SOCIAL NETWORK AND LIFE SATISFACTION AMONGST ELDERLY IN INDIA

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Motivation

- The number of persons aged 60+ increased from 19.6 million (5% of the total population) in 1951 to 98 million (9% of the total population) in 2011 in India

- The proportion of persons aged 60+ in India is projected to grow to 11% in 2025 and 19% in 2050

- Maintaining well-being and a good quality of life amongst elderly thus, becomes a challenge

- Social health is an essential component of population well-being

- Social health relies not simply on the social network, but also on the bonding (cohesion) between these networks and their interpersonal activities linked there with

- Global studies present a mixed evidence on the relationship between social networks and life Satisfaction and scarce on the interlinkages between social cohesion, Interpersonal Activities and Life Satisfaction amongst older adults in the country

- Thus, the present study aims to explore the nature of relationship between social network, social cohesion, Interpersonal Activities and life satisfaction among the elderly in India

Research Hypothesis

H1: Network density positively impacts the life satisfaction of the Elderly in India

H2: Social Cohesion Positively impacts the life satisfaction amongst Elderly in India

H3: Interpersonal Activities mediates the relationship between Social Cohesion and Life Satisfaction amongst Elderly in India

Objective Specific Data and Methods

The present study utilized data from two secondary data sources

Objective 1: The pilot wave of Longitudinal Ageing Study in India (LASI), 2010, conducted in four states of India- 574 individuals aged 50 years and older

Network Density Index was generated utilizing the formula below:

nd=Actual Connections/Potential Connections   for all 0<nd<1

Where,
Actual Connections (AC)=Total number of Close Relationships reported by the respondent
Potential Connections (PC)= Total possible Close Relationships

$$PC = \frac{n(n-1)}{2}$$

Where,
n= Total number of Relationships (Close or not)
Life Satisfaction Score was generated using 'life close to ideal', 'excellent life conditions', 'satisfaction with life aspects' 'achieved important things in life' and 'change required in life'

Further, Pearson's Correlation Coefficient was calculated between Network Density and Life Satisfaction

Objective 2 & 3: WHO Study on global AGEing and adult health (SAGE), wave-1 (2007-08)- 6,450 respondents aged 50 years or above from six states of India

✓ **Factor Loading Analysis**
- To illustrate the validity of latent variables (social cohesion, Interpersonal Activities and Life Satisfaction)
- Three separate factor loading analyses were carried out
- Fit Indices were calculated in order to modify the existing latent construct

✓ **Measurement Analysis**
- The full measurement model including three latent variables was checked
- Fit Indices were calculated in order to modify the existing measurement model and check for multicollinearity in the model

✓ **Convergence Validity**
Three phases of convergence validity, namely:
- Reliability of items for each measure
- Cronbach's alpha of construct
- Average variance extracted (AVE)

Structural Model

- Structural modelling was applied next to identify the hypothesized connection among research constructs

✓ **Mediation Analysis**

Mediation analysis is used to find out the mechanisms that:

- underlie a detected association between an exposure indicator (Social Cohesion) and an outcome (Life Satisfaction)\

