

**Supplementary Information for:  
“Religiosity and gender bias structure social networks”**

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## Supplementary Information

We measured an individual's investment into distant pilgrimages using the following formula:

$$\text{Pilgrimage score} = \sum_{i=1}^7 W_i \times f_i \quad (1)$$

The pilgrimage score for an individual is the sum of pilgrimages in each class  $i \in [1,7]$  (Table S2) performed by the individual,  $f_i$ , weighted by the score  $W_i$  of the appropriate pilgrimage class (see also Methods section).

## Supplementary Tables

Table S1. Demographic characteristics of the 289 residents.

Variables	Description	N	Mean (SD)	No. of levels
Gender	Male, Female	142 Male and 147 Female individuals	-	2
Age cohort	16-25; 26-35; 36-45; 46-55; >55 years old.	31; 42; 87; 63; 66 individuals respectively	-	5
Number of relatives	Number of consanguineal kin living in the village	-	15.6 (10.6)	-
Communities	Named A, B, C, D, respectively	27 A, 38 B, 21 C, 35 D households	-	4
Economic rank	Low; Medium; High.	50 Low, 43 Medium, 28 High level households	-	3
Daily practice	Yes; No. (Ref: No)	111 No; 177 Yes	-	-
Pilgrimage score	Measure for pilgrimage acts	-	11.98 (18.53)	-

Table S2. The consensus analysis yields ratings in terms of "Physical Cost", "Monetary Expenditure", and "Time Consumption" for every category of pilgrimage activities, which are classified based on the geographical distribution of monasteries. The highest rating was designated with a value of 5, while the lowest rating was assigned a value of 1.

	<b>Physical Cost</b>	<b>Monetary Expenditure</b>	<b>Time Consumption</b>	<b>Weighting score</b>
<b>Monastery 1</b>	5	5	5	15
<b>Monastery 2</b>	1	2	1	4
<b>Monastery 3</b>	1	2	1	4
<b>Monastery 4</b>	1	2	1	4
<b>Monastery 5</b>	3	3	3	9
<b>Holy Mountain 1</b>	5	5	5	15
<b>Holy Mountain 2</b>	5	5	5	15

Table S3. Specific Types of Daily Practices by Gender.

	<b>Female</b>	<b>Male</b>
	142	147
Weekly visits to a local monastery	45 (31.7 %)	10 (6.8 %)
Daily home prostrations	84 (59.2 %)	19 (12.9 %)
Daily bead counting and sutra recitation	95 (66.9 %)	64 (43.5 %)

Table S3. The survey questions (in English and Tibetan) were used to elicit support relationships for males and females.

a)

### Male's Social Network

སྐྱེས་པའི་སྤྱི་འབྲེལ་དྲ་རྒྱ།

#### Emotional Support and Friendship

བརྗེ་བསམ་རྒྱུ་བརྗེར་དང་མཛོད་གཞུགས།

In your village, who do you often chat with? (Whom do you want to have a casual chat with when you feel upset?)

ཁྱེད་ཚོ་ལྟེ་བའི་ནང་དུ་ཁྱེད་ཀྱིས་རྒྱུན་དུ་སྤྱི་བཙའ་ནས་ཁ་བརྗེ་བྱེད་པའི་ཡིན་ནམ།

(ཁ་བརྗེ་རྒྱུན་པའམ་སེམས་ཁམས་མི་རྒྱུན་དུ་མི་ཞིག་བཙའ་ནས་རྒྱུན་ཆ་བཤད་འདོད་པ་ཡིན་ནམ།)

In your village, who are your very close friends?

ཁྱེད་ཚོ་ལྟེ་བའི་ནང་དུ་ཁྱེད་ཀྱི་གྲགས་པོ་བཟང་པོ་སྤྱི་བཙའ་ནམ།

#### Behavioural Assistance

ངལ་རྒྱུ་ལུས་ཤུགས་ཀྱི་རོགས་རམ།

In your village, who helps you to do the farm work?

ཁྱེད་ཚོ་ལྟེ་བའི་ནང་དུ་མི་སྤྱི་བཙའ་གིས་ཁྱེད་ལ་ཞིང་ལས་ལས་རོགས་བྱེད་དམ།

In your village, from whom do you seek help when your family holds a wedding or funeral?

ཁྱེད་ཚོ་ལྟེ་བའི་ནང་དུ་མི་སྤྱི་བཙའ་གིས་ཁྱེད་ཀྱི་ཁྱིམ་དུ་མཚའ་མ་ལེན་པ་དང་འདས་པོར་གཤམ་ཚོས་སྐབས་དུས་རོགས་རམ་བྱེད་དམ།

#### Financial Assistance

དཔལ་འབྱོར་གྱི་རོགས་འདེགས།

In your village, who do you often borrow money from when you need an amount of money?

ཁྱེད་ཚོ་ལྟེ་བའི་ནང་དུ་མི་སྤྱི་བཙའ་གིས་ཁྱེད་ལ་སྒོར་མོ་བསྐྱེ་བའི་ཡིན་དམ།

#### Guidance Assistance

བསམ་འཆར་དང་ཁྲིད་སྟོན།

In your village, who would you like to talk with if you need to seek advice for some important things (For example: choosing a school for your children)?

ཁྱེད་ཚོ་ལྟེ་བའི་ནང་དུ་ཁྱེད་ཀྱིས་སྤྱི་བཙའ་ནས་རང་གིས་བརྟམས་ན་དོན་དག་གལ་ཆེན་རེད་འདོད་པ་དག་ལ་ (དཔེར་ན། ཁྱིམ་པ་སྒོར་གྲགས་དུ་འགྲོ་བ་ལྟ་བུ།) བསམ་འཆར་རམ་སྟོན་འདོན་རོགས་བྱེད་དུ་བརྟུག་པ་ཡིན་ནམ།

#### Guarantee Assistance

ཁག་ཐེག་རང་བཞིན་གྱི་ལས་ཀ།

In your village, who had sought a wage labor for you?

ཁྱེད་ཚོ་ལྟེ་བའི་ནང་དུ་ཁྱེད་ཚོ་ལྟེ་བའི་ལས་ལས་དུས། མི་སྤྱི་བཙའ་གིས་ཁྱེད་ལ་ལས་ཀ་བཙའ་རོགས་བྱས་པ་ཡིན་ནམ།

b)

## Female's Social Network

ལུང་མེད་ཀྱི་སྤྱི་འབྲེལ་བྱ་བ།

### Emotional Support and Friendship

བརྗེ་བསམ་བྱུང་བྱེད་པའི་མཛེས་ལྷན་ལཱ།

In your village, who do you often chat with? (Whom do you want to have a casual chat with when you feel upset?)

ལྷན་ཚོ་སྤེལ་བའི་ནང་དུ་ལྷན་ཀྱིས་རྒྱུན་དུ་སྤྱི་བཙའ་ནས་ཁ་བརྒྱུད་བཞིན་ཡོད་དམ།

(ཁ་བརྒྱུད་སྤོང་པའམ་སེམས་ལམས་མི་སྤྱི་དུས་མི་ཞིག་བཙའ་ནས་རྒྱུ་ཆ་བཤད་འདོད་པ་ཡིན་ནམ།)

In your village, who are your very close friends?

ལྷན་ཚོ་སྤེལ་བའི་ནང་དུ་ལྷན་ཀྱི་གྲགས་པོ་བཟང་བོ་སྤྱི་ཡིན་ནམ།

### Behavioural Assistance

ངལ་སྤོང་ལཱ་ལུགས་ཀྱི་རོགས་རམ།

In your village, who often help you to take care of your children?

ལྷན་ཚོ་སྤེལ་བའི་ནང་དུ་སྤྱི་ཞིག་གིས་དུས་རྒྱུན་དུ་ལྷན་ཀྱི་བྱིས་པ་ལ་བཟོ་རོགས་བྱའམ།

In your village, who do you borrow household items from?

ལྷན་ཚོ་སྤེལ་བའི་ནང་དུ་ལྷན་ཀྱིས་ནམ་རྒྱུན་སྤྱི་ཞིག་བཙའ་ཏེ་བྱིས་ཆས་གཡོར་བ་ཡིན་ནམ།

In your village, who helps you to do some household chores?

