factor model demonstrated superior fit in describing the internal structure of spiritual support for older adults (see Table 6). As shown in Figure 2 [Figure 2: see original paper], standardized factor loadings in the five-factor model all exceeded 0.39.

3.3.4 Criterion-Related Validity

Criterion-related validity was tested on Sample 2 using the Loneliness Scale, Depressive Symptoms Scale, and Anxiety Symptoms Scale as criterion indicators. Pearson correlation analysis revealed that the total score and all factor scores of the Perceived Spiritual Support Scale for Older Adults showed significant negative correlations with loneliness, depressive symptoms, and anxiety symptoms, indicating that higher spiritual support levels were associated with lower negative psychological states and demonstrating good criterion validity. Notably, correlation coefficients ranged from -0.15 to -0.56, significant but moderate in strength (see Table 7), suggesting that although spiritual support is closely related to mental health, it is not equivalent to traditional psychological distress indicators such as loneliness, depression, or anxiety. This “significant but not high” correlation reflects that spiritual support, as a comprehensive psychosocial support resource, operates through more multidimensional functional mechanisms. Spiritual support not only manifests as alleviation of negative emotions but also emphasizes the construction of positive psychological resources such as autonomy, sense of value, cultural belonging, and social participation. Therefore, while maintaining moderate associations with traditional negative emotion indicators, the questionnaire also demonstrates relative independence and theoretical distinctiveness.

3.3.5 Reliability Analysis

Internal consistency reliability was tested on Sample 2. Results showed that the Cronbach' s α coefficient for the Perceived Spiritual Support Scale for Older Adults was 0.90, with dimension-specific α coefficients of 0.66 (health security), 0.80 (social interaction), 0.80 (cultural activities), 0.75 (independence), and 0.75 (meaning in life). The overall test-retest reliability intraclass correlation coefficient (ICC) was 0.91, with factor-specific ICC values of 0.74 (health security), 0.87 (social interaction), 0.79 (cultural activities), 0.75 (independence), and 0.65 (meaning in life).

3.4 Summary

Based on the qualitative analysis results from Study 1, this study developed and compiled a research tool for measuring older adults' perceived spiritual sup-

port satisfaction. First, through exploratory factor analysis, we extracted and confirmed a self-developed 22-item Perceived Spiritual Support Scale for Older Adults. Subsequently, through confirmatory factor analysis, criterion-related validity testing, and reliability analysis, we systematically examined the scale's structural validity, convergent validity, and internal consistency. Results indicated that the scale demonstrated stable psychological structure across different older adult samples and effectively captured core characteristics of perceived spiritual support. Further analysis revealed that the scale comprises five dimensions: health security (4 items), social interaction (7 items), cultural activities (4 items), independence (4 items), and meaning in life (3 items), consistent with the qualitative analysis results from Study 1. Although the number of retained items varied across dimensions, each effectively covered its core connotation. For example, "social interaction," as the most representative and diversely expressed dimension in spiritual support, was mentioned most frequently in interviews (accounting for 31.5% of reference points), with its items comprising 31.8% of the total scale. Meanwhile, "meaning in life," though a higher-order need, had a relatively concentrated content structure, with only 3 items adequately covering its key features while demonstrating good reliability and validity. In summary, this study not only further clarified the five core dimensions and their connotations but also revealed potential associations among dimensions, providing reliable measurement tools and theoretical support for subsequent theoretical deepening and empirical research on spiritual support.

Study 3: Longitudinal Predictive Effects of Spiritual Support on Health Outcomes

4.1 Research Purpose

This study utilized the Perceived Spiritual Support Scale for Older Adults developed in Study 2 to examine, through longitudinal tracking, the long-term predictive effects of spiritual support on older adults' physical and psychological quality of life, frailty, and cognitive functioning, thereby investigating the relationship between perceived spiritual support and physical and mental health.

4.2.1 Participants

This study selected physically healthy older adults aged 60 and above with clear self-awareness and willingness to cooperate from a community in Baiyun District, Guangzhou. Using G*Power [?] to calculate the minimum sample size required for multiple linear regression analysis yielded a requirement of 89 participants (Cohen's $f^2 = 0.15$ for medium effect size, α error probability = 0.05, power = 95%). A 6-month tracking survey was conducted with participants. The first assessment (T1) took place from May to June 2024, with trained administrators conducting individual testing and collecting demographic information and perceived spiritual support levels. At T1, 237 valid questionnaires were collected, including 142 females (59.9%) with ages ranging from 60 to 91 years (Mage

= 73.07 ± 5.48 years). The second assessment (T2) occurred from November to December 2024, with 226 participants successfully tracked (effective tracking rate = 95.4%), collecting data on participants' quality of life, frailty, and cognitive functioning.