- and tests in what way they impact a third intermediate indicator, the mediator (Interpersonal Activities)
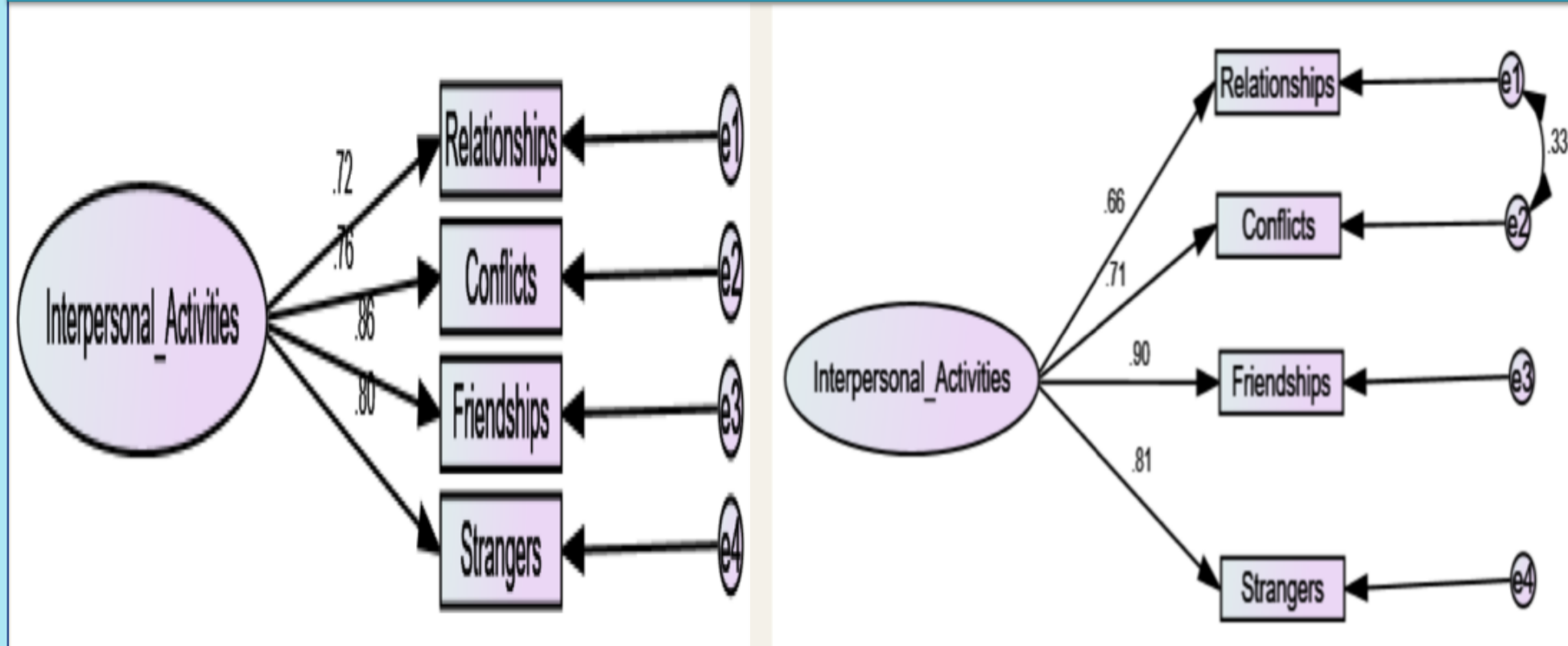
Major Findings