ལྷན་ཚོ་སྤེལ་བའི་ནང་དུ་ལྷན་ཀྱིས་ནམ་རྒྱུན་སྤྱི་ཞིག་བཙའ་ནས་ལྷན་དང་མཉམ་དུ་ལས་ཀ་ཚག་ཚོག་བྱེད་ཀྱིན་ཡོད་དམ། དཔེར་ན། གོ་རེ་བཙོ་བ་ལྟ་བུ།

In your village, from whom do you seek help when your family holds a wedding or funeral?

ལྷན་ཚོ་སྤེལ་བའི་ནང་དུ་མི་སྤྱི་ཞིག་གིས་ལྷན་ཀྱི་བྱིས་པ་མཉམ་མ་ལེན་པ་དང་འདས་པོར་གཤེན་ཚོས་སྐྱབ་དུས་རོགས་རམ་བྱེད་དམ།

### Financial Assistance

དཔལ་འབྱོར་གྱི་རོགས་འདེགས།

In your village, who do you often borrow money from when you need an amount of money?

ལྷན་ཚོ་སྤེལ་བའི་ནང་དུ་མི་སྤྱི་ཞིག་གིས་ལྷན་ལ་སྒོར་མོ་བསྐྱེད་བཞིན་ཡོད་དམ།

### Guidance Assistance

བསམ་འཆར་དང་ཁྲིད་སྟོན།

In your village, who do you seek advice for some important things that you cannot handle?

ལྷན་ཚོ་སྤེལ་བའི་ནང་དུ་ལྷན་ཀྱིས་རྒྱུན་དུ་སྤྱི་ཞིག་བཙའ་ནས་རང་གིས་དོན་གལ་ཆེན་རེད་འདོད་པ་དག་ལ་ཁ་བརྒྱུད་བཞིན་ཡོད་དམ།

ཡང་ན་བསམ་འཆར་རམ་སྐོར་འདོད་རོགས་བྱེད་དུ་བརྟུག་པ་ཡིན་ནམ།

### Guarantee Assistance

ལག་ཐེག་རང་བཞིན་གྱི་ལས་ཀ།

In your village, who had sought a wage labor for you?

ལྷན་ཚོ་སྤེལ་བའི་ནང་དུ་ལྷན་སྤྱི་ལ་སོང་སྟེ་ཞོར་ལས་ལས་དུས། མི་སྤྱི་ཞིག་གིས་ལྷན་ལ་ལས་ཀ་བཙའ་རོགས་བྱས་པ་ཡིན་ནམ།

Table S4. Summary of the nominations given and received by gender.

	<b>Gender</b>	<b>Average Number of Nominations per Nominator</b>	<b>Average Number of Nominees per Nominator</b>	<b>Average Proportion of Male Nominees</b>	<b>Average Proportion of Female Nominees</b>
<b>Nominator</b> 287	Male 147	13.7(5.05)	9.97(3.81)	0.96 (0.10)	0.04 (0.10)
	Female 140	15.7(5.10)	11.1(3.67)	0.36 (0.19)	0.64 (0.19)
	<b>Gender</b>	<b>Average Number of Nominations per Nominee</b>	<b>Average Number of Nominators per Nominee</b>	<b>Average Proportion of Male Nominators</b>	<b>Average Proportion of Female Nominators</b>
<b>Nominee</b> 272	Male 142	18.2(16.1)	14.0(12.9)	0.75(0.24)	0.25(0.24)
	Female 130	12.5(8.49)	7.9(5.24)	0.06(0.14)	0.94(0.14)

Table S5. Summary statistics of sociocentric networks for each type of social support.

	<b>Full</b>	<b>Emotional</b>	<b>Behavioural</b>	<b>Guidance</b>	<b>Financial</b>	<b>Guarantee</b>
<b>Edges</b>	4214	1559	1510	513	333	299
<b>Nodes</b>	288	285	287	286	274	243
<b>Mean degree</b>	29.162	10.940	10.522	3.587	2.430	2.461
<b>Mean</b>	14.581	5.470	5.261	1.794	1.215	1.230
<b>In/Out degree</b>						
<b>Density</b>	0.051	0.019	0.018	0.006	0.004	0.005
<b>Reciprocity</b>	0.303	0.348	0.262	0.105	0.168	0.080
<b>Transitivity</b>	0.199	0.239	0.181	0.210	0.103	0.075
<b>Diameter</b>	10	21	16	10	12	10



Table S6. Description of the variables used in the exponential random graph models. Node terms capture the influence of individual attributes (nodes) on the likelihood of forming support ties (edges). Edge terms examine the effects of various relationships between pairs of individuals (dyads) on tie formation, e.g., gender homophily and geographical proximity. “In” terms refer to variables influencing incoming ties, which represent individuals who are nominated as providers of support. Covariates refer to numeric predictors, while factors denote categorical variables.

Variable	Term Type	Description
<b>Age</b>	Node in-covariate	Individual’s age
<b>Gender</b>	Node in-factor	Individual’s gender
<b>Economic Rank</b>	Node in-factor	The economic rank of the household where the individual resides
<b>Same Community</b>	Edge factor	Whether two individuals are of the same community
<b>Same Gender</b>	Edge factor	Whether two individuals have the same gender
<b>Relatedness</b>	Edge covariate	Consanguineous relatedness between two individuals
<b>Affinal Relatedness</b>	Edge covariate	Affinal relatedness between two individuals
<b>Geographic Distance</b>	Edge covariate	Distance (measured in meters) between individuals' houses.
<b>Pilgrimage Score</b>	Node in-covariate	A tally of the pilgrimage acts performed over a 5-year period.
<b>Daily Practice</b>	Node in-factor	Whether or not an individual participates in daily religious practices regularly.
<b>Reciprocity</b>	Network statistic	The number of pairs in which a reciprocal tie exists
<b>GWDS</b>	Network statistic	Geometrically weighted dyad-wise shared partners. The number of partners held in common by two individuals.
<b>In-Degree (0)</b>	Network statistic	The number of nodes without incoming ties, i.e., individuals who have never been nominated as providers of the particular type of support.
<b>Out-Degree (0)</b>	Network statistic	The number of nodes without outgoing ties, i.e., individuals who have never nominated others for support.

Table S6. Stepwise exponential random graph models predicting the log odds of a tie in the full supportive network. Model 3 is the main model reported in Table 1.

Variables	CONTROL			CONTROL + RELIGIOSITY			CONTROL + RELIGIOSITY + STURCTURE		
	Estimate	95% CI	<i>p</i> -value	Estimate	95% CI	<i>p</i> -value	Estimate	95% CI	<i>p</i> -value
<b>Edges</b>	-5.29	-5.53, -5.06	<0.001	-5.50	-5.74, -5.26	<0.001	-4.53	-4.83, -4.24	<0.001
Age (unit: Year)	0.013	0.010, 0.016	<0.001	0.012	0.009, 0.016	<0.001	0.012	0.008, 0.016	<0.001
Gender (Male; Ref: Female)	0.723	0.618, 0.828	<0.001	0.750	0.636, 0.865	<0.001	1.00	0.871, 1.13	<0.001
Economic Rank (Low; Ref: High)	-0.124	-0.243, -0.006	0.040	0.001	-0.123, 0.125	>0.9	0.012	-0.110, 0.135	0.8
Economic Rank (Middle; Ref: High)	-0.279	-0.401, -0.157	<0.001	-0.143	-0.270, -0.015	0.028	-0.135	-0.260, -0.010	0.034
Same Community	1.22	1.13, 1.32	<0.001	1.23	1.13, 1.33	<0.001	0.920	0.836, 1.00	<0.001
Same Gender	1.19	1.08, 1.30	<0.001	1.19	1.08, 1.31	<0.001	1.00	0.900, 1.11	<0.001
Relatedness	1.54	0.983, 2.09	<0.001	1.58	1.03, 2.13	<0.001	1.08	0.602, 1.55	<0.001
Affinal Relatedness	0.073	0.001, 0.145	0.048	0.071	-0.002, 0.143	0.055	0.047	-0.015, 0.108	0.13
Geographic Distance (unit: Meter)	-0.004	-0.005, -0.004	<0.001	-0.004	-0.005, -0.004	<0.001	-0.004	-0.004, -0.003	<0.001
Pilgrimage Score				0.152	0.115, 0.189	<0.001	0.127	0.093, 0.162	<0.001
Daily Practice (Yes; Ref: No)				0.178	0.055, 0.301	0.005	0.158	0.037, 0.279	0.010
<b>Structure Terms</b>									
Reciprocity							3.24	3.06, 3.43	<0.001
GWDSF ( $\alpha = 0.5$ )							-0.127	-0.142, -0.111	<0.001
<b>AIC</b>		15051			14984			13898	

Table S7. Stepwise exponential random graph models predicting the log odds of a tie in the emotional support network.

