

“AN EXPLORATORY STUDY OF THE IMPACT OF PULMONARY TUBERCULOSIS (PTB) ON THE LIFE STYLE OF PERSONS AFFECTED BY (PTB) AND THE COPING STRATEGIES ADOPTED BY THEM, AT A SELECTED HOSPITAL IN GWALIOR.”

Mr. Jitendra Prasad Yadav¹

¹Nursing officer, ESIC model Hospital, Mumbai.

Corresponding Author:

Mr. Jitendra Prasad Yadav

Nursing officer, ESIC model Hospital, Mumbai.

Email Id- jitunkt@gmail.com

Received 2022 April 25, Accepted 2022 May 06, Published - 2022 May 14

ABSTRACT

BACKGROUND OF THE STUDY: Respect for the individual and the meaning he or she attaches to the situation is surely the ideal starting point for the people who wish to increase their understanding and competence in the management of infectious diseases. Relationships are deeply affected when a chronic condition becomes part of the fabric of daily life. Patients are horrified by the thought of becoming a burden to someone. This feeling of burden may increase with the irritable, respectful or even aggressive attitude of the people towards them. People find it difficult to communicate their feelings and fears, social life may diminish as a result of lack of energy, mobility, money, friendship and this may lead to these patients not wanting to continue contact with others. Developing of effective coping methods is very essential in order to deal with such experiences. Bhatia and Hiramani reported that while looking at the medical aspects of the disease, one cannot ignore related social aspects to it. The way people think about the disease, the economic and social deprivation of the person suffering from the disease, contribute to the recovery from the disease.

Material & Methods: The research approach indicates the basic procedure for conducting research. Keeping in mind the nature of problem as well as objectives of the study the research approach chosen for the present study is descriptive exploratory correlational survey.

Result: The data presented in Table 18 shows that there were 78 adult persons affected by PTB in 18-40 years of age group. Out of them, 21 had mild impact and 57 had moderate to severe impact. Ten persons belonged to 41-50 years of age group. Out of them, 5 had mild impact, remaining 5 had moderate to severe impact. Eleven of them belonged to 41 years and above age group. Out of that, 5 had mild impact, 6 had moderate to severe impact.

$2\text{df}(2) = 79.37, p < 0.05$ was found significant. Hence, the null hypothesis is rejected and research hypothesis is not rejected. It means, impact of PTB on lifestyle is influenced by the age of adult persons affected by PTB, indicating that the persons in the productive age are having more impact of PTB.

With regard to the association between gender of the adult persons affected by PTB 67 were males and 33 were females. Out of 67 males, 17 had mild impact and 50 had moderate to severe impact. Out of 33 females, 11 had mild impact and 22 had moderate to severe impact. $2\text{df}(1) = 216.17, p < 0.05$ was found significant. Hence, the null hypothesis is rejected and research hypothesis is not rejected indicating that impact of PTB on lifestyle is more severe in males as compared to females.

Association between education status and impact of PTB on lifestyle revealed that majority (44%) having moderate to severe impact were illiterate. The $2\text{df}(2) = 4.73, p > 0.05$ was not found significant. Hence, the null hypothesis is not rejected and research hypothesis is rejected. It indicates the impact of PTB on lifestyle is independent of education status of adult persons affected by PTB.

Association between occupation and level of impact of PTB on lifestyle shows that 44% of adult persons affected by PTB were farmers, with 50% (22) of them were having moderate to severe impact. Thirty four persons were coolies with 61% (21) of them having moderate to severe impact. Remaining 24 of them were

having other occupations such as teaching profession, business and housewives. Among these, had moderate to severe impact. $\chi^2(2) = 2.74, p > 0.05$ was not found significant.

Hence, the null hypothesis is not rejected and research hypothesis is rejected. It indicates the level of impact of PTB on lifestyle is not influenced by the occupation of adult persons affected by PTB, which means irrespective of the occupation, the impact of PTB on lifestyle occurs among adult persons affected by PTB.

