

# The Impact of Social Media Use on the Psychological well-being of Older Adults in Chinese Nursing Homes: A Serial Mediation Model of Loneliness and Perceived Social Support

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## ABSTRACT

**Background:** As China experiences rapid population aging, the well-being of older adults in institutional care has become a critical concern. Nursing home residents are often frailer and more socially isolated than their community-dwelling counterparts, making them a vulnerable population. While social media use has been linked to psychological well-being, its role and underlying mechanisms within this specific context remain underexplored.

**Objective:** This study aims to investigate the relationship between social media use and the psychological well-being of older adults residing in Chinese nursing homes. It further examines the mediating roles of loneliness and perceived social support in this relationship.

**Methods:** A cross-sectional survey was conducted in February 2025 with 320 older adults (aged 60 and above) from several nursing homes in Chaozhou City, Guangdong Province. Participants completed validated measures assessing social media use, loneliness, perceived social support, and psychological well-being. Structural equation modeling (SEM) and mediation analysis (PROCESS) were used to test the proposed hypotheses.

**Results:** Social media use was positively and directly associated with better psychological well-being. The structural model demonstrated a good fit to the data. Mediation analysis revealed that loneliness and perceived social support partially and serially mediated this relationship. Social media use was associated with reduced loneliness and enhanced perceived social support, both of which were directly linked to improved psychological well-being. The total indirect effect of the serial mediation was significant.

**Conclusion:** This study demonstrates that social media use can serve as a valuable resource for promoting the psychological well-being of older adults in Chinese nursing homes. Its benefits operate through an affective pathway (reducing loneliness) and a cognitive-relational pathway (enhancing perceived social support). These findings provide actionable insights for nursing home administrators, families, and policymakers to integrate digital inclusion into healthy aging strategies.

**Keywords-**Social media use; psychological well-being; loneliness; perceived social support; older adults; nursing homes;

## INTRODUCTION

With socioeconomic development, population aging in China has become increasingly severe. By the end of 2022, China had already entered the stage of moderate aging and is projected to reach the stage of severe aging

by 2035. Consequently, the practical urgency of actively addressing population aging has become more pronounced than ever. In response, the Fifth Plenary Session of the 19th Central Committee of the Communist Party of China strategically elevated this issue to a national priority. For the first time, the “14th Five-Year Plan” proposed implementing a national strategy to actively respond to population aging, emphasizing the need to prioritize the protection of people's health within the strategic development framework and to integrate the concept of healthy aging into the entire process of economic and social development (Wu et al., 2022).

Chinese Confucian culture places strong emphasis on family relationships and filial piety (Tsai et al., 2021). Traditionally, older adults tend to co-reside with their adult children, and the responsibility of elder care falls primarily on the family. However, the declining number of adult children willing to care for their aging parents, combined with increasing work pressure and extended life expectancy, has led to significant changes in caregiving patterns (Bekalu et al., 2023). In contemporary China, placing frail older parents in nursing homes has become increasingly common.

Older adults residing in institutional settings are generally frailer than their community-dwelling counterparts, as nursing home residents tend to be older, suffer from more chronic conditions, and exhibit greater physical dependence (Liu et al., 2023). Moreover, compared to older adults aging in place, nursing home residents report higher levels of loneliness and depression, as well as lower quality of life (Carpenter, 2002). For many Chinese older adults, institutionalization may signify personal shame and perceived abandonment by their children. Furthermore, due to the hierarchical structure prevalent in Chinese nursing homes, establishing meaningful interpersonal relationships within these facilities is challenging (Fu et al., 2018). Residents are expected to comply with institutional rules and defer to staff authority, with surface-level harmony prioritized over genuine connection. As a result, nursing home residents often experience social loneliness and reduced interaction with family and friends (Lee et al., 2002). Thus, greater attention should be directed toward the well-being of this vulnerable population.

