



## RESEARCH PAPER

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## Underlying mechanism in association of loneliness and psychological well-being among the elderly

Anjana Purushottam<sup>1</sup>, Hema kumari Mehar<sup>2</sup>, Anita Manglani<sup>\*3</sup>

<sup>1</sup>*Department of Psychology, UCSSH College, MLS University, Udaipur, Rajasthan, India*

<sup>2</sup>*Department of Psychology, UCSSH College MLS University, Udaipur, Rajasthan, India*

<sup>3</sup>*Department of Clinical Psychology, Faculty of Behavioural and Social Sciences, Shree Guru Gobind Singh Tricentenary University (SGT) University, Gurgaon, India*

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### Abstract

The growing elderly population worldwide, including in India, bring multiple challenges to regulate, maintain and flourish the well-being of this population. This is further aligned with UN's Sustainable Development Goal (No-3) emphasize on "Ensure healthy lives and promote well-being for all, at all ages". To investigate the underlying mechanism in the relationship between loneliness and psychological well-being among elderly population. The sample population was elderly with age 65 and above. The sample of 62 number of elder population (28 Males and 34 Females) with mean age, 72.22+3.05 was drawn through purposive sampling technique. Correlational Research Design was employed to achieve the objective. Obtained data was analyzed under mediation analysis using Jasp (Version 19). Result highlighted social support as a significant that fully mediate the relationship between Loneliness and psychological well-being. Social support contributes to enhanced psychological well-being and protect from deleterious effect of loneliness especially among the elderly. The study suggests that positive constructs such as social support can be utilized to mitigate the adverse effect of loneliness on psychological well-being in elderly population.

\* **Corresponding Author:** Anita Manglani ✉ [dr.anitadeevishi@gmail.com](mailto:dr.anitadeevishi@gmail.com)

## Introduction

The proportion of older population is growing worldwide, including in India, necessitates comprehensive understanding to address the unique challenges faced by this demographic. The elderly population generally defined as individuals aged 65 and above (Orimo *et al.*, 2006). This demographic shift presents significant social, economic, and healthcare challenges. According to the World Population Prospects as of 2023, it is estimated that out of the global population, there are over 750 million people aged 65 and older accounting for about 10% of the total population.

By 2030, 1 in 6 people globally will be over the age of 60 years or over. As time goes on, the fraction of the population of age 60 years and over will increase from 1 billion in 2020 to 1.4 billion. By 2050, population of the world of people of age 60 years and older will double 2.1 billion (WHO, 2022). Recently, the UNFPA (United Nations Population Fund) India, working with the International Institute for Population Sciences (IIPS) has unveiled the India Ageing Report 2023, and highlighted the rapidly growing elderly population in India (India Ageing Report, 2023). According to this report, India's elderly population is growing greatly, with a growth rate of 41% every decade. By 2050, over 20% of India's population will be elderly. Moreover, the elderly population in India will surpass the population of children by 2046.

Recognizing growing aspect of this demographic realizes the need of ensuring adequate healthcare, economic security and social support for the elderly is crucial for enhancing their quality of life and well-being. The significance of well-being reflected in Sustainable Development Goals (SDGs), emphasized by United Nations in Sustainable Development. Among various Sustainable Development Goals (SDGs), described by United Nation (2020), third goal aim at “ensure healthy lives and promote well-being for all at all ages.”

Well-being has been defined as the combination of feeling good and functioning well; the experience of

positive emotions such as happiness and contentment as well as the development of one's potential, having some control over one's life, having a sense of purpose, and experiencing positive relationships (Huppert, 2009). Generally, well-being covers two distinct perspectives i.e. psychological well-being, and subjective well-being.

Loneliness is linked to numerous adverse physical and psychological health outcomes including poor well-being (Williams-Farrelly *et al.*, 2024). Loneliness, recognized as a social construct, and also as a “significant biopsychosocial stressor”. Loneliness either “situationally lonely” or “chronically lonely” had a greater risk for poor well-being however, link to possible demographic and health confounders (Shiovitz-Ezra and Ayalon, 2010). According to the Evolutionary Theory of Loneliness (ETL) addresses the adaptive functions of loneliness that foster short-term survival but that in the modern world can have deleterious long-term consequences. The negative impact of loneliness on mental health can be profound, leading to chronic mental health conditions or poor well-being if not addressed (Leigh-Hunt *et al.*, 2017).

