

To Identify the Consequence of Social Distancing on the Social Affinity Needs in the Lives of the Elderly

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Abstract

The present study aimed to examine the interrelatedness of three key variables: The social affinity needs of the elderly, the social needs of elderly individuals, and Social distance. To do this, a path analysis was conducted on a sample of elderly individuals. In conclusion, this study provides evidence of a complex relationship between social distance, social affinity needs and the social needs of the elderly. Social space has a positive relationship with both social affinity needs, and the social needs of the elderly, and social affinity needs have a positive relationship with the social needs of the elderly. This study provides valuable insights into the impact of social distancing on the social needs and social affinity needs of the elderly population. It highlights the need for interventions to support older adults during periods of social distancing. The previous two years were unpredictable. The epidemic has had a remarkable effect on all population subgroups. In response to the global spreading of the corona infection, the government devised social distance restrictions aimed at high-risk age groups. The indicated age group was those less than 65 years old. They are more susceptible to such a sickness due to age-related symptoms, lower antibodies, physical and psychological dependency upon one another, and especially lack of mobility. More than the danger of infection, the stigma connected to this circumstance significantly impacts the elderly. This generation faces increased mortality-related problems because of the comorbid condition.

Keywords: Elderly People, Pandemic, Social distancing, Vulnerable.

Introduction

Critical determinants of healthy ageing have been recognized as the ability to form and sustain connections and to engage in society [1]. These elements are mirrored in the idea of social involvement, which has been defined as participation in activities that offer connection with other members of society or the community [2]

Globally, social distancing or “physical distancing” is described as keeping a minimum 6-foot distance from others, avoiding crowds or significant events, and remaining at home [3]. Social distancing is intended to decrease

connection between people in a larger society where infectious persons may exist but have not yet been detected and, thus, have not been segregated. Social separation may decrease the spread of respiratory droplets [4].

India is a nation with a strong family structure. Elderly folks constitute a significant portion of the country's population. The unprecedented scenario caused Covid 19 swamp the whole globe, but instances exhibited the most significant surge in India. Maharashtra became the country most severely affected by this virus [5]. Pune and Mumbai are the major cities with the worst quarantine regulations. Pune is an educational center and the most

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favorable town for the senior folks; the influence noticed on them was tremendous [6]. City has suffered repeated prolonged lockdowns. Flexibility was implemented for a limited time due to the continuous growth of incidents [7].

It is suggested that the Covid-19 pandemic's psychological consequences aggravate and often outweigh its immediate medical effect [8]. This may be because social isolation is the most effective technique for combating the spread of the Covid-19 infection. While social isolation may protect and save lives, its adverse impacts on older adults must be acknowledged and mitigated to the most significant degree feasible to retain their quality of life [9].

Social isolation deprives older persons of direct engagement with their social surroundings, therefore diminishing the capacity of social health to protect their quality of life. Older persons (>70 years of age) are the most susceptible to the Covid-19 epidemic [10]. The social skills of older persons and their reaction to their social environment are effective methods of adapting to complex

situations, such as a pandemic, by fostering mental health and cognitive functioning via social contacts. However, isolation from loved ones and individuals who provide joy and significance to one's life poses an extra danger and renders older folks more susceptible to loneliness and mental and cognitive decline [11].

Adverse Effects of Social Isolation on the Elderly

Strategies for Mitigating the Effects of Social Distancing

Due to the prevalence of the joint family structure and the Indian emphasis on supporting, caring for, and honoring elders, old age was not seen as an issue in India until recently. The Indian culture encourages caring for family elders and communal life. As a consequence, elder abuse was not seen as an issue in India but rather as a Western phenomenon [12].

