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**Research Article**

**COMPARISON OF FREQUENCY AND PERCENTAGE:  
TYPHOID AND NON-TYPHOID FEVER PATIENTS  
PRESENTING TO THE GOVERNMENT AND PRIVATE  
SECTOR HOSPITALS OF HYDERABAD.**

**Munazza Sharif Farooqui<sup>1</sup>, Tayba Khan<sup>2</sup>, Aisha Zafar Ali<sup>3</sup>, Uzma Tariq<sup>4</sup>, Ashique Ali Arain<sup>5</sup>**

<sup>1</sup>M. Phil (Microbiology), Assistant Professor, Institute of Microbiology, University of Sindh, Jamshoro

<sup>2</sup>BS-Microbiology, Institute of Microbiology, University of Sindh, Jamshoro

<sup>3</sup>BS-Microbiology, Institute of Microbiology, University of Sindh, Jamshoro

<sup>4</sup>BDS, MDS (Oral Pathology), Assistant Professor, Department of Oral Pathology  
Isra University, Hyderabad

<sup>5</sup>MBBS, MCPS (Family Medicine), M. Phil (Pharmacology)

Consultant Family Physician, Assistant Professor, Department of Pharmacology, Muhammad  
Medical College, Mirpurkhas, Sindh, Pakistan

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**Abstract:**

*Typhoid or enteric fever is very old infectious disease of oral fecal route that occurs following use of food and water contaminated by Salmonella Typhi. The level of care provided by govt hospitals and private hospitals have wide difference along with the cost of treatment so the affording people prefer private hospitals while poor non-affording patients select government facilities for their treatment. For this purpose a 3 month study was arranged and we compared 285 patients of fever, collected from public 76(26.67%) and 209(73.33%) private hospitals during 2012 by non-probability sampling .Data analysis was accomplished on SPSS version22. There were 42.80% (122) females and 57.20% were males, 28.95%(22) of the govt. hospitals and 52.15% (109) of the private hospital patients were suffering from typhoid fever .Non-typhoid fever patients were71.05% (54) in government hospital and 47.85% (100) in private hospital, the difference was significant p-0.0005.*

