Rahaidi Bamboo Music Therapy For Concentration In Adults with Autism

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ABSTRACT

This research aims to highlight the effects of using the Rahaidi bamboo musical instrument in increasing the concentration of adults with autism at the Special Individuals Cultural Foundation (YBUIS) Bandung. The research was conducted using qualitative methods with an action research approach based on the Lin S. Norton model. The techniques used include observation, interviews, literature study, as well as five research steps: identifying problems, solutions, implementation, evaluation, and modification. Data analysis was carried out using an organological approach (Sue Carole DeVale) and concentration theory (Santrock), with data validation through the ITDEM model which involves triangulation and data reduction. The research results show that the use of Rahaidi bamboo musical instruments can increase four types of attention, namely Selective Attention, Sustained Attention, Executive Attention, and Divided Attention. The process is divided into three stages: beginner, intermediate, and advanced, including assessment, design, therapy implementation, recording, and evaluation. This research proves that there is a significant increase in all aspects of attention in adult individuals with autism after therapy using Rahaidi bamboo music. These results confirm that a tailored approach using musical instruments can be an effective therapeutic tool in supporting the development of concentration in adults with autism.

Keywords: Rahaidi bamboo musical instruments, autism, therapeutic, concentration, YBUIS

INTRODUCTION

Autism is a mental development disorder that affects an individual's ability to interact and communicate with the environment (Maha and Harahap, 2020). In psychology, autism is known as Autism Spectrum Disorder (ASD), which is characterized by limited interests, repetitive activities, and difficulties in social interaction, communication, and relationships (APA, 2013).

According to Sri Rahmawati in Supriadi (2024:2), autism spectrum is a complex neurobiological condition that affects various aspects of child development, including social, communication, and behavior. This disorder is characterized by limitations in social interaction, difficulty communicating, and a tendency to engage in repetitive or self-stimulating behavior. This understanding is important for forming educational and therapeutic approaches that are appropriate to the needs of children on the autism spectrum.

The number of individuals with autism is estimated to increase every year throughout the world (Al Rahim and Cahyanti, 2021). Based on research by Deva et al. (2025:43–48), during the period 2017–

2020, most autistic children in Indonesia were diagnosed at gestational age (66.67%). The majority of them were boys (78.6%) who were born with normal weight (66.82%). In addition, around 57.47% of children had a history of pregnancy complications, and 68.3% came from families with middle to upper socioeconomic status. According to Salari et al. (2022: 2-16), the prevalence of autism varies globally, namely 0.4% in Asia, 1% in America and Africa, 0.5% in Europe, and the highest in Australia at 1.7%.

The Centers for Disease Control and Prevention (CDC) estimates that the prevalence of the autism spectrum continues to increase every year globally. About 1% of the world's population, which is around 7 billion people, is estimated to have autism. This means that there are approximately 70 million individuals worldwide living on the autism spectrum (CDC, 2014). Based on the global prevalence by the CDC mentioned previously, it is estimated that the number will be under 1% of the total population of people with autism in the world. With the CDC data above, it can be concluded that the autism spectrum affects around 1% of the world's population, namely around 70 million people out of a total population of 7 billion. This shows that autism is a fairly common condition globally, so greater awareness, support and attention is needed to meet the needs of individuals on the autism spectrum.

The results of the 2016 Indonesian Health Profile survey showed that Indonesia's population reached 258,704,986 people, of which around 9.26% or around 23,960,310 people were children under five. According to WHO data in 2014, there has been a significant increase in the number of people with autism in Indonesia in the last 10 years, from 1 per 1000 people to 8 per 1000 people. If applied to a population of 23,960,310 toddlers, it is estimated that around 191,683 toddlers in Indonesia are likely to be on the autism spectrum. Hidayat, Natali (2022:2).

Deputy Minister of Health of the Republic of Indonesia, dr. Dante Saksono Harbuwono, said: "The number of children with autism in Indonesia continues to increase every year, with an estimated 2.4 million children currently facing this disorder," (Della Monica, 13 May 2024). Meanwhile, pediatrician, dr. Bernie Endyarni Medise, SpA(K), MPH, explained that: "Of the approximately 4.5 million births in Indonesia every year, it is estimated that 1 in 100 children experience autism spectrum disorder (ASD), as quoted by Della Monica."

