**Validation of M-CHAT for use in primary healthcare clinics in Northern West Bank**

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**Abstract:**

**Background**

Autism spectrum disorders are a group of neurodevelopmental disorders which presents in early Childhood. It is characterized by impairment of social development and communication skills, and the presence of fixed stereotypic repetitive behaviors. The cause remains unknown but studies support multifactorial etiology with genetic linkage and possible environmental factors. Recent studies revealed worldwide increase in the prevalence of ASD. In Palestine, pediatric neurologists noticed an increase in prevalence of ASD. Early detection is associated with better outcome, therefore, screening for ASD as early as possible is recommended. The Modified Checklist for Autism in Toddlers (M-CHAT) is a reliable sensitive method of screening that can be easily applied on children to detect ASD at an early age. However, the translated Arabic version of this tool is no yet validated in Arab-countries or Palestine, and this is the aim of our study.

**Objectives :**

1- To validate the translated Arabic version of the M-CHAT in the Palestinian population in conjunction with a routine 18-month developmental check-up in identifying Palestinian toddlers with Autism Spectrum disorder (ASD) presenting to the primary health care clinics in Northern West Bank.
2- To detect the critical questions in the M-CHAT screening tools that best correlate with a positive diagnosis of Autism.
3- To describe the socio-demographic data Of ASD in the Northern West Bank.
4- To help in establishing a database of Autism patients that can be used in future studies to validate the diagnostic tools, or study of autism demographic factors, or study the variables related to autism, including risk factors, clinical presentation, and response to available treatments among Palestinians.

**Methods :**

243 children 18-24 months of age were screened using MCHAT in primary health care clinics in Northern West Bank. Subjects who fail MCHAT will undergo diagnostic evaluation using ADI-R. Sensitivities and specificities will be then calculated based on the diagnostic results. Subjects will be again re-evaluated at age 3 years old

**Results :**

out of the 243 screened children, 64 were MCHAT positive. The items with the highest failure rates were Q22, Q11. The critical items showed low failure rates. 54.7% of MCHAT positive

subjects were males and 43.7% were females. Jenin district had the highest failure percentage (39%) while Qalqelia had the lowest failure percentage (1.6%)

**Conclusion :**

our initial results (the screening step results) indicate that some changes may need to be done with MCHAT items. Other contributing factors such as poverty and the socioeconomic status may affect ASD rates in Northern West Bank. Validation of this screening tool will be tested after we obtain results of the diagnostic step.