Variables	CONTROL			CONTROL + RELIGIOSITY			CONTROL + RELIGIOSITY + STURCTURE		
	Estimate	95% CI	<i>p</i> -value	Estimate	95% CI	<i>p</i> -value	Estimate	95% CI	<i>p</i> -value
Edges	-7.74	-8.29, -7.19	<0.001	-7.82	-8.37, -7.27	<0.001	-7.24	-7.81, -6.67	<0.001
Age (unit: Years)	-0.001	-0.006, 0.004	0.7	-0.002	-0.007, 0.004	0.5	-0.001	-0.006, 0.004	0.6
Gender (Male; Ref: Female)	0.092	-0.050, 0.235	0.2	0.110	-0.048, 0.268	0.2	0.136	-0.028, 0.301	0.10
Economic Rank (Low; Ref: High)	0.046	-0.131, 0.222	0.6	0.103	-0.080, 0.286	0.3	0.084	-0.083, 0.250	0.3
Economic Rank (Middle; Ref: High)	-0.102	-0.288, 0.084	0.3	-0.038	-0.231, 0.155	0.7	-0.029	-0.200, 0.143	0.7
Same Community	0.448	0.301, 0.596	<0.001	0.449	0.301, 0.597	<0.001	0.332	0.205, 0.459	<0.001
Same Gender	3.72	3.26, 4.17	<0.001	3.72	3.26, 4.17	<0.001	3.31	2.85, 3.76	<0.001
Relatedness	0.667	-0.186, 1.52	0.13	0.666	-0.186, 1.52	0.13	0.491	-0.251, 1.23	0.2
Affinal Relatedness	0.087	-0.015, 0.189	0.095	0.087	-0.016, 0.189	0.10	0.062	-0.028, 0.152	0.2
Geographic Distance (unit: Meter)	0.000	-0.001, 0.000	0.5	0.000	-0.001, 0.000	0.5	0.000	-0.001, 0.000	0.5
Pilgrimage Score				0.081	0.017, 0.144	0.013	0.068	0.007, 0.129	0.028
Daily Practice (Yes; Ref: No)				0.091	-0.087, 0.268	0.3	0.070	-0.089, 0.230	0.4
Reciprocity							3.80	3.55, 4.05	<0.001
In-Degree (0)							1.70	1.27, 2.13	<0.001
Out-Degree (0)							-3.00	-4.98, -1.02	0.003
GWDSF ( $\alpha = 0.5$ )							-0.098	-0.145, -0.052	<0.001
<b>AIC</b>	<b>7955.683</b>			<b>7952.429</b>			<b>7237.580</b>		

Table S8. Stepwise exponential random graph models predicting the log odds of a tie in the behavioural support network.

Variables	CONTROL			CONTROL + RELIGIOSITY			CONTROL + RELIGIOSITY + STURCTURE		
	Estimate	95% CI	p-value	Estimate	95% CI	p-value	Estimate	95% CI	p-value
Edges	-6.28	-6.59, -5.97	<0.001	-6.53	-6.85, -6.21	<0.001	-5.96	-6.33, -5.60	<0.001
Age (unit: Years)	0.011	0.007, 0.015	<0.001	0.009	0.004, 0.013	<0.001	0.007	0.003, 0.012	0.001
Gender (Male; Ref: Female)	0.299	0.174, 0.423	<0.001	0.351	0.215, 0.487	<0.001	0.301	0.169, 0.433	<0.001
Economic Rank (Low; Ref: High)	0.054	-0.098, 0.205	0.5	0.195	0.035, 0.355	0.017	0.164	0.016, 0.312	0.030
Economic Rank (Middle; Ref: High)	-0.132	-0.290, 0.026	0.10	0.022	-0.144, 0.188	0.8	0.020	-0.135, 0.175	0.8
Same Community	1.26	1.14, 1.38	<0.001	1.26	1.14, 1.38	<0.001	0.993	0.885, 1.10	<0.001
Same Gender	1.29	1.15, 1.44	<0.001	1.30	1.15, 1.44	<0.001	1.06	0.921, 1.20	<0.001
Relatedness	1.22	0.501, 1.94	<0.001	1.26	0.538, 1.97	<0.001	0.945	0.335, 1.56	0.002
Affinal Relatedness	0.102	0.013, 0.191	0.025	0.100	0.011, 0.190	0.028	0.072	-0.005, 0.148	0.067
Geographic Distance (unit: Meter)	0.000	-0.001, 0.000	0.6	0.000	-0.001, 0.001	0.8	0.000	-0.001, 0.001	0.8
Pilgrimage Score				0.166	0.118, 0.214	<0.001	0.159	0.110, 0.207	<0.001
Daily Practice (Yes; Ref: No)				0.262	0.107, 0.417	<0.001	0.222	0.079, 0.365	0.002
Reciprocity							3.38	3.15, 3.61	<0.001
In-Degree (0)							1.72	1.24, 2.20	<0.001
Out-Degree (0)							-1.26	-2.69, 0.163	0.083
GWDSP ( $\alpha = 0.5$ )							-0.054	-0.082, -0.025	<0.001
<b>AIC</b>		10643.869			10592.775			9937.08	

Table S9. Stepwise exponential random graph models predicting the log odds of a tie in the guidance support network.

Variables	CONTROL			CONTROL + RELIGIOSITY			CONTROL + RELIGIOSITY + STURCTURE		
	Estimate	95% CI	p-value	Estimate	95% CI	p-value	Estimate	95% CI	p-value
Edges	-8.35	-8.83, -7.86	<0.001	-8.67	-9.17, -8.17	<0.001	-7.50	-8.08, -6.93	<0.001
Age (unit: Years)	0.033	0.027, 0.038	<0.001	0.031	0.024, 0.037	<0.001	0.023	0.017, 0.030	<0.001
Gender (Male; Ref: Female)	2.10	1.80, 2.40	<0.001	2.15	1.84, 2.47	<0.001	1.40	1.11, 1.70	<0.001
Economic Rank (Low; Ref: High)	-0.760	-0.986, -0.534	<0.001	-0.568	-0.804, -0.333	<0.001	-0.409	-0.614, -0.204	<0.001
Economic Rank (Middle; Ref: High)	-0.602	-0.807, -0.396	<0.001	-0.412	-0.627, -0.196	<0.001	-0.304	-0.492, -0.117	0.001
Same Community	2.14	1.94, 2.34	<0.001	2.14	1.94, 2.34	<0.001	2.03	1.83, 2.23	<0.001
Same Gender	0.236	0.053, 0.419	0.011	0.240	0.057, 0.424	0.010	0.426	0.197, 0.654	<0.001
Relatedness	2.18	1.22, 3.13	<0.001	2.28	1.32, 3.23	<0.001	1.96	1.10, 2.82	<0.001
Affinal Relatedness	0.174	0.051, 0.296	0.005	0.166	0.043, 0.288	0.008	0.142	0.033, 0.251	0.011
Geographic Distance (unit: Meter)	-0.004	-0.005, -0.003	<0.001	-0.004	-0.005, -0.003	<0.001	-0.004	-0.005, -0.003	<0.001
Pilgrimage Score				0.188	0.133, 0.244	<0.001	0.156	0.102, 0.210	<0.001
Daily Practice (Yes; Ref: No)				0.324	0.091, 0.556	0.006	0.248	0.051, 0.445	0.014
Reciprocity							2.20	1.70, 2.69	<0.001
In-Degree (0)							1.87	1.38, 2.36	<0.001
Out-Degree (0)							-3.31	-4.33, -2.30	<0.001
GWDSP ( $\alpha = 0.5$ )							-0.079	-0.128, -0.030	0.002
<b>AIC</b>		4987.370			4941.150			4723.151	

Table S10. Stepwise exponential random graph models predicting the log odds of a tie in the financial support network.

