

Improved Inclusive Student Life: Al-Qur'an And Biomechanics Therapy's Combined Positive Competence Enhancement

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Abstract

A combination of therapies was needed to increase competence in learning for students with special needs. This research aimed to see the effectiveness of a combination of Al-Qur'an and Biomechanical therapy in increasing the competence of inclusive students. This research was conducted using quantitative descriptive methods at SD Muhammadiyah 1 Tulungagung. There were 32 students as respondents who were taken using a purposive sampling technique. The data was collected from interviews and questionnaire responses. The main result of this research is an increase in the competence and quality of life of students with special needs. The conclusion is that there is an increase in the results of quantitative descriptive measurements of learning competence and quality of life after therapy compared to before therapy. These aspects include individuals' Attention to the surrounding environment increased (40.63%), being able to hear or respond when called (43,75%), and being able to carry out commands (78,13%).

Keywords: Children with Special Needs, Al Quran, Biomechanics, inclusive, Therapy

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1. Introduction

According to Indonesian Constitution Number 20 of 2003 concerning the National Education System, education is intended to develop the potential of every person. The goal is for every student to have strong spiritual, emotional, intellectual, and social abilities and be ready to contribute to society and the country (Indonesia, 2003). Meanwhile, Government Regulations on Special Education and Special Education Services are more detailed. They stated that the goal of learning for students with special needs is to maximize their potential. Students with special needs are expected to be people who believe in God, have good morals, are independent, and are able to participate actively in community life (Indonesia, 2017). It is important to ensure that all students, including those with special needs, have equal access to education. The essence of inclusive education is to provide equal learning opportunities for all children, regardless of their conditions. This is realized by creating a learning environment that is friendly and able to adapt to the uniqueness of each child. One of the methods to improve the quality of life of children with special needs is to combine guidance principles from the Koran and Sunnah, such as the ruqyah method (Rahmadani, 2021). Children with special needs, such as autism and ADHD, have different characteristics from children in general. To determine whether a child has special needs, a diagnosis from an expert or doctor is needed.

Various therapeutic techniques can be given to children with autism, including biomedical, physical, social, and other therapies. Meanwhile, children with ADHD can benefit from occupational therapy, psychology, behavior, environmental modification, etc. (Syifa et al., 2024). Biomechanical therapy plays a key role in the management of children with special needs. This therapy can help children maximize their independent abilities, physical health and minimize the impact of further physical injuries. (Chen et al., 2021). Syar'iyah ruqyah therapy



is carried out in accordance with Islamic teachings, using verses from the Koran and hadith that are read correctly. This therapy is based on the belief that true healing only comes from Allah SWT, while the Al-Qur'an and hadith are only tools. Apart from that, this therapy also involves purification of the soul (tazkiyat al-nafs) (Ismail, 2019). The PAZ Al Kasaw method of biomechanical therapy uses a holistic approach to healing, combining body movement with health principles inspired by the Koran. One of the main movements in this therapy is footstepping, which is believed to improve body posture and bone balance. The Al-Kasaw concept in PAZ provides a scientific basis regarding the relationship between bone structure and the function of body organs. The concept of "Fakasauna idzoman lahman" in PAZ therapy, which is taken from Surah Al-Mu'minun verse 14, describes the process of creating the human body. This verse is the philosophical basis of PAZ, which emphasizes the importance of balance between the bone system and soft tissue to maintain body health (Syam, 2023). Until now, there is no therapy or combination of Al-Qur'an therapy and biomechanics. Therefore, researchers want to try to combine these two therapies to see their effectiveness in improving the abilities and quality of life of students with special needs.

2. Method

This research uses a quantitative approach with a quasi-experimental design. This design was chosen because it is difficult to completely randomize research subjects in a population of children with special needs who are spread across classes. Respondents were selected using a purposive sampling technique, namely selecting participants who met certain criteria (inclusion and exclusion). Of the 54 students, 32 students met the requirements to become respondents. The results of data analysis will be presented in a quantitative descriptive manner. This research was carried out from March 2024 to December 2024 by observing the students' condition before and after undergoing routine therapy. This research uses a time series design, namely observing the progress of respondents who underwent routine therapy over three quarterly periods. Data was collected by interviews and giving questionnaires to parents and teachers to assess the competence and quality of life of students with special needs. Apart from that, data was also obtained from observations, student Individual Learning Assessment (PPI) documents, student learning achievement documents, and student health documents from the school.