The findings regarding association of income of adult persons affected by PTB with the level of impact of PTB shows that 76% of them had income below Rs. 2,000/- per month. Among them 80% (61) had moderate to severe impact. Remaining 24 respondents had of them had income of Rs. 2000/- and above per month. Out of these 59% (13) had mild impact and 46% (11) had moderate to severe impact. The $\chi^2(1) = 25.04, p < 0.05$ was found significant. Hence, the null hypothesis is rejected and research hypothesis is not rejected. It means, income of adult persons affected by PTB does influence the impact of PTB on their lifestyle indicating that the less income causes more impact.

The findings regarding association between place of residence and level of impact of PTB on lifestyle shows that 56 adult persons affected by PTB were from rural area. Out of these 85.75% (48) had moderate to severe impact. Remaining 44 were from urban area. Out of them 45.45% (20) had mild impact and 54.55% (24) had moderate to severe impact. The $\chi^2(1) = 27.33, p < 0.05$ was found to be significant. Hence, the null hypothesis is rejected and research hypothesis is not rejected indicating that the impact of PTB on lifestyle is influenced by place of residence of adult persons affected by PTB, which indicates that the adult persons affected by PTB who live in rural area are having more impact of PTB on their lifestyle.

It can be seen from Table 18 that 79 of them had illness duration of less than 1 year. Among them 81% (64) of adult persons affected by PTB of illness had moderate to severe impact. Remaining 21 had experienced the illness for more than 1 year. Out of that, 76.9% (16) had moderate to severe impact. The $\chi^2(1) = 0.39, p > 0.05$ was not found significant. Hence, the null hypothesis is not rejected and research hypothesis is rejected indicating that the impact of PTB on lifestyle is independent of duration of illness.

The data related to association between impact of PTB on lifestyle and number of health education sessions attended shows that 98 adult persons affected by PTB have never attended any health educative sessions. Among these 72.49% (71) had moderate to severe impact. Remaining 2 attended the health education only once. Out of that 1 had mild impact and 1 had moderate to severe impact. The $\chi^2(1) = 0.51, p > 0.05$ with Yates correction was not found significant. Hence, the null hypothesis is not rejected and research hypothesis is rejected, indicating that among the sample of present study the number of health education sessions attended by adult persons affected by PTB did not make any effect on their level of impact of PTB on their life style.

The association between level of impact of PTB on lifestyle and level of social support available to adult persons affected by PTB shows that 85 were receiving high level of social support. Out of that 83.90% (69) had moderate to severe impact. Fifteen of them were having moderate level of social support, out of them, 86.62% (13) had moderate to severe impact. $\chi^2(1) = 4.685, p > 0.05$ with yates correction was found significant. Hence, the null hypothesis is rejected and research hypothesis is not rejected, indicating that the level of impact of PTB on lifestyle is influenced by the level of social support available to adult persons affected by PTB. In the present study this association reveals that higher the social support, more the impact.

The findings regarding association between presence of complications due to PTB and level of impact of PTB on lifestyle shows that 41 adult persons affected by PTB had pulmonary complications, out of that 18 had mild impact and 23 had moderate to severe impact. Remaining 40 had other complications. Out of that 14 had mild impact and 26 had moderate to severe impact. $\chi^2(1) = 288.86, p < 0.05$ was found significant. Hence, the null hypothesis is rejected and research hypothesis is not rejected, indicating that impact of PTB on lifestyle is influenced by presence of complication due to PTB in adult persons affected by PTB. This reveals that complication whether related to pulmonary origin or other kind can affect the lifestyle of adult persons affected by PTB.

INTRODUCTION: Pulmonary tuberculosis is an adult disease. Population in 0-19 years (comprising 50% of total population) contain only 7% of total prevalence cases. Remaining 93% of cases are distributed in population aged 20 and above. In the first of the longitudinal surveys, the proportion of cases above 40 years in age was around 50% in a population constituting about 20%. In another 30% of population, those in 20-39 years are group, 43% of cases were distributed. Prevalence rates of cases and suspect cases, reveal almost no change over a period of 20 years from different surveys in different areas.