Variables	CONTROL			CONTROL + RELIGIOSITY			CONTROL + RELIGIOSITY + STURCTURE		
	Estimate	95% CI	p-value	Estimate	95% CI	p-value	Estimate	95% CI	p-value
Edges	-7.09	-7.64, -6.55	<0.001	-7.19	-7.74, -6.63	<0.001	-7.76	-8.44, -7.07	<0.001
Age (unit: Years)	0.004	-0.003, 0.012	0.3	0.003	-0.006, 0.012	0.5	0.003	-0.005, 0.011	0.5
Gender (Male; Ref: Female)	0.602	0.367, 0.836	<0.001	0.617	0.360, 0.874	<0.001	0.770	0.466, 1.07	<0.001
Economic Rank (Low; Ref: High)	-1.07	-1.35, -0.794	<0.001	-1.01	-1.29, -0.722	<0.001	-0.808	-1.08, -0.538	<0.001
Economic Rank (Middle; Ref: High)	-0.653	-0.906, -0.400	<0.001	-0.578	-0.840, -0.316	<0.001	-0.476	-0.723, -0.230	<0.001
Same Community	1.21	0.994, 1.43	<0.001	1.21	0.994, 1.43	<0.001	1.05	0.846, 1.26	<0.001
Same Gender	1.38	1.10, 1.65	<0.001	1.38	1.11, 1.65	<0.001	1.44	1.13, 1.74	<0.001
Relatedness	1.34	0.165, 2.51	0.025	1.36	0.187, 2.53	0.023	1.06	0.009, 2.11	0.048
Affinal Relatedness	0.200	0.063, 0.336	0.004	0.197	0.060, 0.334	0.005	0.160	0.034, 0.285	0.013
Geographic Distance (unit: Meter)	0.001	0.000, 0.002	0.018	0.001	0.000, 0.003	0.014	0.001	0.000, 0.002	0.015
Pilgrimage Score				0.093	0.014, 0.172	0.021	0.083	0.005, 0.160	0.037
Daily Practice (Yes; Ref: No)				0.096	-0.179, 0.371	0.5	0.087	-0.166, 0.339	0.5
Reciprocity							3.38	2.88, 3.88	<0.001
In-Degree (0)							0.781	0.374, 1.19	<0.001
Out-Degree (0)							-2.78	-3.30, -2.25	<0.001
GWDSP ( $\alpha = 0.5$ )							-0.105	-0.234, 0.023	0.11
<b>AIC</b>		3916.789			3915.052			3632.194	

Table S11. Stepwise exponential random graph models predicting the log odds of a tie in the guarantee support network.

Variables	CONTROL			CONTROL + RELIGIOSITY			CONTROL + RELIGIOSITY + STURCTURE		
	Estimate	95% CI	p-value	Estimate	95% CI	p-value	Estimate	95% CI	p-value
Edges	-6.56	-7.14, -5.99	<0.001	-6.85	-7.45, -6.26	<0.001	-6.62	-7.27, -5.98	<0.001
Age (unit: Years)	0.006	-0.002, 0.013	0.14	0.006	-0.003, 0.015	0.2	0.004	-0.004, 0.012	0.3
Gender (Male; Ref: Female)	0.911	0.642, 1.18	<0.001	0.910	0.619, 1.20	<0.001	0.808	0.513, 1.10	<0.001
Economic Rank (Low; Ref: High)	-0.826	-1.10, -0.549	<0.001	-0.648	-0.939, -0.357	<0.001	-0.465	-0.728, -0.203	<0.001
Economic Rank (Middle; Ref: High)	-0.670	-0.951, -0.388	<0.001	-0.476	-0.774, -0.179	0.002	-0.337	-0.594, -0.080	0.010
Same Community	1.30	1.07, 1.53	<0.001	1.30	1.07, 1.53	<0.001	1.22	0.994, 1.46	<0.001
Same Gender	0.756	0.506, 1.00	<0.001	0.757	0.507, 1.01	<0.001	0.882	0.607, 1.16	<0.001
Relatedness	0.687	-0.761, 2.13	0.4	0.788	-0.655, 2.23	0.3	0.721	-0.641, 2.08	0.3
Affinal Relatedness	0.122	-0.045, 0.288	0.2	0.114	-0.052, 0.281	0.2	0.104	-0.051, 0.258	0.2
Geographic Distance (unit: Meter)	0.000	-0.002, 0.001	0.5	0.000	-0.001, 0.001	0.7	0.000	-0.002, 0.001	0.6
Pilgrimage Score				0.169	0.098, 0.239	<0.001	0.143	0.076, 0.210	<0.001
Daily Practice (Yes; Ref: No)				0.157	-0.130, 0.443	0.3	0.123	-0.123, 0.369	0.3
Reciprocity							2.40	1.74, 3.06	<0.001
In-Degree (0)							1.02	0.579, 1.46	<0.001
Out-Degree (0)							-1.72	-2.17, -1.26	<0.001
GWDSP ( $\alpha = 0.5$ )							-0.205	-0.318, -0.091	<0.001
<b>AIC</b>		3495.248			3478.091			3356.318	

Table S12. Full exponential random graph models predicting the log odds of a tie in each of the five social support type networks.

Variables	EMOTIONAL			BEHAVIOURAL			GUIDANCE			FINANCIAL			GUARANTEE		
	<i>Est</i>	<i>95% CI</i>	<i>p</i>	<i>Est</i>	<i>95% CI</i>	<i>p</i>	<i>Est</i>	<i>95% CI</i>	<i>p</i>	<i>Est</i>	<i>95% CI</i>	<i>p</i>	<i>Est</i>	<i>95% CI</i>	<i>p</i>
Edges	-7.24	-7.81, -6.67	<0.001	-5.96	-6.33, -5.60	<0.001	-7.50	-8.08, -6.93	<0.001	-7.76	-8.44, -7.07	<0.001	-6.62	-7.27, -5.98	<0.001
Age (unit: Years)	-0.001	-0.006, 0.004	0.6	0.007	0.003, 0.012	0.001	0.023	0.017, 0.030	<0.001	0.003	-0.005, 0.011	0.5	0.004	-0.004, 0.012	0.3
Gender (Male; Ref: Female)	0.136	-0.028, 0.301	0.10	0.301	0.169, 0.433	<0.001	1.40	1.11, 1.70	<0.001	0.770	0.466, 1.07	<0.001	0.808	0.513, 1.10	<0.001
Economic Rank (Low; Ref: High)	0.084	-0.083, 0.250	0.3	0.164	0.016, 0.312	0.030	-0.409	-0.614, -0.204	<0.001	-0.808	-1.08, -0.538	<0.001	-0.465	-0.728, -0.203	<0.001
Economic Rank (Middle; Ref: High)	-0.029	-0.200, 0.143	0.7	0.020	-0.135, 0.175	0.8	-0.304	-0.492, -0.117	0.001	-0.476	-0.723, -0.230	<0.001	-0.337	-0.594, -0.080	0.010
Same Community	0.332	0.205, 0.459	<0.001	0.993	0.885, 1.10	<0.001	2.03	1.83, 2.23	<0.001	1.05	0.846, 1.26	<0.001	1.22	0.994, 1.46	<0.001
Same Gender	3.31	2.85, 3.76	<0.001	1.06	0.921, 1.20	<0.001	0.426	0.197, 0.654	<0.001	1.44	1.13, 1.74	<0.001	0.882	0.607, 1.16	<0.001
Relatedness	0.491	-0.251, 1.23	0.2	0.945	0.335, 1.56	0.002	1.96	1.10, 2.82	<0.001	1.06	0.009, 2.11	0.048	0.721	-0.641, 2.08	0.3
Affinal Relatedness	0.062	-0.028, 0.152	0.2	0.072	-0.005, 0.148	0.067	0.142	0.033, 0.251	0.011	0.160	0.034, 0.285	0.013	0.104	-0.051, 0.258	0.2
Geographic Distance (unit: Meter)	0.000	-0.001, 0.000	0.5	0.000	-0.001, 0.001	0.8	-0.004	-0.005, -0.003	<0.001	0.001	0.000, 0.002	0.015	0.000	-0.002, 0.001	0.6
Pilgrimage Score	0.068	0.007, 0.129	0.028	0.159	0.110, 0.207	<0.001	0.156	0.102, 0.210	<0.001	0.083	0.005, 0.160	0.037	0.143	0.076, 0.210	<0.001
Daily Practice (Yes; Ref: No)	0.070	-0.089, 0.230	0.4	0.222	0.079, 0.365	0.002	0.248	0.051, 0.445	0.014	0.087	-0.166, 0.339	0.5	0.123	-0.123, 0.369	0.3
<b>Structure Terms</b>															
Reciprocity	3.80	3.55, 4.05	<0.001	3.38	3.15, 3.61	<0.001	2.20	1.70, 2.69	<0.001	3.38	2.88, 3.88	<0.001	2.40	1.74, 3.06	<0.001
In-Degree (0)	1.70	1.27, 2.13	<0.001	1.72	1.24, 2.20	<0.001	1.87	1.38, 2.36	<0.001	0.781	0.374, 1.19	<0.001	1.02	0.579, 1.46	<0.001
Out-Degree (0)	-3.00	-4.98, -1.02	0.003	-1.26	-2.69, 0.163	0.083	-3.31	-4.33, -2.30	<0.001	-2.78	-3.30, -2.25	<0.001	-1.72	-2.17, -1.26	<0.001
GWDS (α = 0.5)	-0.098	-0.145, -0.052	<0.001	-0.054	-0.082, -0.025	<0.001	-0.079	-0.128, -0.030	0.002	-0.105	-0.234, 0.023	0.11	-0.205	-0.318, -0.091	<0.001



