The effect of learning some safety skills in water on the Mental health indicators for infants

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Abstract

The study aimed to identify the effect of learning some safety skills in water on the mental health indicators for infants. The researcher used the experimental approach using two groups, one is experimental and consists of (١٢) infants and was subjected to the educational program and the second is composed of (١٢) infants and the most important results were the acquisition of Experimental group for safety skills in water and improving mental health of their compared to the control group

Key words (infant swim, water safety skills, mental health, infants)

Introduction

Swimming is a favorite sport for all different races and ages because of its appearances of joy and activity, and is even considered at the forefront of motor skills in general and sports especially in the educational field that the child prefers to learn during the first stages of life **(osama rateb, ١٩٩٩,٣٣)**

Swimming is one of the fun and enjoyable recreational activities, as it adds to its practitioners a unique color of joy, activity and vitality, as it is practiced at different stages of life in addition to the many benefits, as swimming has multiple benefits that accrue to the practicing individual with many benefits in multiple aspects, which are recreational, psychological and therapeutic as well Physical, cognitive and physiological aspect **(Mohamed hesain, ٢٠٠٩,١٢)**

Participation in formal swimming lessons can reduce the risk of drowning by ٨٨٪ among children aged ٦ months to ٤ years, and consideration should be given to including swimming lessons as part of a full preventive program, as many studies have shown that following swimming lessons At this age, the risk of drowning decreases to ٤٠٪ in open water bodies for children participating in swimming **(Brenner &Etal ٢٠٠٩, ٢٠٣)**

Swimming children may result in better developments in balance, movement and assimilation techniques than children without swimming. **(sigmundsson. et-al, ٢٠١٠,٤٢٨)**

Also, the infants in swimming achieved the best achievement in the movement required to rotate ١٨٠ degrees and reach the underwater wall for children between the ages of (٦-٢٠) months. They also pointed out that swimming buoyancy for infants promotes the motor development of the child. **(Zalazo, P.R, Weiss, ٢٠٠٦,٢٥)**

Children aged ٥ to ٥ years who participate in swimming lessons are more advanced in their physical and cognitive development compared to the group of children who did not practice

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swimming, as other results have appeared in social and linguistic development. **(Jorgensen, R. &et-al, ٢٠١١,١٩)**

And children who practice swimming feel a sense of belonging and self-esteem in addition to being part of the group that helps in social development for him. The child also faces a great deal of tactical stimulation by resisting water on the entire body during swimming, which encourages nervous growth, weight gain and mental development through stimulation to touch pathways Neurological skin and vestibular nerve cells **(Rosengren, ٢٠٠٤,٦٦)**

Childhood mental health problems are major indicators of public health, being the most common causes of learning disabilities and social impairment, and have a high risk of persistence in adolescence and the age of adults as strong evidence indicates neural development diseases before the age of three, for example autism spectrum disorders (ASD) and attention deficit hyperactivity disorders (ADHD), while severe emotional and behavioral disorders such as attachment disorders may have a start in the first year of life. **(Costello EJ, Egger H, Angold, ٢٠٠٥,٢٠٤)**

Prevention of early mental illnesses that may appear in preschool children may significantly reduce the development of symptoms of academic and emotional weakness and avoid attention deficit strikes, behavioral and psychological problems, and other disorders **(Janni & Etal, ٢٠١٦,٨٣)**

Research problem :

Through the previous presentation of theoretical readings and reference studies, and through the work of the researcher in the field of swimming sport, it was found that there is a so-called infant swim or what is called teaching safety skills in water for infants from the age of ١٢ months to ٢٤ months and the spread of many academies specializing in teaching infants during Recently, through the researcher's briefing and follow-up on these academies, he did not find an educational program to teach the basic skills of swimming and water safety in infants

In addition to the great importance of the preventive role that swimming plays to avoid psychological problems that may be touched on children in advanced years, it can be avoided or reduce its impact in the future through the practice of swimming for infants, which the researcher also called for the necessity of learning about the role of learning basic skills for safety in water For babies with mental health level for them.

Aim of the research: The research aims to identify the effect of learning safety skills in water on the mental health of infants

Hypotheses:

١- There are statistically significant differences at the level of significance. ٠٥ between the two dimensional measurements of the experimental group and the control in mental health.