Data is collected by selecting respondents who comply with the Inclusion and Exclusion Criteria. Inclusion Criteria: 1) Children aged 6 to 12 years. 2) Children with various disability diagnoses. 3) Children with severe levels of disability. 4) Children who have attended special education for at least one year (to confirm their special education experience). 4) Obtain permission from parents or guardians for the child's participation in the research. 5) Children and parents are willing to attend therapy sessions. Meanwhile, the exclusion criteria are as follows: 1) Children with other significant medical conditions, especially those who are frequently hospitalized, because this can affect the research results. 2) Children who are undergoing similar therapy, to avoid bias in research results. 3) Children with a history of frequently changing schools. 4) inconsistent student data. Data analysis uses Excel and SPSS to show quantitatively the data that has been obtained. Data analysis was carried out by displaying numbers and tables to reveal differences in the respondents' conditions before and after therapy.

3. Results and Discussion

Before therapy begins, nine main problems that hinder the abilities and quality of life of students with special needs are identified. These problems revealed from respondents' input were: 1) Difficulty understanding commands: experienced by 25 children (78.13%). 2) Difficulty writing: experienced by 16 children (50%). 3) Difficulty speaking: experienced by 15 children (46.88%). 4) Frequent anger, tantrums and hitting: experienced by 14 children (43.75%). 5) Not responding when called: experienced by 14 children (43.75%). 6) Indifferent attitude, not caring about people or the environment around them: experienced by 13 children (40.63%). 7) Frequent bedwetting: experienced by 11 children (34.38%). 8) Difficulty walking: experienced

by 11 children (34.38%). 9) Difficulty sleeping at night: experienced by 10 children (31.25%). As in table 1 below:

Table 1. Aspects Complained About Before Therapy That Were Felt to Be Obstacles to the Competency and Quality of Life of Students With Special Needs at Muhammadiyah 1 Tulungagung Elementary School in March 2024.

Number	Aspects complained about before therapy	Number of Respondents who chose this aspect	Total Number of Respondents	Percent of Respondents who chose this aspect
1	Difficulty understanding commands	25	32	78,13%
2	Difficult to write	16	32	50,00%
3	Difficulty talking	15	32	46,88%
4	Often angry and having tantrums, hitting	14	32	43,75%
5	Not listening / not responding when called	14	32	43,75%
6	Acting indifferent, not paying attention/not responding to people and the surrounding environment	13	32	40,63%
7	Frequent bedwetting	11	32	34,38%
8	Difficult to walk	11	32	34,38%
9	Difficulty sleeping at night	10	32	31,25%
10	Often feel tired and often sleepy/sleep in class	10	32	31,25%
11	Often defecation is not felt	10	32	31,25%
12	Difficulty urinating	9	32	28,13%
13	Often scared/anxious	8	32	25,00%
14	Often cries	8	32	25,00%
15	Difficulty defecating	7	32	21,88%
16	Often short of breath	7	32	21,88%
17	Often daydreaming	6	32	18,75%
18	Frequent convulsions	5	32	15,63%
19	Frequent itching	5	32	15,63%
20	Difficulty eating/often choking/vomiting frequently	4	32	12,50%
21	Allergies	4	32	12,50%
22	Often the body temperature rises/hot suddenly	3	32	9,38%

Number	Aspects complained about before therapy	Number of Respondents who chose this aspect	Total Number of Respondents	Percent of Respondents who chose this aspect
23	Often damages things/objects around him	3	32	9,38%
24	Frequent fainting	2	32	6,25%
25	Sudden changes in hot and cold body temperature often occur in certain parts of the body	2	32	6,25%
26	Frequent sneezing	1	32	3,13%
27	Frequent bruising/frequent injuries	1	32	3,13%

Source: Data Processing

After therapy, following three quarterly therapy periods, students with special needs demonstrate positive changes across nine key areas that previously impacted their abilities and quality of life. Specifically: 1) 25 children, representing 78.13%, now understand commands; 2) 14 children, or 43.75%, respond to calls; 3) 13 children, which is 40.63%, show increased attention to their environment; 4) 11 children, equating to 34.37%, exhibit improved urinary control; 5) 10 children, or 31.25%, have better stool control; 6) 10 children, also 31.25%, walk with greater ease; 7) 10 children, at 31.25%, are more active and less lethargic; 8) 10 children, again 31.25%, experience enhanced sleep quality; and 9) 9 children, corresponding to 28.13%, begin to write. As in table 2 below:

Table 2. Aspects of Improving Competency and Quality of Life for Students with Special Needs at Muhammadiyah 1 Tulungagung Elementary School in November 2024 After Routine Therapy.