NEED FOR THE STUDY :-The causative organism for tuberculosis was discovered more than 100 years ago, which led to the discovery of highly effective drugs and vaccines. Advent of vaccine and drugs made tuberculosis a preventable and curable disease. No doubt that technologically advanced countries have achieved spectacular results in the control of tuberculosis. But despite of the above fact, tuberculosis still remains a world wide public health problem.

OBJECTIVES

1. To assess the impact of PTB on the life style of persons affected by PTB, as perceived by them through structured interview schedule.
2. To identify the coping strategies adopted by the person affected by PTB through structured coping strategy.
3. To determine the association between level of impact of PTB on life style and the level of coping of adult persons affected by PTB.
4. To assess the presence of complications due to PTB among persons affected by PTB through structured interview schedule and data from case records.
5. To assess the availability of social support to the persons affected by PTB as perceived through multidimensional scale of perceived social support.
6. To determine the association of level of impact of PTB on life style with their selected personal variable viz., age, gender, education, social support, occupation, income, place of residence, duration of illness, presence of complications due to PTB and number of health educative sessions attended with regard to PTB.

MATERIAL & METHODS:

RESEARCH APPROACH: Descriptive research approach

RESEARCH DESIGN:

SETTING OF THE STUDY: The setting selected for the present study includes pulmo OPD, pulmo male and female medical wards of the selected hospital and the District Tuberculosis Centre.

The rationale for selecting the settings were as follows :

- Familiarity with these settings
- Availability of study sample

Expected co-operation from the members of the institution

VARIABLES:

Independent Variable : Impact of Pulmonary Tuberculosis

Dependent Variable : Life style and coping strategies

POPULATION:

Kahn states “A population is any group of individuals that have one or more characteristics in common and are of interest to the researcher”. The present study population comprises the adult persons affected by PTB attending the selected hospital and District Tuberculosis Centre's inpatients and outpatients.

SAMPLE AND SAMPLING

According to Polit and Beck “A sample is a small portion of a population selected for observation and analysis”. The sample of the present study comprised of adult persons affected by PTB attending pulmo OPD, DTC and those who are admitted at pulmo male and female wards. A sample of 100 persons affected by PTB was drawn from the selected population.

SAMPLING TECHNIQUE

Sampling is the process of selecting a portion of the population to represent the entire population. The purposive sampling technique was used for the present study.

SAMPLING CRITERIA:

Inclusion criteria

- Adult persons affected by PTB who are able to communicate either in Hindi or English

Exclusion criteria

- Adult persons affected by PTB who are critically ill.
Adult persons affected by PTB also having some other chronic illness

DATA COLLECTION TOOLS:

The interview technique was thought to be the best for data collection in the present study. According to Polit and Beck, person asks questions to another person. This is face to face interaction which permits to clarify certain matters on the spot and also enables the interviewer to modify the questions to the understanding level of the subjects. Hence, a structured interview schedule to assess the impact of PTB on persons affected by PTB and to identify the coping strategies used by them was developed.

RESULTS:

ORGANIZATION OF STUDY FINDINGS

Analysis and interpretation of the data are organized under the following headings

Part 1 : Data related to sample characteristics of adult persons affected by PTB

Part 2 : Data related to impact of PTB on lifestyle

Part 3 : Data related to Coping strategies

Part 4 : Data related to association between level of impact of PTB on lifestyle and level of coping strategies adopted

Part 5 : Data related to Social support

Part 6 : Data related to Complications

Part 7 : Data related to association between level of impact of PTB on lifestyle and their selected personal variables.

