

## **Analytic Hierarchy Process(AHP) and Fuzzy AHP For Ranking The child Abuse Factors in Malaysia.**

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### **ABSTRACT**

Analytical Hierarchy Process (AHP) is one of the best ways for deciding among the multiple criteria structure at different levels. Fuzzy AHP is a synthetic extension of classical AHP method when the fuzziness of the decision makers is preferred. While recently, Malaysia statistic has reported a significant increment of child abuse cases that have reported in this country. The graph presents a steady growth of these cases without showing any sign of decrement. Hence, this study purposed to determine and rank the main factors that contribute to child abuse cases in Malaysia. In this study, AHP (Analytic Hierarchy Process) and FAHP (Fuzzy Analytic Hierarchy Process) are used to rank the main factors that contribute to the child abuse cases in Malaysia. The data from the year 2009 until 2016 was collected from the official portal of the Department of Social Welfare, Ministry of Women, Family and Community Development. This decision is affected by three criteria which are: perpetrators, type of carer occupations and gender of the victim — family dispute preferred by 30% according to AHP and 29% according to Fuzzy AHP. Hence, the family dispute was determined as the main factors of child abuse compared to the other factors. The result shows AHP values are consistent with FAHP values and FAHP is found to be relatively more sufficient because of its fuzziness compared to AHP method.

**Keywords:** Child abuse, Analytic Hierarchy Process, Fuzzy Analytic Hierarchy Process