Compare of academic performance between normal binocular vision and convergence insufficiency among primary student in South Korea

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This study is to investigate academic performance between convergence insufficiency and normal binocular among primary students in South Korea. Objective and subjective refraction was measurement of 113 primary students. The CISS survey (Convergence Insufficiency Symptom Survey) which consists of 0~4 point scale performed compares symptoms and grade between normal binocular vision and a convergence insufficiency. Children's academic performance was evaluated based on the result of academic performance in fall semester of 2017. The average scores of three subjects of Korean, mathematics and science were used and 5 grades levels were determined as following: Grade 1 (above 90), grade 2 (above 80), grade 3 (above 70), grade 4 (above 60) and grade 5 (below 60). Primary students with convergence insufficiency were presented for 34 among total of 113 participants. In NBV group, (Normal Binocular Vision group) question 1, 4 and 6 showed more than 1 point (infrequently, 1.037, 1.025 and 1.035 respectively). In CI group, Convergence Insufficiency the score was higher than 1 point in every question, especially in question 3, 6, 8, 10, 14 and 15 the score was higher than 1.7. Normal binocular vision had significantly negative correlation with total attentiveness \( r^2 = -6.587 \) and convergence insufficiency had negative correlation \( r^2 = -24.05 \). The convergence insufficiency group of school children grades was better low grades than normal binocular vision group school children grades.

Biography

Jung Un Jang is a Professor of the Graduate School of Optometry, Eulji University, South Korea. She is also In-charge of Joint Master Degree of Clinical Optometry, Marshall B Ketchum University (Southern California College of Optometry) and Eulji University. She has served as a Reviewer for the Journal of Ophthalmic and Vision Research, Clinical Ophthalmology, Clinical Optometry and also the Korean Journal of Vision Science. She has published more than 20 papers in reputed journals and has been serving as an Editorial Board Member of The Korean Society of Vision Science and The Open Ophthalmology Journal.

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