Dixon & Dixon (1984) conceptualized health as comprising three interrelated dimensions: psychological well-being, self-maintenance behaviors, and physiological stability. Specifically, psychological well-being is considered crucial because it enhances individuals' motivation to engage in health-maintaining behaviors, which in turn promote physiological stability and contribute to overall well-being. Enhancing the psychological well-being of nursing home residents is therefore of considerable practical significance. However, multiple studies indicate that most nursing homes, both in China and internationally, have failed to implement adequate measures to support residents' psychological well-being (Bergland & Kirkevold, 2008). Institutional care tends to prioritize older adults' physical health and daily living assistance while neglecting their psychological well-being needs and psychological well-being. This neglect can leave vulnerable older adults trapped in persistent loneliness, triggering physiological and psychological changes and fostering maladaptive behaviors—such as smoking, excessive alcohol consumption, physical inactivity, self-harm, and suicidal ideation—that severely compromise their health.

Existing research on social media use and psychological well-being has predominantly focused on younger populations, with limited attention given to older adults (Huang et al., 2025). The few studies examining older adults have been conducted primarily in the United States and Korea, leaving a significant gap in the Chinese context. Furthermore, prior research on older adults' social media use has been insufficient and has largely concentrated on the antecedents of adoption, such as social support, e-health literacy, perceived usefulness, and perceived ease of use. There remains a lack of in-depth investigation into the subsequent outcomes and implications of social media use among this population. The limited evidence available in this area is inconclusive. Some studies suggest that social media use confers benefits for older adults' health and well-being. For instance, Bell et al. (2013) found that Facebook users aged 50 and above scored higher on measures of social satisfaction compared to non-users. Conversely, other research has reported contradictory findings. Elliot et al. (2014) analyzing data from the first wave of the National Health and Aging Trends Study (NHATS) targeting adults aged 65 and older, found no association between internet use and depressive symptoms or well-being. Thus, the role of social media use in shaping older adults' psychological well-being, as well as the mechanisms through which it operates, remains unclear and warrants further investigation.

To address these research gaps, the present study focuses on older adults residing in Chinese nursing homes and aims to examine the impact of social media use on their psychological well-being. We hypothesize that social media use is positively associated with well-being, and that loneliness and perceived social support mediate this relationship.

## LITERATURE REVIEW

### Social media use and psychological well-being

Promoting psychological well-being and well-being constitutes an important and frequently investigated topic within the healthy aging literature. Common indicators of positive psychological states include happiness, higher self-esteem, and reduced loneliness (Chen & Gao, 2023). Social media use has been shown to promote psychological well-being and positive emotions among older adults, a population in which social media adoption has been steadily increasing. Older adults utilize social media to exchange information and strengthen their relationships with others. Such engagement has been associated with enhanced cognitive functioning and social connectedness (Quinn, 2018), which in turn may reduce loneliness and bolster feelings of self-worth or self-esteem (Hutto et al., 2015). For instance, Sims et al. (2016) examined social media use and its effects on loneliness among adults aged 80 and older. Building on this line of inquiry, we propose that social media use enables older adults to stay informed about others and current events, while also providing opportunities for learning. Consequently, it may serve as a resource for alleviating loneliness in later life. Therefore, the following hypothesis is proposed:

**H1:** Social media use is positively associated with the psychological well-being of older adults residing in nursing homes.

### Mediating effect of Loneliness

Loneliness is defined as a subjective, unpleasant, and distressing experience arising from a perceived discrepancy between an individual's desired and achieved levels of social contact. It is a negative emotional state associated with insufficient social connection (Nguyen et al., 2022). Older adults tend to experience loneliness more frequently than younger individuals (Pinquart & Sorensen, 2001). Loneliness has been found to be closely associated with poor health outcomes and is considered a hidden killer among the older population (Chen & Gao, 2023). Previous research has indicated that broadcasting one's own content and reading others' posts can help reduce feelings of loneliness (Barbosa Neves et al., 2019). Accordingly, we propose the following research hypotheses:

**H2:** Social media use is positively associated with perceived loneliness of older adults in nursing homes.

**H3:** Perceived loneliness is negatively associated with the psychological well-being of older adults in nursing homes.