4.2.2 Measures

(1) Perceived Spiritual Support Scale for Older Adults

The 22-item Perceived Spiritual Support Scale for Older Adults developed in Study 2 was administered at T1 to measure spiritual support levels. The scale includes five dimensions: health security (sense of security), social interaction (sense of belonging), cultural activities (sense of competence), independence (sense of autonomy), and meaning in life (sense of value). The scale uses a 4-point scoring system (1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree), with mean scores calculated across all 22 items and for each dimension. Higher scores indicate better perceived spiritual support. In this study, Cronbach' s α coefficients for the total scale and each dimension (health security, social interaction, cultural activities, independence, meaning in life) were 0.88, 0.75, 0.89, 0.87, 0.80, and 0.69, respectively.

(2) Quality of Life Scale

The 12-item Short-Form Health Survey (SF-12) developed by Ware et al. [?] was administered at T2 to measure quality of life. The SF-12 contains 12 items covering physical and mental health-related quality of life dimensions. Dimension scores were calculated separately and converted to standard scores using appropriate formulas, with each dimension' s standard score ranging from 0 to 100. Higher scores indicate better physical or mental quality of life. In this study, Cronbach' s α coefficients for the physical and mental dimensions were 0.84 and 0.83, respectively.

(3) Frailty Scale

The Tilburg Frailty Indicator (TFI) developed by Gobbens et al. [?] was administered at T2 to assess frailty status. The TFI contains 15 items comprising three dimensions: physical frailty, psychological frailty, and social frailty. The total score across 15 items (range 0-15) represents frailty severity, with higher scores indicating greater frailty. In this study, the scale' s Cronbach' s α coefficient was 0.75.

(4) Cognitive Functioning Scale

The 8-item Ascertain Dementia (AD-8) questionnaire developed by Hughes et al. [?] was administered at T2 to assess cognitive functioning. This screening tool for early identification of cognitive dysfunction asks participants to respond to each item based on their actual situation, with "no" scored as 0 and "yes" scored as 1. Total scores range from 0 to 8, with higher scores indicating more severe cognitive impairment. In this study, the questionnaire' s Cronbach' s α coefficient was 0.63.

4.2.3 Statistical Methods

SPSS 26.0 was used for descriptive statistics, correlation analysis, and regression analysis. To avoid confounding effects of irrelevant variables on the relationships among main variables, demographic variables including age, gender, education years, marital status, physical disease status, and family economic status were controlled in regression analyses. Results sections report both models without control variables and models with control variables included, thereby more comprehensively exploring the associations between perceived spiritual support and physical and mental health.

4.3.1 Common Method Bias Test

Since questionnaire data in this study were primarily collected through self-report from older adults, Harman's single-factor test was first used to test for common method bias. The results revealed 16 factors with eigenvalues greater than 1, with the first factor explaining 19.39% of variance, below the 40% critical value, indicating no serious common method bias in this study.

4.3.2 Descriptive Statistics and Correlation Analysis

As shown in Table 8, correlation analysis revealed that older adults' perceived spiritual support levels were significantly positively correlated with physical quality of life ($r = 0.27, p < 0.001$) and mental quality of life ($r = 0.22, p = 0.001$). Specifically, health security ($r = 0.29, p < 0.001$), social interaction ($r = 0.21, p = 0.002$), cultural activities ($r = 0.14, p = 0.042$), and independence ($r = 0.17, p = 0.013$) were significantly positively correlated with physical quality of life, while health security ($r = 0.15, p = 0.030$), social interaction ($r = 0.21, p = 0.002$), and independence ($r = 0.16, p = 0.018$) were significantly positively correlated with mental quality of life. Perceived spiritual support levels were significantly negatively correlated with frailty ($r = -0.30, p < 0.001$) and cognitive decline ($r = -0.26, p < 0.001$). Specifically, health security ($r = -0.30, p < 0.001$), social interaction ($r = -0.23, p = 0.001$), cultural activities ($r = -0.20, p = 0.004$), and independence ($r = -0.17, p = 0.010$) were significantly negatively correlated with frailty, while health security ($r = -0.24, p < 0.001$), social interaction ($r = -0.22, p = 0.001$), and independence ($r = -0.15, p = 0.032$) were significantly negatively correlated with cognitive decline.

