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Intellectual profile in autistic children: potential model for difficult cases

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Aim: This study aimed to explore the intellectual functional profile among autistic children and discern the most important potential determinants of its subscales. Using this information, we wished to subsequently create a short battery specially tailored for autistic patients to help practitioners in dealing with difficult and uncooperative cases.

Methods: This is a retrospective observational study that recruited 100 autism cases (79 males, and 21 females). A DSM-V criterion was insured as a base of diagnosis by developmental paediatric team in Sultan Qaboos University Hospital, Oman between 2015 and 2018. Stanford-Binet Intelligence Scales-Fifth Edition (SB5) was used for participant's intelligence ability.

Results: The mean age (in years) was seven (SD=2.49) with no statistical differences between males and females. Total IQ was 68.58 (SD=18.0), while verbal and non-verbal IQ mean values were 65.46 (SD=17.60) and 73.53 (SD=17.547), respectively. The non-verbal IQ (73.53, SD=17.55) was significantly higher than its verbal (65.46, SD=17.60) counterpart with a t-test score equal to 8.24, p-value=0.000 (95%, CI=6.128, 10.012). Among, the all ten subscales, autistic patients scored the best in non-verbal visual-spatial processing with mean scores of 7.36 (SD=3.625), while the lowest scores were on verbal fluid reasoning with mean scores of 3.87 (3.395). According to the multiple linear regression equation:

IQ=38.693+1.597 (non-verbal QR)+1.377(non-verbal FR)+1.416 (verbal QR)+1.454 (non- verbal K), [F ratio=309.6, p-value=0.000 and R2 adjusted=0.926].

Conclusions: There was no significant difference in IQ between males and females and non-verbal IQ was found to be significantly higher than verbal IQ across both genders. The most important determinants of total IQ achievement among variable subscales were non-verbal QR, non-verbal FR, verbal QR and non-verbal KN and hence, these dimensions can be used as part of a brief test battery to evaluate difficult cases.

Notes: