Academic Underachievement Among Egyptian Children

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ABSTRACT:

To understand the factors leading to academic under achievement among Egyptian children, 118 Rt. handed boys were randomly chosen for this study. Other cases of underachievement i. e. organic brain dysfunction were excluded at the start of the study by complete neurological assessment,E. E. G., language disability test and I. Q. testing (18 were excluded). The rest (100 cases) were subjected to anthropometric measurements, complete physical examination, psychiatric interviews, stool and urine analysis, a standardized parent questionnaire, a teacher questionnaire, psychological assessment for intellectual abilities and personality traits.

Disturbed family background, emotional disorders mainly anxiety and depression, behavioural disorders mainly conduct and oppositional, personality traits including neuroticism, introversion and psychoticism were the factors that significantly correlated with academic underachievement, while other factors including the mean I. Q. did not.

Effective management should be multidimensional including the child, family, teachers and teaching methods.

INTRODUCTION:

In today's society, success in school has been considered the key to success in life. When a child fails for no apparent reason to achieve at the level of his potential, both parents and teachers become concerned about the present and future implications. Academic underachievement can be defined as a failure to

achieve in school tasks despite adequate intellectual capacity (Hallahan and Kaufman, 1978). Underachievement implies a discrepancy between the mental age of the child and his achievement. It is considered a barometer of the child's adaptation. (Illingworth, 1975, Laviettes, 1980) The term academic problem is listed in the third edition of the diagnostic and statistical manual of mental disorders (DSM III 1980) as a condition in which the focus of attention or treatment is an academic problem in which a person with adequate intellectual capacity develops a pattern of failing grades.

This should be differentiated from underachievement secondary to organic brain disorders clinically manifested by motoric deficits, ataxia, involuntary movements, convulsions, attention deficit syndrome, and language disorders in the form of dyslexia, agraphia, aphasia and articulation deficits (Kessler, 1966 and Sussman, 1980).

The incidence of academic underachievement in preliminary school in Egypt is 5% (National Center of Criminology and Social Research, 1974) and it occurs about six times more frequently in boys than in girls. The onset of underachievement usually begins in the second and third grades although the problem is often brought to clinical attention when it becomes more pronounced at times of increased academic pressure at the end of the preliminary education as at the end of this stage the examination becomes critical. Parents and teachers have often expressed concern for years, however, the child becomes anxious only when progress through school is threatened (Fitzpatrick, 1979).

Girls are often found to develop scholastic difficulty on entering the school, while boys generally show a consistent pattern of underachievement which usually begins early (Kessler, 1966).

The aim of the present study is to provide more information about the possible contributing factors to the problem of underachievement among Egyptian students.

MATERIAL AND METHODS :

118 rt. handed boys in the sixth grade of primary education were randomly chosen from a state and private primary schools located in the east of Cairo in

the academic year 1986 - 1987.

The selection depends upon the teachers, assessments and the total marks they obtained in their examination.

They were subjected initially to : A neurological evaluation which included : a full neurological assessment, the Arab Modified scoring system for testing language disability (Kotby et al,1982), E. E. G., and I. Q. testing in order to detect organic cerebral causes of underachievement.

Eighteen cases were excluded from further studying : 2 refused to join the study, 1 was mentally subnormal, 3 were Attention Deficit Syndrome (Minimal Brain Damage, M. B. D.), 2 were having postencephalitic neurological disorders, 2 were epileptic,4 were having language disabilities and 4 showed involuntary movements (Table 1).

Table (1) cases excluded from the study:

Actiology	No	%
Refused joining the study	2	1.7
Mental subnormality	1	0.8
Minimal Brain Damage	3	2.5
Post - encephalitic neurological disorders	2	1.7
Epilepsy	2	1.7
Language disorders	4	3.4
Involuntary movements	4	3.4
TOTAL	18	15.2

The remaining 100 cases were subjected to :

A. Anthropometric measurements for weight, height, and head circumference.

B. Complete physical examination and assessment of visual acuity and hearing power.

C. Psychiatric interview : diagnosis based on DSM III (1980) criteria.

D. Stool and urine analysis to detect parasitic infestation.

E. A standardized questionnaire based on Rutter's parental scale and modified according to the Egyptian culture to give an idea about developmental data, social class, family background, and the child's social relations, attention in classroom, attendance, obedience, and activity... etc. These tests were prepared in the Higher Institute of Childhood Studies, Ain Shams University in Cairo (1979).