Table S13. Estimates from Poisson regression models assessing various predictors of in-degree value in the personal networks of 284 individuals (Four individuals were excluded from model fitting due to missing information regarding the number of siblings in the village).

MODEL DETERMINANTS

	<i>Dependent variable:</i>			
	In-degree values			
	Control	Control+Pilgrimage+Daily practice	Control+Pilgrimage+Gender*Daily practice	Control+Daily practice+Gender*Pilgrimage
<b>Age Cohort (16-25; Ref: &gt;55)</b>	-0.581*** (-0.740, -0.423)	-0.511*** (-0.674, -0.348)	-0.489*** (-0.654, -0.324)	-0.490*** (-0.653, -0.326)
<b>Age Cohort (26-35; Ref: &gt;55)</b>	-0.387*** (-0.504, -0.269)	-0.322*** (-0.446, -0.198)	-0.321*** (-0.445, -0.197)	-0.348*** (-0.473, -0.224)
<b>Age Cohort (36-45; Ref: &gt;55)</b>	-0.033 (-0.117, 0.052)	-0.024 (-0.112, 0.064)	-0.027 (-0.115, 0.061)	-0.036 (-0.124, 0.053)
<b>Age Cohort (46-55; Ref: &gt;55)</b>	0.162*** (0.076, 0.249)	0.201*** (0.112, 0.289)	0.197*** (0.108, 0.286)	0.193*** (0.104, 0.282)
<b>Gender (Male; Ref: Female)</b>	0.390*** (0.325, 0.454)	0.430*** (0.359, 0.500)	0.541*** (0.394, 0.689)	0.425*** (0.354, 0.496)
<b>Economic Rank (Low; Ref: High)</b>	-0.195*** (-0.271, -0.119)	-0.071 (-0.150, 0.009)	-0.069 (-0.149, 0.010)	-0.093* (-0.173, -0.013)
<b>Economic Rank (Middle; Ref: High)</b>	-0.269*** (-0.346, -0.192)	-0.136** (-0.217, -0.055)	-0.135** (-0.216, -0.053)	-0.145*** (-0.226, -0.063)
<b>Number of siblings in the village</b>	0.005 (-0.019, 0.028)	-0.00002 (-0.024, 0.024)	0.002 (-0.022, 0.026)	0.0003 (-0.023, 0.024)
<b>Number of offspring in the village</b>	0.002 (-0.036, 0.040)	-0.021 (-0.059, 0.017)	-0.017 (-0.056, 0.021)	-0.023 (-0.061, 0.016)
<b>Pilgrimage score</b>		0.132***	0.133***	0.002

		(0.109, 0.156)	(0.109, 0.156)	(-0.062, 0.066)
<b>Daily Practice (Yes; Ref: No)</b>		0.192***	0.304***	0.192***
		(0.115, 0.269)	(0.153, 0.454)	(0.114, 0.269)
<b>Gender (Male):Daily Practice (Yes)</b>			-0.145	
			(-0.311, 0.021)	
<b>Gender (Male):Pilgrimage score</b>				0.150***
				(0.083, 0.216)
<b>Constant</b>	2.683***	2.453***	2.349***	2.471***
	(2.572, 2.794)	(2.319, 2.588)	(2.168, 2.530)	(2.336, 2.606)
<b>Observations</b>	284	284	284	284
<i>Note:</i>				* $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$

Table S14. Model selection results from Poisson regression models on in-degree value in personal networks. Columns represent the number of parameters ( $K$ ), Corrected Akaike Information Criterion ( $AICc$ ),  $AICc$  differences ( $\Delta AICc$ ), log-likelihood ( $LL$ ), and cumulative weights ( $CUM.WT$ ). Model names signify specific variable combinations. The Control model includes variables such as age cohort, gender, economic rank of the household, number of siblings, and number of offspring in the village.

<i>MODELS</i>	<i>K</i>	<i>AICc</i>	<i><math>\Delta AICc</math></i>	<i>LL</i>	<i>CUM.WT</i>
<b>Control+Daily Practice+ Gender*Pilgrimage</b>	13	3584.711	0	-1778.68	0.999692
<b>Control+Pilgrimage+ Gender*Daily Practice</b>	13	3601.908	17.19784	-1787.28	0.999876
<b>Control+Pilgrimage+ Daily Practice</b>	12	3602.707	17.99636	-1788.78	1
<b>Control</b>	10	3733.525	148.8149	-1856.36	1

## Supplementary figures

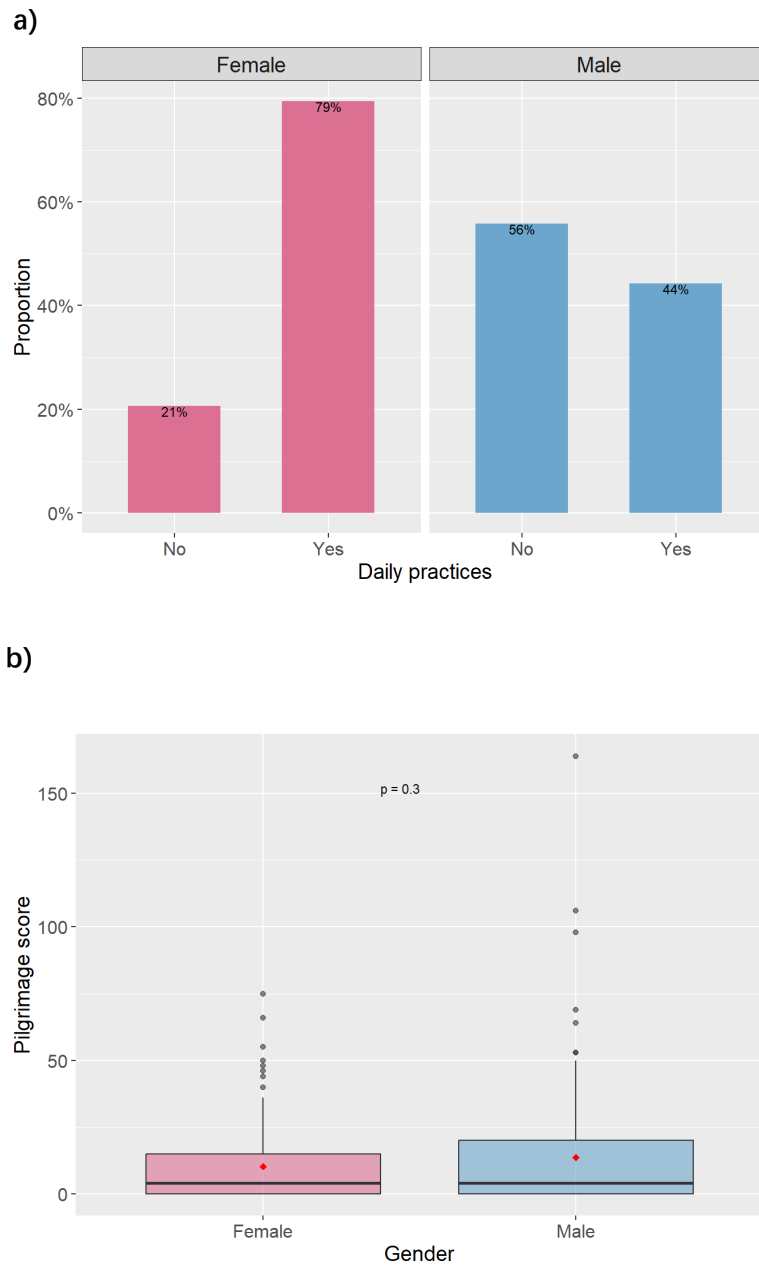


Figure S1. Distribution of religious variables classified by gender.  
a) Daily practice; b) Pilgrimage score;  $p$  value was computed using Wilcoxon tests.