**H4:** Perceived loneliness mediated the relationship between social media use and psychological well-being of older adults in nursing homes.

### Mediating effect of social support

Social media use contributes to improved perceived social support through multiple mechanisms. When seeking health information, individuals may also encounter similar others and assist one another through information exchange (Alaçayir et al., 2025). Similar to online communities, WeChat and other comparable social media platforms enable users to form groups centered around diverse health concerns. Within these groups, users identify with others and engage in conversation and interaction to provide mutual support. For instance, Zhang et al. (2013) found that diabetic patients utilized Facebook groups to seek and exchange medical and lifestyle information. Because community members share similar health conditions or the same illnesses, they offer encouragement, personal experiences, and advice to one another, which significantly contributes to improvements in both perceived and actual social support. Social media helps transcend personal networks and

provides patients with greater social support by broadly connecting them with physicians and other patients. Therefore, mobile social media likely serves as an interactive medium that enhances perceived social support.

Psychological well-being is a key dimension of psychological well-being, referring to an individual's subjective evaluation of overall life satisfaction, in contrast to external indicators of well-being such as physical health and material wealth (J. Li et al., 2021). Previous research has indicated that psychological well-being is often associated with perceived social support derived from interpersonal interactions (Pinqart & Sorensen, 2001). More recent studies have also examined social support obtained through online channels. For instance, Oh et al. (2014) conducted a diary study with social media users to investigate how online activities influence individuals' psychological well-being. Their path model revealed that, over a five-day period, the more frequently social media users engaged in supportive interactions, the greater the perceived support they received from other members, and the higher their self-reported psychological well-being scores. Although research focusing specifically on older adults remains limited, a study on urban older adults living alone in China found that WeChat use enhanced perceived social support, which in turn improved their well-being (Song et al., 2021). Accordingly, we propose the following hypothesis:

**H5:** Social media use is positively associated with perceived social support among older adults in nursing homes.

**H6:** Perceived social support is positively associated with psychological well-being among older adults residing in nursing homes.

**H7:** Social support mediated the relationship between social media use and psychological well-being.

#### The Serial Mediating Role of Loneliness and Perceived Social Support

In addition to the respective mediating pathways of loneliness and perceived social support, there may exist a sequential chain relationship between these two factors. Specifically, social media use may first reduce loneliness, which in turn enhances perceived social support, ultimately promoting psychological well-being. The theoretical basis for this serial pathway lies in the nature of the two constructs: loneliness is essentially a negative emotional experience arising from perceived inadequacy in social connection, whereas perceived social support reflects an individual's subjective cognitive appraisal of available support resources. When individuals alleviate loneliness through social media use, their cognitive evaluation of social relationships also shifts—those who feel connected to others are more likely to recognize the support resources around them, thereby forming a higher level of perceived social support (Hu et al., 2025). In other words, the reduction of loneliness creates an emotional and cognitive foundation for enhanced perceived social support, with the two factors jointly constituting a sequential mechanism through which social media use influences psychological well-being. Based on this reasoning, this study proposes the following hypothesis:

**H8:** Loneliness and perceived social support serially mediate the relationship between social media use and psychological well-being.

## METHOD

The survey questionnaire consists of four parts: a general information questionnaire, social media use, a loneliness scale, perceived social support, and a psychological well-being scale. The general information questionnaire covers age, gender, living arrangement, marital status, education level, and annual household income. Social media use was adapted from Schemer et al. (2021) and measured by a single item, with responses ranging from 1 (more seldom) to 4 (several times a day). Perceived social support was assessed using a 10-item scale adapted from Zimet et al. (2011). A sample item is: "When you encounter troubles, you actively share your worries with others," rated on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The Loneliness Scale, adapted from Losada-Baltar et al. (2021), consists of 8 items rated from 1 (never) to 4 (always). A sample item is: "When I need it, I cannot find someone to be with me." The Psychological Well-Being Scale, adapted from Schemer et al. (2021), consists of 5 items rated on a 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree). A sample item is: "I feel happy and in a good mood."