Part 1 : Sample characteristics

Frequency and percentage distribution of adult persons affected by PTB according to their personal variables

n = 100

Personal Variables	F / %
1. Age	
i) 18-40 years	78
ii) 41-50 years	10
iii) 51-60 years	8
iv) 61 years and above	4
2. Gender	
i) Male	67
ii) Female	33
3. Marital Status	
i) Single	
ii) Married	16
iii) Separated/Divorced	73
iv) Widower	6
4. Education status	5
i) Illiterate	
ii) Primary education	58
iii) Secondary education	34
iv) Graduate, PG/any other	6
5. Religion	2
i) Hindu	69
ii) Muslim	29
iii) Christian	2
iv) Others	0
6. Occupation	
i) Farmer	42
ii) Coolie worker/ Labourer	34
iii) Teaching	6
iv) Business	11
v) Any other	13
7. Income of the family per month (in Rupees)	
i) Below 2000	76
ii) 2001-4000	19
iii) 4001-6000 & above	5
iv) Above 6001	0

Frequency and percentage distribution of adult persons affected by PTB according to their personal variables.

n = 100

Simple characteristics	F / %
8.Type of family	
i) Nuclear	62
ii) Joint	37
iii)Single	1
9.Place of residence	
i) Rural	56
ii)Semi urban	29
iii)Urban	15
10.Type of house	
i) Kutcha	17
ii)Semi pucca	65
iii) Pucca	18
11.Number of family member living in the house	
i)24	26
ii)5-7	50
iii)8-10	6
iv)Above 10	18
12.Duration of illness	
i) I year	79
ii)1-3years	17
iii)3-5years	2
iv)Above 5 years	2
13.Number of previous hospitalizations	
i) Never	80
ii) Only once	18
iii)2-3 times	0
iv)4-6 times	2
v)Above 6 times	0
14.Proximity of health care services available	
i) 1km	7
ii)2-4 km	12
iii)4-6km	53
iv)More than 6 km	28
15. Number of health education sessions attended	
i)Never	98
ii)Once	2
iii)Twice	0
iv)More than twice	0

Part II : Data related to impact of PTB on lifestyle

Frequency and percentage of adult persons affected by PTB according to the level of impact of PTB on lifestyle

Level of impact of PTB on lifestyle	F / %
Mild impact	28
Moderate impact	69
Sever impact	3

Area wise frequency, percentage of impact scores

n = 100

Impact areas	Mild F / %	Moderate F / %	Severe F / %
Physical health	44	47	9
Psychological	29	58	13
Social	39	54	7
Financial	17	40	43
Spiritual	86	13	1
Total	215	212	73

Frequency and percentage distribution of impact of PTB on lifestyle

n = 100

Impact areas	Yes f/%	No f/%
a) Impact of PTB on physical health		
1. Do you think your health has been adversely affected	86	14
2. Are you suffering from weight loss	76	24
3. Are you suffering from frequent cough	76	24
4. Are you able to relax	73	27
5. Does caring for yourself make you easily tired	68	32
6. Are you suffering from loss of sleep	58	42
7. Do you experience loss of appetite	51	49
8. Are you suffering from chest pain	34	66
9. Are you suffering from breathing difficulty	11	89

b) Impact of PTB on mental health		
1. Hesitate to talk to someone about PTB	88	12
2. Nature of illness disturb you	87	13
3. You feel frustrated, depressed or anxious	86	14
4. There is no solution to your problem	36	64
5. Do you feel you are separated from family	29	71
6. Does reducing time spent with family help you	22	88
c) Impact of PTB on social life		
1. Expression of feeling / concern to your partner	96	4
2. Partner share your household responsibility	93	7
3. Friends/neighbours appreciate the way you handle your sickness	91	9
4. Your sickness is a nuisance to neighbourhood	95	5
5. Illness prevents you from having satisfying relationship with friends	55	45
6. sexual misunderstanding	42	58
7. Relatives stopped visiting your family	40	60
8. Problem with your partner	23	77
d) Impact of PTB on finance		
1.Future financial needs worry you	88	12
2.Increase in expenditure	81	19
3.Doing extra work	57	43
4.Adequacy of current financial position	52	48
5.You are largely responsible to meet the financial needs	52	48
e) Impact of PTB on spiritual life	56	44
1. PTB is punishment from god	62	38
2. Increased faith in God	27	73
3. Increased faith in superstitions beliefs	6	94
4. Stopped praying to God		

Part – III : Data related to coping strategies adopted by adult persons affected by PTB