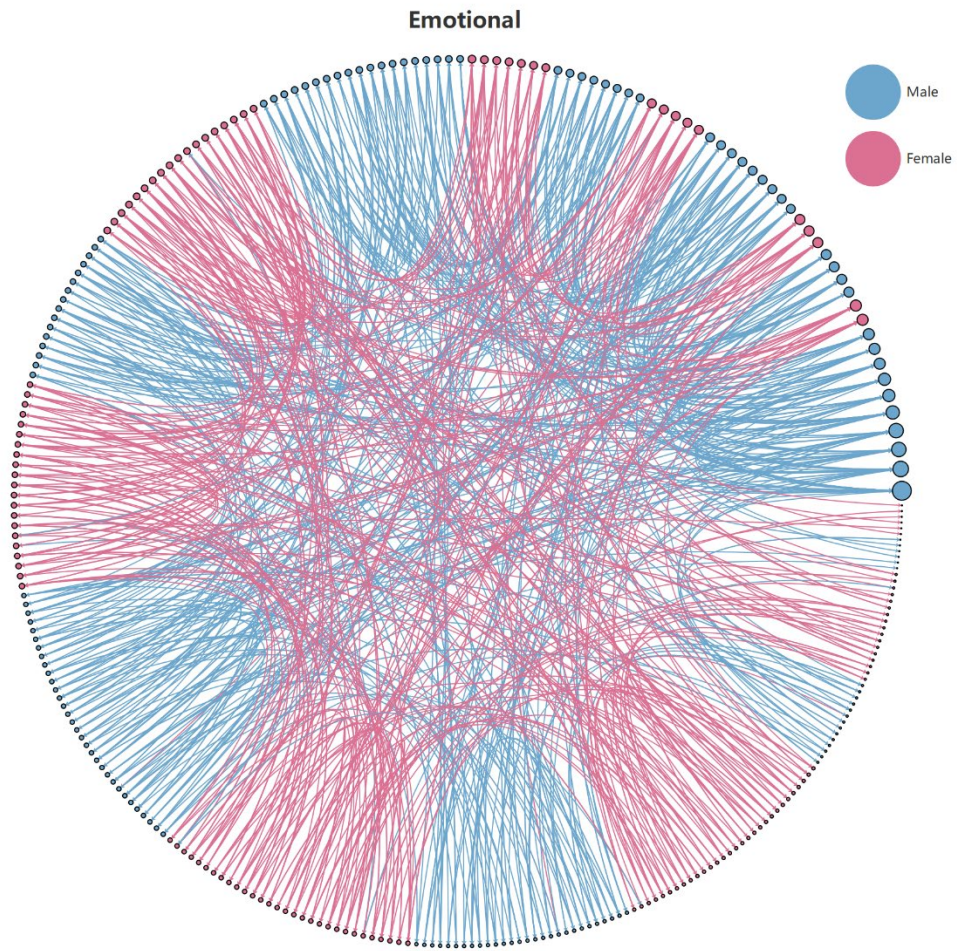


Figure S2. The emotional support network of the adult residents in the village. Nodes are coloured by gender and sized by in-degree value. Edges are directed, with an arrow directed from the person requesting support to the person providing it. Edges are coloured by the gender of alters. Nodes are ordered by the In-degree value.

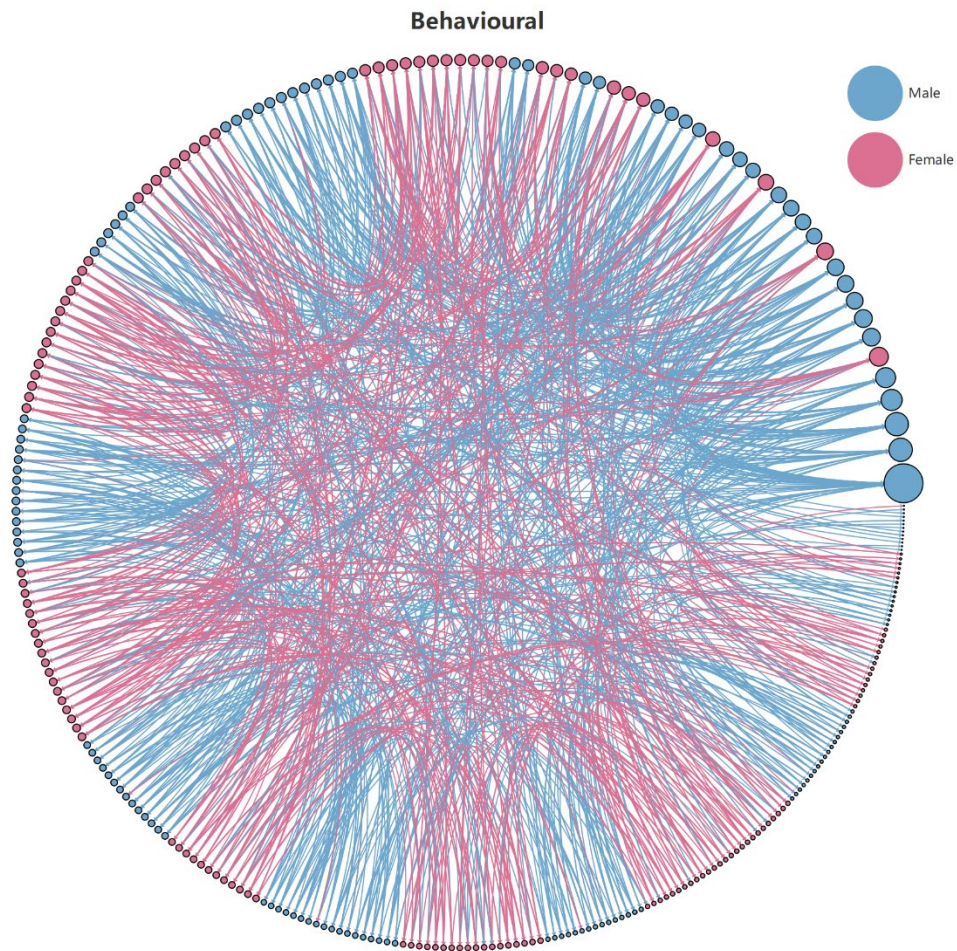


Figure S3. The behavioural support network of the adult residents in the village. Nodes are coloured by gender and sized by in-degree value. Edges are directed, with an arrow directed from the person requesting support to the person providing it. Edges are coloured by the gender of alters. Nodes are ordered by the In-degree value.