From the survey data above, the differences in results each year reflect the increasing prevalence of autism in Indonesia. Survey results from 2014 (WHO), 2022 (Hidayat, Natali), and 2024 (Dante Saksono) show a significant increasing trend in the prevalence of autism in Indonesia. This may be due to factors such as increased public awareness of early detection of autism, improvements in diagnosis, and the possibility of increasing risk factors that influence the development of autism. These data demonstrate the importance of more effective interventions, public education, and improved health services for children on the autism spectrum. This shows the importance of attention to early detection, treatment and support for children with autism in Indonesia.

Based on this description, researchers have the opportunity to contribute to this

research in providing support for treatment, education and development through assistance with intervention approaches such as the Applied Behavior Analysis (ABA) and Sensory Integration (SI) methods in managing behavior and sensory stimuli. The assistance currently being provided is through the application of the Rahaidi bamboo musical instrument as a therapeutic medium for adult individuals with autism, which is the focus of a case study in the autism individual community at the Bandung Special Individual Cultural Foundation (YBUIS). Researchers conducted research from 2023 on three individual subjects with adult autism who were given the initials D[1], H[2], and I[3] to measure the concentration range in using the Rahaidi bamboo musical instrument. Researchers chose three subjects with a diverse representation of cases of the autism spectrum. The three subjects allowed researchers to obtain more diverse data regarding how the Rahaidi bamboo musical instrument can affect individuals with different levels of the autism spectrum with moderate specifications, intellectual disabilities, and normal average. categorized as mild to moderate. This provides a broader picture of the effects of therapy in the adult age group.

Researchers chose the three subjects in YBUIS because of the suitability of the subject's characteristics with the research focus, easier access to intervention, and involvement with relevant communities. This selection allows a more focused and in-depth approach, resulting in more accurate and applicable data. These three case samples range in age from 28 to 30 years and have mild to moderate autism spectrum.

The results of a psychological evaluation by Diah Puspasari (2023) showed three autism subjects with different characteristics. Subject I shows passive social interaction, difficulty taking initiative, and limited response. Subject D has limited insight, memory and focus. Subject H needs to improve emotional management and problem solving abilities due to anxiety that interferes with activities. The third subject experienced eye and concentration limitations, which were important for achieving learning targets and further intervention (Hendrika, 2016). Structured intervention and evaluation is needed to improve their concentration.

According to Lovaas' research (1967:143-157), the Applied Behavior Analysis (ABA) method: "is more appropriate to use for behavioral therapy which can help individuals with autism improve the quality of learning by focusing on eye contact and structuring behavior for self-help abilities." Furthermore, the Sensory Integration (SI) intervention described by Ayres (1972:338-343) and Camarata (2020:14): "focuses on sensory, balance and motor stimuli, which integrates sensory input with an emphasis on the contribution of the tactile, proprioceptive systems, and vestibular in autistic individuals". Of the various interventions, one that is therapeutic is music therapy.

According to KBBI (2025), therapy is an effort to restore a person's health through treatment or treatment of disease. J.P. Chaplin (1975) defines therapy as an effort to improve mental, emotional and physical

[1] The name (DC) of the 1st subject in this study was given the initials D.
(subject D has mild autism with the autism category intellectual disability (Intellectual Disability)

[2] The name (HG) of the 2nd subject in this study was given the initials H.
(subject H is mild autism with average normal standards)

[3] The name (AIE) of the 3rd subject in this study was given the initials I.
(subject I is moderate autism, has more specific symptoms than mild autism)

conditions through certain interventions. Kenneth Bruscia (1991) explains that music can be a therapeutic tool to help express emotions, increase self-awareness, and improve interpersonal relationships. In this context, the Rahaidi bamboo musical instrument is used as a therapeutic medium to increase the concentration of individuals with autism.

From the research conducted, it can be concluded that the Applied Behavior Analysis (ABA) method is effective in helping individuals with autism improve the quality of learning through emphasizing eye contact and structuring behavior for independent abilities. Meanwhile, Sensory Integration (SI) intervention focuses on processing sensory, balance and motor stimuli, with special attention to the body's sensory systems. In addition, one of the therapeutic interventions that is beneficial for individuals with autism is music therapy, which can have a positive effect in the therapy process.

