

The effect of “Mental and Physical Health Development Movement” of an elementary school on the children’s behaviors

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SUMMARY

On the T. Elementary School pupils identical behavioral surveys were conducted in 1985 and 1986. The data collected in these two surveys were compared to evaluate the achievements made through the “Mental and Physical Health Development Movement” by T. Elementary School. The results of the comparison are shown below:

1) With the middle graders, a decrease was noted in the behavioral problems relating to personal relationships with friends, character tendencies such as shyness, emotional stability, and their emotional ties with their mother. Usually all of these problems tend to remain or continue over a long period.

2) With both the lower and middle graders, obsessive tendencies, which also usually tend to continue for a long period, decreased.

Key words: mental and physical health development movement, children, elementary school, behavioral survey

1. INTRODUCTION

T. Elementary School in Kasuga City of Fukuoka Prefecture carried out a “Mental and Physical Health Development” movement on all the pupils in the school consecutively and systematically throughout the school year. In this report we examined what effects the movement had on the behavior of the children. The “Educational Program to Enhance the Mental and Physical Health of the Children” of T. Elementary School was conducted throughout the entire school in the children’s school life as well as in their home life with an aim to facilitate the children in acquiring, by themselves, the attitudes and practical capability to tackle their studies. First, in school the importance of the children’s actual experiences and activities was emphasized. Based on this recognition, all the educational activities in school were organically connected and integrated in the program under the leadership and guidance of the sections of physical education, school lunch, health care, protective care and nutritionists. At home the children were encouraged to lead methodical and well-regulated life styles and to incorporate sports into their routine activities. Some examples of the activities and their aims included in the program were short marathon, skipping rope and other

athletic activities with an aim to enhance mutual communication between the children as well as increasing their physical strength while each child enjoyed and actively engaged himself or herself in the activities. During school lunch and other meals, the program encouraged providing the children with a clean and pleasant environment in order to improve the children's appetite and create desirable interpersonal relationships within each group. In accordance with each developmental stage of the children, differences between boys and girls concerning selection of activities, behavioral roles and physical characteristics were taught in each class by using letters, tapes and compositions as the materials. In an attempt to understand and ease the anxieties, fears or worries of the children, consultation boxes were situated in the school.

2. METHOD AND SUBJECT

The first behavioral survey was made in May, 1985 on 665 pupils of the first to the fifth grades (Nishimura et al. 1986)⁵⁾, the second survey was done in May 1986 on 686 pupils of the second to the sixth grades. The survey was performed by using the same questionnaire sheet as used by Nishida et al. in 1965 for their behavioral survey³⁾ of a similar type. The sheet contained 128 questions inquiring about the child's eating habits, emotional ties with the mother, personal relationships, toilet habits, emotional stability, speech disorders, fear symptoms, obsessive symptoms, adaptation in school, difficulty with schoolwork, antisocial behavior, etc. In the actual survey sheet the questions were not categorized and were given at random. A part of the questionnaire list is given in Table 1. In each family the mother or the person who usually takes care of the child answered the questionnaires. For each question items, the mothers were requested to evaluate their children in accordance with the following three levels:

- (1) the item in question is not applicable to the behavior of her child,
- (2) although the item is applicable to the child's behavior, the parent is not worried about it,
- (3) the item is applicable to the child's behavior, and the parent has been worrying about it.

Table 1. Part of Behavioral Survey Questionnaire (Nishida et al.)

If the statement in the following is not applicable to your child's character, habit, or behavior, mark (×) in the parentheses before each number. Mark (○) if it is applicable and mark (⊙) if it worries you.

- () 1. Does not eat much.
 - () 2. Over eating of snacks between meals.
 - () 3. Often tries to promote his or her wishes or complaints by physical expression instead of by oral expression.
 - () 4. Occasionally eats non-foods.
 - () 5. Talks in sleep.
 - () 6. Cannot sleep without someone staying with him or her.
 - () 7. Always looks sleepy.
 - () 8. Claims to have physical pain (headache, coughing, stomachache, etc.) although he or she is not sick.
 - () 9. Restless.
 - () 10. Cannot sleep without a light left on.
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Question No.	1st & 2nd Graders in 1985 2nd & 3rd Graders in 1986			3rd & 4th Graders in 1985 4th & 5th Graders in 1986			5th graders in 1985 6th Graders in 1986		
	boys	girls	total	boys	girls	total	boys	girls	total
	XVI. Others								
88. Highly conscious of his or her personal appearance		■							
95. Plays outside until late at night		■	■		■	■			
118. Curious to know how babies are born and such		■						■	
121. Dawdles along the way	■		■		■		■		
123. Cannot assume a position or office in the class						■			
124. Lacks persistence in studying							■		
125. Studies too hard								■	
128. Rates tests						■			

The items in question 19, 25, 39, 44 (only boys) and 45 increased.
 The behavioral patterns or items regarding the rest of questions decreased.

