

ABSTRACT

Leprosy is a chronic infectious disease caused by *M. leprae* and affects mainly the skin and peripheral nerves. Leprosy has been spread throughout the world with concentration, especially in developing countries that hygiene and sanitation is poor. Leprosy can strike all ages no exception in children, or infants. The purpose of this study was to develop a risk index of active transmission resources of leprosy occurrence in children in bangkalan district. The study was observational epidemiological studies analytic case control method. The sample size in this study 62 people, 31 cases and 31 controls with sampling methods Simple Random Sampling. The results of this study indicate that there were 6 variables of candidates to be continued to multiple logistic regression analysis, those were the child's age (p value = 0.032), history of vaccine (p value = 0.115), history of contact (p value = 0.000), parental knowledge (p value = 0.006), parenting parents (p value = 0.001) and ventilation (p value = 0.144) . While the gender variable (p value = 0.443), nutritional status (p value = 1.000), long lived (p value = 0.561), population density (p value = 0.602), socioeconomic (p value = 0.799), temperature (p value = 1.000), humidity (p value = 0.643), and lighting (p value = 0.643) did not match the condition because the candidate variable value was (p value <0.25). The final result of multiple regression analysis, there were four indicators of the incidence of children leprosy, those are child's age, intensity of contacts, knowledge of parenting and parenting parents. The final results obtained were risk index of active transmission resources of leprosy occurrence in children in Bangkalan district ($-6,078 + 3,558 * \text{Age (6-14)} + 2,170 * \text{Parenting Parents (less)} + 1,802 * \text{Parent's Knowledge (less)} + 2,549 * \text{history of contact (intense)}$). Risk index leprosy incidence in children is expected to be utilized as a measuring tool in helping health workers, especially health centers for early screening in society especially for children at the age of 0 until 14 years old, so potentially children affected by leprosy can be seen and detected by applying the indexes that have been obtained.

Keywords: Index, Leprosy children, Infection, Bangkalan