According to Josephine et al. (2023), music therapy involves playing musical instruments to support therapeutic results. Chung and Woods-Giscombe (2016) explained that music therapy involves an active role for autistic individuals in musical activities. Ningtyas (2020) and Widiawati (2017) prove that music therapy is effective in increasing the concentration of individuals with autism. Hairston (1990) and Hale and Kurniawati (2022) stated that individuals with Autism Spectrum Disorder (ASD) tend to be interested in and respond positively to musical stimulation. Research also shows the subject's interest in music, whether through playing musical instruments or listening to songs, making music an effective means to begin therapy. In addition, ASD individuals have a high ability to remember simple sound patterns (Ricks & Wing, 1975; Hale & Kurniawati, 2022).

The process of using media in the form of bamboo musical instruments has been researched by Wahyuni (2022:2): who stated that, "to improve cognitive abilities in children with autism by using angklung media". From the results of this research, it can be seen that the use of the angklung musical instrument can improve cognitive abilities in recognizing color concepts in children with Autism Spectrum Disorder (ASD). The findings of this research indicate that bamboo musical instruments can be used as a therapeutic medium for individuals with autism. Based on Komarudin's writings (2021:150), it is explained that,

> "Indonesia's cultural treasures have a variety of musical instruments made from bamboo, where the function of bamboo dominates the people's way of life, this can be seen from the various customs in various regions. Each of them uses bamboo as the main medium in processing it into various forms of idioms and also mediums, namely flute, angklung, pikon, karinding, calung, keteng-keteng, tifa tui, gambang, filutu, saluang, sasando gong, flute, taktok trieng, gamelan, rindik, gong sebul.

Bamboo musical instruments are simply the result of the creativity of artists who empower bamboo as a sound-producing medium that represents a cultural identity, which is ritual, symbolic, communication and also entertainment, for example:

> "The musical instruments karinding, angklung, sondari (West Java), sondaren (East Java), and rinding gumbeng are used as a medium for

> summoning Dewi Sri at the Sadranan ceremony in Gunung Kidul. It is even used by the Sundanese people of West Java, bamboo musical instruments which are used as a medium for Kalangenan (fun, hobby, entertainment) such as; calung renteng, toleat, sarawelet, kepyar, song-sung and blow gong. (Komarudin, 2021: 150)".

Wicaksono (2022) states that culture is a way of life that is passed down between generations. Kluckhohn (1952) identified important elements of culture, such as technology, art, religion, knowledge, language, and subsistence systems. In the medical system, the relevant elements are knowledge about the body and health, as well as technology in the treatment process. Culture can be interpreted as a system that regulates behavior, thinking and health therapy.

Wicaksono and Kluckhohn's research shows that music therapy is closely related to cultural elements, especially healing systems. Music therapy for individuals with Autism Spectrum Disorder (ASD) aims to improve psychological, cognitive, social, language and communication aspects (Hale & Kurniawati, 2022). The Rahaidi bamboo instrument supports the development of psychomotor aspects, complementing other intervention dimensions. Through musical activities, therapy becomes more effective (Josephine et al., 2023).

Wahyuni's research demonstrated that playing the angklung musical instrument improved cognitive abilities in color recognition for students on the autism spectrum, with achievement increasing from 12.5% in the pre-cycle to 75% in cycle II (Wahyuni, 2022:71-74).

Rahaidi bamboo musical instruments, used for therapy and performing arts in Ternate, consist of four types based on sound: Hitada (idiophone), Tui peng (chordophone), Fu (aerophone), and Bubuau (aerophone). These instruments incorporate sound, movement, and visuals, aiding motor training, as supported by research from Sartika on the therapeutic benefits of musical instruments for individuals with autism (Erwin Dian Sartika and Faridah, 2013: 31).

Playing the Rahaidi bamboo musical instrument follows a rhythmic pattern, characterized by the alternation of strong and weak elements, with beats acting as the basic units of rhythm. These rhythmic groups form through accented beats, appearing periodically in measures of two, three, or four beats (Palle, D 2024:6).
Andika Gutama (2020: 23-32) explains that;

> "Rhythmic is the main element in music, it is formed from a sequence of a group of sound and silent processes that are regularly arranged in a long and short time (tempo) thereby forming a rhythmic pattern in the sound of time."

