

Cognitive-Behavioral Counseling Model to Optimize Cognitive Potentiality and Adaptive Behavior of Attention Deficite Hyperactivity Disorders (ADHD) Students

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Abstract: The aim of this research is to find out counselling model (cognitive - behavioral) which optimizing cognitive ability and adaptive behavior of ADHD students, to find out correlation between cognitive ability and adaptive behavior of ADHD students, to examine contribution of counselling model (cognitive-behavioral), both of simultaneous and one by one toward the optimizing cognitive ability and adaptive behavior of ADHD students, and to find out the contribution of counselling model (cognitive - behavioral) in optimizing cognitive ability and adaptive behavior of ADHD students. This research uses quantitative and qualitative methods altogether. This research is conducted in order to analyze the tendentious of learning difficulties of ADHD students, its causes and teachers' effort in guiding ADHD students' learning difficulties using participative-collaborative in examining the worthiness of hypothetic counselling model (cognitive - behavioral) to attack learning difficulties of ADHD students. The result of this research showed that counselling model (cognitive-behavioral) in effect to optimizing cognitive ability and adaptive behavior of ADHD students and to decrease its causes such as; less of concentration, hyperactive behavior, and impulsive ADHD students both of SD (Elementary) and SMP (Secondary) level on high or lower lever showed the effective result. Cognitive-behavioral model effectively decrease almost all of indicator problems of optimizing cognitive ability and adaptive behavior of ADHD students.

1 INTRODUCTION

Cognitive development is related with adaptive behavior on ADHD students. Therefore, researchers are interested to analyze further more about cognitive ability and adaptive behavior on ADHD students at the age of 6 to 15 years old. Empirical data related with cognitive issue and adaptive behavior of ADHD students (Barkley, 2007) and all of its implications indicate the need of counselling cognitive - behavioral sequences in this research are as follows: (1) identify ADHD students and their problems; (2) explore various areas related with lack of concentration, hyperactivity, and impulsivity; (3) intervention through (cognitive - behavioral) counselling to change non – adaptive learning behaviour that cause social interaction difficulties and decreasing studying performance, by applying instruction, prompt, reward, generalisation, and cognitive technique to monitor the achievement of counselling process; (4) support the student self-confident to be able to endure and develop adaptive behavior in accordance with his/her peer and to

increase learning performances and maintain the conducive condition after counselling; and (5) testing the counselling effectiveness process and result.

To be clearer, the (cognitive - behavioral) counselling procedures in this research can be illustrated as Figure 1:

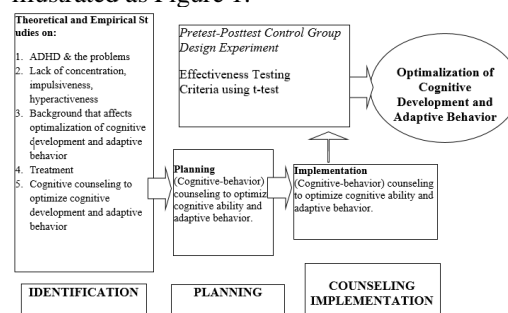


Figure 1: Cognitive-behavioral counselling procedure.

It is a challenge for researchers to identify empirically whether the implementation of (Cognitive - Behavioral) Counselling Model is relevant to the ADHD child, as contained in

Individual intervention qualities to stimulate cognitive ability optimization and adaptive behavior (Willson and Branch, 2006). If the answer is yes, by modifying both antecedent, hopefully many ADHD children can increase their learning performances and independence in society.

The aim of this research is to find out counselling model (cognitive - behavioral) Bowers and Hatch (2002) which optimizing cognitive ability and adaptive behavior of ADHD students, to find out correlation between cognitive ability and adaptive behavior of ADHD students, to examine contribution of counselling model (cognitive - behavioral), both of simultaneous and one by one toward the optimizing cognitive ability and adaptive behavior of ADHD students, and to find out the contribution of counselling model (cognitive - behavioral) in optimizing cognitive ability and adaptive behavior of ADHD students (Quill, 2000). This research uses quantitative and qualitative method altogether. This research is conducted in order to analyze the tendentious learning difficulties of ADHD students, its causes and teachers' effort in guiding ADHD students 'learning difficulties. Using participative - collaborative in examining the worthiness of hypothetic counselling model (cognitive - behavioral) to attack learning difficulties of ADHD students (Dobson, 2001).