Ethical approval for this study was obtained from Guangzhou Nanfang College prior to its commencement. In February 2025, a survey was conducted among older adults aged 60 years and above residing in several nursing homes in Chaozhou City, Guangdong Province. The initial sample size was planned to be 350 participants. After excluding questionnaires with incomplete or improperly filled critical information, a total of 320 valid questionnaires were finally obtained, yielding an effective response rate of 91.4%. Data analysis was performed using AMOS.

### Data analysis

In the sample of 320 respondents, there were 173 male older adults, accounting for 54.06% of the total sample, and 147 female older adults, representing 45.94%. Regarding age distribution, the largest proportion of respondents fell within the 65–70 age group, comprising 153 individuals, or 47.63% of the total, nearly half of the sample. In terms of marital status, the majority were married, with 194 respondents (60.62%). With respect to educational attainment, 201 respondents (94.07%) had either no formal education or had only completed primary school. Regarding annual household income, 296 respondents (92.51%) reported an income of 20,000 RMB or above. In terms of living arrangements, 22 older adults lived alone, accounting for 6.88% of the sample, while the vast majority (93.12%) lived with their spouse, children, or both spouse and children. The detailed results of the data analysis for the surveyed rural older adults are presented in Table 1.

Table 1 Characteristics of the sample (N = 320)

Variables	Items	Number	Percentage
Age	60	13	4.06
	61	26	8.13
	62	27	8.44
	63	14	4.38
	64	26	8.13
	65	22	6.88
	66	31	9.69
	67	31	9.69
	68	26	8.13
	69	16	5
	70	26	8.13
	71	25	7.81
	72	17	5.31
	73	20	6.25
Sex	Male	173	54.06
	Female	147	45.94

Marital	Married	194	60.62
	Unmarried	126	39.38
Education	No education	110	34.38
	Primary School	181	56.56
	Junior High School and Above	19	9.06
Annual Household Income (RMB)	< 20,000	24	7.5
	20,000 - 40,000	138	43.13
	40,000 and above	158	49.38
Living Arrangement	Living Alone	22	6.88
	Living with Spouse	131	40.94
	Living with Children	52	16.25
	Living with Spouse and Children	115	35.94
Total		320	100

Confirmatory factor analysis (CFA) was conducted to examine the construct validity and discriminant validity of the measurement model. The model fit indices indicated an acceptable fit:  $\chi^2/df = 1.224$ , GFI = 0.932, AGFI = 0.918, CFI = 0.989, TLI = 0.988, and RMSEA = 0.026. Cronbach's  $\alpha$  values for all constructs exceeded 0.7, suggesting satisfactory internal consistency. Composite reliability (CR) values were above 0.7 and average variance extracted (AVE) values exceeded 0.5, indicating good convergent validity (see Table 2).

Table 2 Construct Validity and Reliability Test (N = 320)

Variables	Items	Factor Load	Mean	SD	CR	AVE	Cronbach's $\alpha$
SE	SE1	0.750	4.253	1.140	0.911	0.534	0.921
	SE2	0.750					
	SE3	0.731					
	SE4	0.716					
	SE5	0.744					
	SE6	0.666					
	SE7	0.722					
	SE9	0.755					
	SE10	0.753					

ME	ME1	0.777	4.169	1.262	0.867	0.567	0.867
	ME2	0.702					
	ME3	0.779					
	ME4	0.726					
	ME5	0.776					
IS	IS1	0.821	2.929	0.686	0.946	0.686	0.946
	IS2	0.826					
	IS3	0.816					
	IS4	0.816					
	IS5	0.840					
	IS6	0.844					
	IS7	0.847					
	IS8	0.816					
SU		-	2.650	1.354	-	-	

Note: SE = social support, media persuasion, ME = psychological well-being, IS = loneliness, SU = social media use.

