Background:

Asthma patient counseling play a vital role in asthma symptom control and consequently the overall patient asthmatic status for both children and adults .

The study aimed to assess the influence of three distinct asthma counseling strategies on the asthma clinical outcomes for adults and children with asthma.

Patients and methods:

Adults: a group of nonsmoking individuals with asthma, aged 19-60, Children: a group of non-smoking patients aged 11-18, years underwent diagnosis and subsequent stratification according-to the forced expiratory volume in first second to forced vital capacity ratio (FEV1/FVC) and the guidelines outlined by the Global Initiative for Asthma GINA).These patients, utilizing pressurized metered dose inhalers (pMDI), exhibited a history of asthma ranging from several months to several years. The patients were categorized into three groups, with each group receiving a distinct counseling strategy. Traditional verbal counseling, advanced counseling utilizing the Asthma Smartphone applications and a combination of advanced verbal counseling. We conducted a two-month monitoring period for all three groups, employing the Asthma Control Test (ACT), Asthma Control Questionnaire (ACQ), and the GINA symptoms control assessment Questionnaire.

Results: Adults Significant differences were observed among the three counseling groups in terms of ACT, FEV1/FVC ratio, and GINA symptoms control assessment scores from the first-month visit to the second-month visit (p < 0.001). Regarding ACQ, the verbal counseling group exhibited a significant difference from the first week (p = 0.012) to the third week (p = 0.008). The advanced counseling group showed a

significant difference from the third week (p = 0.03) to the seventh week (p = 0.013), while the advanced verbal counseling group displayed a significant difference from the first week (p = 0.019) to the eighth week (p = 0.010). The study unveiled a noteworthy disparity in ACQ scores during the second week, with a significant difference observed between the verbal counseling group and the advanced verbal counseling group (p = 0.025). Similarly, a significant difference was noted between the advanced counseling group and the advanced verbal counseling group (p = 0.016).

Children: The present study demonstrated that, the advanced verbal counseling group was superior in FEV1/FVC ratio 2nd month to the advanced alone counseling group p=0.016, also, the advanced verbal counseling group was superior in ACT 2nd month to the verbal only counseling group p=0.023, ACQ 8th week showed that the advanced alone counseling group was superior to the verbal alone counseling group p=0.018, from FEV1/FVC ratio, ACT, ACQ, and GINA questionnaires through the 2-month follow-up, the three counseling techniques significantly improved asthma management for all counseling groups p<0.001.

Conclusion The study findings indicate that the integration of advanced verbal counseling, incorporating the Asthma smartphone application, along with traditional verbal counseling, proves to be a more effective approach for enhancing asthma control in adults and children.