4.3.3 Predictive Validity Test

Regression analysis results (see Table 9) showed that in models without control variables, T1 perceived spiritual support levels significantly predicted T2 physical quality of life ($b = 6.35, SE = 1.52, 95\% CI = [3.36, 9.34], \beta = 0.27, p < 0.001$), mental quality of life ($b = 4.79, SE = 1.47, 95\% CI = [1.90, 7.69], \beta = 0.22, p = 0.001$), frailty status ($b = -1.84, SE = 0.40, 95\% CI = [-2.63, -1.05], \beta = -0.30, p < 0.001$), and cognitive decline ($b = -1.06, SE = 0.27, 95\% CI = [-1.60, -0.53], \beta = -0.26, p < 0.001$). After including control variables, results

remained similar: T1 perceived spiritual support levels significantly predicted T2 physical quality of life ($b = 4.77$, $SE = 1.52$, $95\% \text{ CI} = [1.77, 7.77]$, $\beta = 0.21$, $p = 0.002$), mental quality of life ($b = 5.29$, $SE = 1.52$, $95\% \text{ CI} = [2.29, 8.29]$, $\beta = 0.24$, $p = 0.001$), frailty status ($b = -1.61$, $SE = 0.42$, $95\% \text{ CI} = [-2.44, -0.79]$, $\beta = -0.26$, $p < 0.001$), and cognitive decline ($b = -1.00$, $SE = 0.28$, $95\% \text{ CI} = [-1.55, -0.45]$, $\beta = -0.24$, $p < 0.001$).

4.4 Summary

This study employed a longitudinal tracking design to systematically examine the long-term effects of older adults' perceived spiritual support levels on quality of life, frailty status, and cognitive functioning. Results indicated that older adults with higher perceived spiritual support levels at baseline demonstrated better physical and mental quality of life, lower frailty levels, and better cognitive functioning six months later. After controlling for relevant demographic variables, the predictive effects of perceived spiritual support levels on all physical and mental health indicators remained significant, indicating robust effects. These findings not only validate the predictive validity of perceived spiritual support for older adults' physical and mental health but also further emphasize the critical role of spiritual support in promoting older adults' overall health, providing empirical evidence for future elderly care policy development and intervention strategies.

General Discussion

This study employed interview and questionnaire methods to conduct three sequential sub-studies, thoroughly exploring and empirically validating the connotation and characteristic dimensions of spiritual support for older adults within contemporary Chinese sociocultural contexts. First, Study 1 used qualitative research methods to collect respondents' cognitions, experiences, and expectations regarding spiritual support through semi-structured interviews, analyzing core elements of perceived spiritual support from multiple perspectives. Using grounded theory to code interview data and construct theory, we preliminarily induced a conceptual framework and structural characteristics of spiritual support, enriching and deepening its connotation at the theoretical level and expanding its applicability within contemporary Chinese sociocultural contexts. Second, Study 2 employed psychometric methods to conduct quantitative research on the characteristic dimensions of spiritual support for older adults. Based on qualitative analysis results from Study 1, we developed and compiled a spiritual support measurement questionnaire and systematically validated its reliability and validity. Results indicated that spiritual support for older adults primarily includes five characteristic dimensions: health security, social interaction, cultural activities, independence, and meaning in life. This scale serves as an effective tool for measuring older adults' perceived spiritual support levels, providing a solid measurement foundation for subsequent related research. Finally, Study 3 used a longitudinal tracking design to explore the long-term

effects of spiritual support on multidimensional physical and mental health indicators of older adults. Findings demonstrated that older adults' perceived spiritual support levels not only positively predicted their physical and mental quality of life but also exerted significant buffering effects on frailty status and cognitive decline. These results further validate the importance of spiritual support in promoting older adults' overall health and provide scientific evidence for future elderly care intervention strategies.

