Association between Tuberculosis Treatment-Related Financial Burden and Social Support for Patients: A Multicenter Cross-Sectional Study from Lahore, Pakistan

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Questionnaire

Section 1: Sociodemographic

Gender of the Patient: _____

Age in Years: _____

Monthly Household Income (PKR): _____

Education: _____

Marital Status: _____

Family Type: _____

Occupation: _____

Daily Working Hours: _____

Section 2: Social Support Scale (SSS)

Please indicate your agreement with each statement:

1. I am not stigmatized for having Tuberculosis.

   ☐ Strongly agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly disagree

2. I do not feel my family members behaving odd with me for having Tuberculosis.

   ☐ Strongly agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly disagree

3. My family does not take me as a burden for having Tuberculosis.

   ☐ Strongly agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly disagree

4. I am well cared for by my family after the diagnosis of Tuberculosis.

   ☐ Strongly agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly disagree

5. I am encouraged by my family to seek Tuberculosis treatment.

   ☐ Strongly agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly disagree

6. I am supported by my family to continue Tuberculosis treatment.

   ☐ Strongly agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly disagree

7. I am offered financial support by relatives for Tuberculosis treatment.

   ☐ Strongly agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly disagree

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8. I am offered financial support by friends for Tuberculosis treatment.

☐ Strongly agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly disagree

9. I am offered financial support by neighbors for Tuberculosis treatment.

☐ Strongly agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly disagree

10. I am offered transportation by my near ones for Tuberculosis treatment.

☐ Strongly agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly disagree

11. I am offered nutritional support by my near ones for Tuberculosis treatment.

☐ Strongly agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly disagree

12. My children are taken care of by my near ones.

☐ Strongly agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly disagree

13. My house is taken care of by my near ones.

☐ Strongly agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly disagree

14. My household work is taken care of by my near ones.

☐ Strongly agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly disagree

15. My work is taken care of by my near ones.

☐ Strongly agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly disagree

Section 3: Financial Burden (FB)

Approximate monthly cost of health professional fee in PKR: _____

Approximate monthly cost of medicine in PKR: _____

Approximate monthly cost of labs in PKR: _____

Approximate monthly cost of transportation in PKR: _____

Approximate monthly cost of food/supplements in PKR: _____

Approximate monthly cost of work loss in PKR: _____

Cost of any property sold for Tuberculosis treatment: _____

Cost of any vehicle sold for Tuberculosis treatment: _____

Cost of any gold sold for Tuberculosis treatment: _____

Cost of any livestock sold for Tuberculosis treatment: _____

Cost of any crop sold for Tuberculosis treatment: _____

Cost of any prize bond sold for Tuberculosis treatment: _____

Cost of any savings invested for Tuberculosis treatment: _____

Cost of any other item sold for Tuberculosis treatment: _____

Cost of change in work for Tuberculosis treatment: _____

Table S1: Distribution of participants across participating healthcare facilities (N=330).

Facility	Type	n (%)
Ganga Ram Hospital	Public hospital	65 (19.7%)
Social Security Hospital	Public hospital	55 (16.7%)
Services Hospital	Public hospital	60 (18.2%)
Mayo Hospital	Public hospital	50 (15.2%)
University of Lahore Teaching Hospital	Private hospital	35 (10.6%)
Kaura Pind, Lahore District Tuberculosis (T.B) Association	TB Association	15 (4.5%)
Nisbat Road, Lahore District Tuberculosis (T.B) Association	TB Association	20 (6.1%)
33-F, Gulberg II, Lahore District Tuberculosis (T.B) Association	TB Association	30 (9.1%)

Participant recruitment was based on convenience sampling and varied according to the patient availability at each facility.

Table S2: Domain-specific expenditure cutoffs used in construction of the financial burden index.

Domain	Original Categories	Low category	Moderate category	High category
Professional fee	7	≤10,000 PKR	11,000-20,000 PKR	≥21,000 PKR
Medicine	4	≤10,000 PKR	11,000-15,000 PKR	≥16,000 PKR
Laboratory test	4	≤5,000 PKR	6,000-10,000 PKR	≥11,000 PKR
Transportation	4	≤6,000 PKR	7,000-9,000 PKR	≥10,000 PKR
Food/supplements	5	≤10,000 PKR	11,000-15,000 PKR	≥16,000 PKR
Work loss	3	0 PKR	5,000-15,000 PKR	≥16,000 PKR

The original expenditure variables were recorded using domain-specific response structures with varying numbers of categories across domains (professional fee = 7, medicine = 4, laboratory test = 4, transportation = 4, food/supplements = 5, work loss = 3). For construction of the FB index, the original expenditure response categories using the domain-specific cut-offs shown above. were subsequently grouped into low, moderate, high expenditure-intensity categories as shown above. The observed FB score range in the study population was 6-21. FB tertiles were defined as low (6-11), moderate (12-16), and high (17-21).

Table S3: Exploratory factor analysis of the social support scale: pattern matrix factor loadings and communalities (N = 330).