**Conclusion:** Government, Private, treatment, enteric fever

**Corresponding author:**

**Munazza Sharif Farooqui,**

Assistant Professor,

Institute of Microbiology,

University of Sindh, Jamshoro

Email: munaleo@hotmail.com

QR code



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**INTRODUCTION:**

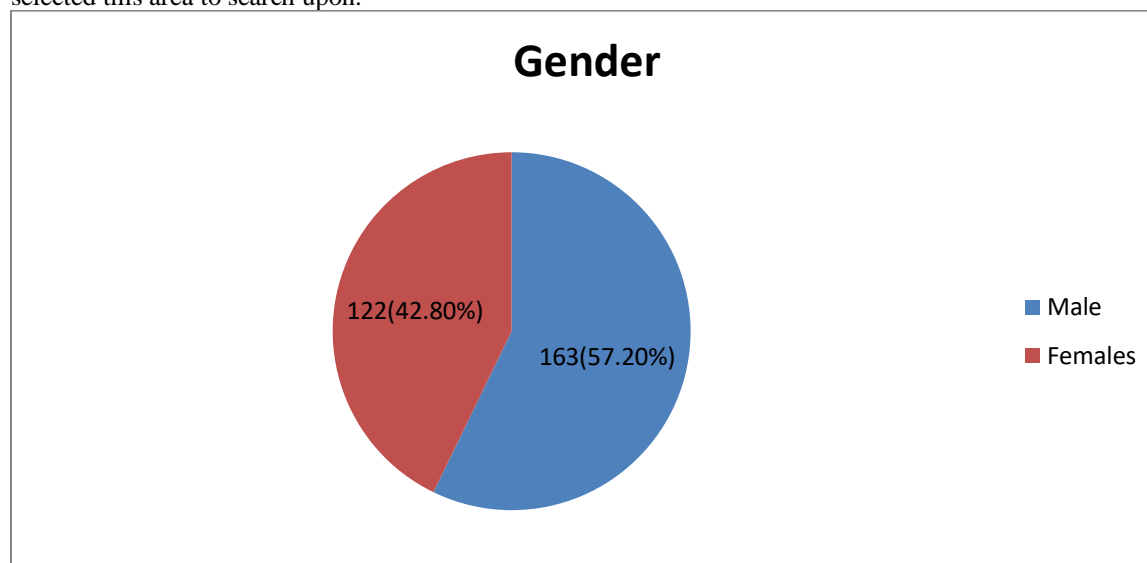
Infection by salmonella Typhi causes a systemic illness known as typhoid fever that may result into the death of patients [1,2]. Contamination of water and food is the mode of transmission, good antibiotic cover at appropriate time is a saving factor for morbidity as well as mortality as the resistance to therapy is increasing with time [3]. Attention towards the typhoid vaccines is increasing as a preventive measure apart from sanitations and Vi-PS (Vi polysaccharide) to be used above 2 years of age and Ty21a (oral vaccine) to be used above 6 years of age are licensed vaccines [4,5]. TCVs (Typhoid conjugate vaccines) that was WHO qualified in 2017 is superior to Vi-PS and Ty21a in terms of safety, immunogenicity, as well as effectiveness [6-8]. According to a global estimate the enteric fever cases between 13.9 -26.9 million in 2010[9]. Typhoid fever is widely distributed in Fiji as well and previously reported incidence in 2010 was 52/100000 of the population [10]. Deaths caused by typhoid fever in Asia is 93% of global death rate and an incidence rate of 274/100,000 while it is 110/100,000 in Southeast Asia, Pakistan 451.7 /100,000 and India has 214.2/ 100,000 in adults while 980/100,000 in children[11-13]. The different level of health care provision by public sector and private sector hospitals as well as the cost of therapy, so the rich patients prefer to visit private hospitals for their treatment while the poor and non-affording class of patients often receives their treatment from government health care facilities. The study on such theme was lacking in our Hyderabad region so we selected this area to search upon.

**METHODOLOGY:**

LUMHS hospital was chosen as the Public sector hospital ,being the only tertiary care hospital in the region while private sector hospitals were ,Isra University Hospital situated on hala road, Maa jee Hospital situated on autobhan road and Rajputana Hospital situated on Jamshoro road. Study samples and required information was collected over a period of 3 months from 01/08/2012 – 31/10/ 2012. All patients with fever of any age and any gender suspected for cases of typhoid fever other patients like upper RTIs, Lower RTIs and UTIs were excluded. Typhidot was used as diagnostic test, consecutive sampling was used as sampling technique. Comparison among public and private hospitals was done on chi-square 2x2 table on SPSS 22<sup>nd</sup> version while 0.05 was used as level of significance.

