

The Influence Mechanism of Social Support on Social Well-being in Older Adults: The Mediating Role of Hope and Loneliness (Postprint)

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Abstract

Based on positive psychology, this study employed a questionnaire survey method to investigate 859 older adults, exploring the influence mechanism of social support on older adults' social well-being, testing the mediating effect model of hope and loneliness and its model applicability, thereby constructing a relational model among the four variables and exploring the intrinsic mechanisms for promoting mental health development in older adults. The results showed that: (1) Social support, hope, loneliness, and social well-being were significantly correlated with each other, and social support, hope, and loneliness are important factors affecting older adults' social well-being; (2) The mediating effect of social support on social well-being through hope was significant; (3) The mediating effect of social support on social well-being through loneliness was significant; (4) When simultaneously testing the multiple mediating effects of hope and loneliness in the influence of social support on social well-being, both played a partial mediating role between social support and social well-being. The research findings confirm the psychological mechanism by which social support influences social well-being and the partial mediating roles of hope and loneliness, providing reference suggestions for improving the mental health level of older adults.

Full Text

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Abstract

Based on positive psychology, this study employed a questionnaire survey method to investigate 859 elderly individuals, exploring the influence mechanism of social support on social well-being in older adults. The study examined the mediating effect models of hope and loneliness and their applicability, constructing a relational model among the four variables to explore the internal mechanisms promoting mental health development in the elderly. Results indicated: (1) Social support, hope, loneliness, and social well-being were all significantly intercorrelated, with social support, hope, and loneliness representing important factors influencing social well-being in the elderly; (2) The mediating effect of hope on the relationship between social support and social well-being was significant; (3) The mediating effect of loneliness on the relationship between social support and social well-being was significant; (4) When simultaneously examining the multiple mediating effects of hope and loneliness on the influence of social support on social well-being, both played partial mediating roles between social support and social well-being. These findings confirm the psychological mechanism through which social support influences social well-being via the partial mediation of hope and loneliness, providing reference recommendations for improving mental health levels among the elderly.

Keywords: social support; social well-being; hope; loneliness; mediating effect; elderly

Classification: B844

With China's aging population, the physical and mental health of older adults has garnered increasing societal attention. In recent years, positive psychology has gained prominence in promoting psychological health among the elderly, with well-being—a goal highly valued across societies and a driving force in life—serving as its central focus. Early well-being research concentrated on subjective well-being and psychological well-being, both emphasizing individual characteristics (Cao Rui, Li Fang, Zhang Haixia, 2013). However, individuals do not exist in isolation; they are embedded within collective and social structures, facing numerous social responsibilities and tasks. Consequently, these two perspectives offer incomplete definitions of well-being. Keyes (1998) proposed a third approach—social well-being—which focuses on individuals' existence within society and the public domain of their well-being. He conceptualized social well-being as individuals' evaluations of their societal existence and relationships with their surrounding environment, encompassing social integration, social acceptance, social contribution, social actualization, and social coherence. Chen Haobin and Miao Yuanjiang (2012) argued that social well-being is truly realized when an individual's existence and development exert positive societal impact. While no unified definition of social well-being currently exists, most researchers agree that it is closely linked to individuals' social evaluations and

is crucial for understanding mental health, holding significant importance for improving psychological well-being (Salehi et al., 2017). Therefore, this study adopts the social well-being model to reflect well-being.

Social support refers to material and emotional support individuals obtain from social relationships with relatives, friends, colleagues, or organizational groups (Liu Xiao, Huang Xiting, 2010). Xiao Shuiyuan (1994) categorized social support into three components: objective support, subjective support, and support utilization. Objective support denotes actual support received in society; subjective support reflects the experiential sense of being respected, supported, and understood, representing a crucial aspect linking social networks to quality of life; support utilization indicates the degree to which individuals employ available support. Numerous studies have demonstrated that social support positively influences healthy development. Lin and Yeh (2014) suggested that social support affects cognitive appraisal, thereby enhancing environmental adaptability. By fostering a sense of being cared for and accepted, social support reduces psychological stress and eliminates psychological barriers, consequently increasing future hope and improving mental health (Dreyer & Schwartz-Attias, 2014). A robust social support system can help individuals maintain health or recover from adversity, elevate hope levels, and reduce loneliness and depression risk (Rueger, Malecki, Pyun, Aycocock, & Coyle, 2016).