Based on the explanation above, it can be concluded that rhythmic is a pattern of tapping movements that are played repeatedly and carried out regularly. Thus, this research focuses on the rhythmic patterns applied in the training process. This rhythmic pattern uses the time signatures 1/4, 2/4, 3/4, 4/4, 5/4, 6/4, 7/4, 8/4, and 9/4, each of which is represented by the number 1 , 2, 3, 4, 5, 6, 7, 8, and 9. This visual representation aims to make it easier for the subject to visually select the tapping pattern, so that the subject can sound the tapping pattern regularly in accordance

with specified time signature, this can have a therapeutic effect on the subject.

According to Jamalus (2008), music, consisting of sound, tone, rhythm, and harmony, influences emotions and thoughts. For individuals on the autism spectrum, it also affects social, cognitive, motor, and communication aspects. Each musical instrument has unique sound characteristics and techniques, with rhythm playing a key role in engaging listeners and influencing emotions (Alifa, 2024;42-50).
According to Nur Afuana Hadi (2012:77) states that;

> "Music contains therapeutic elements and can have a healing effect. Music can stimulate rhythmic forms that are captured by the listener's senses and then processed into the nervous system and glands in the human brain and cause interpretation of the captured sounds into the listener's internal rhythm."

For example, subject I chooses the number 4, subject D chooses the number 3, and subject H chooses the number 5. Thus, each subject is expected to be able to sound the chosen time pattern correctly, and be able to collaborate on these patterns in the stages of playing together. group, this is seen in the aspect of good[4], sufficient[5] and poor assessment[6] indicators, with criteria and analysis in the use of Rahaidi bamboo musical instruments at the basic level (beginners) consisting of five levels as learning guidelines, namely A1, A2, A3, A4, and A5.

Research on the Rahaidi bamboo musical instrument at the Special Individuals Cultural Foundation (YBUIS) in Bandung focused on improving the concentration (cognitive) of adults with autism. YBUIS, dedicated to enhancing the talents and resilience of individuals, was chosen for its high need for autism therapy. Unlike previous studies on children with autism, this research explored the use of Fu Ici (wind instrument) and Hitada (percussion) bamboo instruments for therapeutic purposes, contributing valuable insights into their application in autism therapy (Fu Ici and Hitada).

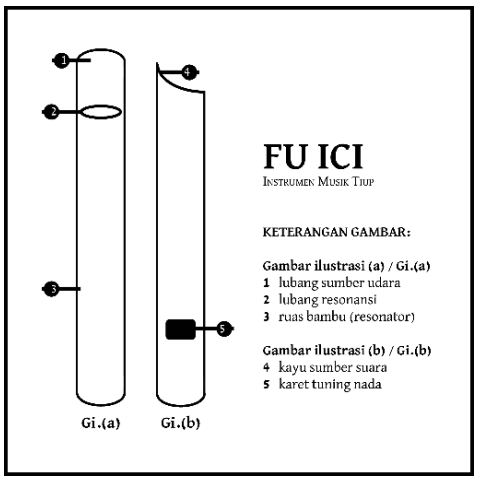

Figure 1. Illustration of the Fu Ici instrument
(Source: Fahdi Hasan)

Figure 2. Fu Ici measuring 25cm,
top and side view
(Source: Fahdi Hasan, November 23, 2024)

[4] Best given to subjects who immediately carry out directions from the facilitator correctly

[5] Just give it to subjects who are still given "prompts" (verbal) a maximum of three times during the training process.

[6] Less is given to subjects who are still given "prompts" (verbal and physical) more than three times during the training process

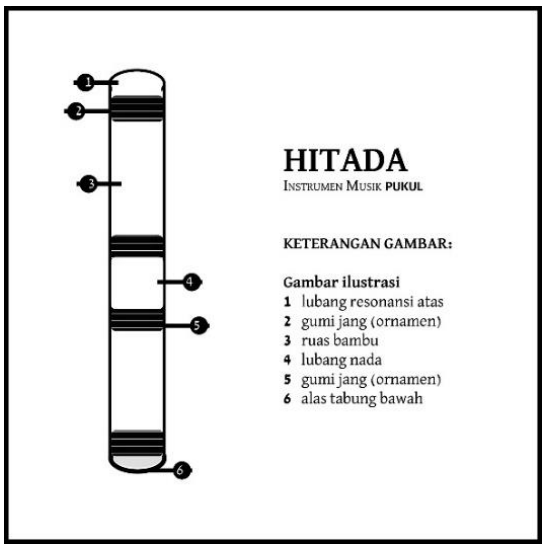

Figure 3 Illustration of Hitada bamboo musical instrument
(Source: Fahdi Hasan)

