

ABSTRACT

THE CORRELATION BETWEEN LENGTH AND CIRCUMFERENCE OF HEAD WITH INTELLIGENCE QUOTIENT (IQ) LEVEL ON MENTAL RETARDATION CHILDREN IN EXTRAORDINARY SCHOOL PRINGSEWU DISTRICT

By

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Background: Mental retardation (RM) is a state of mental development of a person that hampered. Number of persons with mental retardation in the world is estimated at more than 120 million people and growing. Microcephaly is the size of head circumference that less than two standard deviations (SD) below the average which is a common physical signs of mental retardation. This research was conducted by measuring the circumference and length of the head and see its correlation with the Intelligence Quotient (IQ) level.

Objective: To determine the correlation between circumference and length of the head with the Intelligence Quotient (IQ) level on children with mental retardation in an extraordinary school.

Method: This research was conducted with cross sectional design. Sampling was done by stratified random sampling with 40 respondents.

Results: Average of age was 10,80 years, the mean head circumference was 48,73 cm, 45 cm minimum value and a maximum value of 53 cm. The mean length of head was 18,13 cm, 45 cm minimum value and a maximum value of 53 cm. The average Intelligence Quotient (IQ) is $43 \pm 10,718$. Obtained as many as 14 children suffered mild mental retardation, 12 children suffered moderate mental retardation, 14 children suffered severe mental retardation, and no children who suffer from really severe mental retardation. Correlation of head circumference with Intelligence Quotient (IQ) level was obtained $p < 0,001$ with a correlation coefficient of 0,946 indicates that the direction of a positive correlation with the strength of the correlation is very strong, and the correlation between length of the head with Intelligence Quotient (IQ) was obtained $p < 0,001$ with a correlation coefficient of 0,958 which indicates that toward a positive correlation with the strength of the correlation was very strong.

Conclusion: There was a correlation between head circumference and Intelligence Quotient (IQ) level and there was a correlation between the length of the head and Intelligence Quotient (IQ) level on children with mental retardation atan extraordinary school in Pringsewu.

Keywords: head circumference, head length, Intelligence Quotient (IQ).

ABSTRAK

KORELASI ANTARA LINGKAR DAN PANJANG KEPALA DENGAN TINGKAT KECERDASAN *INTELLIGENCE QUOTIENT* (IQ) PADA ANAK RETARDASI MENTAL DI SEKOLAH LUAR BIASA (SLB) KABUPATEN PRINGSEWU

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Latar Belakang: Retardasi mental (RM) adalah keadaan perkembangan jiwa seseorang yang terhambat. Jumlah penyandang retardasi mental di dunia diperkirakan lebih dari 120 juta orang dan terus bertambah. Mikrosefali adalah ukuran lingkaran kepala kurang dari dua standar deviasi (SD) di bawah rata-rata yang merupakan tanda fisik umum dari retardasi mental. Penelitian ini dilakukan dengan mengukur lingkaran dan panjang kepala dan melihat korelasinya dengan tingkat kecerdasan *Intelligence Quotient* (IQ).

Tujuan: Untuk mengetahui korelasi antara lingkaran kepala dan panjang kepala dengan tingkat kecerdasan *Intelligence Quotient* (IQ) pada anak retardasi mental di Sekolah Luar Biasa.

Metode: Penelitian ini dilakukan dengan rancangan *cross sectional*. Pengambilan sampel dilakukan dengan cara *stratified random sampling* dengan 40 responden.

Hasil: Pada rerata umur didapatkan 10,80 tahun, rerata lingkaran kepala adalah 48,73 cm, nilai minimum 45 cm, dan nilai maksimum 53 cm. Rerata panjang kepala adalah 18,13 cm, nilai minimum 16 cm, dan nilai maksimum 20 cm. Rerata *Intelligence Quotient* (IQ) adalah $43 \pm 10,718$. Didapatkan sebanyak 14 anak mengalami retardasi mental ringan, 12 anak mengalami retardasi mental sedang, 14 anak mengalami retardasi mental berat, dan tidak ada anak yang menderita retardasi mental sangat berat. Korelasi lingkaran kepala terhadap *Intelligence Quotient* (IQ) diperoleh $p < 0,001$ dengan koefisien korelasi sebesar 0,946 menunjukkan bahwa arah korelasi positif dengan kekuatan korelasi sangat kuat, dan panjang kepala terhadap *Intelligence Quotient* (IQ) diperoleh $p < 0,001$ dengan koefisien korelasi sebesar 0,958 yang menunjukkan bahwa arah korelasi positif dengan kekuatan korelasi sangat kuat.

Simpulan: Terdapat korelasi antara lingkaran kepala dengan tingkat kecerdasan *Intelligence Quotient* (IQ) dan terdapat korelasi antara panjang kepala dengan tingkat kecerdasan *Intelligence Quotient* (IQ) pada anak retardasi mental Di Sekolah Luar Biasa (SLB) Kabupaten Pringsewu.

Kata kunci: *Intelligence Quotient* (IQ), lingkaran kepala, panjang kepala,