Table 1. Concerns about the Elderly and their Occupations, as well as Sharing Words Derived from WHO

Concern	Message
Cognitive decline/dementia may cause older persons to become more worried, irritated, disturbed, or withdrawn.	Support on a practical and emotional level through informal networks and health professionals
Not knowing how to limit infection risk	Share straightforward facts and information about how to limit infection risk.
Repetition of the information as required	How to proceed with the treatment of underlying health concerns
Access to regular medications and a two-week supply; if help is required, activate social connections	Maintaining physical fitness Learn easy everyday fitness routines
Attention to needs and feelings	Try to engage in healthy, soothing activities, maintain a regular sleep schedule, and consume nutritious foods.
Maintaining a daily routine Keep regular routines as much as possible or create new ones.	Keep in touch with loved ones through digital means
Keep in regular contact	Use telephone, e-mail, and social media.

Following epidemiological studies, a lack of/inadequate family involvement is

substantially connected with more unexpected deaths and poor health among senior citizens.

Our study assessed all datasets of 39,694 residents aged 60 and older having been involved with India's second National Family Health Survey in 1998-1999 to investigate the relationships between current lifestyle and functional capacity [13]. Though after influencing for only a quantity of socioeconomic, demographic, environmental, but rather behavioural covariates, the data suggest that seniors living lonely are far more likely to suffer from chronic but instead severe diseases, including asthma but instead tuberculosis, than elderly individuals living with about their relatives. Following the epidemiological study, the decline of/insufficiency of immigrant families is highly connected to higher economic mortality and overall poor health among senior adults [14]. That study analyzed the complete data of 39,694 individuals aged 60 or older who volunteered in India's second National Family Health Survey in 1998-1999 in search of possible correlations between contemporary lifestyle and functional abilities. While adjusting for various socioeconomic, demographic, environmental, and interpersonal factors, research findings indicate that home health patients living alone are more likely to suffer from ongoing and severe illnesses, including asthma and TB, than ageing parents [15].

The elderly in India experience several socioeconomic difficulties, including isolation, elder abuse, neglect, lack of financial stability, and inadequate health care access. In addition, there are no rules on advance directives, palliative care, and end-of-life care for the elderly. There are 112 million senior individuals in India with diverse physical, social, psychological, and economic issues and unmet requirements in all health areas [16]. In addition to diabetes, hearing loss, and osteoarthritis, many older persons are at risk for acquiring mental illnesses, neurological diseases, and disability-related issues. According to WHO estimates, more than 20%

of those aged 60 and older suffer from a mental or neurological condition, and 6.6% of all disabilities among those aged 60 and over may be attributable to mental and neurological problems [17].

Cheung et al. noted that elderly persons were concerned not just about being infected with SARS but also about becoming a burden to their families. Sometimes, it was an 'altruistic motive' when participants believed consumers had suffered for their loved ones [18].

The literature demonstrates that the elderly confronts various health problems, and most of them depend on others, which exacerbates their position [19]. The country's inadequate health facilities make the elderly more vulnerable. Covid-19 poses the greatest threat of severe disease to older persons. The Covid-19 epidemic has disrupted almost every facet of life and poses distinct dangers to senior citizens' physical and mental health. Social distance influences society and social life by altering cultural practices and by increasing the likelihood of impairments in social and mental health and cognitive functioning, mainly among the elderly [20].

Materials and Methods

Study Design and Setting

We decided to use a quantitative approach that consisted of a questionnaire survey because of its potential to help us better understand the thoughts and sentiments associated with older individuals' social isolation.

Sampling and Participants

Residents of Pune city and the surrounding regions of Shivajinagar, Pimpri-Chinchwad, etc., who were at least 60 years old and getting home care to address social requirements or feeling loneliness due to social isolation, were requested to participate. Persons under 60 years of age were excluded.

The older persons who got the information letter and indicated preliminary interest in participating consented to be contacted by the

first author by telephone to obtain verbal information and to determine if they believed they met the criteria and wanted to participate. Those who wished to participate chose the interview's time and venue during this phone conversation. Contact information for n potential participants was collected, of which two were excluded due to the age requirement and three declined participations after receiving verbal communication. Demographic data were collected via a questionnaire.

Research Objectives

1. To determine how older adults' needs for social ties are affected by social distance.
2. Determine the impact of social distance on the social affinity requirements of the elderly.

Research Question

Research Hypothesis

Null Hypothesis: Social distance does not significantly impact the social needs of elderly individuals, and their levels of social ties remain unchanged.