χ^2 test ■ p < 0.10
 ■ p < 0.05
 ■ p < 0.01

First, while among the lower graders (the second and the third graders in 1986 compared with the first and the second graders of 1985) a decrease was noted in the items of “leaves meals unfinished,” “dawdles over meals” and “toys with food”, with the middle graders (the fourth and the fifth graders in 1986 compared with the third and the fourth graders of 1985) “dawdles over meals” was the only decrease. With the higher graders (comparison between the sixth graders in 1986 and the fifth graders of 1985) decrease was not found except for the girls in the item “does not eat much”.

Second, regarding the sleep-related items, the number of lower-grade girls who “often wake up in the middle of night” and who “cry at night” decreased. Among the higher graders, the number of those who “occasionally sleepwalk” and who “grind their teeth” decreased but the boys who “often wake up in the middle of night” increased.

With regard to the items indicative of the emotional tie with the mother, decreased the behavior of “talking back” with the lower-grade girls, “strong dependency” with the middle-grade girls and “spoiled or childish” with the middle-grade boys.

As to personal relationships outside the family, the number of middle-grade boys and girls who “fight with friends”, are “hard to make friends”, are “bullied by friends”, “plays only with older friends” and so on, decreased.

With regard to emotional stability, the number of middle-grade girls who “take a long time to calm down after losing their temper” decreased.

Regarding habits, the number of middle-grade boys with habits of “head shaking or stretching their neck, grimacing and blinking” increased, while the higher graders with “nose picking or picking at scratches or scabs” habits decreased.

Regarding fear symptoms, the number of lower graders decreased in three items of “fear of darkness and thunder”, “fear of cockroaches, snakes and earthworms” and “fear of being left alone, however, with the higher graders a decrease was noted only in the “fear of cockroaches, snakes and earthworms”.

In the items symptomatic of obsession, the lower graders who “repeatedly wash hands” decreased. Boys who “check to ensure doors are closed or locked” decreased in these grades. With the middle graders, “repeatedly wash hands” and “repeat the same motion” decreased.

For the items showing tendencies in the child’s character, the number of “shy” girls decreased

among the lower graders. "Shyness" decreased with the middle graders as well. Also, with the middle-grade boys, "self-centeredness" decreased.

For the items related to school, the number of lower graders who "play truant from school" decreased.

For the items of others, decrease in "often get hurt" was commonly noted throughout all grades. With the middle graders, those who "cannot assume responsible position in the class" and "hate tests" decreased. Higher graders increased with the number of parents who "occasionally wish that the child were of the opposite sex (the parent of a boy wishes that the child were a girl, and vice versa)."

4. DISCUSSION

In examining and evaluating the results after the one year efforts of the "Mental and Physical Health Development" movement by T. Elementary School, we know that the decrease in the behavioral patterns that are known to usually decrease as the child grows older should, of course, not be interpreted as an achievement of the movement. However, if the decrease in noted in the items that usually tend not to decrease along with age, tend to continue over a long period or even tend to increase with age, then the decrease in these patterns, is rationally considered to be an effect of the movement.

Children's behavior can be divided into several groups by their patterns of changes as children grow; behavior that conspicuously decreases with the age, behaviors that tend to increase with the age, behavior that tend to decrease only inconspicuously, and behavior that tends to continue irrelevant of aging. By sorting out and rearranging the results of the previous studies in Japan including those by Akiko Abe (1982)¹⁾, Kazuhisa Abe (1982)²⁾ and Masahisa Nishizono (1977)⁴⁾ et al., we made a classified behavior table as shown in Table 3. Then our survey results were compared with this table and reviewed. In the table the italics are the behavioral items for which some

Table 3. Relationship between Ages and Behavior Items

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- (1) Items that show a conspicuous decrease along with the age:
bed-wetting, fear of dogs and cats, disorder of eating habits (leaving meals unfinished, dawdling over meals)
 - (2) Items that show a conspicuous decrease along with the age during kindergarten period but show only a slight decrease in elementary school days:
finger sucking, nail biting, self-centeredness, fear of darkness or thunder, disorder of eating habits (light eater, choosy about food), spoiled or childish
 - (3) Items in which a decrease along with the age is inconspicuous:
loosing temper, obstinate, shyness, outgoing only at home, strong dependency upon others, quarrel between brothers or sisters, sleep disorder
 - (4) Patterns which increase along with the age:
bad posture, physical pain although having no sickness (headache, stomachache, etc.), do nothing until being told to do by a parent, worries about study
 - (5) Items which tend to continue over a long period
talking back, nose picking or picking at scratches or scabs, too meek, finger sucking and nail biting in elementary school days (neurotic habits), use physical expression to express demand or claim, repeating the same action or motion, repeatedly washing hands (obsessive), restless (hyperkinesis), hard to make friends, solitary tendency, dislike of school, tic
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* The italics are the behavioral items that have changed in the second survey of one year later.

changes are noted in the second survey after a year from the first survey in T. School. Thus through generally viewing the results, it was revealed that changes had occurred even in the behavioral patterns that are classified as being rarely susceptible to the effects of aging as listed in the categories of (3) behavioral patterns in which decrease along with the age is inconspicuous, and (5) the patterns that to continue. It would not be bold to say that what brought about these changes was not natural course of a one-year period but the effects of the "Mental and Physical Health Development" movement of T. School. Then, from this viewpoint we reexamined the result of this survey by dividing all the subjects into three age groups of lower graders, middle graders and higher graders.