Item	Household Support	Family and Treatment Support	Financial Support	Communality
I am not stigmatized for having tuberculosis.	0.292	-0.237	0.055	0.138
I do not feel my family members behaving odd with me for having tuberculosis.	-0.087	0.452	-0.237	0.288
My family does not take me as a burden for having tuberculosis.	0.278	0.197	0.350	0.255
I am well cared for by my family after the diagnosis of tuberculosis.	0.148	0.590	-0.135	0.417
I am encouraged by my family to seek tuberculosis treatment.	-0.118	0.891	0.017	0.786
I am supported by my family to continue tuberculosis treatment.	-0.063	0.869	0.220	0.754
I am offered financial support by relatives for tuberculosis treatment.	0.086	-0.064	0.689	0.507
I am offered financial support by friends for tuberculosis treatment.	-0.079	-0.077	0.924	0.866
I am offered financial support by neighbors for tuberculosis treatment.	-0.010	0.003	0.817	0.666
I am offered transportation by my near ones for tuberculosis treatment.	0.159	0.600	-0.086	0.418
I am offered nutritional support by my near ones for tuberculosis treatment.	0.929	-0.048	-0.024	0.852
My children are taken care of by my near ones.	0.963	-0.083	0.027	0.927
My house is taken care of by my near ones.	0.976	-0.059	0.002	0.946
My household work is taken care of by my near ones.	0.865	0.129	-0.011	0.783
My work is taken care of by my near ones.	0.792	0.115	0.010	0.659
Extraction method: Principal Axis Factoring; Rotation method: Kaiser Normalization. Three factors were retained based on eigenvalues, scree plot inspection, and interpretability.				

Table S4: Frequency distribution of social support scale items.

Social support statements	Participants' responses, n (%)				
	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
I am not stigmatized for having tuberculosis.	3 (0.9)	155 (47)	40(12.1)	106(32.1)	26 (7.9)
I do not feel my family members behaving odd with me for having tuberculosis.	26 (7.9)	210(63.6)	40(12.1)	54 (16.4)	-
My family does not take me as a burden for having tuberculosis.	54(16.4)	175 (53)	12 (3.6)	43 (13)	46 (13.9)
I am well cared for by my family after the diagnosis of tuberculosis.	50(15.2)	245(74.2)	11 (3.3)	24 (7.3)	-
I am encouraged by my family to seek tuberculosis treatment.	62(18.8)	244(73.9)	24 (7.3)	-	-
I am supported by my family to continue tuberculosis treatment.	70(21.2)	236(71.5)	24 (7.3)	-	-
I am offered financial support by relatives for tuberculosis treatment.	40(12.1)	169(51.2)	42(12.7)	57 (17.3)	22 (6.7)
I am offered financial support by friends for tuberculosis treatment	12 (3.6)	93 (28.2)	41(12.4)	146(44.2)	38 (11.5)
I am offered financial support by neighbors for tuberculosis treatment.	12 (3.6)	54 (16.4)	75(22.7)	151(45.8)	38 (11.5)
I am offered transportation by my near ones for tuberculosis treatment.	38 (11.5)	105(31.8)	18 (5.5)	162(49.1)	7 (2.1)
I am offered nutritional support by my near ones for tuberculosis treatment.	7 (2.1)	135(40.9)	38(11.5)	126(38.2)	24(7.3)
My children are taken care of by my near ones.	10 (3.0)	114(34.5)	49(14.8)	138(41.8)	19(5.8)
My house is taken care of by my near ones.	6 (1.8)	124(37.6)	50(15.2)	131(39.7)	19 (5.8)
My household work is taken care of by my near ones.	6 (1.8)	104(31.5)	70(21.2)	139(42.1)	11 (3.3)
My work is taken care of by my near ones.	6 (1.8)	82 (24.8)	73(22.1)	158(47.9)	11 (3.3)

Table S5: Frequency distribution of financial burden variable.

Financial burden variables (PKR)	Participants' responses, n (%)
Health professional fee	
1000-5000	72 (21.8)
6000-10,000	94 (28.5)
11,000-15,000	65 (19.7)
16,000-20,000	41 (12.4)
21,000-30,000	28 (8.5)
31,000-35,000	3 (0.9)
36,000-40,000	27 (8.2)
Monthly cost of medicine	
1000-5000	174 (52.7)
6000-10,000	89 (27.0)
11,000-15,000	35 (10.6)
16,000-20,000	32 (9.7)
Monthly cost of labs	
None	12 (3.6)
1000-5000	252 (76.4)
6000-10,000	54 (16.4)
11,000-15,000	12 (3.6)
Monthly cost of transportation	
1,000-3,000	136 (41.2)
4,000-6,000	86 (26.1)
7,000-9,000	61 (18.5)
10,000-13,000	47 (14.2)

Financial burden variables (PKR)	Participants' responses, n (%)
Monthly cost of food/supplements	
1,000-5,000	87 (26.4)
6,000-10,000	166 (50.3)
11,000-15,000	26 (7.9)
16,000-20,000	31 (9.4)
21,000-25,000	20 (6.1)
Monthly cost of work loss	
None	303 (91.8)
5,000-10,000	15 (4.5)
16,000-20,000	12 (3.6)

Table S6: Association between financial burden and social support n(%).

SS	Low/ Moderate FB	High FB	Total
Low/ Moderate	195 (79.3%)	51 (20.7%)	246
High	30 (35.7%)	54 (64.3%)	84
Total	225 (68.2%)	105 (31.8%)	330

Chi-square test = 54.754
P-value ≤ 0.001