Hope is future-oriented, representing individuals' perspectives and attention toward the future and the pursuit of improvement, which can generate social well-being—a future trend in positive psychology (Scioli, Ricci, Nyugenetal, & Scioli, 2011). Hope refers to the belief in one's capacity to achieve goals, particularly when outcomes can be influenced through personal abilities or strengths (Rand et al., 2012). It constitutes a positive motivational state and a psychological phenomenon based on the interaction between motivation for success and pathways to achieve it (Snyder, 2002). Agency represents the motivation to pursue goals and the capacity to achieve them, while pathway thinking involves developing routes to goal attainment (Crane, 2014). Pacico, Bastianello, Zanon, and Hutz (2013) noted that hope is a future-oriented force and a motivational component within cognitive processes. Hope can cultivate positive psychology (such as well-being), improve physical and mental health (Rock, Steiner, Rand, & Bigatti, 2014), reduce suicidal ideation, and positively impact elderly well-being. Researchers have therefore investigated factors that enhance hope and identified indicators of disappointment or hopelessness, such as anxiety, depression, stress, or worry. Previous findings indicate that increased social support helps individuals experience less stress and maintain greater hope when facing problems (Doolittle & Farrell, 2004).

Loneliness is a universal experience across all age groups. Murphy (2006) found that the elderly, women, and socially isolated individuals are more prone to loneliness. Chalise, Saito, and Kai (2007) described loneliness as an “Antarctica of the soul”—a complex psychological state concerning emotions and experiences. Weiss (1973) distinguished between emotional loneliness and social loneliness.

Emotional loneliness typically arises from the absence of an intimate partner and dissipates with new intimate relationships; social loneliness emerges when individuals perceive inadequate social relationships or receive limited support from friends or family, and can also result from distorted perceptions of one's social connections (Weiss, 1973). Muyan et al. (2016) identified loneliness as a negative emotional state reflecting dissatisfaction with one's social participation and interaction levels, closely associated with mental health.

Despite positive psychology's rising prominence domestically and internationally over the past decade, Chinese research has inadequately addressed positive psychology in aging populations. Current domestic focus prioritizes physical health and countermeasures, with limited empirical research on psychological mechanisms, hindering efforts to cultivate healthy positivity among older adults. To address the actual psychological needs of elderly populations, society must pay closer attention. This study therefore examines relationships among social support, hope, loneliness, and social well-being in the elderly from a positive psychology perspective, constructing a relational model among these four variables to provide reasonable and effective recommendations for enhancing mental health in older adults.

Previous research by Wu Jie (2008) demonstrated significant correlations among all dimensions of social support, well-being, and loneliness in the elderly, with notable differences in loneliness and well-being across varying social support levels—higher social support corresponded to less loneliness and greater well-being. Rueger et al. (2016) similarly identified social support as a significant protective factor for healthy development, correlating substantially with well-being.

Accordingly, this study proposes Hypothesis H1: Social support and its dimensions significantly and positively influence social well-being.

Hope, as a key construct in positive psychology, is intimately related to social support. Zhong Jiantao (2012) found that high school students receiving more social support exhibited higher hope levels, with social support significantly predicting hope. Demirli, Türkmen, and Arik (2015) reported significant positive correlations between hope and well-being, with higher hope associated with greater well-being and positive impacts on flourishing. Additional research suggests social support influences elderly well-being through hope (Zhou Shuxi, 2013), with individuals enjoying higher-quality social relationships typically demonstrating higher hope (Luo, Qin, & Zheng, 2014), which helps them navigate difficulties (Roesch, Duangado, Vaughn, Aldridge, & Villodas, 2010) and enhances social well-being.

Thus, this study proposes Hypothesis H2: Hope plays a partial mediating role between social support and social well-being.

Interactionism theory posits that loneliness reflects unsatisfactory social networks (Beal, 2006). Social support can bridge gaps between social networks and contact needs (Kuhirunyaratn, Pongpanich, Somrongthong, & Chapman,

2007), thereby alleviating loneliness. Ayalon, Shiovitz-Ezra, and Palgi (2013) emphasized that social interaction frequency, content, and meaning significantly impact loneliness. Wei Yan, Liu Xudong, and Zhang Yanping (2010) found that social support significantly and negatively affects loneliness in elderly women, which in turn influences quality of life. Sharabi, Levi, and Margalit (2012) demonstrated that loneliness is closely related to hope and family atmosphere, with all three being key developmental factors. Previous research has shown loneliness mediates the relationship between social support and well-being (Chen Kang, Zhang Yingyan, 2013).