Figure 4. Hitada Instruments, being played
(Source: Fahdi Hasan, 05 October 2023)

METHOD

This study uses a qualitative method with an action research approach which is a collaborative communication between researchers and subjects (Suharsimi, 2011). This approach follows the five stages of ITDEM according to Norton (2009), namely: identifying problems, finding solutions, taking action, learning, and modifying practices for future improvements.

The first stage involves identifying a problem that requires resolution. The second stage focuses on designing interventions to address the issue. In the third stage, the intervention is implemented and its success evaluated. The fourth stage involves data analysis during the intervention process, and the final stage reviews the results to identify areas for further development.

The process is that researchers prepare data on individuals with autism, by filling in personal identity forms, observing individuals with autism, and interviewing parents while exploring problems that are generally experienced and categorizing the spectrum that has been previously examined by experts. Then create a discussion forum with practitioners, psychologists, parents and YBUIS administrators. This is the first step, namely identifying a problem.

The next stage involves tackling the problem by introducing and simulating Rahaidi musical instruments, teaching techniques, body posture, and creating simple rhythmic compositions in individual and group classes. During this process, observations and documentation were conducted. The implementation phase focused on observing the effects before and after activities to help improve the concentration of autistic individuals. The evaluation stage measured success by collecting interview data from parents to assess changes in concentration, followed by reviewing the results to identify areas for further development.

The final stage involved testing data validity through triangulation, combining various data and sources. This process used participant observation, in-depth interviews, and documentation to ensure

data credibility, with clear explanations of observation goals and interview conduct (Sugiyono, 2013:14). According to Sugiyono (2013:14-21), triangulation aims to enhance the researcher's understanding by ensuring that data collected is consistent, complete, and reliable. Triangulation is divided into several types.

a. Source Triangulation

Source triangulation tests the credibility of data from various field sources. In this study, data on concentration span changes were collected from parents, the chairman of the Special Individuals Cultural Foundation, and psychologists. The data was categorized, compared for similarities and differences, and analyzed to draw conclusions, which were then confirmed with the three sources.

b. Engineering Triangulation

In this process, technical triangulation is carried out to see the credibility and validity of the data and then checking the data on different sources. Researchers obtained data from interviews, checked the data again by observing and taking documentation data.

c. Time Triangulation

Data credibility testing is carried out in time triangulation, namely checking data through observation, interviews or other techniques in different situations and times. In this case, the researchers applied the Rahaidi bamboo musical instrument at three different times, namely morning, afternoon and evening.

Technical data analysis is carried out through data reduction to select and focus attention in simplifying the results of observations and interviews. Next, the data is presented and conclusions are drawn from the data found by Asmara and Murbiantoro (2018).

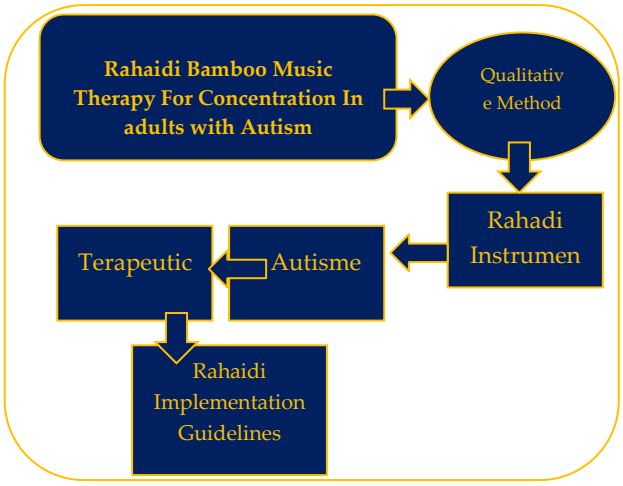

Chart 1
Research Framework Scheme

RESULTS AND DISCUSSION

A. Results of Using Rahaidi Bamboo Musical Instruments in the Concentration Range

Basic level data collection (beginners) for subject I was carried out five times based on levels, namely A1, A2, A3, A4 and A5.