Alternative Hypothesis: Social distance has a detrimental influence on the social requirements of seniors, ending in fewer social connections and more extraordinary emotions like emptiness and loneliness.

Null Hypothesis: Social distancing does not significantly impact the social affinity needs of the elderly.

Alternative Hypothesis: Social distance also negatively impacts the elderly's social affinity demands, resulting in less social contact with more extraordinary emotions of emptiness and loneliness.

Research Variable

1. Independent Variable: Social distance.
2. Dependent Variable: Social needs of elderly individuals.
3. Dependent Variable: Social affinity needs of the elderly.

Study Design

This study is based on a cross-section study.

Target Population/ Sample Frame

The margin of error for this study is 5%, the confidence level is 95%, and the population size is 3239. proposed scale to measure the construct. Response distribution is 50 %. With the help of the coherence formula recommended sample size is 344.

Sampling Technique

The researcher uses simple random sampling as this involves selecting a sample of participants from the study population using a random selection method, ensuring that the sample is representative of the study population and collecting data that can be used to describe the characteristics of the study population.

Proposed Scale to Measure the Construct

In this study, we use 5 points Likert scale.

Study Instrument

1. Measurement of outcome variables.
2. Procedure for Data Collection.

Data Collection

The researcher prepared a structured questionnaire with questions about different things in this research. For Data Collection Techniques, researchers use Google Forms, an online survey application. Please fill out the Google Form on behalf of the elderly with the assistance of a group researcher and his team.

Data Analysis

This same acquired statistical approach was modified by hand and then input into the software. Jamovi was used for data analysis. Internal consistency, yet another ANOVA, hypothesis testing, and multiple linear regression were used to synthesize and display socio-demographic data and participant replies. Overall significance limitation was established

at 95%, and the significance threshold was set at $p = 0.05$.

Limitations of the Study

That individual's replies might be influenced by recollection distortion. Considering individuals received promises of their anonymity and security, we feel this could be reduced to a minimum.

Results

Descriptive

To perform this research, we surveyed a sample of senior citizens and inquired about their social contacts before to and after the epidemic. We then analyzed the data using the Shapiro-Wilk p test. The overall outcome of such Shapiro-Wilk p test revealed that all

variables were statistically significant, indicating that information is not customarily generated, hence mandating a non-parametric assessment.

Reliability Analysis

The reliability analysis provides information about the measure's consistency and stability. In this instance, the results suggest that the instrument has a high degree of reliability. The most significant impact of this analysis is the 0.91 Cronbach's coefficient. The reliability analysis results indicate that the measure utilized in this study possesses a high degree of reliability and internal consistency. This suggests that the action is a valid instrument for evaluating the construct of interest in this study.

Table 2. Scale Reliability Statistics

Scale Reliability Statistics			
	mean	sd	Cronbach's α
scale	3.80	0.606	0.910

SD 6-8 Compute vs SANOE

One-Way ANOVA (Non-parametric)

As per the one way ANOVAa elderly people feel their social needs are being met χ^2 is 58.5, df is 4, p value is $< .001$, ϵ^2 is 0.1706 so this are the statistically significant as well as elderly people feel sense of belonging in their community (SANOE2), elderly people feel connected to others (SANOE3), elderly people feel satisfied with their social interactions (SANOE4), elderly people feel that their social affinity needs are being adequately met despite social distancing (SANOE5), utilized technology to maintain social connections

through video or audio calls during the period of social distancing(SANOE6), smartphone or mobile device to maintaining social relationships during the period of social distancing (SANOE7), how accurate they believe the adjective they provided earlier is in describing their personality (SANOE8) all variables are statistically significant as per above table that is variant hypotheses are accepted while null hypotheses are disregarded Social distance negatively impacts the social affinity requirements of the seniors, resulting in less social ties with more excellent experiences like dejection.