Based on this, this study proposes Hypothesis H3: Loneliness plays a partial mediating role between social support and social well-being.

Complex interactions may exist among mediating variables (e.g., hope, loneliness) through which social support affects social well-being, potentially weakening or eliminating certain mediating effects. For instance, while self-esteem was found to mediate the perfectionism-stress relationship, Park, Heppner, and Lee (2010) discovered that introducing coping style as a mediator completely eliminated self-esteem's mediating role.

Therefore, this study proposes Hypothesis H4: Social support influences social well-being through the multiple mediation of hope and loneliness.

2.1 Participants

Participants were recruited from ten community senior activity centers and one veteran cadre university in Guangdong Province. A total of 1,300 individuals aged 60 and above were selected, with 1,300 questionnaires distributed. Of these, 1,056 were returned (81.23% response rate), yielding 859 valid questionnaires (81.34% validity rate) after excluding invalid responses. The sample comprised 382 males and 477 females.

2.2.1 Social Support Scale

The Social Support Rating Scale developed by Xiao Shuiyuan (1994) was administered. This 10-item instrument comprises three dimensions: subjective support, objective support, and support utilization. The scale's Cronbach's coefficient is 0.92. In this study, the questionnaire's Cronbach's was 0.79, with dimensional coefficients of 0.74, 0.77, and 0.73 respectively. Confirmatory factor analysis indicated good model fit: $\chi^2/df = 6.97$, RMSEA = 0.06, GFI = 0.97, AGFI = 0.96, NFI = 0.89, IFI = 0.91, TLI = 0.87, CFI = 0.91. All item standardized factor loadings exceeded 0.50, demonstrating adequate convergent validity.

2.2.2 Hope Scale

The Chinese version of the Adult Dispositional Hope Scale revised by Ren Jun (2006) was used. This 12-item scale includes two dimensions: pathway thinking

and agency. The scale's Cronbach's coefficient ranges from 0.74 to 0.88. In this study, the questionnaire's Cronbach's was 0.88, with dimensional coefficients of 0.85 and 0.89 respectively. Confirmatory factor analysis revealed good model fit: $\chi^2/df = 10.23$, RMSEA = 0.07, GFI = 0.97, AGFI = 0.94, NFI = 0.93, IFI = 0.94, TLI = 0.91, CFI = 0.94. Item standardized factor loadings ranged from 0.50 to 0.65, indicating satisfactory convergent validity.

2.2.3 Loneliness Scale

The Chinese version of the Emotional and Social Loneliness Scale revised by Wu Jie (2008) was administered. This 15-item instrument includes two dimensions: social loneliness and emotional loneliness. The scale's Cronbach's coefficient ranges from 0.80 to 0.83. In this study, the questionnaire's Cronbach's was 0.91, with dimensional coefficients of 0.91 and 0.92 respectively. Confirmatory factor analysis showed good model fit: $\chi^2/df = 6.18$, RMSEA = 0.05, GFI = 0.96, AGFI = 0.95, NFI = 0.93, IFI = 0.94, TLI = 0.93, CFI = 0.94. Item standardized factor loadings ranged from 0.52 to 0.75, demonstrating adequate convergent validity.

2.2.4 Social Well-being Scale

The Chinese version of the Social Well-being Scale revised by Miao Yuanjiang and Wang Qinghua (2009) was used. This 15-item scale comprises five dimensions: social actualization, social coherence, social integration, social acceptance, and social contribution. The scale's Cronbach's coefficient is 0.78, with dimensional coefficients of 0.71, 0.69, 0.73, 0.71, and 0.68 respectively. In this study, the questionnaire's Cronbach's was 0.81. Confirmatory factor analysis indicated good model fit: $\chi^2/df = 7.82$, RMSEA = 0.06, GFI = 0.95, AGFI = 0.93, NFI = 0.91, IFI = 0.92, TLI = 0.90, CFI = 0.92. Item standardized factor loadings ranged from 0.56 to 0.90, showing satisfactory convergent validity.