Loneliness, a subjective feeling of being isolated or disconnected from others, is a significant concern among this age group. It negatively impacts psychological well-being, manifesting in increased levels of anxiety, depression, and other mental health issues.

Social support acts as a buffer against the stressors associated with loneliness, thereby improving mental health outcomes (Smith and Hirdes, 2021). Social support, defined as the perception and reality of being cared for and having assistance available from others, plays a crucial role in mitigating the adverse effects of loneliness. Social support encompasses various forms, including emotional, instrumental, informational, etc. (Jones *et al.*, 2024).

The present investigation was attempted to explore the role of social support as an instrument to mediate

the connection between loneliness and psychological well-being. By understanding and addressing the mediating role of social support, mental health professionals can develop more comprehensive and effective approaches to improving psychological well-being in the face of loneliness.

**Materials and methods**

*Sample*

The sample population of 62 elder participants (28 Males & 34 Females with mean age 72.22 ± 3.05 was considered for this study. The sample selection criteria were:

1. Old Age people living alone in old age homes and care and support, centres of Rajasthan only.
2. Elderly people with age range between 60-80 years.
3. Elderly person not diagnosed with any physical or mental health clinical conditions.

*Research design*

*Correlational research design*

*Tests and scales*

1. Ryff's Scales of Psychological Well-being (Ryff, 1995)-The 18-item version developed by Ryff and Keyes (1995) was used.

2. The Revised UCLA ((University of California, Los Angeles) Loneliness Scale - The UCLA Loneliness Scale was originally developed by Russell *et al.* (1978) and revised by Russell *et al.* (1980).
3. The Multidimensional Scale of Perceived Social Support – This scale was developed by Zimet *et al.* (1988) with 12-item measure of perceived adequacy of social support from three sources: family, friends, and significant other; using a 5-point Likert scale.

*Procedure*

The data obtained on above scales were computed under the correlation and regression (mediation) using the standard method option in jasp (Version-19) for Windows. The relationships between the variables were determined based on the pearson coefficient (r). Results were obtained using mediation analysis under Structural equation modeling (SEM).

**Results**

The present study focuses on the mediating role of social support as an underlying mechanism to mitigate the adverse effect of loneliness for well-being among elderly population. The results are described below Table 1& 2.

**Table 1.** Summary of Pearson's correlations analysis among loneliness (Lns), social support (SS), and psychological well-being (PWB)

Effect	Pearson's r	p	Lower 99% CI	Upper 99% CI
Lns – SS	-0.488	<0.006	-0.774	-0.038
SS – PWB	0.899	< .001	0.748	0.961
Lns - PWB	-0.533	<0.002	-0.797	-0.099

**Table 2.** Mediation model between loneliness (Lns) and psychological well-being (PWB)

Direct effects									
						95% Confidence Interval			
Effect		Estimate	SE	z	p	Lower	Upper		
Lns	→	PWB	-0.141	0.101	-1.400	0.162	-0.339	0.056	
Indirect effects									
						95% Confidence Interval			
Effect		Estimate	SE	z	p	Lower	Upper		
Lns	→	SS →	PWB	-0.464	0.159	-2.913	0.004	-0.776	-0.152
Total effects									
						95% Confidence Interval			
Effect		Estimate	SE	z	p	Lower	Upper		
Lns	→	PWB	-0.605	0.175	-3.454	< .001	-0.948	-0.262	

Direct Effect revealed that loneliness has negative correlation with PWB, however, this correlation was analyzed to be non-significant (Z= -1.400, p= 0.162).

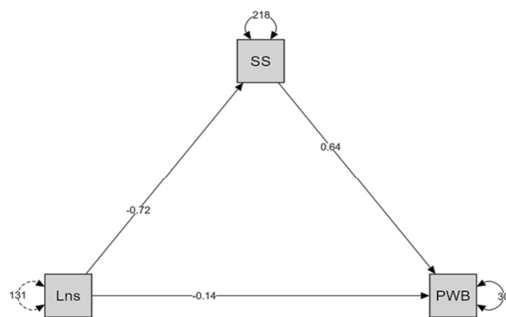
This finding indicates the non-existence of direct association of loneliness with PWB. However, the indirect effect i.e. loneliness to PWB through SS was

analyzed to be significant ( $z=-2.913, p < 0.004$ ). Total effect which is the resultant by the summing of indirect effect ( $a*b$ ) and direct ( $c$ ) effects reflects the significant effect of loneliness on psychological well-Being, mediate by social support ( $Z=-3.454, p = < .001$ ). The result expressed that social support is completely or fully mediating a significant role in alleviating the adverse impact of loneliness for

psychological well-being of elder population. The finding indicates that social support is a significant underlying factor that mediates the relationship of loneliness with PWB among elderly. Path Analysis further revealed the estimates or variance to predict the outcome variable respective to given path, as presented in Table 3, and corresponding Fig. 1.