With the lower graders, eating-habit problems (such as "leaving meals unfinished," "dawdling over meals"), darkness/thunder fears and several other fear symptoms decreased. As these problems generally tend to decrease as natural development, decrease in them may not necessarily be counted as an effect of the movement. However in some of the behavior patterns that usually tend to continue over a long period were noted to have decreased. They are "habit of frequently checking to ensure that doors are locked, etc," and "repeatedly washing hands." Among girls decrease was also noted in "talking back" which is a passive resistance against the mother, indicative of the children's emotional tie with their mothers.

With the middle graders, noteworthy decrease was observed in the items related to an emotional tie with the mothers such as "strong dependency" and "spoiled or childish," in the items that may gradually be incorporated into the character or personality of the child if no preventive measure is taken such as "difficulty in making friends," "plays only with older or younger friends," and "being bullied," in the items related to the tendency in character such as "shyness" and "self-centeredness," and in the patterns related to emotional stability including "losing temper." All these are known for not causing significant change or decrease with the age. Also, for the obsessive symptomatic items which decreased with the lower graders, decreasing tendency was observed with the middle graders as well. All of these decreases can be considered to be attributable to the achievement through the movement.

With the higher graders, changes were noted in the sleep-related patterns as increased with the boys who "often wake up in the middle of night," and decreased with those who "occasionally sleepwalk" and "grind their teeth." Besides, "nose picking or picking at scratches or scabs" decreased and "wasteful about money" increased, but no particular definite tendency was found. Particular to this age group was an increase in the number of parents to whom it occasionally occurred to unrealistically wish that their children were of the opposite sex. This wish may be projecting the response that arises in the parents' minds when their children have started showing both masculine and feminine character traits (meaning children are at the threshold of adolescence).

Throughout all grade groups, injury decreased.

Generally it is understood that during the elementary school days, which correspond to the latency period as the term used in the psychoanalysis, the identification mechanism works prevalently in children and their recognizing ability, memory and a variety of social skills develop. This leads us to hesitate to immediately conclude that the changes mentioned above were brought about by the "Mental and Physical Health Development" movement. In the Future, therefore, a comparative study of these survey data with those of other elementary schools which have not carried out the

"Mental and Physical Health Development" movement will be called for. Also, if the "Mental and Physical Health Development" movement is presumed to facilitate growth and development of children, the clarification of its mechanism and the meaning will become necessary.

Another point in question may be found in the fact that the mothers evaluated their children in the surveys. Since this movement is planned to involve the families, it is probable that the movement may have affected the mothers in their viewpoints and attitudes of how they look upon their children. If the evaluator, mother, has changed but is unaware of her own change, she may perceive that her child has changed even though he or she has not actually changed. As a theme of future study, the factor of changes in the parents' attitudes will be necessary to be included in the study.

5. CONCLUSION

We conducted behavior surveys twice on the students of T. Elementary School with same content in 1985 and 1986. The results of these two surveys were compared to examine what has been achieved by the "Mental and Physical Health Development" movement of the school. The results were:

1) With the lower graders of the first and the second year in the elementary school, a decrease was noted in the behavioral patterns that usually tend to decrease with the age. They are eating habits (leaving meals unfinished, dawdling over meals, etc.) and a variety of fear symptoms such as fear of darkness or thunder. However, since these patterns are known to tend to decrease naturally, the causal relation between decrease of these patterns and the health development movement could not be determined.

2) With the middle graders of the third and the fourth year in the elementary school, it is characteristic that the following patterns decreased, which are usually known to gradually infiltrate into the child's character to be set there or tend to continue over a long period unless effective preventive measures are taken:

the behavioral items related to personal relationships such as "difficulty in making friends," "plays only with older friends" and "plays only with younger friends":

the patterns related to character tendencies such as "shyness" and "self-centeredness":

the patterns related to emotional stability such as "losing one's temper", the patterns indicative of emotional ties with the mother such as "strong dependency" and "spoiled or childish."

Changes in these can be considered to have been achieved by the "Mental and Physical Health Development" movement.

3) With both the lower and the middle graders obsessive tendency decreased. The behavioral patterns in this category originally tend to continue over a long period, therefore this change of decrease can be considered as one of the achievements of the "Health Development" movement.

4) Among the higher graders, no particular common tendency of change was observed except in those patterns related to sleep. However, when the children reach this age level, parents' response to the adolescents seems to be gradually become reflected in the parents' view towards their children.

Our study of the surveys are revealed above.

At the end we have slightly touched on the themes for future study.

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