٢- There are statistically significant differences at the level of significance .٠٥ between the pre and post measurements of the experimental group in the level of skill performance

Method

Design: The researcher used the experimental method for its suitability to the nature of the research and to achieve its goals.

sample : (١٢) for the experimental group in Banha Sports Club, (١٢) for the control group, and (١٢) for the reconnaissance group from the (Baby swimming Egypt) academy in the fifth assembly They were all in the stage of Sunni from (١٢ - ٢٤) months

Table (١) Homogeneity of research sample in the growth variables (age - height - weight)

		Min.	Max.	mean	Std.	Skew.
Age	month	١٢,٠٠	٢٤,٠٠	١٨,٣٠	٤,٤٠	٠,٣٤٤
the weight	kg	١٠,٠٠	١٣,٧٠	١٢,٣٣	١,٣٠	٠,٣٩٢-
Length	Centimeter	٦٠,٠٠	٨٦,٠٠	٧٧,٦١	١,١٧-	١,١٧-

It is clear from Table (١) that the values of the torsional coefficients were confined between (±٣), which indicates the homogeneity of the members of the research sample in these variables.

Table (٢) Homogeneity of the research sample in the skill variables

		Min.	Max.	mean	Std.	Skew.
Trust in water	degree	٠	٣	٠,٧٢٧	١,٠٠	١,٣٧
Mute self ١٥ w	degree	٠	٣	٠,٦٣٦	١,٠٢	١,٥٨
Buoyancy of the abdomen	degree	٠	٢	٠,٣٦٣	٠,٦٧٤	١,٥٨
Floating on the back	degree	٠	٢	٠,٧٢٧	٠,٧٨٦	٠,٥٧٣
Water circulation	degree	٠	١	٠,٢٧٢	٠,٤٦٧	١,١٨
Hold the edge of the pool	degree	٠	١	٠,١٨١	٠,٤٠٤	١,٩٢
Flap kick	degree	٠	١	٠,١٨١	٠,٤٠٤	١,٩٢

It is clear from Table (١) that the values of the torsional coefficients were confined between (±٣), which indicates the homogeneity of the members of the research sample in these variables.

Table (٣): Equivalent sample search for the variables of age, weight and height

		Experimental		Control		difference	T
		mean	Std.	mean	Std.		
Age	month	١٩,٢	٤,١١	١٨,٩	٤,٢	٠,٣	٠,٨٧٥٢-
the weight	kg	١٢,٢٥	١,٢	١٢,٠١	١,٥	٠,٢٤	٠,٣٩٣٦-
Length	Centimeter	٧٠,١١	١,١٦	٧٧,٦١	١,١٧	٧,٥-	٠,١٧٨-

It is clear from Table (٣) that there are no statistically significant differences between the experimental group and the control group in the age, height and weight variables, which means equal sampling for the research.

Table (٤): Equivalent sample research in the mental health of infants (experimental and controlling)

		Experimental		Control			
		mean	Std.	mean	Std.	difference	T
Sleep system	degree	٥,٠٨	١,١٦	٥,٣٣	١,٠٧	-٠,٢٥٠	-.٥٤٧
eater	degree	٥,٧٥	١,٢٩	٥,٨٣	١,٥٣	-٠,٠٨٣	-.١٤٤
Emotional system	degree	٦,٨٣	١,١١	٧,٢٥	١,٢٢	-٠,٤١٧	-.٨٧٥
Curiosity, interest and attention	degree	٦,٣٣	١,٠٧	٦,٥٠	١,٠٠	-٠,١٦٧	-.٣٩٤
Motor activity	degree	٥,٠٠	١,٢١	٥,٠٨	١,٠٨	-٠,٠٨٣	-.١٧٨
Communication and interaction	degree	٥,٦٧	١,٦٧	٥,٥٠	١,٠٩	٠,١٦٧	.٢٩٠
The language	degree	٤,٦٧	٠,٨٩	٤,٢٥	٠,٩٧	٠,٤١٧	١,١٠١
Total	degree	٣٩,٣٣	٤,٣٥	٣٩,٧٥	٢,٤٩	-٠,٤٢٠	-٠,٢٨٨

From Table (٤), it is clear that there are no statistically significant differences between the experimental group and the control group in the mental health scale for infants, which means parity of the sample.

Data collection tools and means:

١- **Experts poll to determine swimming skills suitable for infants :** The researcher was satisfied with swimming skills that reached a percentage of more than ٨٠٪, which is (confidence in water - self-suppression ١٥ w - floating on the abdomen - floating on the back - swirling in the water - holding the edge of the pelvis - switching from floating on the back to the abdomen - kick the flap)

٢- **The scale of mental health indicators for infants**: The researcher has adopted the psychological and mental health scale prepared by Jani Amitzbull and others (٢٠١٦) Janni Ammitzbøll (١٠) The researcher has translated it into Arabic