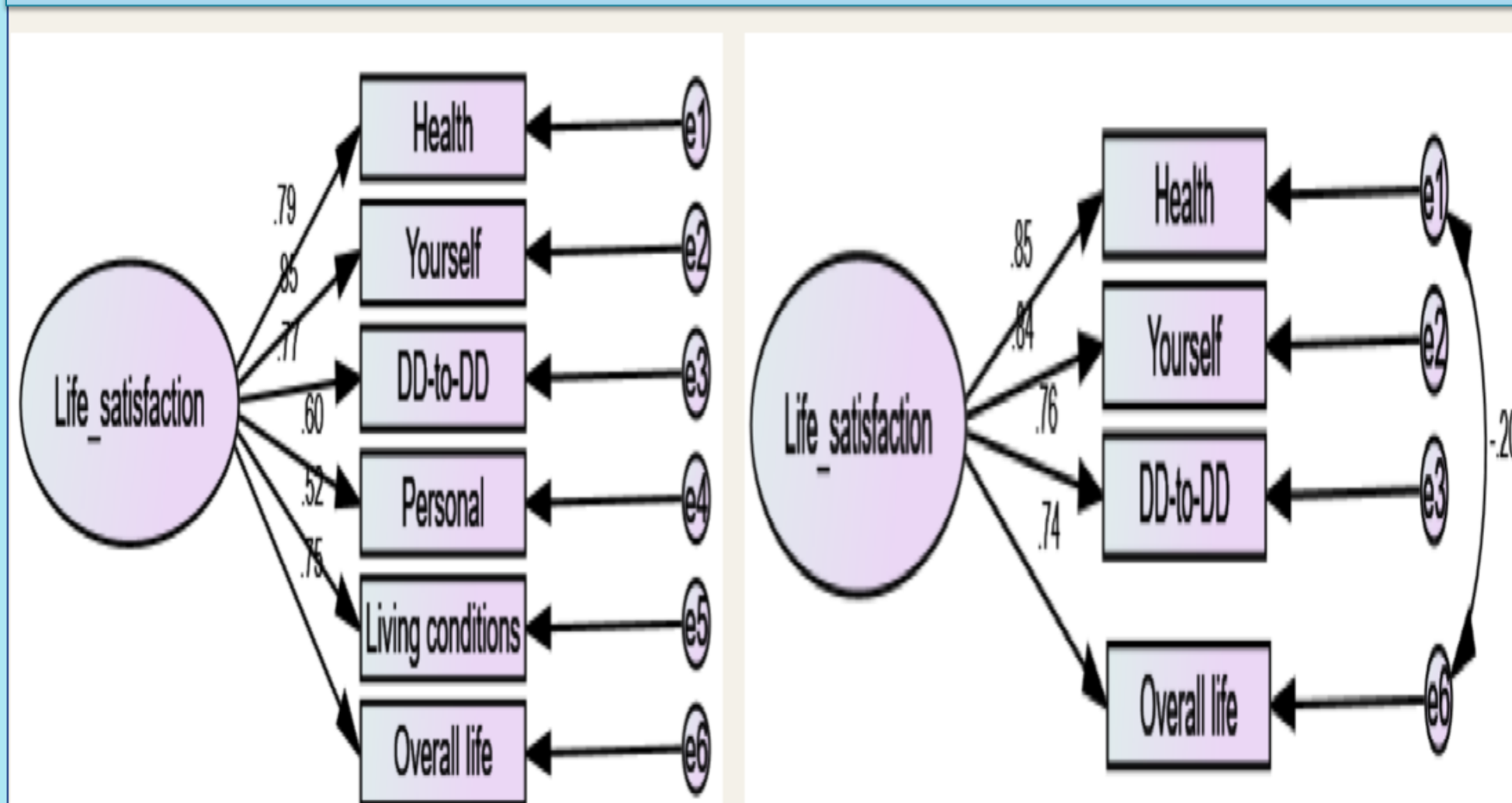### Confirmatory Factor Analysis

Social Cohesion (SC)
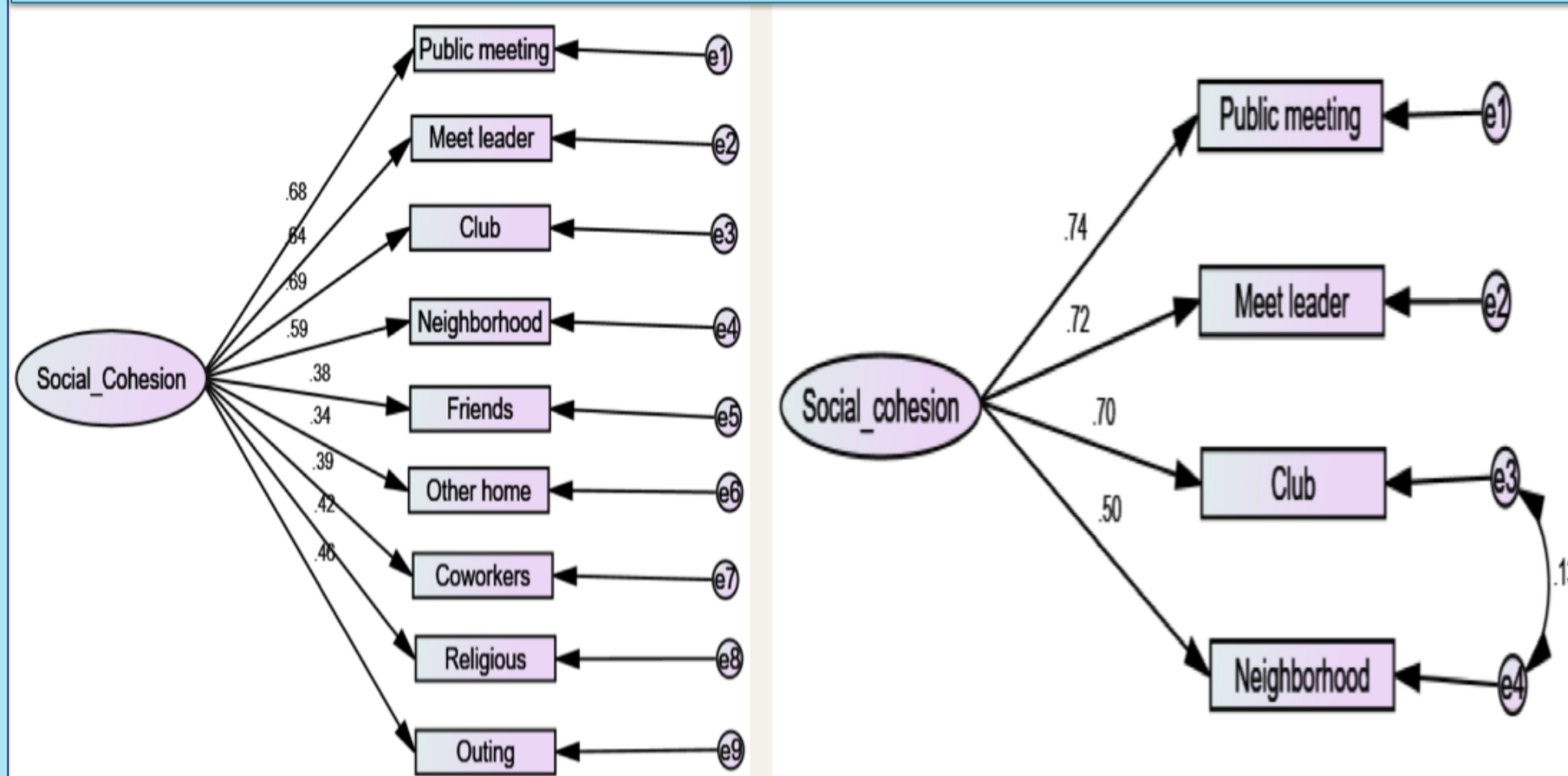


Interpersonal Activities (IA)

Life Satisfaction (LS)

Table 1. Model fitting analysis for Primary Model (PM) and Modified Models (MM) variables included in the Study

| Fit Index	SC		IA		LS		Critical Value
	PM	MM	PM	MM	PM	MM	
NFI	0.73	0.98	0.96	0.99	0.93	0.99	>0.90
CFI	0.74	0.98	0.96	0.99	0.93	0.99	>0.90
TLI	0.65	0.98	0.88	0.99	0.88	0.99	>0.90
IFI	0.74	0.98	0.96	0.99	0.93	0.99	>0.90
RFI	0.65	0.98	0.88	0.99	0.88	0.99	>0.90
GFI	0.88	0.99	0.96	0.99	0.93	0.99	>0.90
RMSEA	0.14	0.02	0.20	0.04	0.15	0.03	<0.05