Number	Aspects of Competency and Quality of Life That Have Improved	Number of Respondents who chose to increase this aspect	Total Number of Respondents	Percent of Respondents who chose to increase this aspect
1	Starting to understand commands	25	32	78,13%
2	Can hear/respond when called	14	32	43,75%
3	Start paying attention to (responding to) people and the surrounding environment	13	32	40,63%
4	Reduced bedwetting, able to say when he wants to urinate	11	32	34,38%
5	Easier/ bolder to walk	10	32	31,25%
6	Can sleep soundly at night	10	32	31,25%
7	More active (not often sleepy) in class	10	32	31,25%
8	Can feel when they want to defecate	10	32	31,25%
9	Start being able to write	9	32	28,13%

Number	Aspects of Competency and Quality of Life That Have Improved	Number of Respondents who chose to increase this aspect	Total Number of Respondents	Percent of Respondents who chose to increase this aspect
10	Easily excretes urine when urinating	9	32	28,13%
11	Decreased (anger and tantrums)	8	32	25,00%
12	Quieter	8	32	25,00%
13	Rarely cries	8	32	25,00%
14	Easier to talk/more fluent	7	32	21,88%
15	Reduced fear and anxiety	7	32	21,88%
16	It's easier for feces to pass when defecating	7	32	21,88%
17	Breathing easier	6	32	18,75%
18	Rarely daydreams and starts interacting with other people	6	32	18,75%
19	Reduced frequency of damaging items/objects in the surroundings	3	32	9,38%
20	Reduced frequency of sudden heat	3	32	9,38%
21	It's easier to eat/ doesn't choke easily/ doesn't vomit as often	3	32	9,38%
22	Reduced frequency of fainting	2	32	6,25%
23	Reduced frequency of seizures	2	32	6,25%
24	Can blow	1	32	3,13%
25	Reduced frequency of sneezing	1	32	3,13%
26	Allergic reactions are reduced	1	32	3,13%
27	Reduced itching	1	32	3,13%
28	Reduced frequency of sudden changes in hot and cold body temperature in certain parts of the body	1	32	3,13%
29	Reduced frequency of injuries/reduced bruising	1	32	3,13%

Source: Data Processing

Children who have conditions or abilities that are different from children in general are referred to as children with special needs. They need learning methods specifically designed to meet their unique needs (Daroni, Salim, & Sunardi, 2018). Inclusive education is an education system that is open to all children, regardless of differences in their abilities or physical conditions. In an inclusive education environment, children with special needs learn with their peers in the same class, with support tailored to each individual's needs (Setiawan & Apsari, 2019). Ruqyah therapy using verses from the Qur'an can help patients with healing methods that are believed to be able to overcome various types of illnesses, both physical and

mental. In addition, ruqyah can also be used as a disease prevention measure (bin Mohd Nazri, 2018).

PAZ Al Kasaw biomechanical therapy has several functions, including: by observing the shape of the soles of the feet, the therapist can detect problems with the patient's hips. The shape of the soles of the feet provides clues for therapists to identify abnormalities in the hips. Therapists can diagnose various ailments by applying pressure to specific points on the feet, calves, thighs, waist and arms. The therapist performs a physical examination of several areas of the body to determine the health problems the patient is experiencing. PAZ therapy can relieve various physical complaints, including problems with stiff, loose or tense joints. PAZ Al Kasaw offers treatment for various physical conditions caused by imbalances in the body's skeletal position (Syam, 2023).

The success of inclusive education programs for children with special needs is influenced by two main factors: environment and communication. Regarding environmental factors, preparedness is really needed Schools that accept children with special needs. It is also very necessary for active involvement of parents in monitoring children's development. And the condition of school facilities that are easily accessible to children with special needs. In the Communication Factor, the level of success really depends on the establishment of effective communication inside and outside the school environment, as well as the ability of children with special needs to understand the instructions given (Yuliastuti, 2019).

