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## ABSTRACT

**Introduction:** Atopic dermatitis is a chronic relapsing disorder affecting both quality of life of the child and family. Limited studies are available in Sri Lanka on AD among the children.

**General Objective:** To determine the sensitivity of U.K working party diagnostic criteria and the quality of life, eczema area, disease severity and describe selected factors related to atopic dermatitis among children attending the dermatology clinic at the Lady Ridgeway hospital.

**Methodology:** The study was a descriptive cross-sectional study. The study population composed of 425 doctor diagnosed children with AD. The chief investigator and pre intern medical officer collected the data using four questionnaires. All the study population was screened with U.K working party criteria. The CDLQI questionnaire and DFI questionnaire, which were already validated and had been used in many published studies in U.K translated into Sinhala, used to quantify the QOL and DFI. The pretested interviewer administered questionnaire was used to identify some selected factors related to AD. Disease severity was measured with the EASI score, which had been tested for reliability. Data analysis was carried out using SPSSC+ EPI INFO packages. Chi square test was performed to describe the association between selected factors and AD. Two tailed probability of  $<0.05$  considered as significant. Study sample was divided into two groups according to U.K working party criteria positive status and related with other variables. Sensitivity of U.K working party criteria in Sri Lankan settings was calculated. Disease severity was categorized and related with other variables. Average dermatitis family impact and QOL was calculated and related with other variables

**Results:** Of the 425 doctor diagnosed children with AD there were 245 (57.6%) males and 180 females (42.4%). The mean age of the children were 47.86 months (SD=39.19). Majority of the study sample comprised of Sinhala people (87.8%) most of them included in the social class III and IV. The study population is more or less equally distributed within the income groups. The sensitivity of U.K working party criteria: true positive percentage 86.1%, false positive percentage 13.9%. The median DFI score was 9 (1<sup>st</sup>

quartile= 6,3<sup>rd</sup> quartile=13). The median QOL score was 9 (1<sup>st</sup> quartile=5,3<sup>rd</sup> quartile=15) There was statistically significant association with QOL and disease severity. (P=0.00) and DFI score and disease severity (P=(0.00). Median age of onset of the disease is 6 months. (1<sup>st</sup> quartile =3,3<sup>rd</sup> quartile=12). The relationship between age of onset of the disease and disease severity was not statistically significant (P=0.26). The median duration of exclusive breastfeeding was 3 months (1<sup>st</sup> quartile=3.25,3<sup>rd</sup> quartile=4) and the median duration of breast-feeding was 17.5 months (1<sup>st</sup> quartile=9,3<sup>rd</sup> quartile=30). The relationship between age of onset of the disease and duration of breast-feeding was statistically significant (p=0.00) but the relationship between age of onset and exclusive breast-feeding had no statistical significance (P=0.13). The relationship between exclusive breastfeeding and EASI score was not significant (P=0.17) and the relationship between the duration of the disease and EASI score was statistically significant (P=0.00). Among the selected factors related to AD maternal atopy status (P=0.01), food allergy (P=0.00), cuttle fish allergy (P=0.01), pineapple allergy (P=0.00), tuna fish allergy (P=0.00) had statistically significant relationship with AD. Of the disease exacerbating factors sweating (P=0.02), exercise (P=0.01) hot climate (P=0.00) had statistically significant relationship with disease severity. The following factors had no significant relationship with disease severity. Sex categories (P=(0.47), ethnic categories (P=0.59), income group, (P=0.95), mother occupation (P=0.07), paternal atopy status (P=0.94), sibling atopy status (P=0.11), number Sharing (P=0.06), position of the child (P=0.27), roof material (P=0.40), wall material (P=0.81), cold climate (P=0.41), pets at home (P=0.74), exposure to household smoking (P=0.74), exposure to cigarette smoke (P=0.14)

**Conclusions and Recommendations:** The sensitivity of U.K. working party criteria is more or less equal to the previous studies and reliable to use in epidemiological studies QOL questionnaire and DFI questionnaire are good tools to assess QOL OF our children and families with AD.EASI is a useful index to assess eczema area and disease severity in Clinic settings in Sri Lanka but may need modifications