F. Psychological assessment:

1. Intellectual ability : using Goodenough Harris Test where the child was instructed to draw a picture of a person. Scores depend upon the child's accuracy of observation and development of conceptual thinking. This test shows the level of mental maturity, perception of similarities and differences, abstraction, and generalization (Goodenough, 1931).

2. Assessment of personality traits : using the Arabic version of Eysenck Personality Inventory for Juniors that measures three major orthogonal dimensions of personality; namely the Extroversion - Introversion dimension which reflects the excitation - inhibition balance that in turn is related to the arousal of the cortex and threshold of individual's reticular activating system (Eysenck, 1972), the Neuroticism factor which is related to the individual differences of emotional activation that is determined by the threshold of the individual's limbic system and autonomic activity, the psychoticism factor which is related to odd, cruel, antisocial behavior and suspiciousness. The test is composed of questions to be answered by yes or no. Control group :

This group of underachievers was compared to a similar group of overachievers.

RESULTS AND DISCUSSION :

MEAN AGE : table (II) shows that the mean age of both groups was nearly the same.

SIBLING ORDER : It is clear that a larger presentation of the first sib. and second sib. as found among good achievers (32% and 32% respectively), while a larger presentation of the third and last sib. was detected among underachievers. The difference is statistically insignificant.

TABLE (II) : Psychodemographic variables of the study group :

		Underachievers (no = 100)	Overachievers (no =100)	P	Test used (x2)
Mean Age		12.3±0.4	12.2±0.2		
Sib.Order:	1st	24	32		
	2nd	20	32	>0.05	d.f.=3
	3rd or more (last)	24	20		
Socioeconomic standard::	lower	49	32		
	middle	50	64	>0.05	d.f.=2
	upper	1	4		
Father's education:	Univ.graduate	10	36		
	School graduate	26	12	<0.001	d.f.=2
	Illiterate	64	52		
Mother's occupation:	employed	4	16	<0.01	d.f.=1
	house-wife	96	84		
Family background:	healthy	72	84	<0.01	d.f.=1
	disturbed	28	16		

TABLE.(III): Anthropometric and Physical Conditions among the study group:

	Underachievers (no = 100)	Overachievers (no =100)	P	Test used (x2)
Anthropometric measurements:				
mean weight	39 ±10.8	39.9 ±11.9		
mean height	142.2±4.9	142.6 ± 9.1	>0.05	T-test
mean head circumference	53.1±1.4	53.6 ± 1.7		
Visual acuity :				
fair	64	68	<0.01	Z-test
affected	36	32		
Hearing power :				
fair	80	88	<0.05	Z-test
affected	20	12		
Physical condition:				
fair	76	82	>0.05	Z-test
affected	24	18		
Parasitic Infestations:				
absent	64	72	>0.05	Z-test
present	36	28		

TABLE (IV): Psychiatric morbidity among the study group:

Psychiatric disorders	Underachievers (no = 100)	Overachievers (no =100)	P	Test used (x2)
No psychiatric disorders	48	84	<0.01	X^2 d.f=1
Psychiatric morbidity	52	16		
- Anxiety disorders:	12	6		
- Depression :	12	-		
- Deviant Personality :	7	-		
- Conduct disorders:	10	1		
- Eating disorders:	5	0		
- Sleep disorders :	6	3		

TABLE(V) :Psychological assessment of the study sample

	Underachievers			Overachievers			P
	Mean		S.D.	mean		S.D.	(t-test)
I.Q.:	115.7	±	3.2	117.7	±	4.1	>0.05
Personality Assessment :							
Extroversion	16.2	±	2.8	18.4	±	2.6	>0.05
Neuroticism	11.2	±	3.7	10.6	±	3.3	<0.05
Psychoticism	5.3	±	2.3	3.7	±	2.5	<0.01

These results have confirmed different previous studies (Schoonover, 1959; Weller, 1962;Okasha,1981) which pointed out that birth order is a minimal factor in determining success.