**RESULTS:**

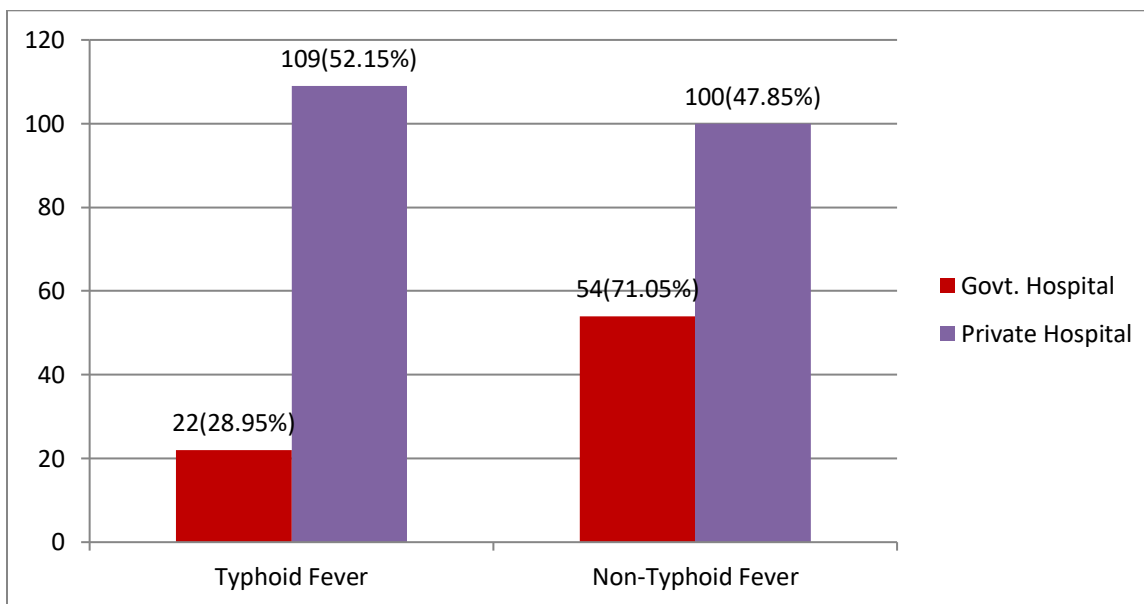
There were 285 cases of fever evaluated 42.80% (122) were females while 57.20% were males [figure 1] 28.95%(22) out of 76(26.67%) of the govt. hospital patients were suffering from typhoid fever while 52.15% (109) out of 209(73.33%) private hospital patients were diagnosed as typhoid fever. Non-typhoid fever patients were found as 71.05% (54) in government hospital while private hospital showed 47.85% (100) of patients as non-typhoid fever . Statistically the difference between the govt. set up and private set was significant with P-value 0.0005. [Table 1, figure2].



**Fig.1: Gender distribution of study population**

**Table.1: Comparison of the frequency and percentage between the govt. and private hospitals**

S. No	Fever Type	Govt. Hospital	Private Hospital	Row Total	X <sup>2</sup>	P-Value
1	Typhoid Fever	22(28.95%)	109(52.15%)	131(45.96%)	12.08	0.0005
2	Non-Typhoid Fever	54(71.05%)	100(47.85%)	154(54.04%)		
3		76(100%)	209(100%)	285(100%)		

**Fig.2: Bar charts of govt. and private hospitals****DISCUSSION:**

Indo-Pak region population suffers from Typhoid fever frequently due to lack of quality health facilities in remote areas added by literacy and hygienic issue along with poor quality of drinking water [14]. Typhoid related morbidity and thus the mortality is reduced by all types of vaccinations but the trend in our societies is yet to start [15]. Prevalence reported by Andualem G et al (2014) was 4.1% inconsistent with our study results [16]. Hamdy MS et al (2014) from Egypt study reported 13.64% prevalence, inconsistent to our results as well [17]. A previous study from Pakistan described 21.04% typhoid fever and 78.95% non-typhoid fever [18]. Faiz Rasul et al (20017) reported more females (52.62%) affected by typhoid than males (47.38%) while majority (42.32%) patients were of 21-30 years age, 82.46% patients were seen in July to September session [19]. Rohit Modi (2016) worked on 98 patients and found 55.10% (54) females and 44.90% (44) males, inconsistent to results of our study [20]. Limenih Habte et al (2018) also found high proportion of

females 55.8% (235) suffering from typhoid fever than male counterpart which was 32.8% (138) with age

range was 31–40 years was most affected and urban people were more affected 57.7% (243). This study was first of its nature so we could not find any study to compare our results [21]. However certain limitations were there in our work e.g blood culture, blood CP, antibiotic used and clinical outcomes but that was actually not our study domains. Private sector is more productive in terms of serves and quality care so affording patients tend to avail them at the cost of money while public sector hospitals are cheaper but serves and quality is not of care is not up-to-date due to over burden on the physicians, nurses and the administration. It needs to grow up trend of using high quality filtered water and vaccinations against the typhoid fever both are inexpensive and a common man can afford it. Awareness promotion and motivational programs are required to beat this preventable disease.

**CONCLUSION:**

The frequency and percentage of typhoid fever patients visiting the private hospitals is more than the public sector hospitals and the difference between the two is significant

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