This study systematically explored and clarified five characteristic dimensions of spiritual support for contemporary older adults—health security, social interaction, cultural activities, independence, and meaning in life—corresponding to key emotional needs for security, belonging, competence, autonomy, and value, respectively. Among these, social interaction is considered the core dimension of spiritual support, primarily comprising comfort from children and social interaction. Attachment theory posits that intimate relationships, especially with children, constitute important sources of emotional security [?]. For older adults, children are typically regarded as the most direct and important responsible parties for providing support, and their care and comfort not only provide psychological solace but also enhance sense of belonging, enabling older adults to better cope with uncertainties associated with aging. In contrast, social interaction emphasizes the breadth of interaction, with relatively weaker deep-level emotional dependence. Nevertheless, broad social interaction helps older adults construct meaning in life and enhances their motivation for daily living, thereby promoting spiritual support [?].

Additionally, health security serves as an important foundation for spiritual support, though it has often received insufficient attention in related research. However, as age increases, older adults face physiological decline, which may generate health anxiety and aging-related fears [?]. In this context, the government can enhance older adults' health security through improved medical security systems and optimized elderly care service policies, while family members can also promote spiritual support by creating healthy lifestyles and positive family environments. Existing research has noted that cultural activities play important roles in promoting spiritual support [?]. This study further reveals that diverse cultural activities organized with community support not only provide social interaction opportunities but also promote older adults' sense of competence through learning new knowledge and skills, thereby facilitating spiritual support.

Although recent scholars have begun to focus on older adults' agency in spiritual support [?], systematic exploration of the role of independence in spiritual support remains lacking, and it has not been widely incorporated as a core dimension. This study's findings indicate that independence has become an important component of spiritual support for contemporary older adults. As China's pension system gradually improves, an increasing number of older adults can achieve economic independence, thereby reducing financial dependence on children, alleviating intergenerational burden, and gaining greater autonomy

in family decision-making. This change not only reflects the transformation of older adults' spiritual support needs but also demonstrates the evolution of spiritual support approaches under social development, shifting gradually from traditional child-support models toward approaches emphasizing individual autonomy and dignity.

Finally, meaning in life, as a higher-order characteristic of spiritual support, was further validated in this study, consistent with previous research findings [?]. Compared with younger populations, older adults are more likely to experience loss of life meaning due to retirement, declining physical and cognitive functions, and the successive loss of relatives and friends. Therefore, meaning in life concerns not only older adults' cognition and evaluation of their own life value but also their continued functioning and self-value realization within families, society, and groups. The establishment of this dimension indicates that spiritual support should not be limited to providing emotional support and security but should also focus on helping older adults construct positive life meaning to enhance their overall sense of value.

The five characteristic dimensions of spiritual support all showed significant positive correlations with the total score, indicating interactions among dimensions. Health security forms the prerequisite for older adults' sense of security, primarily relying on external institutional support such as medical assistance, professional care, and family caregiving, providing foundational support for spiritual support [?]. Good health status not only improves older adults' quality of life but also facilitates social interaction. Through parent-child interaction, peer exchange, and social connections, older adults gain sense of belonging and social respect [?]. Cultural activities provide opportunities for continuous learning and self-improvement while meeting social needs, thereby enhancing older adults' sense of competence. Social interaction and cultural activities jointly promote social engagement, enabling older adults to satisfy internal needs through social connections and further facilitating independence and meaning in life [?]. Positive social and activity experiences make it easier for older adults to develop positive cognitions about their abilities and life value, thereby enhancing overall spiritual support levels. Therefore, the five dimensions of spiritual support are both independent and interrelated, involving multi-subject interactions and demonstrating certain hierarchical characteristics.

This study is the first to validate the long-term predictive effects of spiritual support on multidimensional physical and mental health indicators (including physical and mental quality of life, frailty status, and cognitive functioning) among Chinese older adults and confirm its close associations with various mental health indicators (loneliness, depression, and anxiety). Spiritual support can serve as an important stress-buffering mechanism, enhancing older adults' stress resistance and adaptability through health security and strong interpersonal support systems, thereby reducing chronic disease incidence and promoting physical health [?]. At the mental health level, higher spiritual support levels may exert positive effects through multiple mechanisms. According to Self-Determination