Measurement Model
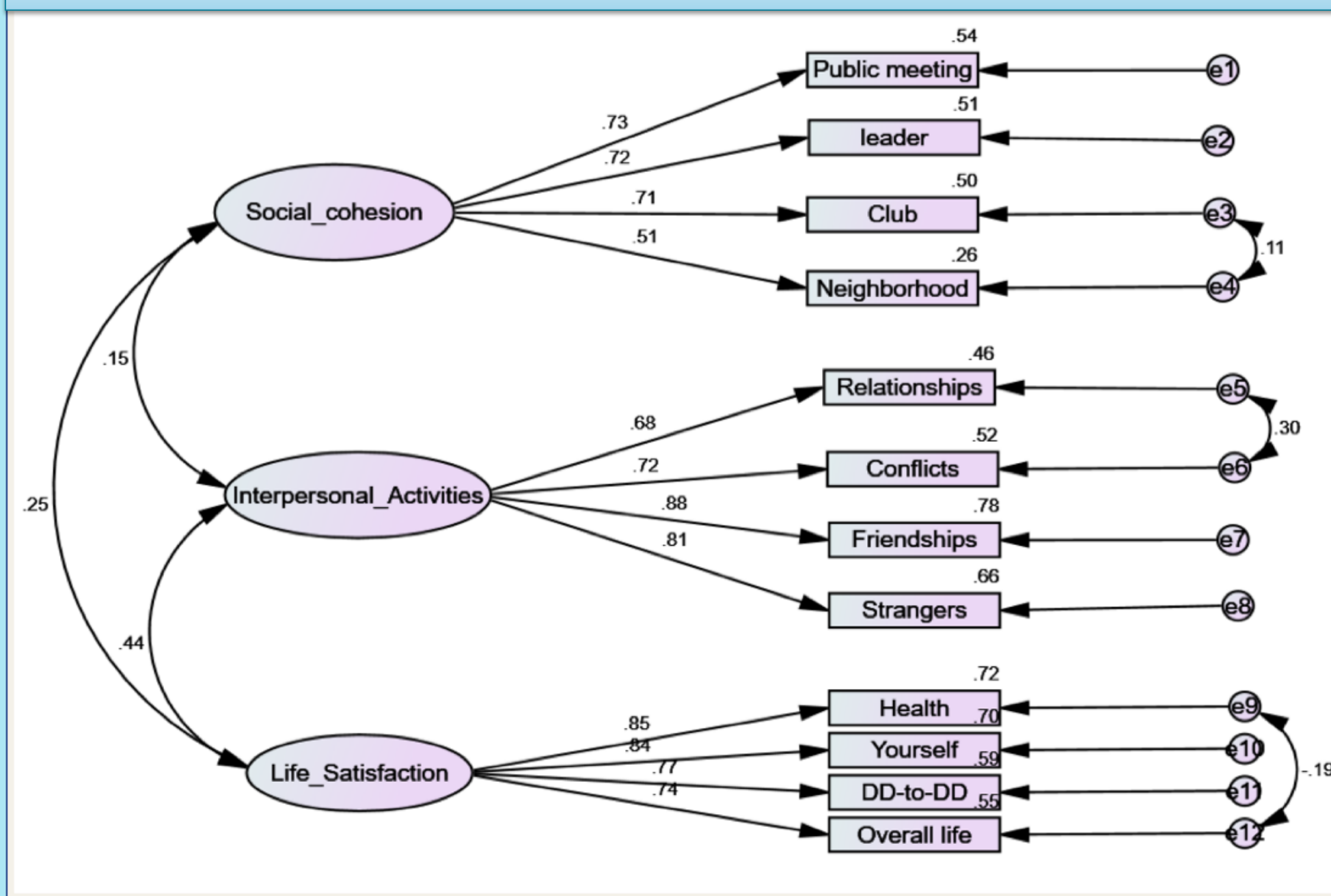
Major Findings

- Primary Measurement Model fits well with NFI, CFI, TLI, IFI, RFI, GFI=0.98, and RMSEA=0.04 (Critical Value=0.05)

Table 2. Convergence Validity

Latent Variables	Average Variance Extracted	Cronbach's Alpha
Social Cohesion	0.5	0.752
Interpersonal Activities	0.6	0.865
Life Satisfaction	0.63	0.867