The result of this research showed that counselling model (cognitive - behavioral) in effect to optimizing cognitive ability and adaptive behavior of ADHD students and to decrease its causes such as; less of concentration, hyperactive behavior, and impulsive ADHD students both of Elementary and Secondary level on high or lower lever showed the effective result (Muro and Kottman, 2005). Cognitive - behavioral model effectively decrease almost all of indicator problems of optimizing cognitive ability and adaptive behavior of ADHD students.

2 RESEARCH HYPOTHESES

Hypotheses is a theory or temporary solution on the problems examined, and the validity should be tested. In this research, the researcher concludes the main hypotheses as follows: "Cognitive - Behavioral Counselling Model gives contribution to optimization of cognitive development and adaptive behavior of ADHD student".

3 RESEARCH METHODS

Final objective of this research is to obtain (cognitive-behavioral) counselling model to handle learning problem of ADHD students caused by concentration and attention deficit, and impulsive behavior. The framework and model component are composed based on study on concept and theory of ADHD children, their cognitive development and adaptive behavior, study on (cognitive - behavioral) counselling concept, relevant previous research, problem analysis of ADHD children and their learning process, and empirical study on actual condition of counselling related with handling of ADHD students' learning problem (Borg and Gall, 2003).

In this research, both qualitative and quantitative approach is used. According to Creswell (2002), there are three qualitative – quantitative models, which are: two-phase design, dominant- less dominant design, and mixed method design sequence. This research uses mixed method design. Sequence approach, since the integrated qualitative and quantitative approach is used and both are support each other. Quantitative approach is used to examine cognitive ability optimization, adaptive behavior, and (cognitive - behavioral) counselling model effectiveness to handle ADHD students' learning problems caused by concentration and attention deficit, and impulsive behavior. While the qualitative approach is used to find out the rational validity of (cognitive - behavioral) counselling hypothetic model in handling concentration and attention deficit, and impulsive behavior (Tilley, 1999).

The relation and influence among variables as describe in those framework, Harun Al Rasyid (1998) can be visualize in paradigm scheme as follows:

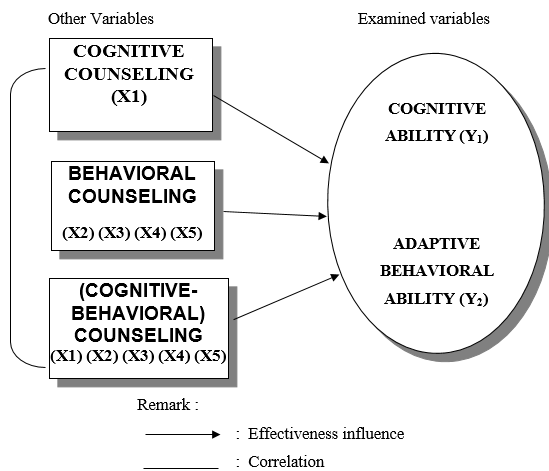


Figure 2: Research paradigm scheme.

4 RESULTS AND DISCUSSION

The result of this research is obtained through preliminary study to gain empirical data of: (1) data profile of implementation of cognitive counselling, behavioral counselling, and (cognitive-behavioral) counselling to optimize cognitive ability and adaptive behavior of ADHD students; (2) profile of optimization problem of cognitive ability and adaptive behavior of ADHD students; (3) profile of cause factor of optimization difficulties of cognitive ability and adaptive behavior of ADHD students; and (4) profile of teacher's efforts in implementing (cognitive - behavioral) counselling model to optimize cognitive ability and adaptive behavior of ADHD students (Lightsey and Hulsey, 2002).