Table 3. One-Way ANOVA

Kruskal-Wallis	χ^2	df	p	ϵ^2
SANOE1	58.5	4	$< .001$	0.1706
SANOE2	23.1	4	$< .001$	0.0672
SANOE3	26.6	4	$< .001$	0.0777
SANOE4	14.4	4	0.006	0.0420
SANOE5	12.0	4	0.018	0.0349

SANOE6	12.1	4	0.016	0.0354
SANOE7	14.9	4	0.005	0.0436
SANOE8	12.0	4	0.017	0.0349

According to one way ANOVAa table elderly people feel their social needs are being met (SNOEI1) χ^2 is 0.1150, df is 3, p value is $< .001$, ϵ^2 is 0.1150 so this are the statistically significant as well as elderly people feel sense of belonging in their community (SNOEI2), elderly people feel connected to others (SNOEI3), elderly people feel satisfied with their social interactions (SNOEI4), elderly people feel that their social affinity needs are being adequately met despite social distancing (SNOEI5), how much elderly people like to share additional information or thoughts regarding their experiences during the period of social distancing (SNOEI6), elderly people feel to share additional information or opinions regarding respondents experiences during the period of social distancing (SNOEI7), elderly people feel about returning to everyday social interactions and activities once social distancing measures are lifted (SNOEI8), elderly people physical or mental health changed since the

implementation of social distancing measures (SNOEI9), how lonely elderly people currently feel during the period of social distancing (SNOEI10), mood or emotional state changed since the implementation of social distancing measures (SNOEI11), participate in physical exercise or activity during the period of social distancing (SNOEI12), successful elderly people been at maintaining social connections during the period of social distancing (SNOEI13), excited elderly people to participate in certain activities or events once social distancing measures are lifted (SNOEI14), all variables are statistically significant as per above table that is variant hypotheses are accepted while null hypotheses are refused Social distance has a detrimental influence on the social requirements of the aged people, culminating in less social connections and more extraordinary emotions like emptiness and loneliness.

Table 4. One-Way ANOVA

Kruskal-Wallis	χ^2	df	p	ϵ^2
SNOEI1	39.5	3	$< .001$	0.1150
SNOEI2	43.5	3	$< .001$	0.1269
SNOEI3	46.6	3	$< .001$	0.1358
SNOEI4	36.1	3	$< .001$	0.1053
SNOEI5	36.8	3	$< .001$	0.1072
SNOEI6	44.5	3	$< .001$	0.1297
SNOEI7	34.1	3	$< .001$	0.0995
SNOEI8	38.4	3	$< .001$	0.1120
SNOEI9	44.4	3	$< .001$	0.1295
SNOEI10	52.5	3	$< .001$	0.1532
SNOEI11	37.6	3	$< .001$	0.1095
SNOEI12	47.2	3	$< .001$	0.1376
SNOEI13	61.9	3	$< .001$	0.1805
SNOEI14	62.7	3	$< .001$	0.1828

CFA

Model Fit

Confirmatory factor analysis (CFA) is a statistical technique used to test the measurement model of a construct. The model fit measures provide information regarding the degree to which the data match the proposed model. The Root Mean Square Error of Approximation (RMSEA) measures the difference between the observed covariance matrix and the estimated covariance matrix

based on the proposed model. The RMSEA value of 0.779% indicates that the model fits the data adequately. With lower and upper bounds of 0.774 and 0.787, respectively, the 90% Confidence Interval (CI) for RMSEA indicates that the model is consistent with the data.

SEM

This is good model fit is characterized by a low Chi-Square (X^2) value, a low p-value, and a low degree of freedom (df).

Table 5. Model Fit Measures

Model Fit Measures							
RMSEA 90% CI					Model Test		
RMS	Lower	Upper	Title	Basic	χ^2	df	p
0.779	0.774	0.787	0.527	41029	42203	201	< .001

Table 6. SEM

Model Tests			
Label	X^2	df	p
User Model	954	402	< .001
Baseline Model	1390	435	< .001
Scaled User	616	402	< .001
Scaled Baseline	566	435	< .001

The analysis showed that there is a statistically significant link between the level of social distance older people feel and their need for social affinity. In particular, the estimated coefficient for the independent variable was 4.64, which means that the level of social distance increases by 4.64 units for each unit increase in the social affinity needs of the elderly. In addition, the standardization

coefficient () was 4.64, indicating that the level of social distance increases by 4.64 units for each standard deviation increase in the social affinity needs of the elderly. The analysis also revealed that the p-value for both independent variables was less than .001, indicating that there is a statistically significant relationship between the elderly's social affinity needs and social distance.