٣- **Expert Opinion Survey Form on the Safety Education Program in Water for Babies:** The researcher was satisfied with ٨٠٪ or more of these results, and thus (the duration of the program is ٨ weeks - number (٢) educational unit per week - the unit time for education is ٣٥ minutes)

Survey study:

The researcher conducted the exploratory study in the time period ٤/٥/٢٠١٨ to ١٥/٥/٢٠١٨ on a survey sample consisting of (١٢) infants from the research community, and from outside the core sample, and aimed at conducting scientific transactions for a form to assess the skill level and mental health scale for infants

Coefficient of honesty:

The researcher used the sincerity of the distinction between two groups equal in number, one of which is a distinct group consisting of (٦) infants from (١٢-٢٤) months, and the other group is not distinguished and consists of (٦) infants (١٢-٢٤) months (exploratory research sample) who are from academies (Baby swimming Egypt) in the fifth assembly, the value of (T) was calculated between the members of the distinct and non-distinct groups in the skill variables and the mental health scale for infants.

Table (٥) The significance of the differences between the distinct and unrecognized groups in the skill variables

		Special		indiscriminate		difference	T
		mean	Std.	mean	Std.		
Trust in water	degree	٤,٨٨	١,٧١	١,٤٠	١,٨٠	٣,٤٨	٥,٣٥
Mute self ١٥ w	degree	٣,٩٦	١,٤٦	١,٠٦	١,١٩	٢,٩٠	٧,٥٦
Buoyancy of the abdomen	degree	٣,٨٠	١,٥٥	٠,٨١	٠,٩٩	٢,٩٩	٤,٣٥
Floating on the back	degree	٤,١٣	٢,٠٠	١,٣١	١,٤٤	٢,٨٢	٩,٥٦
Water circulation	degree	٢,٣٨	١,٠٥	٠,٧٣	٠,٩٠	١,٦٥	٧,٥٦
Hold the edge of the pool	degree	١,٤٦	٠,٧٧	٠,٥٦	٠,٦٥	٠,٩٠	٦,٥٤
Flap kick	degree	١,٢١	٠,٦٦	٠,٤٨	٠,٤٥	٠,٧٣	٥,٦٤

It is clear from Table (٥) that there are statistically significant differences at the level of ٠,٠٥ between the two distinct and non-distinct groups in the physical variable under discussion between the distinct group and the non-distinct group in favor of the distinct group, which indicates the sincerity of these variables for what was set for it.

Table (٥) The significance of the differences between the distinct and unrecognized groups in the skill variables

		indiscriminate		Special		difference	T
		mean	Std.	mean	Std.		
Sleep system	degree	٥,٥٨	١,٣٦٥	٨,١٥٠	١,١٢٨	٢,٥٦٧	٤,٧٢١
eater	degree	٦,٢٥	١,٤٨٨	٧,٩٨٣	٢,٨٦٥	١,٧٣٣	٢,٣١٥
Emotional system	degree	٧,٣٣	١,٣١٥	٩,٩٠٠	١,١١٨	٢,٥٦٧	٤,٧٤٥
Curiosity, interest and attention	degree	٦,٨٣	١,٢٧٣	١٠,٤٠٠	١,٣٧٢	٣,٥٦٧	٧,١٢٤
Motor activity	degree	٥,٥٠	١,٤٠٦	٨,٨١٧	١,٣٠١	٣,٣١٧	٦,٩١٢
Communication and interaction	degree	٦,١٧	١,٨٧٠	٩,٤٨٣	١,٧٧٢	٣,٣١٧	٥,٥٥٣
The language	degree	٥,١٧	١,٠٨٨	٧,٤٨٣	١,٠٧٤	٢,٣١٧	٦,٤٥٢
Total	degree	٣٩,٨٣	٤,٥٥٠	٦٢,٨١٧	٥,٢٢٠	٢٢,٩٨٧	١٢,٤٤٢

It is clear from Table (٥) that there are statistically significant differences at the level of ٠,٠٥ between the two distinct and non-distinct groups in the physical variable under discussion between the distinct group and the non-distinct group in favor of the distinct group, which indicates the validity of the mental health scale

Stability coefficient: The researcher calculated the stability coefficient using the test application method and then repeated it with a time interval of three days from the first application of the skill variables under consideration in the period from ١/٥/٢٠١٨ to ٥/١٥/٢٠١٨ provided that the simple correlation coefficient between the results of the two applications is calculated the first and the second

