

MOBILE PHONE AN EFFECTIVE TOOL FOR MANAGEMENT PROCESS OF ADHD

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Introduction:

Attention deficit hyperactivity disorder (ADHD) is a common condition that affects children and adolescents and in some cases, can continue into adulthood. Children with ADHD have some difficulties in paying attention or concentrating, following directions and are easily bored or frustrated with tasks. They also tend to move constantly and are impulsive, not stopping to think before they act. Successfully management and behavior modification of this disorder depends on implementing an integrated program of medical interventions and behavioral techniques. The master key for this purpose is Involving parents or care givers in this interventions. The aim of this study is comparing benefit gains of “mobile phones” as a management device for caring with “lecture” that is the traditional method for parent’s education in this topic. **Method and design:** In this quasi- experimental design, 60 mothers who had a child whit ADHD and referred to Iranian Learning Disorders Centers, are randomly selected and regarding random allocation, these participants divided in two peer groups:(n=30). After running the pre-test that was based on knowledge and practice about ADHD and its management, one of the groups received

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educational comments from mobile phone and for the other group, lecture was held on. After 16 weeks, the investigators re-measured knowledge and level of applying of the trained techniques.

Results: Although both training methods had a positive effect on upgrade of knowledge and management techniques for mothers, but using mobile phone as a learning supportive tool, had more efficacies. Mothers in “mobile learning” group, were successful to control the ADHD symptoms in their children than other mothers in “lecture” group. **Conclusion:** Mobile phones are one of the most successful technologies for learning. It is feasible and easy to use. It provides greater feedback for educators and had a supportive role for learner. Thus use of mobile learning **suggests** for Learning Disorders Centers. Providing necessary basis like telecommunication equipment and perfect training content for learner is needed for attaining the goals.

Key words: ADHD, Mobile learning, Learning Disorder, Attention deficit hyperactivity disorder

Introduction

Correction and treating the learning disorder is a regular and continuous process which should also be applied in home. In its ideal form, an individual education planning has 3 players:

1. person involved with learning disorder 2. Particular instructor 3. parents in home.

One of the biggest challenges of learning disorder therapy centers is parent's non-cooperation. In this research we have considered the influence of the two methods including training through regular daily sums in certain times (new method) and weekly lecture for parents (traditional method) on the students' mothers.

Teaching is a secure experience opportunity, and the aim is to increase knowledge and behavior modification and a good instructor does not limit himself to the methods and forms.

He knows that the aim is to learn and education is a method and instrument for achieving it. (Ghadrian and colleagues). Nowadays appearing modern techniques and methods traditional education and learning methods lose their efficiency. To match with their consistent changeable environment, learners should search for new methods and procedures of knowledge transmission and upgrade learning.

The third wave of civilization needs a powerful, well-timed, inexpensive, fast and confident instrument in order to increase the knowledge of people. (Feyzi and colleagues)

Mobile technology is one aspect of information technology and of course the comments one and like other communicative technologies has entered into training zone and has prospered as the mobile phone based- training

This communicative instrument could change the traditional method and presents a new definition of training. Also, from the time and place point of view has facilitated the basis of learners training in home, work place, journey and obviated a lot of limitations .

Mobile training is a sub branch of electronic training which has circulated in institutions and schools since 2000 Since 2007, mobile phone based training officially applied in countries such as Britain and Italy and performed for students between 16 to 24 who were remained uneducated.

This communicative instrument with its unique capabilities such as sound, picture and SMS transition and the most important one the ability of representing the training topic in the appropriate time will gradually change to the most serious educational tool in the third millennium .In 2007 a research about the mobile training was conducted by Kumar and his colleague in India. The result of their study indicates that 69 percent of individuals consider mobile as an immediate instrument in their learning.

72 percent have known mobile learning as a new opportunity too.

73 percent of testees believe that learning through mobile phone has an immediate feedback.

63 percent believed that mobile training method had time and place flexibility and was more comprehensive .

Through a research , Hartnell considered the way of using and helping the mobile in the high schools which represented positive and desirable results.

Another research showed that 62 percent of learners were interested in learning by means of mobile and they declared that mobile technology provides learners with the possibility of communicating with each other to exchange the experiences .

Also compare to others , students learned by means of mobile had more enthusiasm during the examination and did not have any anxiety and tension .

Attewell 2005 , the result of another research indicated that mobile phones are capable to do actions as like as personal computers. The given group felt more intraction, zeel , communication and contribution .

Vavoula . in his research declared that comparing with others students learned by mobile had more progress .

In this research 35 percent of students tend to be presented in the class and 65 percent of them preferred to learn by means of mobile technology.

Also the findings of one study showed that learning through mobile develops education and numerical skills. (KUMAR 2007)

Kato has searched about mobile training in Japan . He believes that many of people around the world think that mobile training is one of the future expectancy program.

Now learning through mobile is developing by a powerful movement in Japan and most of the companies , schools , organizations , and individuals believe that their success depends upon mobile phone-based training

Need to knowledge leads children , youth , and even adults to mobile based training and cause to having high hardware capabilities, Japan has been a pioneer country in establishing the mobile training and this country has the claim of having world leadership in this field .

Mobile-based training established by Bezcam in1998 and 60 schools were supported by the mobile training .

In 2006 Mommo who undertakes the hypothesis of designing , planning and learning development in Japan . Moomo enabled learners by the ability of transmitting the instruction content. Moreover , the results of McKenna and his colleagues' experimental research represent that mobile training has had a positive and significant effect on the student learning.

Also the results of wing's empirical research showed that mobile learning had more effect on university students than electronic training .On the other hand lecture method is a prevailing educational form in institutions and schools and it is a teacher centered method.