Discriminant validity was assessed using the Fornell and Larcker (1981) criterion, as shown in Table 3. The results indicated satisfactory discriminant validity, with each construct demonstrating a higher square root of its AVE than its correlations with other constructs.

Table 3 Discriminate validity test (N = 320)

Variables	AVE	IS	ME	SE
IS	0.686	<b>0.828</b>		
ME	0.567	-0.545	<b>0.753</b>	
SE	0.534	-0.572	0.544	<b>0.731</b>

Note: SE = social support, media persuasion, ME = psychological well-being, IS = loneliness, SU = social media use.

Structural equation modeling (SEM) was employed to test the proposed hypotheses. The structural model demonstrated a good fit to the data:  $\chi^2/df = 1.166$ , GFI = 0.933, AGFI = 0.918, CFI = 0.991, TLI = 0.990, RMSEA = 0.023. As shown in Table 4, social media use was positively to psychological well-being, supporting H1. Social media use was negatively associated with perceived loneliness, supporting H2. Perceived loneliness was observed to predict psychological well-being. Thus, H3 was supported. Social media use was positively associated with perceived social support, supporting H5. At last, perceived social support exerted a significant positive effect on psychological well-being, supporting H6.

Table 4 Hypotheses Test (N = 320)

Hypotheses	Path	$\beta$	S.E.	C.R.	P	Result
H1	SU→ME	0.245	0.048	4.725	***	Support
H2	SU→IS	-0.277	0.027	-4.898	***	Support
H3	IS→ME	-0.306	0.127	-4.704	***	Support
H5	SU→SE	0.135	0.043	2.632	0.009	Support
H6	SE→ME	0.301	0.074	4.515	***	Support

Note: SE = social support, ME = psychological well-being, IS = loneliness, SU = social media use. \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

The mediation effect was analyzed using PROCESS with 5,000 bootstrap samples. Based on the mediation analysis presented in the table 5, social media use exhibits a significant positive total effect on psychological well-being among the sample ( $\beta = 0.361$ , SE = 0.048, 95% CI [0.267, 0.456]). Upon including perceived loneliness and social support as mediators, the direct effect of social support on psychological well-being remained significant ( $\beta = 0.222$ , SE = 0.044, 95% CI [0.136, 0.309]), indicating partial mediation. The total indirect effect was significant ( $\beta = 0.139$ , SE = 0.023, 95% CI [0.094, 0.185]), confirming that perceived loneliness and social support jointly mediate this relationship. Specifically, three significant indirect pathways were identified: via loneliness alone (H4:  $\beta = 0.072$ , SE = 0.020, 95% CI [0.037, 0.114]), via social support alone (H7:  $\beta = 0.034$ , SE = 0.015, 95% CI [0.008, 0.067]), and a serial pathway through loneliness and subsequently social support (H8:  $\beta = 0.033$ , SE = 0.010, 95% CI [0.016, 0.055]). As none of the confidence intervals for these indirect effects contained zero, all mediation pathways were statistically significant. These results suggest that social media use enhances psychological well-being not only directly but also indirectly by reducing perceived loneliness and, in turn, bolstering perceived social support.

Table 5 Mediation Effect (N = 320)

Hypotheses	Path	$\beta$	SE	LLCI	ULCI
-	Total effect	0.361	0.048	0.267	0.456
-	Direct effect	0.222	0.044	0.136	0.309
-	Indirect effect	0.139	0.023	0.094	0.185
H4	SU→IS→ME	0.072	0.020	0.037	0.114
H7	SU→SE→ME	0.034	0.015	0.008	0.067
H8	SU→IS→SE→ME	0.033	0.010	0.016	0.055

Note: SE = social support, ME = psychological well-being, IS = loneliness, SU = social media use.