The description of research results are as follows:

- a) Data profile of implementation of cognitive counselling, behavioral counselling, and (cognitive-behavioral) counselling to optimize cognitive ability and adaptive behavior of ADHD students

Based on data analysis of this research, from 13 students as research subject, the score of cognitive-ability and adaptive behavior of ADHD students who receive cognitive counselling, increase by 54.83 % in average. While the score of cognitive ability and adaptive behavior of ADHD students who receive behavioral counselling, increase by 52.47% in average. Hence, we can conclude that cognitive ability and adaptive behavior of ADHD students who receive (cognitive - behavioral) counselling, increase significantly.

- b) Profile of optimization problem of cognitive ability and adaptive behavior of ADHD students

Research shows that at elementary and junior high school levels, there are 72.63% ADHD students with problems on cognitive ability and adaptive behavior optimization is on high category and the rest or 27.37% is on low category.

- c) Profile of cause factor of optimization difficulties of cognitive ability and adaptive behavior of ADHD students.

Profile of cause factor of ADHD students' learning problem at elementary and junior high school level are as follows: (1) minimum concentration and attention; (2) hyperactive behavior; and (3) impulsive behavior. The research shows that learning problems in ADHD students due cause factor of minimum concentration and attention is 54.42% at high category and 45.58% at low category. The learning problems in ADHD students due to cause factor of hyperactive behavior is 59.18% at high category and 40.82 at low category.

- d) Profile of teacher's efforts in implementing (cognitive-behavioral) counselling model to optimize cognitive ability and adaptive behavior of ADHD students

The research shows that teacher's effort in implementing (cognitive - behavioral) counselling model shows percentage of success of 55.32% at high category and 44.68% at low category. The implementation of cognitive counselling model to optimize cognitive ability and adaptive behavior shows percentage of success of 55.32% at high category and 44.68% at low category. While teacher's effort to implement instructional behavioral counselling model shows percentage of success of 59.57% at high category and 40.43% at low level. Teacher's effort to implement prompting behavioral counselling shows percentage of success of 51.06 at high category and 48.94% at low category.

5 DISCUSSION

Based on the statistical calculation U Mann-Whitney test on first hypothesis with real degree (significant level) 0.005 prove that H0 is rejected and H1 is accepted (Furqon, 2002). This means that ADHD students who receive cognitive counselling reach a higher cognitive ability score compare with ADHD students who receive behavioral counselling. Base

assumption is that the relation between visual (see objects, words), motor (holding, writing, and tracing), and auditory (mentioning objects, letters/words simultaneously as the student write of tracing a word) as the implementation of cognitive counselling, is a suitable counselling process to help ADHD students who usually has cognitive ability disorder, such as: understanding concept of objects, reading difficulties, which is difficulties in understanding the relation between letters and sound, and sound similarities (McNamara and Horan, 2006).

Furthermore, the study on second hypothesis shows that H₀ is accepted and H₁ is rejected at real degree (significant level) 0.05, or it is shown that there are no significant differences between the cognitive ability's score of ADHD student who receive cognitive-behavioral counselling and ADHD students who receive cognitive counselling. Base assumption of this is the cognitive ability disorder of ADHD students in understanding relation between speaking, sound, and symbol. This can be handled through visual learner or visual thinking and tactile procedure, as the implementation of cognitive-behavioral counselling. The cognitive weakness of ADHD students shows that their way of thinking is nonverbal. Cognitive skill of ADHD students can be achieved without spoken language or other process. According to Gardner (1983), linguistics intelligence are numbers of intelligence consist of different neurophysiology and are not related one to another

The third hypothesis also shows that H₀ is rejected and H₁ is accepted at the real degree 0.05 or in other words the ADHD students who receive cognitive-behavioral counselling reach higher cognitive ability score compare with students who receive behavioral counselling. If the fourth hypothesis is analysed, it proves that H₀ is rejected and H₁ is accepted at real degree 0.05. It can be said that ADHD students who receive behavioral counselling, reach higher adaptive behavior compare with ADHD students who receive cognitive counselling. With assumption that ADHD students can remember adaptive behavior examples easily through structured visual stimulation in stages, while the implementation of cognitive counselling process is focused more on increasing memory aspect and object understanding concept (cognitive process) through multisensory technique.