SOCIAL CLASS : children born to the lowest social class did not achieve at school significantly less than those born to middle and upper classes (P>0. 05). This finding is not coinciding with that of Werrer et al. (1971) and Berlin (1980) who found that socioeconomic class children were suffering from academic failure and their achievement at school was significantly lower than those who belong to upper class families (Table II).

MOTHER'S OCCUPATION: 16% of the overachievers, mothers were employed compared to 4% only of the underachievers, however, the majority of mothers of both groups were house - wives.

FAMILY BACKGROUND: The first essentials for a child to achieve his best is LOVE and SECURITY within his family. It is evident from table (II) that 32% of the underachievers had significantly disturbed family background in the form of parental separation, father away from home, divorce, polygamy, and excessive frictions. This family crisis may make the child anxious which is manifested by underachievement and can be considered as a revenge against his parents. This is in agreement with the findings of Newman et al. (1973).

ANTHROPOMETRIC MEASUREMENTS : on the contrary to some previous studies done in Egypt, we found no statistically significant difference between the cases and controls (Table III) regarding the anthropometric measurements of weight, height and head measurement (National Center of Criminology and Social Researches, 1974).

SENSORIAL FUNCTIONS and physical conditions: visual acuity and hearing were better among the good achievers than the underachievers, however, the difference did not reach a statistical value (Table III). Children of the latter group suffered more commonly from physical disorders especially bronchial asthma, rheumatic heart diseases, parasitic infestations and recurrent tonsillitis (P>0. 05). These disorders led to frequent absences from school especially on knowing that Egyptian mothers used to let children be absent from school for very mild medical reasons!. Also these diseases reflect bad

hygienic habits and family care in part and in another it may affect children's performance either physically through concentration or psychologically by its consequences. Some psychosomatic disorders e. g. bronchial asthma may reflect familial disharmony.

EMOTIONAL AND BEHAVIORAL DISORDERS: Many factors may hinder the achievement of a child. Table (IV) shows that emotional and behavioral disorders were significantly more prevalent among underachievers than good achievers (52% compared with 18% for the former and latter group respectively). Achievement related anxiety represents a significant source of academic problems in the current study, it accounts for 12% of all underachievers compared to 8% of overachievers. It is said that a little anxiety helps learning but too much anxiety interferes with it (Lynn, 1957;Sarason, 1963; Utter & Yule, 1972). The anxiety of overachievers is often related to their overconcern about academic competence and examination while underachievers exhibited anticipatory anxiety from being separated from their families. However, they did not express this overtly, denied their anxiety about their mothers and their wish to be with them,yet their behavior reflects anxiety about separation. They are reluctant in the morning, complaining of bodily manifestations (headache, abdominal pain and shortness of breath), but school refusal or phobia is not overtly manifested in those elder children. The excessive anxiety not only impairs learning but may also cause the child to avoid situations where he has to compete with others or to be exposed to criticism. The child who is unhappy is liable to do badly at school. Depression in childhood is manifested mainly by behavioral changes rather than dysphoria because children have little vocabulary to express their mood (Douglas, 1964; Wood, 1975; Herkowitz & Rosman., 1982; Burns & Lavigne, 1984). In our study, 12% of underachievers were labelled as being depressed. They could express their boredom and despair either in the form of anger, hostility or as a poor self - image, lack of self - confidence or motivation. Their emotional state has the potential for decreasing the capacity to cope with learning.

Conduct disorders and oppositional disorders were present in 17% of the underachievers in the form of lying, steeling, truancy, arguementativeness, provocative behavior against authority figures, disobedience and negativism. Both groups suffered equally from sleep disorders (mainly nightmares) and eating disorders (refusal of food or food fadism). 7% of underachievers were having abnormal personality traits (schizoid, avoidant, and dependent personality traits).

PSYCHOLOGICAL TEST: the mean I. Q. of underachievers is non-significantly lower than that of overachievers, however, we should consider that underachievers are lacking persistance, they are disinterested, destructible and their performance is worst on assignments that require independent planning and sustained effort.

There was also a wide interest in the relation between general personality variables, such as extroversion or neuroticism and learning (Rutter, 1974). In our study,underachievers scored significantly lower for extroversion which indicates that they are hyperaroused,introvert children unprepared for group interaction or extra familial authority. They scored also higher on neuroticism which shows that their emotions affect negatively their learning abilities. Higher psychoticism scores signify their tendency for odd behavior.