Frequency and percentage of level of coping of adult persons affected by PTB

n = 100

Level of coping	F/%
Low	0
Moderate	8
High	92

Frequency and percentage of positive coping strategies adopted by adult persons affected by PTB

Coping strategies	Yes F / %	No F / %
1. I talk to the family members who can do something about the problems.	95	5
2. I try to see the positive side of the situation and hope for the better in future.	87	13
3. I try to get help from qualified practitioner	85	15
4. I pay adequate attention towards family matters	83	17
5. I keep patience and show interest in activities	83	17
6. I anticipate the problems and prepare myself accordingly	82	18
7. I try to accept the situation	82	18
8. I try to find sources of financial help from others	82	18
9. I participate in social activities and fully enjoy	80	20
10. I seek help of others for looking after the family.	80	20
11. I trust God "He will take care"	79	21
12. I use different ways for solving problems	74	26
13. I make the alterations in family budget	73	27
14. I share the usual responsibility of the others	71	29
15. I do meditation or relaxation technique	55	45
16. I try to put the other problems out of my mind	53	47
17. I ask question to health worker about TB	37	63
18. I talk to other patients having similar problem	34	66
19. I read the books and other literature about TB	19	81

Frequency and percentage of negative coping strategies adopted by adult persons affected by PTB

Coping strategies	Yes F/ %	NO F/%
1. I believe in supernatural powers	9	91
2. I often get angry with others	19	81
3. I spend lots of time in thinking/day dreaming	19	81
4. I beat the children whenever I feel frustrated	19	81
5. I find fault in others for my condition	20	80
6. I refuse to believe that I am having PTB	22	78
7. I avoid the social contacts and social functions	22	78
8. I blame others for my condition	25	75
9. I fall sick when things bothers me too much	26	74
10. I smoke /chew tobacco /take alcohol	40	60
11. I hide the feeling and suffer silently	44	56
12. I cry often because of hopelessness	62	38
13. I feel myself as a very unfortunate person	81	19
14. I worry about the future	90	10

Part – IV : Data related to the association between level of impact of PTB on lifestyle and level of coping of them.

Chi-square values between level of impact of PTB on lifestyle and level of coping of persons affected by PTB

Level of coping	Level of impact of PTB on lifestyle		Chi-square value	df	Level of significance	Table value
	Mild impact	Moderate to severe impact				
Moderate	1	8	0.174 #	1	0.05 level	3.841
High	22	69				

Part – V : Data related to social support available to adult persons affected by PTB

Frequency and percentage of levels of social support available to adult persons affected by PTB

Part – V : Data related to social support available to adult persons affected by PTB

Frequency and percentage of levels of social support available to adult persons

affected by PTB

n = 100

Level of social support	F / %
Low	0
Moderate	15
High	85

Frequency and percentage of areawise level of social support available to adult persons affected by PTB

Social support	Family	Friends	Significant others
Low	1	5	17
Moderate	5	35	35
High	94	60	48

Part – VI : Data related to the presence of complications due to PTB

Frequency and percentage of presence of complications due to PTB among adult

persons affected by PTB

n = 100

Complications	F / %
1. Breathing difficulty and cough	21
2. Pleuretic pain	20
3. High grade fever	16
4. Severe weight loss	16
5. Swollen painful nodes	6
6. Gastrointestinal disturbances	2
7. No complications	19

Part – VII : Data related to the association between level of impact of PTB on lifestyle and their selected personal variables.