**Table 3.** Path coefficient analysis

Effect		Estimate	SE	z	p	95% Confidence Interval	
						Lower	Upper
SS	→ PWB	0.643	0.068	9.425	< .001	0.509	0.776
Lns	→ PWB	-0.141	0.101	-1.400	0.162	-0.339	0.056
Lns	→ SS	-0.721	0.235	-3.063	<0.002	-1.183	-0.260



**Fig. 1.** Mediation model of social support (SS)

To summarize, the finding revealed that loneliness is a statistically significant predictor of psychological well-being (Total effect) of elderly population. Further, the mediating role of social support is also verified as significant for association between Loneliness and PWB. Since, direct effect was analyzed as non-significant; the findings highlighted that social support fully mediates the relationship of loneliness with psychological well-being among elderly.

**Discussion**

The current study focuses on exploring social support as an underlying mechanism to mitigate the influence of loneliness for psychological well-being among elderly population (N=62).

Findings revealed that social support significantly plays a complete mediating role in alleviating the adverse impact of loneliness for psychological well-

being among elder population. To be precise, social support fully mediates the association between Loneliness and PWB.

Additionally, as the total effect of loneliness is substantiated to be statistically significant it divulged the loneliness as a significant predictor of psychological well-being of elderly population. Likewise, a recent study by Torkashvand *et al.* (2024) reported that loneliness significantly predicts psychological well-being, both directly and indirectly through several mechanisms. These mechanisms are; Resilience (Senbursa and Dunder, 2024), perceived stress (Torkashvand *et al.* 2024), ethnic affiliation (Ntozini and Abdullahi, 2021), social comparisons (Çifçi and Kumcağız, 2023), Sexual orientation & psychosocial factors (Buczak-Stec *et al.*, 023) and so on.

In similar manner, the present study disclosed social support as a significant mechanism to diminish the adverse effect of loneliness on psychological well-being. The present finding corroborated in study of Goh and Tandoc (2023) demonstrated that one’s negative emotional state mediate the relationship between their feelings of loneliness and their perceived well-being. This negative emotion state has reverse relationship with social support (Chukwuemeka and Obioha, 2024). Studies have shown that individuals with strong social support networks report lower levels

of loneliness and better psychological well-being. Social support affects well-being and also amplifies the positive effects of interventions aimed at reducing loneliness (Xu *et al.*, 2024).

In a nutshell, social support plays a very critical mediating role in the association between loneliness as well as psychological well-being (Syaharuddin *et al.*, 23). Strengthening social support networks can serve as an effective strategy to combat loneliness and enhance psychological well-being among elderly. Future research should continue to explore the specific pathways through which various positive constructs such as social support impact psychological outcomes in a more propitious manner, and how these can be leveraged in interventions for loneliness feeling among elderly. Consistently, Jones *et al.* (2024) reported the correlation between increased social support and loneliness reduction. This study's findings could significantly contribute to developing targeted interventions for improving the well-being of aging adults, addressing a critical global issue.

Despite adding to the current literature in the respective concern, the limitations of the present finding can be expressed under methodological constraints, such as a limited sample size, response bias, and reliance on self-reported measures. These factors may affect the generalizability and accuracy of the results, indicating a need for future research to overcome these aforesaid limitations to increase the validate and expand upon the findings. The implications of the present finding can be express under understanding and addressing the mediating role of social support. By recognizing this role, mental health professionals can develop more comprehensive and effective approaches to improving psychological well-being in elderly individuals facing loneliness. This involves exploring and adopting the strategies that enhance social support systems, thereby potentially mitigating the negative psychological effects of loneliness.

### Conclusion

The study confirms the complete or fully mediating role of social support as significant for the association

between feeling of loneliness, and psychological well-being among elderly population. Social support mediated the effect of loneliness on well-being, hence conformed as a more complex mechanism in elderly population. These findings suggest that improving social support feeling can meaningfully improve well-being and decrease the adverse effects of loneness among elderly.

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