

## ABSTRACT

The one of the rising issues of developing countries is Helicobacter Pylori infection. In this study, significant risk factors, which are involved in the occurrence of Helicobacter Pylori infection in Lahore are investigated through a case-control study using both descriptive and analytical approaches. Through a questionnaire, a sample of 362 subjects, including 181 cases and 181 controls was selected from the Gastroenterology Departments and OPDs of Mayo Hospital, Services Hospital and Sheikh Zaid Hospital, Lahore. Study was conducted from 1<sup>st</sup> January, 2013 to 31<sup>st</sup> March, 2013. The requisite information was obtained from all the patients/controls by the researcher by using the direct interview method. About 25 risk factors with sub categories were included in the study. For bivariate analysis, the chi-square, phi/v statistics and Kendall's tau-b are used. For the purpose of multivariate analysis, the binary logistic regression was run by using the SPSS (version 18.0) in order to observe the significant risk factors and prediction of the model. From descriptive analysis, it was found that the persons who eat from restaurants have more risk of infection as compare to persons who eat homemade food. By the descriptive analysis, it was also observed that risk of Helicobacter Pylori infection increases with an increase in the number of family members per house and in the number of persons living per room. Furthermore, similar results were observed in the bivariate analysis. In the overall analysis, the five risk factors including age, food eat, food liked, dental complains and number of persons living per room are found to be positively significant having the odds ratios and 95 % confidence intervals of odds ratios (1.025; 1.003-1.047), (9.596; 4.767-19.314), (3.500; 1.509-8.119), (3.204; 1.685-6.094) and (2.772; 1.496-5.139), respectively. While the three risk factors including usage of tea, educational level and sewerage system are found to be negatively significant having odds ratios and 95% confidence intervals for the odds ratios (0.221; 0.119-0.411), (0.216; 0.115-0.404) and (0.401; 0.218-0.738), respectively, which indicates that these three risk factors are protective factors against Helicobacter Pylori infection. In gender wise study, eight risk factors including age, marital status, tea, food eat, dental complains, educational level, number of persons living per room and sewerage system are found significant for females and seven factors including tea, food eat, food liked,

educational level, dental complains, number of persons living per room and sewerage system are found to significant for males. In the eight risk factors for females, the four factors including age, food eat, dental complains and number of persons living per room are found to be positively significant having the odds ratios and 95 % confidence intervals of odds ratios (1.037; 1.001-1.076), (11.867; 2.483-56.728), (8.185; 2.525-26.529) and (3.012; 1.039-8.736), respectively, while the four risk factors including marital status, usage of tea, educational level and sewerage system are found to be negatively significant having odds ratios and 95% confidence intervals for the odds ratios (0.187; 0.051-0.679), (0.201; 0.066-0.615), (0.210; 0.067-0.653) and (0.265; 0.087-0.811), respectively. In the seven risk factors for males, the four factors including food eat, food liked, dental complains and number of persons living per room are found to be positively significant having the odds ratios and 95 % confidence intervals of odds ratios (9.862; 4.258-22.841), (3.823; 1.305-11.199), (3.047; 1.336-6.949) and (2.554; 1.152-5.661), respectively, while the three risk factors including usage of tea, education and sewerage system are found to be negatively significant having odds ratios and 95% confidence intervals for the odds ratios (0.231; 0.104-0.514), (0.192; 0.085-0.431) and (0.446; 0.206-0.963), respectively. According to this study, the subjects who eat from restaurants have higher risk of Helicobacter Pylori infection as compared to all other risk factors.

**Key Terms:** Helicobacter Pylori infection, Risk Factors, Logistic Regression, Odds ratio, Controls, Significance, Retrospective