

Learning Disorders In Childhood

Essay

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the Master Degree of Pediatrics

By

Sanaa Hanem Hassan Mohamed
M.B.B.ch.



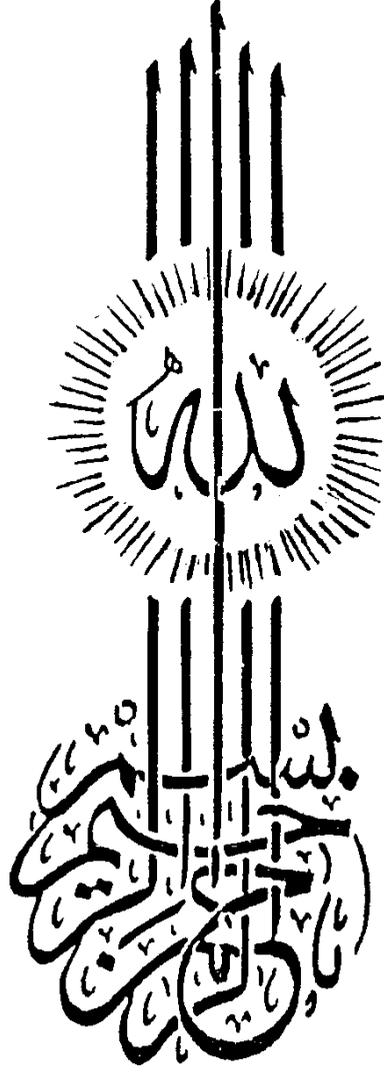
Supervised by

Dr. Saadia Abdel Fattah M.D.
Professor of Pediatrics

Dr. Sherin Mohamed M.D.
Lecturer of Pediatrics

Faculty of Medicine
Ain Shams University
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”وما أوتيتم من العلم إلا قليلا“

صدق الله العظيم

<p>العدد ٢٨ شارع محمود فهمى المعماري السكاكنس - القاهرة - الدور الأول (حوار محلات الزهور تحتلش .</p>	 <p>XEROX</p>	<p>مكتبة السكاكنس الجديدة آلة كتابة - تموير مستندات استنسل - تغليف البلاستيك أولست - تحليد</p>
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**INTRODUCTION AND AIM
OF THE WORK**

Introduction and Aim of the work

The term Learning disability denotes difficulty in Learning academic subjects in a school setting when intelligence is normal and there are no gross signs of emotional disturbance, sensory deficit, emotional disadvantage, or motor handicap. Only children with serious emotional disturbance, mental retardation, or sensory handicap, especially of vision or hearing, should be excluded from this diagnostic category. Children with normal intelligence may have learning disabilities resulting from minimal brain dysfunction, mild emotional problems, social disadvantage, family dysfunction, or inappropriate and inadequate instruction. When parents present with a child and a complaint of inadequate Learning, the first task is to assess the child's intelligence, vision, and hearing and to rule out serious emotional disturbances as the cause of failure to Learn. (Abbinkoff, 1977)

Learning disorders in childhood is considered as a new subject for pediatricians in the last ten years .

As a part of the " new pediatrics " this field has mushroomed, with new screening and diagnostic approaches, special evaluation techniques, and treatment options .

[The purpose of this essay] is to review our approach to children failing in school, and to outline a rational plan of management for the practicing pediatricians . It is the pediatrician's responsibility to diagnose or rule out a variety of physical, psychologic, and social causes of the disability . This essay is a spot light upon those children who are hyperactive, clumsy or dyslexic .

Those children suffer from unexplained failure in their school and in their academic life.

If those children have an obvious disability for example, if they are lame or paralysed, the children and the adults at least know what to expect. Even in the case of children who are slow at Learning and are put in a special class, the

problem is manageable and clear. For learning disabled child, however, unless his difficulty is recognized, there must always be nagging uncertainty, ' Am I stupid '?
Am I mad ? why am I different from the others ? Vague, unformulated fears are perhaps even more unpleasant than a clearly recognised disability. It should be clear that learning disability must not be allowed to damage the child's self respect . (Lynn,1966)

PHYSIOLOGY OF LEARNING

Physiology of Learning

Learning is sometimes assumed to be a function of the cerebral hemispheres , but it also occurs in many animal species that have no cerebral cortex .

It occurs readily in invertebrates such as Octopus , and it may even occur in unicellular organisms . In addition, phenomena resembling Learning occur at subcortical and spinal levels in mammals.

More advanced Types of Learning are Largely cortical phenomena, but the brain stem is also involved in these processes. (Dykman, ,83).

Electroencephalographic & Evoked Potential Changes:

Phenomena very similar to the habituation and sensitization seen in invertebrates , occur in mammals, including humans .When a new sensory stimulus is first presented , it produces diffuse electroencephalographic arousal and prominent evoked secondary responses in many parts of the brain . Behaviorally , the human

or animal becomes alert and attentive , a response that " Pavlov "(pavlov C.P. conditioned reflexes 1927)called the **Orienting reflex** (the " what is it ? " response) .

If the stimulus is neither pleasurable nor noxious , it evokes Less electrical response when repeated , and the electroencephalographic and other changes eventually cease , the animal becomes habituated to the stimulus and ignores it . Changes in sensory stimuli also provoke arousal. For example, when an animal becomes habituated to a stimulus such as regularly repeated tone, stopping the tone produces arousal.

It is common knowlege that , at least at a behavioral level , similar intensification of the arousal value of stimuli occurs in humans. The mother who sleeps through many kinds of noise but wakes promptly when her baby cries is one example .

The intern who is unaware of the calls on the Loudspeaker unless his or her name is called is another example of an arousal response to a particular stimulus.

Attention:

The generalized arousal response to a stimulus can progress to focused attention. When such focusing occurs, other sensory inputs are inhibited. This inhibition is common knowledge, we have all had the experience of having to say, "I'm sorry, but I didn't hear you. I was reading the newspaper."

Conditioned Reflexes:

Conditioned reflexes are an important type of learning. A conditioned reflex is a reflex response to a stimulus that did not previously elicit response, acquired by repeatedly pairing the stimulus with another stimulus that normally does produce the response. (Lynn, . 1966).

Memory:

It now appears that 3 mechanisms interact in the production of memories, one mediating immediate recall of the events of the moment, another mediating memories of events that