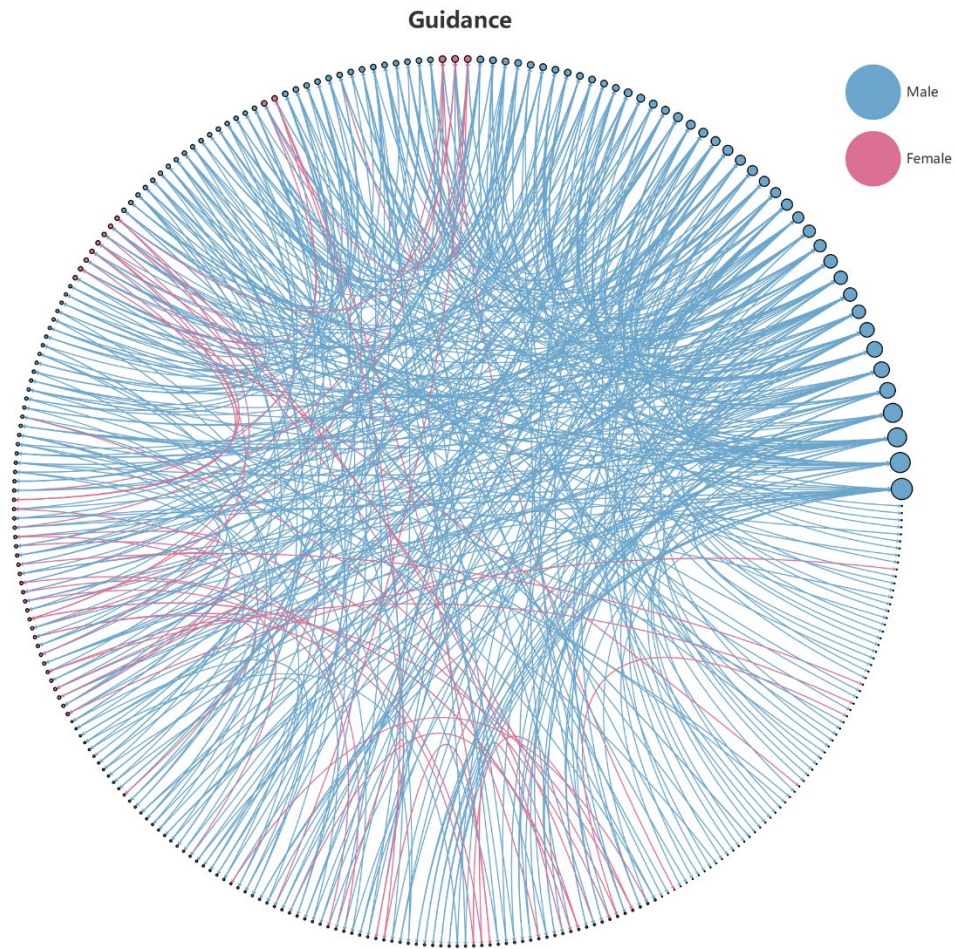


Figure S4. The guidance support network of the adult residents in the village. Nodes are coloured by gender and sized by in-degree value. Edges are directed, with an arrow directed from the person requesting support to the person providing it. Edges are coloured by the gender of alters. Nodes are ordered by the In-degree value.

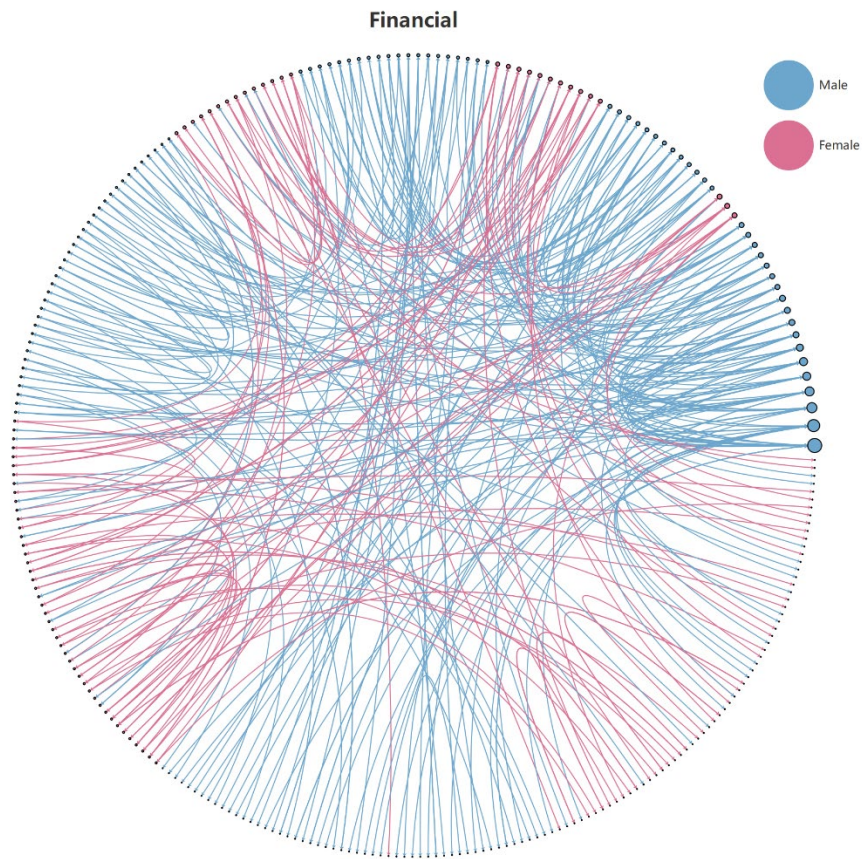


Figure S5. The financial support network of the adult residents in the village. Nodes are coloured by gender and sized by in-degree value. Edges are directed, with an arrow directed from the person requesting support to the person providing it. Edges are coloured by the gender of alters. Nodes are ordered by the In-degree value.



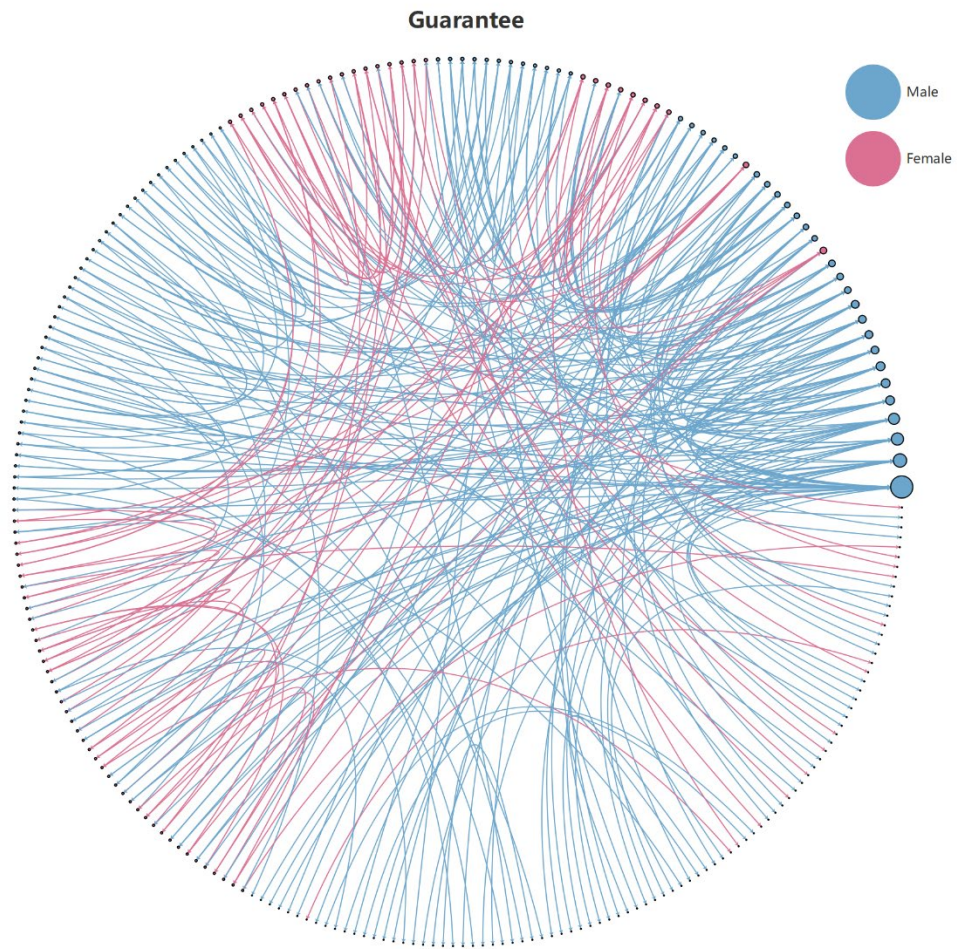


Figure S6. The guarantee support network of the adult residents in the village. Nodes are coloured by gender and sized by in-degree value. Edges are directed, with an arrow directed from the person requesting support to the person providing it. Edges are coloured by the gender of alters. Nodes are ordered by the In-degree value