Theory [?], spiritual support enhances psychological functioning and well-being by satisfying older adults' needs for autonomy, competence, and relatedness, thereby improving quality of life and overall mental health status. Simultaneously, stable emotional connections and social participation opportunities provided by spiritual support help enhance older adults' emotion regulation abilities, alleviate loneliness, depression, and anxiety, increase life enthusiasm and sense of purpose, and reduce negative impacts of negative emotions on physical and mental health [?]. Additionally, spiritual support can bring positive feedback through continuous activation of cognitive resources and promotion of positive self-cognition construction, further supporting mental health development [?]. Notably, older adults with higher spiritual support levels are more likely to adopt positive health behaviors. For example, independence makes older adults more willing to actively seek medical resources, maintain regular schedules, and eat healthily, while social interaction and cultural activity participation help increase physical activity levels, reduce chronic disease risks, and improve physical functioning [?]. In summary, good spiritual support not only helps reduce mental illness incidence but also mitigates damage to physiological functions from negative emotions, promoting positive health cycles.

In traditional Chinese culture, the concept of "raising children to support one in old age" has long influenced societal perceptions of elderly support. However, as socioeconomic development and family structures change, face-to-face interaction time between older adults and their children has gradually decreased, making spiritual support issues increasingly prominent. Amid the collision between traditional elderly care concepts and modern social realities, older adults both desire more companionship and care from their children and worry about becoming a burden on their children' s career development and personal lives. This contradictory psychological state may weaken older adults' emotional support sources, adversely affecting their mental and physical health. Therefore, conducting in-depth research on spiritual support holds not only important theoretical value but also provides practical guidance for solving real-world problems.

This study' s innovations and contributions are mainly reflected in three aspects: First, it expands the psychosocial support dimension of successful aging theory. Rowe & Kahn' s [?] successful aging theory emphasizes three core elements: disease prevention, function maintenance, and active participation, but pays insufficient attention to how social support meets older adults' higher-level spiritual needs. This study emphasizes incorporating "spiritual support" into the successful aging framework, proposing that it not only constitutes the psychological foundation for older adults' active social participation but also helps maintain their subjective well-being, identity, and life goals, thereby expanding the theoretical boundaries of the "active engagement" and "psychological autonomy" dimensions in this theory. Second, it constructs a localized theoretical model of spiritual support. This study proposes that spiritual support for contemporary Chinese older adults exhibits composite characteristics including subjectivity (older adults' expectations for respect and independence), relationality (psy-

chosocial support based on intergenerational or social interaction), functionality (promoting physical and mental health), and higher-order nature (reflecting sense of value and meaning in life), innovatively defining it as a comprehensive elderly support mechanism combining individual psychological appeals with social institutional support. This theoretical model not only aligns with China's unique cultural background but also provides new research perspectives and practical insights for international elderly support theory and practice. Third, it advances empirical research and measurement tool construction for spiritual support. This study employed a multi-stage research design, combining qualitative interviews with large-sample questionnaire surveys to identify and validate core dimensions of spiritual support for Chinese older adults at the empirical level, developing an effective measurement tool. This tool not only provides quantitative foundations for subsequent empirical research but also can serve as a reference tool for spiritual support service indicators or elderly service quality assessment, helping enhance evaluation capabilities of spiritual support systems and promote their institutionalization and standardization in elderly care services. In summary, through integrating theoretical and empirical analysis, this study not only deepens understanding of spiritual support mechanisms but also provides scientific evidence for elderly care policy and practice, contributing to constructing spiritual support models more aligned with China's sociocultural background and promoting older adults' physical, mental, and overall well-being.

This study has several limitations. First, it has not yet examined influencing factors of spiritual support for older adults. Future research could investigate mechanisms from individual, family, and societal levels, such as examining how demographic characteristics, family structure, intergenerational interaction quality, and social policy support influence spiritual support. Second, this study's samples were drawn from specific regions, which may somewhat limit the ecological validity of findings. Future research could expand sampling scope and compare differences in spiritual support among older adults across different regions and cultural backgrounds. Finally, although this study employed a longitudinal tracking design, it only measured spiritual support and physical and mental health status at two time points, making it difficult to fully reveal change trends over time. Given that older adults' spiritual support levels and physical and mental health status may be influenced by multiple factors and exhibit dynamic changes, future research could employ multi-time-point tracking measurements over longer time spans to further explore long-term interactive effects and potential causal mechanisms between the two.

References

[?]
[?]
[?]
[?]
[?]

[?]
[?]
[?]
[?]
[?]
[?]
[?]
[?]

Note: Figure translations are in progress. See original paper for figures.

Source: ChinaXiv –Machine translation. Verify with original.