Its advantages is presenting a lot of information to the high amounts of learners , so regardless of producing new techniques and developing knowledge it has remained as an important training method.

Yet lecture is one of the common ways of giving information because it is the safest and the easiest method of learning and it makes the possibility of control over the class .

The results of Karimi and his colleagues indicated that learning through lecture has a positive and significant effect on the student learning . Beside some advantages like being economic , direct presentation of points , upgrading the utterance skill and taking notes , lecture has some disadvantages such as :Being a passive method .

So it is not appropriate for teaching practical skills and reinforcing mental skills in high levels of learning as well. It doesn't pay attention to the individual differences. In addition forgetting the instruction is possible for students

Regarding to the consideration about background research which showed that little studies has done about mobile training especially for adults and according to the above mentioned points the present research considered the following hypostasis and the general aim was comparing the effects of mobile training and lecture on the students mother leaning scale

First hypothesis: the lecture method has a positive effect on the mothers learning scale

Second hypothesis : mobile – based training has a positive effect on the mothers learning scale

Third hypothesis : comparing with lecture training the mobile training has a more effect on the mothers learning scale

Forth hypothesis : compare to lecture method the mobile training has a more effect on the mothers usage scale

Procedure

The present research is a quasi empirical one to determine the effects and comparing independent variables of mobile and lecture training on the dependent variables of learning scale and applying treatment techniques

60 mothers were selected randomly from among of a 400 individual community referred to the learning disorder treatment center .

They divided into two groups (teaching through mobile A)

(teaching through lecture B) .

It is necessary to say that the above mentioned sample were divided into two peer groups (n:30) according to the age , educational and economic level

The tools of gathering data belonged to this research has made a questionnaire including population part and general conception of learning disorder and specialized reading information . Its narrative kind is considered and corrected by Dolfi method and general permanent is considered by Kronbaq method

A check list is used for evaluating the mothers operation in applying the correction process which is fulfilled by individuals and research group .

All the scores obtained from the study of variables turn to percentile in order to be standardized and also to facilitate analysis and assumed average is 50 in this research.

Analysis

According to the assumed statistical data, after applying the research policy ,T tests of the independent groups is used to assure the equality level of individuals background knowledge and comparing the knowledge condition and also treatment techniques of learning disorder Also T test is used to determine the variable condition before and after the experiment

Table n 1 equality of knowledge scale between witness and test group in pre-test

groups	mean	N	Levine's test for equality of variances		t-test for equality of means		
			f	sig	t	df	Sig(2-tailed)
G.B. Lecture based	43.5489	30					
G.A cellphone based	42.9652	30					
pretest			.567	.455	.345	58	.731

Information exists in the above statistical table indicates that before applying the experiment process the two groups were in the same level and there was not any significant differences .

Table n 2 ..comparing the knowledge scale between witness and test group in post-test (third hypothesis)

groups	mean	N	Levine's test		Independent sample t-test		
G.B.Lecture based	56.2394	30					
G.A. cellphon based	67.2157	30	F	Sig.	t	df	Sig.92-tailed)
posttest			.552	.461	-5.378	58	.000

Analyzing the information represents that the mobile training method was significantly more effective than lecture method

Table n 3 the degree of using techniques and doing activities in home ..forth hypothesis

Apply			Levin's test		Independent sample t- test		
Groups	N	mean	F	sig	t	df	Sig.(2-tailed)
G.B. Lecture based	72.6844						
G.A cellphone based	92.1599	.017	.897		-13.374	58	.000

Analyzing information shows that in applying corrective and curative techniques done by the mothes in home mobile training was significantly more effective than lecture method .

Table n 4 .. level of knowledge and application

	mean	Test value = 50		
		t	df	Sig (2-tailed)
pretest	43.25700	-8.031	59	.000
posttest	61.72760	9.468	59	.000
Apply	82.42210	22.224	59	.000

Above mentioned analysis obtained by the test states that generally ,the level of knowledge and application of both groups was significantly less than average before applying the training and had become more than average after it.

Table n 5 .. determining the knowledge and application condition in sample groups
First and second hypothesis

Groups	Test	Test value = 50			
		Mean	t	df	Sig.(2-tailed)
G.B. lecture based	Pretest	43.54890	-5.709	29	.000
	posttes	56.23940	4.190	29	.000
	Apply	72.68440	21.660	29	.000
G.A cellphone based	pretest	42.96520	-5.587	29	.000
	posttest	67.21570	12.336	29	.000
	Apply	92.15990	41.665	29	.000

Above analysis like prior table states that the level of knowledge and application of both groups was significantly less than average before the training and became more than average after it.

The average of 92,16 is noticeable in the degree of applicability of mobile training .

It means that mobile training in comparison with lecture method has more influence on the mothers learning scale .

Discussion and conclusion

The findings of this research indicates that both methods – lecture and mobile phone-based training –has been effective in mothers learning scale.

Also the findings of this research represented that compare to lecture the mobile training has had a greater effect on the mothers learning .

Based on positive effects of using mobile on effectiveness of training the results of this study is confirmed by the Mccunthas Wang and Karimiand his colleagues research.

Also to confirm the finding obtained by this research the results of Kummr , and his colleagues research can be addressed .

They indicated that using mobile in learning has positive and beneficial outcomes.

Development and growth of the educational system based on the electronic is an un deniable necessity .

In this research the effectiveness of mobile training clearly represents its superiority in comparison with the traditional lecture method.

Using mobile can be suggested as an efficient solution for solving the traditional problem of learning disorder treatment centers .

Producing the required tools and sub structures such as receivers can turn the mobile into the powerful arms of transformation in education by using of suitable contents and well-timed sending

It is obvious that besides the educational tool , usefulness and effectiveness of any educational process is entirely related to appropriate educational and instructional planning

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