CONCLUSION :

The problem of academic underachievement in primary school is considered to be a major problem of multiple dimensions. Disturbed family pattern emerges in our study in the background of underachievers who seem to have a significantly higher emotional disorder than good achievers. Acceptance of the existance of an association between underachievement and emotional disorder, should concern the mechanism underlying this association. Does underachievement lead to emotional disorder? or, Does emotional disorder lead to underachievement? or, Are both due to a common etiology? In this complex problem to which no simple and straight forward answer is available, it would seem that underachievement and disordered behavior affect each other reciprocally.

The cause of academic failure cannot simply rest within the student or his family. Issues involving teaching methods and interactions between teachers and students must be considered. Underachievers were found to do better at times in response to an admired teacher. Anxious or dependent students are sensitive to the behavior of their teachers and might view school as punishing or rewarding. Difficulties may arise because education is seen to be distant from the immediate experience of daily life. School for such children is not seen valuable or meaningful (Resenthal & Jacobson, 1978).

In conclusion, any program dealing with academic underachievement must involve equal efforts directed towards the child, his family, teachers and teaching methods at school.

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LE SOUS - ACHEVEMENT ACADEMIQUE CHEZ LES ETUDIANTS EGYPTIENS

ABSTRAIT

Pour comprendre les facteurs qui menaient au sous-achèvement académique chez les étudiants egyptiens, 118 garçons droitiers ont été choisis par hasard pour cette étude. Au debut, on a exclu les autres causes de sous-achèvement comme le défonctionnement organique du cerveau par un bilan neurologique complet, un électroencephalogram ainsi que des mesures de language et d'intelligence.18 cas ont été ainsi éloignes. Les 100 restants ont été exposés aux mesures anthropométriques, un examen psychologique complet des entrevues psychiques, des analyses des urines et des selles, des questionnaires standardisés pour les parents et pour les enseignants, et enfin une evaluation des abilités intellectuelles et des traits de personalité.Les facteurs qui avaient une corrélation significative avec le sous-achèvement étaient: le dérangement de l'atmosphère familial, les désordres de l'émotion surtout l'angoisse et la dépression, les désordres de comportement surtout la conduite et l'opposition et les traits de pérsonalité comme neuroticism, psychoticism et introversion. Par contre, les autres facteurs comme le quotient intellectuel n'avaient pas montrés aucune corrélation significative.

Tout traitement effectif du sujet devrait être multidimensionnel en relation avec l'étudiant, la famille, les enseignants et les méthodes pédagogiques.

الموجز

الإخفاق الدراسى بين الأطفال المصريين

بهدف فهم العوامل التي تؤدي الي الاخفاق الدراسي بين الأطفال المصريين ، اختيرت عينة عشوائية للدراسة مكونة من ١١٨ طفلاً ذكراً يستعملون يمناهم . وقد استبعدت من بداية الدراسة أسباب الاخفاق الاخرى مثل الاختلالات المخية العضوية وذلك بعمل فحص عصبي كهربي للدماغ وتطبيق اختبار العجز اللغوي واختبارات درجة الذكاء والتي وجدت في ١٨ طفلاً وبذلك تكونت العينة محط الدراسة من ١٠٠ طفل ، طبقت عليهم اختبارات قياسات الجسم البشري والفحص الجسدي مع التحليل للبول والبراز وكذلك اجريت مقابلة نفسية مع عمل أختبارات نفسية للملكات العقلية وسمات الشخصية وتقديم إستبيانين مقننين احدهما للوالدين والآخر للمدرسين .

وقد وجد أن الخلفية الأسرية المضطربة والاضطرابات الانفعالية مثل القلق والاكتئاب بصورة رئيسية واضطرابات السلوك مثل اضطراب التصرفات وكثرة المعارضة وسمات الشخصية الخاصة بالقابلية للعصاب والذهان والانطواء الذاتي، كانت بين العوامل المصاحبة بصورةدلالية للاخفاق الدراسي ، بينما لم يظهر تاثير العوامل الاخري متضمنة متوسط درجة الذكاء .

أوصت الدراسة بأن التعامل الناجح مع تلك المشكلة يجب أن يكون من خلال نظام متعدد الابعاد يشمل الطفل، والاسرة، والمدرسين وايضاً طرق التدريس .