Children suffering from ADHD typically exhibit six or more specific symptoms lasting for at least six months, which negatively impacts their ability to adapt and is consistent with their developmental level. One characteristic that is often seen is difficulty in responding when called (Desiningrum, 2017). Social skills play an important role for children with special needs, where disabled students with good social skills tend to have high self-confidence and are able to interact with the environment around them more easily. However, in reality, many children with disabilities experience difficulties in social skills. To help improve these social skills, school counselors can apply techniques *shaping*, which aims to develop children's social abilities, one of the indicators of which is the ability to pay attention, respond and interact with the people or environment around them (Anggriana, Kadafi, & Trisnani, 2017).

Support from parents and the school environment is very necessary to help children with special needs recognize and communicate their urination needs. These children need to be taught how to identify the sensation of needing to urinate and how to convey it to parents or teachers, so that they no longer wet the bed in class (Sa'diyah, 2019). A study shows that more than half of students with special needs at the Semarang State Special School have difficulty taking care of themselves when defecating. They are not yet able to realize the need to go to the toilet because they lack the sensation of having to defecate (Fathurahman, 2018). This finding is in line with the results of initial research, where many parents complained that their children often defecated without realizing it. However, after therapeutic intervention, there was a significant improvement, where a number of children began to feel and be able to tell when they wanted to defecate.

In children with autism and cerebral palsy, a neuromotor disorder called ataxia is often found, which can interfere with their ability to walk. This disorder causes them to often fall and feel afraid to walk (Kristiana & Widayanti, 2021). This is in accordance with complaints submitted by a number of respondents, namely difficulty walking. However, after undergoing therapy, many of these children show improvement and no longer feel afraid when walking. In the special movement development program which is held directly, activities such as reading prayers, watching videos, gross motoric warm-up exercises, and practicing throwing the ball into the basket are carried out. Even though these activities train motor skills, some students with special needs feel tired or sleepy quickly (Bastiana et al., 2022). This is also in line with the complaints conveyed by respondents, namely that they often feel tired and sleepy. However, after undergoing therapy, the children became more active and no longer often sleepy.

Children with attention deficit hyperactivity disorder often experience different health problems than other children. They tend to be more susceptible to diseases such as asthma, allergies, and throat infections. Apart from that, they also often have difficulty sleeping, with

irregular sleep patterns and tend to wake up at night. Their sleeping conditions are also different because they have difficulty sleeping peacefully (Urbayatun et al., 2019). This is in line with complaints submitted by a number of respondents, namely difficulty sleeping. However, after undergoing therapy, many of these children show improved sleep quality and are able to sleep soundly at night.

Children with learning difficulties exhibit impairments in basic psychological abilities that affect the understanding and use of language, both spoken and written. This disorder can impact the ability to think, read, count, and speak, caused by perception problems, brain injury, minimal brain dysfunction, dyslexia, or developmental aphasia. One of the difficulties that is often experienced is dysgraphia, which is characterized by writing that is not straight, writing delays, letters that are upside down, bad and illegible writing, and even omissions of letters (Dermawan, 2013). This is in accordance with the complaints expressed by many respondents, namely difficulty writing. However, after undergoing therapy, some children show improvements in their writing abilities.

4. Conclusions

This research is very important because it succeeded in showing significant progress in several aspects after students with special needs underwent combination therapy with the Al Quran and PAZ Al Kasaw biomechanics. The nine main aspects that experienced an increase in students' competence and quality of life were: 1) the ability to understand commands increased in 25 children (78.13%), 2) response to calls increased in 14 children (43.75%), 3) attention to the surrounding environment increased in 13 children (40.63%), 4) urination control increased in 11 children (34.37%), 5) defecation control increased in 10 children (31.25%), 6) walking ability increased in 10 children (31.25%), 7) activity level increased in 10 children (31.25%), 8) sleep quality increased in 10 children (31.25%), and 9) writing ability increased in 9 children (28.13%). It is hoped that these results can become an effective combination therapy model for children with special needs. Suggestions for further research are needed to measure in more depth the significance of the influence of this combination of therapy on the development of their competence and quality of life. This research also has the potential to enrich knowledge in the fields of education and the health of children with special needs. For educational institutions that accept children with special needs, it is best to use a combination of these two therapies.

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