## DISCUSSION

This study centers on the core objective of exploring the intrinsic relationship between social media use and psychological well-being among a long-neglected and vulnerable group: older adults residing in Chinese nursing homes. Guided by the theoretical frameworks of loneliness and social support, we constructed and tested a mediation model to elucidate how social media use indirectly enhances the psychological well-being of this



population by alleviating loneliness and bolstering perceived social support. The results of the SEM provided robust support for our hypotheses, not only confirming a significant positive association between social media use and psychological well-being but also identifying the pivotal mediating roles of loneliness and perceived social support.

The findings first corroborated a direct positive relationship between social media use and the psychological well-being of older adults in nursing homes, resonating with existing research that highlights the beneficial effects of social media on older adults' social connections and cognitive function (X. Li et al., 2012). However, the contribution of this study lies in extending this line of inquiry to a more vulnerable demographic—institutionalized older adults who are often frailer and more socially disconnected than their community-dwelling counterparts (Wu et al., 2022). The study reveals that using platforms like WeChat can yield immediate psychological benefits, such as cognitive stimulation and a sense of connection to the outside world, which directly contribute to positive emotional states. This finding also helps clarify the inconsistent evidence in the literature; contrary to some studies that found no significant link between general internet use and well-being (Büchi & Hargittai, 2022), our focused examination of social media underscores the importance of its interactive and relational components for this specific population.

More importantly, by uncovering the mediating roles of loneliness and perceived social support, this study elucidates the deeper mechanisms through which social media use affects psychological well-being. Within the Chinese cultural context, the negative association between social media use and loneliness carries particular significance. For many residents, moving into a nursing home is often accompanied by feelings of shame and abandonment, a sentiment especially pronounced within a cultural context deeply rooted in filial piety (Lee et al., 2002). Social media provides a vital means to counter this narrative. Through video calls, sharing family moments in group chats, or simply observing the daily lives of loved ones, residents can maintain and even strengthen family bonds central to Confucian values of filial piety (Tsai et al., 2021). This virtual co-presence directly mitigates the subjective and distressing experience of loneliness, fostering a continuous sense of belonging and care that transcends the physical boundaries of the institution. This supports the findings of Barbosa Neves et al. (2019) and Hutto et al. (2015) regarding the potential of online engagement to reduce loneliness, while applying these insights to the unique challenges of institutional life.

Concurrently, the results indicate a significant positive association between social media use and perceived social support. This suggests that residents are not merely passive consumers of content but are actively utilizing these platforms to build and perceive a supportive network. Within WeChat groups—whether family-based, interest-focused, or centered on health issues—residents can exchange information, offer encouragement, and share personal experiences. This dynamic mirrors the mutual aid behaviors observed in online health communities (Zhao et al., 2022), where individuals with similar circumstances provide valuable emotional and informational support. Within the hierarchical and often relationally challenging environment of Chinese nursing homes (Cheng et al., 2011), these online interactions offer an alternative and accessible avenue for accruing social capital and feeling supported.

Furthermore, this study powerfully reaffirms the profoundly detrimental impact of loneliness on the psychological well-being of older adults. Loneliness not only directly undermines psychological well-being but also diminishes an individual's capacity to perceive or access available social support, creating a vicious cycle: a lonely resident may withdraw from social interactions, including online ones, which in turn lowers their perceived support and deepens their loneliness (Cheng et al., 2011). Loneliness as a distressing deficiency in social relationships and confirms its role as a "hidden killer" in the older population (Ong et al., 2016). This finding underscores that interventions must directly target the subjective experience of loneliness, rather than merely the objective availability of social contact.