Table (٦) correlation coefficient between the first and second application of the exploratory sample in the skill variables

		test		retest		R
		mean	Std.	mean	Std.	
Trust in water	degree	٣,٦٨	١,٥١	٣,٧٠	١,٣١	٠,٨٥
Mute self ١٥ w	degree	٢,٧٦	١,٢٦	٢,٧٥	١,٠٦	٠,٨٥
Buoyancy of the abdomen	degree	٢,٦٠	١,٣٥	٢,٤٠	١,١٥	٠,٩٨
Floating on the back	degree	٢,٩٣	١,٨٠	٣,٠٠	١,٦٠	٠,٩٨
Water circulation	degree	١,١٨	٠,٨٥	١,٢٢	٠,٦٥	٠,٩٤
Hold the edge of the pool	degree	١,٢٦	٠,٥٧	١,٢٥	٠,٣٧	٠,٩١
Flap kick	degree	١,٠١	٠,٤٦	١,١٢	٠,٢٦	٠,٩٢

It is clear from Table (٦) that there is a correlation relationship with statistical significance at the level of significance ٠,٠٥ between application and re-application in the skill variables under consideration, which indicates the stability of these tests.

The researcher calculated the coefficient of persistence by using Alpha Kornbach to measure mental health, where he achieved (. ٠٩٦٣)

Research executive procedures:

befor measurement: The researcher performed the tribal measurement of the experimental group and the control in the mental health scale under investigation during the period from ١٧/٥/٢٠١٨ AD. The researcher conducted the tribal measurement of the experimental group in the skill variables under consideration, corresponding to ١٨/٥/٢٠١٨, according to the specifications and performance conditions For each test.

Application of the educational program: The researcher applied the proposed educational program in its final form to the experimental group, in the period from ٥/١٩/٢٠١٨ to ٨/٨/٢٠١٨, and for a period of (١٢) weeks, and by two educational units each week.

After measurement: After completing the specified period for the implementation of the proposed educational program in the research group, the researcher conducted the post-measurement with the same conditions and specifications that were done in the pre-measurement, in order to ensure the accuracy and integrity of the data, on ٠٨/١٠/٢٠١٨ for the skill variables of the experimental group and on ٨/١١ / ٢٠١٨ in the mental health scale for the experimental and control group

Results

Table (٨) Indicating the differences between the two dimensional measures of the control and experimental group in the infant mental health scale.

		Control		Experimental		difference	T
		mean	Std.	mean	Std.		
Sleep system	degree	٨.٢٥٠٠	١.١٣٨١٨	٥.٦٦٧	١.٠٧٣	٢.٥٨٣٣	٥.٧٢١
eater	degree	٨.٠٨٣٣	٢.٨٧٤٩٢	٦.٠٠٠	١.٢٠٦	٢.٠٨٣٣	٢.٣١٥
Emotional system	degree	١٠.٠٠٠٠	١.١٢٨١٥	٧.٢٥٠	١.٢١٥	٢.٧٥٠٠	٥.٧٤٥
Curiosity, interest and attention	degree	١٠.٥٠٠٠	١.٣٨١٧٠	٦.٥٠٠	١.٠٠٠	٤.٠٠٠٠	٨.١٢٤
Motor activity	degree	٨.٩١٦٧	١.٣١١٣٧	٥.٤١٧	٠.٧٩٣	٣.٥٠٠٠	٧.٩١٢
Communication and interaction	degree	٩.٥٨٣٣	١.٧٨١٦٤	٥.٧٥٠	٠.٩٦٥	٣.٨٣٣٣	٦.٥٥٣
The language	degree	٧.٥٨٣٣	١.٠٨٣٦٢	٤.٤١٧	٠.٩٩٦	٣.١٦٦٧	٧.٤٥٢
Total	degree	٦٢.٩١٦٧	٥.٢٣٠٣٠	٤١.٠٠٠	٢.١٣٢	٢١.٩١٦٧	١٣.٤٤٢

It is clear from Table (٨) that there are statistically significant differences at the level of significance. ٠٥ where the calculated T value was greater than the tabular T value in all indicators of mental health of infants (for the experimental group compared to the control group and that did not use any educational programs

The researcher indicates that the improvement of all mental health indicators for infants is due to the educational program that was subjected to the experimental group compared to the control group, and this is consistent with what you refer to as the results of the study of both Philip, R. et-al (٢٠٠٦) (٤١) and it was one of the most important The results of this study indicate that swimming positively affects children's behavior and access to organized behavior

She also agreed with the study of Hermundur (٢٠٠٩) (٣٠), where he indicated that swimming significantly affected children's motor abilities.

Rosengren, L (٢٠٠٤) stresses that children who practice swimming feel a sense of belonging and self-esteem in addition to being part of the group helps in their social development.

Thus, the first hypothesis has been fulfilled, which states that there are statistically significant differences at the level of significance .٠٥ between the two dimensional measurements of the experimental group and the control in mental health.