Structural Model
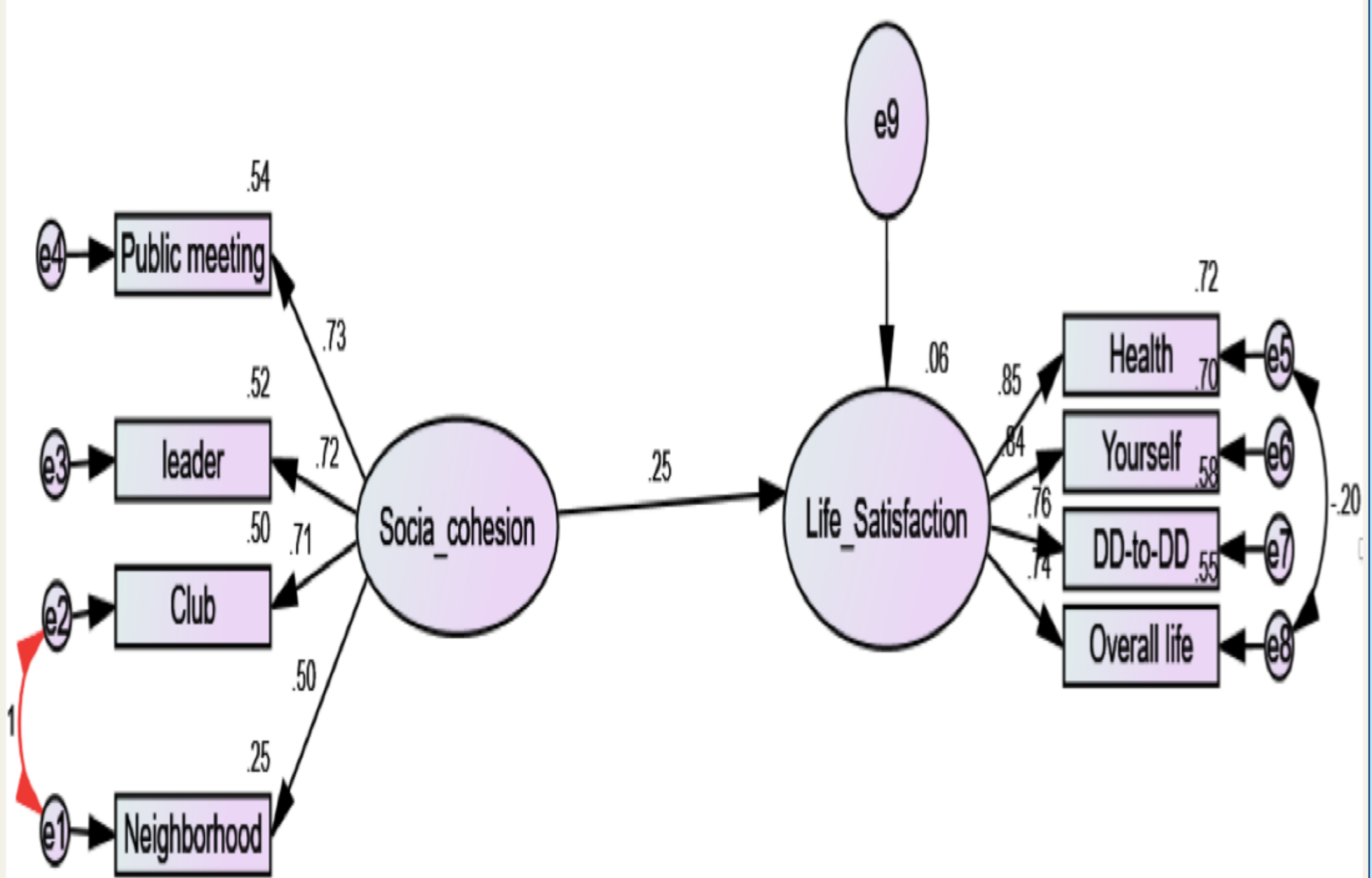
- Primary Measurement Model fits well with NFI, CFI, TLI, IFI, RFI, GFI=0.98, and RMSEA=0.04 (Critical Value=0.04)
- Social Cohesion has a positive impact on Life Satisfaction