In contrast, the strong positive correlation between perceived social support and psychological well-being highlights the powerful buffering effect of social resources. This finding aligns with the classic stress-buffering model and prior research linking support to well-being. For nursing home residents, the transition to institutional life represents a major stressor, fraught with challenges to their identity and autonomy. Our results suggest that those who feel supported—whether through WeChat with family, connections with peers within the home, or via online communities—are significantly better equipped to maintain psychological well-being. This feeling of

being cared for and valued provides a crucial psychological resource for coping with the multifaceted challenges of later life.

### **Implication**

This study offers several important theoretical contributions. First, it addresses a critical research gap by shifting the focus from the antecedents of social media adoption to its consequences for psychological well-being, particularly within the under-researched context of Chinese nursing homes. By demonstrating the positive impact of social media on the well-being of this vulnerable population, it provides a more comprehensive picture of its role in later life and constructs an integrated model elucidating the mechanisms linking social media use to psychological well-being in institutional care settings. Second, and most significantly, this study advances the theoretical understanding of the mechanisms connecting social media use and psychological well-being. By empirically validating a dual mediation model, we reveal that social media enhances well-being through two distinct yet interrelated pathways: an affective pathway (by reducing loneliness) and a cognitive-relational pathway (by enhancing perceived social support). This integrated model offers a more nuanced explanation than previous studies that examined these mediating factors in loneliness, clarifying that social media is not merely a tool for passing time, but a resource that can fundamentally reshape an individual's emotional and social landscape. Third, this study extends Western theories of loneliness and social support to a non-Western, collectivist cultural context, demonstrating how globally pervasive technologies like WeChat can interact with deeply ingrained cultural values such as filial piety. It shows how these platforms can serve as modern conduits for fulfilling traditional family roles and mitigating the shame associated with feelings of abandonment in institutional care.

The findings of this study have significant practical implications for multiple stakeholders. For nursing home administrators, the results provide a clear mandate to integrate digital inclusion into their service frameworks through infrastructure provision, digital literacy training, and the cultivation of online communities, thereby enhancing residents' capacity to seek social support and health information online. For families, this research underscores a practical way to practice filial piety even when physical presence is not possible: regular video calls, sharing photos, and involving residents in online family discussions can significantly alleviate feelings of abandonment and loneliness, transforming social media into a vital channel for maintaining emotional intimacy. For policymakers, these findings offer evidence-based support for incorporating digital literacy into national strategies for healthy ageing. They suggest that public health initiatives should promote the healthy use of social media among older adults and allocate funding for digital skills training programs in nursing homes—particularly in underserved areas—as a cost-effective means of enhancing the quality of life for this growing population.

### **LIMITATION**

Despite these contributions, this study has several limitations. First, the cross-sectional design precludes definitive causal inferences; although our model posits that social media use influences well-being, the reverse relationship is also plausible. Future research should employ longitudinal designs to establish causality and examine long-term effects. Second, data were collected from nursing homes in a single city in Guangdong Province, limiting the generalizability of the findings. Subsequent studies should strive to obtain geographically more diverse samples. Third, our measurement of social media use was relatively simplistic, capturing only frequency of use without considering the quality, type, or content of interactions. Future research should adopt more nuanced measures that differentiate between distinct usage patterns, such as active versus passive engagement. Finally, other important variables were not included. Future studies could explore additional mediators, such as digital self-efficacy, as well as moderators including physical health status, personality traits, and the quality of caregiver-resident relationships within nursing homes.

### **CONCLUSION**

This study provides robust empirical evidence that social media use serves as a significant resource for promoting the psychological well-being of older adults in Chinese nursing homes. Its benefits are realized through two

fundamental psychological mechanisms: the alleviation of loneliness and the enhancement of perceived social support. By validating this dual mediation model, this research offers a nuanced understanding of how digital engagement can positively impact the lives of this vulnerable population, often characterized by social loneliness and psychological distress. The findings yield urgent and actionable implications for nursing homes, families, and policymakers, underscoring the need to embrace social media as a powerful, accessible, and cost-effective tool to foster healthy ageing and build a more inclusive and compassionate society for all older adults.

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