Based on the fifth hypothesis, it is shown that H₀ is rejected and H₁ is accepted at real degree 0.05. It can be said that ADHD students who receive Behavioral counselling reach higher adaptive behaviour ability score compare with students who receive cognitive - behavioural counselling (Watson et al., 2003). Behavioral counselling is one of the relevant counselling method that is used to stimulate

the adaptive behavior ability of ADHD children in stages. The sixth hypothesis shows that H₀ is accepted and H₁ is rejected at real degree 0.05, or it can be said that there is no significant difference between the score of adaptive behavior ability of ADHD student who receive cognitive - behavioral counselling compare to ADHD students who receive cognitive counselling. Furthermore, if the ADHD students who receive cognitive counselling is compared with ADHD students who receive behavioral-cognitive counselling, it shows no significant increase on their adaptive behavior ability.

6 CONCLUSION

The conclusion of the study of (cognitive-behavioral) counselling model development to optimize the cognitive ability and adaptive behavior of ADHD students are as follows:

- a) ADHD students who receive cognitive counselling reach higher cognitive ability score compare with ADHD students who receive behavioral counselling. Hence the conclusion is cognitive counselling is more effective than behavioral counselling in optimize cognitive ability of ADHD students
- b) There are no significant differences between cognitive ability's score of ADHD students who receive behavioral-cognitive counselling and ADHD students who receive cognitive counselling. Hence the conclusions behavioral -cognitive counselling has the same effect with cognitive counselling in enhancing cognitive ability of ADHD students,
- c) There is no significant difference between cognitive ability's score of ADHD students who receive (cognitive-behavioral) counselling and ADHD students who receive cognitive counselling. Hence the conclusion is (cognitive-behavioral) counselling has the same effect with cognitive counselling in enhancing cognitive ability of ADHD students.
- d) ADHD students who receive (cognitive-behavioral) counselling reach higher cognitive ability's score compare with ADHD students who receive behavioral counselling. The conclusion is (cognitive - behavioral) counselling is more effective with behavioral counselling in enhancing cognitive ability of ADHD students.
- e) ADHD students who receive behavioral counselling reach adaptive behavior ability's score compare with ADHD students who

- receive cognitive counselling. Hence the conclusion is: behavioral counselling is more effective than cognitive counselling in enhancing adaptive behavior ability of ADHD students.
- f) ADHD students who receive behavioral counselling reach higher adaptive behavior ability's score compare with ADHD students who receive (cognitive - behavioral) counselling. So, the conclusion is: behavioral counselling is more effective than (behavioral-cognitive) counselling in enhancing adaptive behavior of ADHD students.
 - g) There is no significant difference between adaptive behavior ability's score of ADHD students who receive (cognitive-behavioral) counselling with ADHD students who receive cognitive counselling. Hence the conclusion is: (cognitive-behavioral) counselling has the same effectiveness with cognitive counselling in enhancing adaptive behavior ability of ADHD students.
 - h) Rational validation of counselling experts to the hypothetic model of (cognitive - behavioral) counselling to handle the problems of optimize cognitive ability and adaptive behavior of ADHD students shows that the developing method is suitable as the model of problem counselling.
 - i) (Cognitive - behavioral) counselling model to handle the problem of optimize cognitive ability and adaptive behavior of ADHD students show effective result to reduce cause factor such as: concentration deficit, hyperactive and impulsive behavior of ADHD students at elementary and junior high school level at middle and high category.
 - j) (Cognitive - behavioral) counselling model is proven effective to reduce all indicator of problems in optimize cognitive ability and adaptive behavior of ADHD students and reduce significantly after using (cognitive - behavioral) counselling approach.
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