1. A1

On Friday, November 3 2023, activities were carried out with the aim that subject I could understand and apply how to hold the Fu Ici and Hitada instruments correctly. In the A1 level evaluation, the subject managed to get a score of 42 with a passing conclusion. The assessment indicators used include the subject's ability to follow the facilitator's directions, accuracy in holding the instrument according to established standards, consistency in maintaining the technique of holding the instrument during the activity, and the ability to carry out breathing techniques with the correct movements.

Based on the results of observations, Subject I was able to focus and follow the directions given by the facilitator throughout the activity. He can model

breathing techniques with appropriate movements and hold Fu Ici in the correct way, including directing the body posture according to the facilitator's directions. However, the subject still showed inconsistency in holding Fu Ici, where his hand grip sometimes moved from the middle position to the bottom. To overcome this, the facilitator gave verbal prompts twice.

When using the Hitada instrument, Subject I was able to grasp both tubes correctly, both in standing and sitting positions. However, in the sitting position, the subject sometimes held the tube at a slight angle. To correct this, the facilitator gave a physical prompt so that Hitada's grip position could be upright when the subject was sitting.

2. A2

Level A2 data collection took place on November 20, 2023, to help Subject I recognize and follow the beats of Fu Ici and Hitada. In the A2 evaluation, Subject I scored 55 and passed. During the session, Subject I focused on the activities and directions, holding the Fu Ici correctly after receiving a prompt to adjust his grip. His posture and breathing techniques were appropriate, though he needed two physical prompts to correct his shoulder position.

In studying beats or rhythms, Subject I can produce sounds that are appropriate for beats or rhythms from numbers 1 to 9. On the Hitada instrument, the subject holds it correctly, both in a sitting and standing position. However, when he stood up, he was seen bending slightly, which was later corrected after being given a physical prompt. Throughout the activity, Subject I was heard being able to sound the Hitada instrument in rhythmic sequence from the numbers 1 to 9.

3. A3

Data collection at level A3 was carried out on Monday, December 13 2023, with the aim that subject I could sound Fu Ici and Hitada with the right beat or rhythm according to the facilitator's instructions. In the A2 level evaluation, the subject managed to get a score of 58 with a final result of passing.

During learning A3, Subject I seemed able to hold Fu Ici and direct his body position correctly. The breathing technique is also precise, although it requires physical prompting once when doing the chest breathing technique. When asked to sound Fu Ici with sequential beats or rhythms, he can do it well. However, when the beats or rhythmics were scrambled, the subject several times required repeating the instructions due to sounding more beats or rhythmics than directed by the facilitator. Nevertheless, Subject I showed effort and endurance to repeat until finally he could sound the instrument correctly.

On the Hitada instrument, Subject I was seen to be able to hold both tubes in the correct way, both when standing and sitting. He sometimes still lowers his head, which makes his posture less straight. After being given physical prompts, he managed to maintain his body posture upright. When asked to sound Hitada, Subject I can do it correctly using the left, right or alternate hands. However, he had time to make more beats or rhythms than ordered by the facilitator.

4. A4

Data collection at level A4 was carried out on Monday, November 20 2023, with the aim that subject I took the initiative in choosing the beat or rhythm and correctly sounded Fu Ici and Hitada according to the beat or rhythm chosen (in groups). In the A4

level evaluation, the subject managed to get a score of 61 with a final result of passing.

During the general implementation of A4 learning, Subject I has shown how to hold the Fu ici instrument and the correct body position. Breathing techniques are also done correctly. However, when asked to sound random beats or rhythmics, he still tended to sound more beats or rhythmics than directed. However, when asked to repeat, Subject I was able to do it correctly. When asked to determine the number of beats or rhythms, he can do so by paying attention to the whiteboard provided by the facilitator. Subject I found it easier to choose the beat or rhythm that would sound when the numbers were directly listed. When ringing it, he needs to repeat it several times to be able to ring it correctly. Despite this, he showed perseverance and finally got it right.