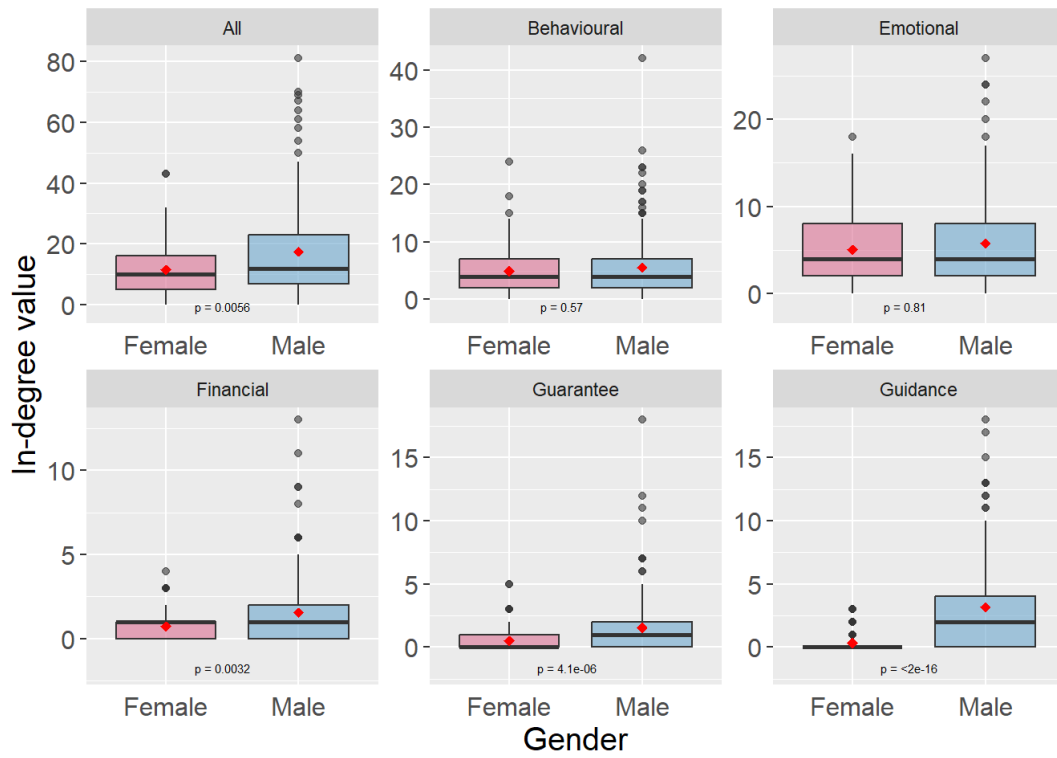


Figure S7. Gender-based distribution of in-degree values for the full personal network and each distinct supportive personal network, with Wilcoxon test results shown in each panel.

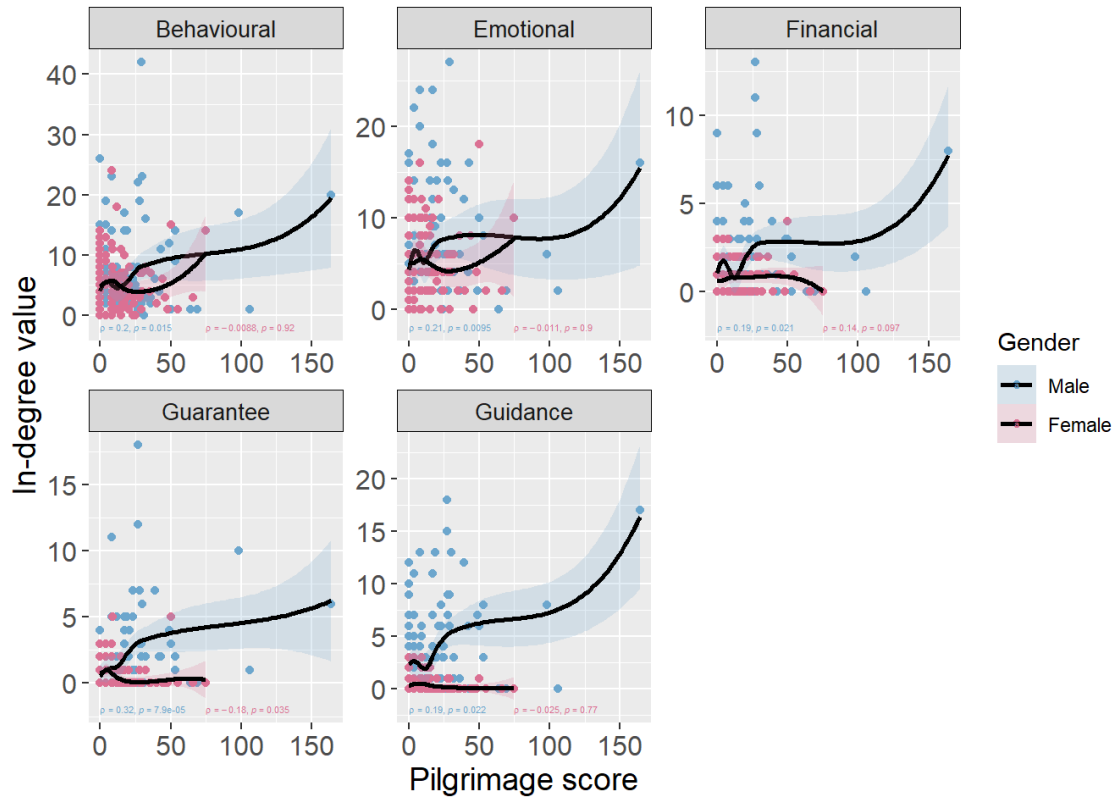


Figure S8. Correlation between pilgrimage and in-degree value in each specific personal network, with Spearman's rank correlation test results displayed in each panel. LOESS curves are illustrated by lines, with the shaded region denoting a 95% confidence interval. Females are depicted with red dots and bands, while males are represented by blue dots and bands. Spearman's correlation coefficients and associated  $p$ -values are colour-coded to match the corresponding gender.

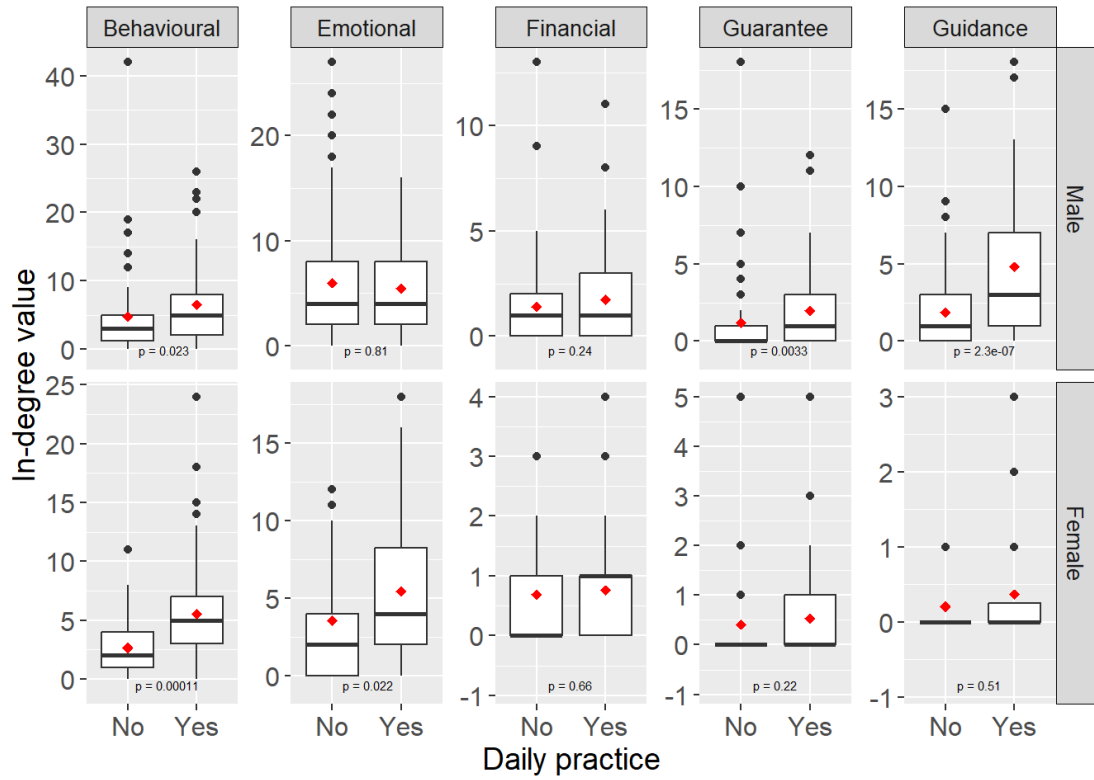


Figure S9. Correlation between daily religious practice and in-degree value in each specific personal networks, with Wilcoxon test results shown in each panel. Red diamonds denote the mean in-degree value. The box signifies the interquartile range (IQR); the central line indicates the median. Whiskers extend to 1.5 times the IQR; outliers are displayed as dots.