2.3 Procedure

Unified group testing was conducted in classes at the veteran cadre university and in groups at the ten community senior activity centers. Questionnaires were collected immediately upon completion. Data were analyzed using SPSS 19.0, AMOS 21.0, and M-Plus 7.0.

2.4 Common Method Bias Test

Exploratory factor analysis of all items across the four questionnaires revealed that the first factor explained 16.24% of total variance, indicating no serious common method bias (Zhou Hao, Long Lirong, 2004). All items from the social support, hope, loneliness, and social well-being scales were centered to mitigate potential collinearity issues.

3.1.1 Correlations Among Variables

Correlation analysis among the four variables—social support, hope, loneliness, and social well-being—yielded the results presented in Table 1. Social support and hope showed significant positive correlations with social well-being, while loneliness demonstrated a significant negative correlation. Social support was significantly positively correlated with hope and significantly negatively correlated with loneliness. Loneliness was significantly negatively correlated with hope. These findings provide preliminary support for hypothesis testing.

Table 1 Correlation Analysis of Social Support, Hope, Loneliness, and Social Well-being (N = 859)

Note: $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$; data were centered (the same below)*

3.1.2 The Effect of Social Support on Social Well-being

To examine the influence of social support on social well-being in the elderly, stepwise multiple regression analysis was conducted with social support dimensions as predictors and social well-being as the outcome variable. Results appear in Table 2. All three dimensions of social support significantly and positively predicted the five dimensions of social well-being, jointly accounting for 19.00% of the total variance in social well-being.

Table 2 Multiple Regression Analysis of Social Support Dimensions on Social Well-being Dimensions (N = 859)

3.2 Social Support Affects Social Well-being: The Mediating Effect Model of Hope and Loneliness

Based on these findings, competitive and modified models were constructed with social support as the independent variable and social well-being as the dependent variable, using hope and loneliness as mediators. The Bootstrap method was applied for correction (Fang Jie, Zhang Minqiang, Qiu Haozheng, 2012) to explore the internal mechanisms through which social support influences social well-being in the elderly.

First, basic model a was constructed, where social support affects social well-being through hope while also having a direct path to social well-being. Similarly, basic model b was constructed, where social support affects hope through loneliness while maintaining a direct path to social well-being. Subsequently, model c was constructed, where social support influences social well-being through both hope and loneliness while retaining a direct effect. All three models demonstrated good fit indices, with RMSEA values between 0.04 and 0.08 and GFI, AGFI, NFI, IFI, and CFI values all exceeding 0.90, as shown in Table 3.

Model a exhibited good fit between model and data. Social support significantly and positively predicted both hope and social well-being, while hope significantly and positively predicted social well-being, indicating both direct and indirect effects of social support on social well-being. The direct effect of social support on social well-being was 0.47, representing 74.60% of the total effect (0.63), while the indirect effect was 0.16, representing 25.40% of the total effect. Bootstrap analysis confirmed that the 95% confidence interval for the “social support → hope → social well-being” path did not include zero, validating hope’s mediating effect. Thus, the relationship among social support, hope, and social well-being supports the mediating effect model.

Model b also demonstrated good fit. Social support significantly and positively predicted hope and significantly and negatively predicted loneliness. Bootstrap analysis confirmed that the 95% confidence interval for the “social support → loneliness → social well-being” path did not include zero, validating loneliness’s mediating effect. Therefore, the relationship among social support, loneliness, and social well-being supports the mediating effect model. The direct effect of social support on social well-being was 0.60, representing 93.75% of the total effect (0.64), while the indirect effect was 0.04, representing 6.25% of the total effect.

Model c showed good fit as well. Social support significantly and positively affected social well-being (direct effect = 0.48) and hope (direct effect = 0.51), and significantly and negatively affected loneliness (direct effect = -0.63). The mediating effect was 0.15, accounting for 23.81% of the total effect (0.63). Bootstrap analysis confirmed that the 95% confidence interval for the “social support → hope, loneliness → social well-being” path did not include zero. These results indicate that when testing multiple mediation, both hope and loneliness simultaneously play partial mediating roles between social support and social well-being. The relationship among social support, hope, loneliness, and social well-being supports the mediating effect model. Model c and standardized path coefficients are presented in Figure 1 [Figure 1: see original paper].