Table 7. Parameters Estimates

Parameters Estimates				95% Confidence Intervals				
Dep	Pred	Estimate	SE	Lower	Upper	β	z	p
CANOE	SD	4.64	0.351	3.954	5.33	4.64	13.2	< .001
SNOEI	SD	1.17	0.105	0.969	1.38	1.03	11.2	< .001

Path Diagrams

The path analysis diagram suggests that there is a complex relationship among the three

variables of social affinity needs of the elderly, social needs of elderly individuals, and social distance. The diagram depicts both direct and indirect relationships between these variables.

With a coefficient of 4.64 and a social affinity need of the elderly, social distance directly affected both social and social affinity needs. Social space is related to both social affinity needs and the social needs of the elderly in a positive way. On the other hand, social affinity needs are related to the social needs of the elderly in a positive way. The social affinity needs of the elderly directly influenced the social needs of the elderly, with a coefficient of

0.94, indicating that higher levels of social affinity needs are positively correlated with higher levels of social needs of the elderly. In conclusion, this study provides evidence of a complex relationship between social distance, social their social needs and the social needs of the elderly. Social space is positively related to both social affinity needs and elderly social needs, whereas social affinity needs are positively related to elderly social needs.

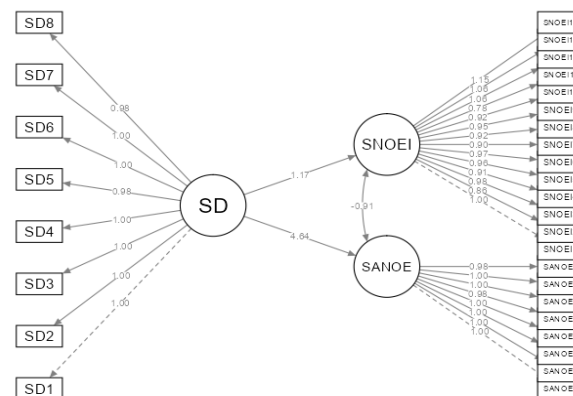


Figure 1. Path Diagram

Discussion

This study aimed to find out how social distance affects how close people are to each other and what they need from other people. The reliability analysis indicated that the measure utilized in this study was highly reliable. The one-way ANOVA also showed that social distance significantly affects how close people are to each other and how much they need social interaction. This study shows that social distance can hurt older people's social needs and social affinity needs, leading to fewer social connections and more feelings of being alone and alone. During times of social distancing, it shows how important it is to help older people feel less lonely and socially isolated. The Confirmatory Factor Analysis (CFA) results revealed a statistically significant positive correlation between the elderly's social

affinity needs and their social distance. Additionally, the path analysis diagram indicates that there is a complex relationship between the three variables of social affinity needs of the elderly, the social needs of elderly individuals, and social distance. The diagram depicts both direct and indirect relationships between these variables. Social space was discovered to directly affect both the elderly's social affinity needs and their social needs, implying that higher levels of social distance are positively associated with higher levels of social affinity needs and elderly social needs.

Conclusion

In conclusion, this study shows that the level of social distance among older people is related to their need for social affinity and individuals. This finding could have important implications for developing programs to help older people

feel less lonely and isolated. Because of the steps taken to stop Covid-19 from spreading, older people's social lives have changed significantly. Less face-to-face interaction and the closing of senior centres and other public places have worsened isolation and loneliness. This could hurt a person's physical and mental health in several ways, such as by making them more likely to get depressed or lose their memory. Older people need to keep in touch with their families and participate in activities that help them socialize and stay mentally healthy, like video chats, phone calls, and online clubs and classes.

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Conflict of Interest

The authors wish to declare no conflict of interest in this manuscript.

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