Mediation Model
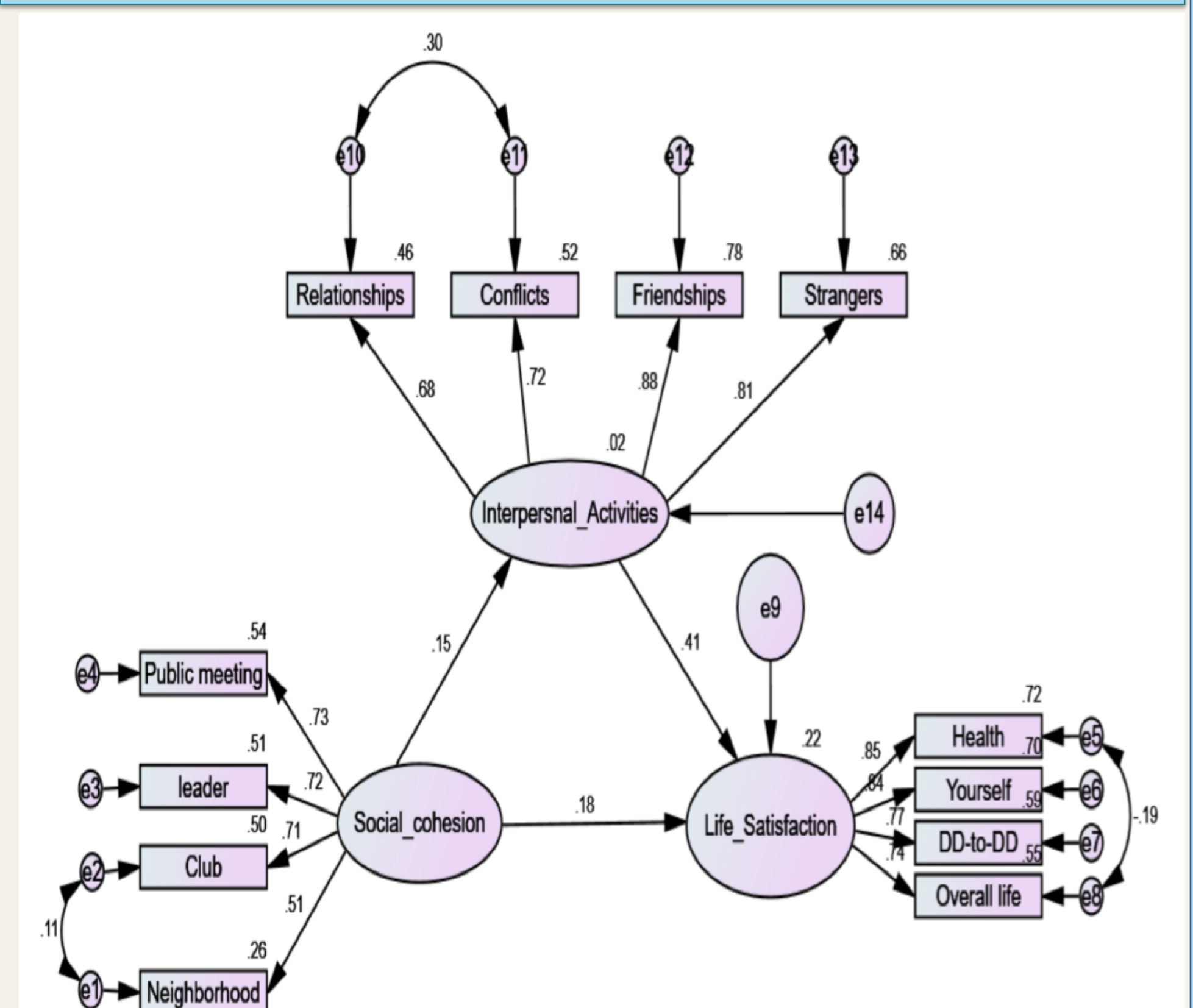
- Primary Measurement Model fits well with NFI=0.97, CFI=0.97, TLI=0.96, IFI=0.97, RFI=0.96, GFI=0.97, and RMSEA=0.04 (Critical Value=0.05)

Conclusion

- The study findings suggest that most Indian elderly have a high social density, which may be attributed due to increased level of life expectancy and high fertility rates

- Moreover, a slightly affirmative relationship exists between Social Network and Life Satisfaction

- Social Cohesion Positively impacts life satisfaction amongst Elderly in India

- Interpersonal Activities mediates the relationship between Social Cohesion and Life Satisfaction amongst Elderly in India

- However, the sample size utilized to deduce results for social network was small, thus, the findings cannot be generalized at national level

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