Figure 1 The Relationship Model and Standardized Path Coefficients of Social Support, Hope, Loneliness, and Social Well-being

Note: ZGZC, KGZC, ZCLY represent the three dimensions of social support: subjective support, objective support, and support utilization; LJSW, YYDL represent the two dimensions of hope: pathway thinking and agency; SJGD, QXGD represent the two dimensions of loneliness: social loneliness and emotional loneliness; SHSX, SHHX, SHZH, SHRT, SHGX represent the five dimensions of social well-being: social actualization, social coherence, social integration, social acceptance, and social contribution.

4.1 The Influence of Social Support and Its Dimensions on Social Well-being

Although previous research has verified social support's impact on well-being and its positive predictive effect, few studies have investigated how social support and its specific dimensions affect social well-being. This study constructed a regression model using the three dimensions of social support as predictors of social well-being to examine their respective effects. Results revealed that subjective support, objective support, and support utilization were all significantly positively correlated with social well-being, confirming Hypothesis 1.

These findings suggest that greater informational, material, and emotional support enhances elderly individuals' goal achievement possibilities, increases their social acceptance and contribution within a harmonious social environment, and consequently elevates their social well-being. Therefore, improving social well-being in the elderly requires not only providing objective support but also ensuring they feel respected and supported while enhancing their utilization of support resources.

4.2 The Mediating Effects of Hope and Loneliness

Social support helps the elderly maintain health or recover from adversity. Individuals with more complete social support systems experience elevated hope and reduced loneliness. Elderly with high hope and low loneliness are more likely to engage in positive activities beneficial to mental and physical health and quality of life (Farhadi, Reisi-Dehkordi, Kalantari, & Zargham-Boroujeni, 2014), thereby enhancing social well-being.

This study constructed a structural equation model with hope as a mediator between social support and social well-being. Results showed significant path coefficients among social support, hope, and social well-being, indicating that social support both directly and indirectly (via hope) affects social well-being. Hope thus plays a partial mediating role, confirming Hypothesis 2. This aligns with Zhou Shuxi's (2013) findings that individual well-being is jointly influenced by social support and hope. Social support appears to be fundamental for elevating hope and influencing social well-being, as individuals with strong support perceive more positive social atmospheres, accumulate positive social energy, and develop greater hope for personal, interpersonal, and societal development, thereby promoting social well-being.

A second structural equation model with loneliness as a mediator revealed that social support directly affects social well-being and indirectly influences it through loneliness. This is consistent with existing research demonstrating loneliness's mediating role between social support and well-being (Kong Feng et al., 2012), confirming Hypothesis 3. Social support thus relates to reduced loneliness and influences social well-being. Enhancing elderly social well-being requires strengthening subjective and objective support, improving support uti-

lization, and importantly, fostering social networks to reduce emotional and social loneliness.

A multiple mediation model incorporating both hope and loneliness showed that social support significantly and positively affected social well-being and hope while significantly and negatively affecting loneliness. Bootstrap analysis confirmed that the 95% confidence interval for the “social support → hope, loneliness → social well-being” path excluded zero. These findings confirm that when simultaneously tested, both hope and loneliness serve as partial mediators between social support and social well-being, validating Hypothesis 4.

4.3 Research Significance

This study expands research on factors influencing elderly social well-being and explores the mechanisms through which social support, hope, and loneliness affect it. The findings enrich positive psychology research on aging and provide effective empirical evidence for psychological guidance, enabling scientifically grounded approaches to elderly mental health issues. Practically, this research promotes elderly mental health by enhancing awareness of seeking social support and fostering positive mindsets. It aims to reduce negative loneliness experiences, increase hope for future life, and ultimately improve social well-being among older adults.

Based on these results, enhancing elderly social well-being necessitates building comprehensive social support networks providing material and spiritual support. Adult children should prioritize elderly mental health with greater care and support. Community service centers can strengthen social interaction by organizing activities and establishing funds. Additionally, psychological counseling and education on support utilization may reduce loneliness and bolster hope for the future.

Conclusion

- (1) Social support and its dimensions significantly and positively predict social well-being in the elderly.
- (2) The influence of social support and hope on elderly social well-being conforms to a mediating effect model, with hope playing a partial mediating role between social support and social well-being.
- (3) The influence of social support and loneliness on elderly social well-being conforms to a mediating effect model, with loneliness playing a partial mediating role between social support and social well-being.
- (4) When simultaneously examining the mediating roles of hope and loneliness, social support affects elderly social well-being through both hope and loneliness.

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

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