Chi-square values between level of impact of PTB on lifestyle with their selected personal variables

Part – V : Data related to social support available to adult persons affected by PTB
Frequency and percentage of levels of social support available to adult persons
affected by PTB

N=100

Variables	Impact of PTB on lifestyle		Chi square value	df	Level of significance	Table value
	Mild impact	Moderate to severe impact				
1. age						
18-40 years	21	57	79.37	2	0.05 level	5.991
41-50 years	5	5	*			
51 years & above	7	6				
2. Gender						
Male	17	50	216.17	1	0.05 level	3.841
Female	11	22	*			
3. Education						
Illiterate	14	44	4.725	2	0.05 level	5.991
Primary	14	16				
Higher education	5	7				
4. Occupation						
Farmer	20	22	2.74	2	0.05	5.991
Coolie	13	21				
Others	7	17				
5. Income						
Below 2000	15	61	25.04*	1	0.05	3.841
2000 & Above	13	11				
6. Place of residence						
Rural	8	48	27.33*	1	0.05	3.841
Urban	20	24				
7. Duration of illness						
15 days- 1 year	15	64	0.381	1	0.05	3.841
Above 1 year	5	16				
8. Number of health educative sessions attended						
Never						
Once	27	71	#0.51	1	0.05	3.841
	1	1				
9. Level of Social Support						
Moderate						
High	2	13	#4.68*	1	0.05	3.841
10. Presence of complications due to PTB						
Pulmonary complications	16	69				
Others						
	18	23	288.86*	1	0.05	3.841
	14	26				

*= Significant at 0.05 level of significance

#= Rates Corrected

DISCUSSION:discussion of the study findings regarding sample characteristics, impact of PTB on lifestyle, coping strategies adopted, social support available, complications of PTB and the association between level of impact of PTB and level of coping and their selected personal variables.

CONCLUSION:

The majority of adult persons affected by PTB were males and the productive age group (18-40 years) were affected more.

- Majority of adult persons affected by PTB were facing moderate impact on their lifestyle in all the areas except in spiritual aspect. The impact on financial front was higher than the other areas.
- Respondents used both positive and negative coping strategies equally. There was no significant association between level of impact of PTB on lifestyle and the level of coping strategies adopted by adult persons affected by PTB.
- Adult persons affected by PTB were receiving high level of social support. The support from family and friends was higher than the support from significant others.
- Study revealed that most (81%) of the adult persons affected by PTB were facing complications due to PTB which indicated that, complications whether related to pulmonary origin or other kind can affect the life style of adult persons affected by PTB.
- Significant association was found between level of impact of PTB on lifestyle with age, gender, income and place of residence, indicating that level of impact of PTB is influenced by these selected personal variables.
- There was no significant association found between level of impact of PTB on lifestyle with educational status, occupation, duration of illness and number of health educative sessions attended which indicated that, impact of PTB on lifestyle is not influenced by the educational status, occupation, duration of illness and number of health educative sessions attended by adult persons affected by PTB

REFERENCES: -

1. Brenda M Nevidjon, Kevin W Sowers. A nurses guide to cancer care. 1st ed. Philadelphia :Lippincot : 2000; p. 206-207.
2. Bhatia A K, Hiramani A B. Review of behavioural studies in Tuberculosis, Technical report series. No. 40 (New Delhi; CHEB, 1983) p. 1
3. Chakraborty A K. Epidemiology, NTI News Letter 28/1 and 2, 1992, p. 16
4. Susan Ligh Star & Geoffrey C. Bowker. Journal of Lungs & Lungers : The classified story of Tuberculosis : (217) p. 244-3280.
5. Park K. Park's text Book of preventive and social medicine, 17th Ed., Jabalpur; Banarasides, Bhanof, 2002. p. 138-142.
6. WHO (2002), Global TB Control Surveillance Planning Financing, WHO Report 2002. Park K. Park's Text Book of Preventive and Social Medicine, 18th ed. Jabalpur :Banarasidas : Bhanof, 2002, p. 138-142.
7. WHO (2001), World Health Report 2001, Report of the Director General WHO. Park K. Park's Text Book of Preventive and Social Medicine, 18th ed. Jabalpur :Banarasidas : Bhanof, 2002, p. 138-142.
8. Anand Kumar. Report of District Tuberculosis Centre, 2004-2005, Mysore.p. 5.
9. James S. Nairne, Psychology. The adaptive mind, 2nd e. Wadsworth, Australia, 2000. p. 27-40.
10. Fits Gerald B, Stress and coping; coping styles or strategies, 6th, 1986; 169-173.