

# PH21: Accommodation and Convergence Demand and Reserves among Visually Impaired School Children

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## ABSTRACT

**Introduction:** Visually impaired school children usually use shorter near working distance than the normally sighted children which impose high accommodative and convergence demand. **Methods:** The purpose of this study is to investigate the accommodation and convergence demand and reserve of visually impaired (VI) school children when reading. Nineteen visually impaired school children participated in this study. The symptoms while doing near work were recorded during history taking. The parameter measured were distance and near visual acuity, near working distance, amplitude of accommodation, accommodation response, type of heterophoria and magnitude, near point of convergence and fusional reserve. **Results:** Symptoms often complained by VI school children was "easily feel tired when reading" (68.4%, n=13). The mean accommodation reserve (AR) of VI school children (mean =  $7.12 \pm 5.18D$ ) was sufficient to fulfill the accommodation demand (AD) (mean =  $5.99 \pm 2.27 D$ ). They used  $49.03 \pm 24.82\%$  of accommodation when reading. Fifty-eight percent (n=11) of VI school children had sufficient AR. The mean convergence demand (CD) of VI school children was  $13.47 \pm 2.06pd$ ; fusional reserve was 2.79 times higher than their heterophoria. Sixty-three percent (n=12) of LV school children had sufficient CR. **Conclusion:** Although majority of VI school children have sufficient accommodation and convergence reserve while reading, more than 30% of them showed insufficient AR and CR. Hence, indicating the needs of binocular vision assessment which currently is not routinely carried out in managing LV among school children.

## KEY WORDS:

*Visually impaired school children, accommodation, convergence, reading*

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# PH22: Fruit Intake Pattern among Malay Young Adults in Klang Valley

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## ABSTRACT

**Introduction:** The consumption of fruits in managing body weight has received many attentions due to the potential effect in increasing satiety. **Methods:** This cross-sectional study was aimed to determine the fruit intake pattern among adults in Klang Valley in relation to their nutritional status. Food Frequency Questionnaire (FFQ) was used to determine the pattern of fruit intake. The anthropometric measurements were conducted according to the standard guidelines. **Results:** A total of 202 Malay subjects (mean age:  $25.29 \pm 4.61$  years) with mean BMI of  $23.82 \pm 4.79$  kg/m<sup>2</sup> have participated in this study. Majority of the subjects were female (59.9%) followed by 40.1% of male. Mean fruit intake was  $229.57 \pm 199.28$  g per day. A lower fruit consumption ( $1.82 \pm 1.49$  serving) as compared to the Malaysian Dietary Guidelines for Adults (2010) was found in the mean of daily fruit intake. Female subjects consumed significantly ( $p < 0.05$ ) more fruit ( $1.90 \pm 1.46$  serving) as compared to male ( $1.70 \pm 1.56$  serving). The commonly consumed fruits include apple, banana and mango, while fruit juices include mango, orange and apple. Dates, raisin and dried apple were the most preferred dried fruits by the participants. Mean fruit intake was not associated with anthropometric measurements. **Conclusion:** There was a difference in fruit intake between genders. However, the fruit intake of the studied population was inadequate to meet the recommendation.

## KEY WORDS:

*Fruit intake, fruit intake pattern, adults, anthropometric measurements*