ORTHOPTICS, VISUAL EXERCISES OR TRAINING
OTH903.012
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COVERAGE:

Orthoptic training and visual exercises or training are considered experimental or investigational for the treatment of learning disabilities, oculomotor disorders or any other indication.

DESCRIPTION:

Orthoptics is a technique of eye exercises intended to improve eye movements or visual tracking.

Orthoptic interventions have been attempted in the treatment of learning disabilities, particularly reading disorders including:

- attention deficit disorder,
- dyslexia (inability to read, spell and write words, despite the ability to see and recognize letters),
- dysphasia (impairment of speech consisting of lack of coordination and failure to arrange words in their proper order due to a central lesion), or,
- other reading disorders.

Orthoptic training is used to treat oculomotor disorders such as convergence insufficiency and accommodative disorders. Convergence is the coordinated inclination of the two lines of sight toward their common point of fixation. Accommodation is the adjustment of the lens of the eye for various distances caused by contraction or relaxation of the ciliary muscles.

RATIONALE:

Reasons for academic failure in childhood include mental retardation, a sensory disability such as blindness or deafness, a primary emotional disturbance or inadequate education. In addition, there is a small but significant proportion of children who, in the absence of any of the above explanations, show profound difficulties in one or more of the following - listening, thinking, talking, reading, writing, spelling or mathematics.

The literature relating to ocular movements and reading disability is a confusing one. This is partly because of the difficulty in defining “reading disability” and even more important because of a lack of normal age-matched controls in various treatment protocols.

In order to determine if there is an ocular motor abnormality(s) associated with a specific learning disability, a large study group must be assessed with objective eye movement recordings and an age-
matched control group performing academically well must be followed in exactly the same fashion. A case can be made that no such studies have thus far been completed. However, a couple of noteworthy small studies should be cited.

A well designed but small study of 40 learning disabled children, ages 8 to 12 years, from the Toronto area with age matched controls from the same area reveals interesting results. Saccadic (quick jumps from one fixation point to another such as reading) pursuit and optokinetic movements were measured with standard eye movement recording techniques. The presence or absence of spontaneous and gaze evoked nystagmus were also noted. No differences could be found between the test and control groups in any ocular motor function tested. In pursuit movements, 25% of learning disabled students were judged to be dysmetric but 35% of normal students were also found to have the same instability of pursuit movements.

Brown and co-workers at the Smith-Kettlewell Institute completed a study of post-rotational nystagmus (in the dark to exclude the optokinetic component) in a group of dyslexics and age-matched controls. No difference between the two groups was identified.

Age matched controlled studies with standard eye movement recordings are conspicuously few in the literature concerning eye movement abnormalities and the learning disabled child. No evidence at the present time conclusively indicates that there are any unique ocular motor abnormalities in the learning disabled student with the exception of prolonged fixation and increased number of regression or backward saccades. The case has not been scientifically made for ocular motor training in the student with learning disability.

Studies relating to oculomotor disorders are made up of retrospective studies. There is a lack of scientifically based, multicentered, randomized studies showing long-term benefits associated with orthoptic training. Retrospective studies show there may be some short term improvement in the severity of the patient's signs and symptoms. However, comparisons of treatment with orthoptic training and treatment by other methods including surgery are unavailable thus they can not show that orthoptics are equal to or better than the other treatments. Frequently orthoptics plus a lens addition were used, further confounding the results.

PRICING:

None

REFERENCES:
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DISCLAIMER:

State and federal law, as well as contract language, including definitions and specific inclusions/exclusions, takes precedence over Medical Policy and must be considered first in determining coverage. The member’s contract benefits in effect on the date that services are rendered must be used. Any benefits are subject to the payment of premiums for the date on which services are rendered. Medical technology is constantly evolving, and we reserve the right to review and update Medical Policy periodically. HMO Blue Texas physicians who are contracted/affiliated with a capitated IPA/medical group must contact the IPA/medical group for information regarding HMO claims/reimbursement information and other general polices and procedures.