Table (٩) shows the significance of the differences between the pre and post measurement of the experimental group in the skill performance level.

		before		after		difference	T
		mean	Std.	mean	Std.		
Trust in water	degree	.٧٥٠	.٩٦٥	٧.٥٠٠	١.٠٠٠	٦.٧٥	−١٦.٨٢٣
Mute self ١٥ w	degree	.٥٨٣	.٩٩٦	٧.٥٠٠	١.٠٨٧	٦.٩٢	−١٦.٢٤٩
Buoyancy of the abdomen	degree	.٤١٧	.٦٦٩	٧.٤١٧	.٧٩٣	٧.٠٠	−٢٣.٣٧٩
Floating on the back	degree	.٧٥٠	.٧٥٤	٨.٧٥٠	.٧٥٤	٨.٠٠	−٢٥.٩٩٧
Water circulation	degree	.٢٥٠	.٤٥٢	٣.٩١٧	.٧٩٣	٣.٦٧	−١٣.٩١٤
Hold the edge of the pool	degree	.١٦٧	.٣٨٩	٢.٤١٧	.٧٩٣	٢.٢٥	−٨.٨٢٤
Flap kick	degree	.١٦٧	.٣٨٩	٢.٠٨٣	.٥١٥	١.٩٢	−١٠.٢٨٦

From tables (٩), it is clear that there are statistically significant differences between the measurements of the research sample (pre-dimension) in the skill variables and in favor of the dimensional measurements in all skill variables (confidence in water - self-suppression ١٥ w - buoyancy on the abdomen - buoyancy on the back - rotation in Water - hold the edge of the pool - switch from floating on the back to the abdomen - flutter kick).

The researcher attributes these differences to the educational program, which has an effective role in the development and acquisition of swimming skills for infants, as it contains training that represents the basic basis for developing and acquiring skills, which are favorable movements to the same infants and simple ones that they can perform easily in addition to the factors of suspense, encouragement, encouragement and practice.

And the educational program used by the researcher has an effective impact on the acquisition of swimming skills for infants, as there is a diversity in the use of training and progression in teaching swimming skills from simple to complex and from easy to difficult, so it has had an effective impact in the education of infants.

Salma Al-Nashef (٢٠٠٣) (٣) notes that a successful educational program explores the inherent capabilities, special preparations and skills and works to develop and encourage them, as it provides an opportunity to discover the individual himself and know his capabilities.

The researcher attributes this remarkable progress to the adoption of the educational program on the different teaching methods that encourage providing an element of suspense, excitement and enthusiasm for infants to learn swimming skills, and that the teaching method used contributes to infant learning of skill, because the child is the focus of the educational process as it allows him Greater opportunity for skill training in addition to developing the abilities associated with swimming skills (confidence in the water - self-concealment ١٥ w -

floating on the abdomen - floating on the back - swirling in the water - holding the edge of the pool - switching from floating on the back to the abdomen - kick the flutter).

Containing the educational program on various educational elements and methods for its application has helped the sample members to make skillful progress, because the program contains confidence and familiarity exercises with water to feel reassured and thus reduce the degree of fear of water and this is consistent with what each of R Jorgensen indicated. Jorgensen (٢٠١٢ CE) (٤٢), Georgesias et al. Jorgedias, et-al (٢٠١٣ CE) (٣١).

This is consistent with the results of both Philip and R. et-al (٢٠٠٦) (٤١), Hermundur (٢٠٠٩) (٣٠), and Jorgedias, et-al (٢٠١٣) (٣١) that the program contains activities Various exercises and progressive in difficulty, this diversity contributes effectively to learning swimming skills for infants.

Thus, the second hypothesis has been fulfilled, which states that there are statistically significant differences at the level of significance .٠٥ between the pre and post measurements of the experimental group in the level of skill performance

Conclusions:

١- Effect of the proposed educational program effectively in learning swimming skills (confidence in water - self-concealment ١٥ w - floating on the abdomen - floating on the back - swirling in the water - holding the edge of the pool - switching from floating on the back to the abdomen - flutter kick) for children Infants.

٢- The effect of the proposed educational program effectively on improving the total sum of the infant mental health scale and its axes (sleep system - eating - emotional system - curiosity, interest and attention - movement activity - communication and interaction - language) compared to children who practice the educational program.

Recommendations:

١- Applying the educational program to all stages of infants.
٢- The necessity of providing the clubs with a time designated for infants in the swimming pool.
٣- That the programs include preparing the swimming teacher for the infant's swimming.
٤- Carry out awareness programs for parents about the importance of swimming for infants.

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