Likewise, when training with Hitada, Subject I's way of holding and body position were observed correctly. He seemed to pay attention to the facilitator's directions and was able to sound random beats or rhythms well. When asked to determine the beat or rhythm, Subject I found it easier to choose by looking at the numbers on the board. When he sounds it, he can do it precisely according to the beat or rhythm that has been chosen.

5. A5

Pengambilan data pada tingkat A5 dilaksanakan pada hari Senin, 27 November 2023, dengan tujuan agar subjek I mampu mengikuti instruksi dari fasilitator dengan ketukan atau ritmik dan tepat dalam memainkan *Fu Kecil* dan *Hitada* secara bersamaan (berkelompok). Pada evaluasi tingkat A5, Subjek berhasil memperoleh skor 65 dengan hasil akhir lulus.

During the implementation of learning A5, Subject I seemed to have more control over how to hold and position his body, both when using Fu Ici and Hitada. When asked to remember the beat or rhythm he chose at the previous meeting, Subject I seemed silent for a moment. After the facilitator shows the number he chose on the board, he can immediately answer with the correct beat or rhythm selected previously. This applies to both Fu Ici and Hitada uses. When the facilitator asked questions regarding the number of beats, Subject I seemed able to answer correctly.

In group practice, Subject I was also seen starting to be able to play instruments together with his friends. However, on the first try, when asked to stop, he still continued to sound Fu Ici, although in a quieter voice.

Basic level data collection (beginners) for subject D was carried out five times based on levels, namely A1, A2, A3, A4 and A5.

1) A1

On Friday, November 3 2023, activities were carried out with the aim of enabling subject D to understand and practice how to hold the Fu Ici and Hitada instruments correctly. In the A1 level evaluation, the subject achieved a score of 42 which indicates that he passed. The assessment was carried out to ensure that the subject knew and applied the correct technique in holding Fu Ici and Hitada.

The observation results showed that subject D was able to focus and follow the directions given by the facilitator well. He also seems to be able to imitate examples of performing breathing techniques with appropriate movements. The way subject D holds Fu Ici is correct, but in terms of body posture, he tends to sit in a less forward position. This causes the legs to be less tightly positioned when sitting, so verbal and physical prompts are needed to improve the sitting position.

Likewise with Hitada, subject D has held both Hitada tubes correctly, as well as his body position when standing. However, when sitting, physical and verbal prompts are again needed to correct his body position. The subject is seen sitting in a less forward position, so that his legs are less close together.

2) A2

Level A2 data collection was carried out on Friday, November 10 2023, with the aim that subject D could recognize and follow the beats or rhythms of Fu Ici and Hitada according to the facilitator's instructions. In the A2 level evaluation, the subject obtained a score of 53 with the final result being declared pass.

During the A2 learning session, Subject D held the Fu Ici correctly but needed physical prompts to adjust his sitting position and leg placement. He performed abdominal breathing well but required assistance with diaphragmatic breathing to correct his posture. Following the facilitator's instructions, he successfully produced sounds with the correct rhythm, sequentially from 1 to 9.

On the Hitada instrument, the subject appeared to be able to grasp both tubes correctly. However, when sitting, the position is not fully forward, so the legs are not close together. To correct this, physical prompts were given to correct the sitting position. When the facilitator gave examples of rhythms or beats from 1 to 9, the subjects seemed to pay close attention. When asked to sound Hitada, he was able to do it in sequence correctly.

3) A3

Data collection at level A3 was carried out on Monday, December 13 2023, with the aim of subjects being able to sound Fu Ici and Hitada with the right beats or rhythm according to the facilitator's instructions. In the A3 level evaluation, the subject managed to get a score of 59 with a final result of passing.

During the A3 learning session, Subject D held the Fu Ici correctly but needed a physical prompt to adjust his sitting position. He also required assistance with the breathing technique to deflate his stomach. When asked to repeat the rhythm or beats 1-9, he succeeded, but initially produced more beats than intended. After repetition, he was able to produce the correct rhythm.

On the Hitada instrument, subject D appears to be able to hold both tubes correctly. However, his sitting position again required a physical prompt to ensure his legs were together when sitting. When reviewing rhythms or beats 1-9 sequentially, he can do it well. However, when asked to play the rhythm randomly, he seemed to be daydreaming, so the resulting rhythm did not fully comply with the directions. However, after being directed to refocus, he managed to repeat the rhythm correctly.

4) A4

Data collection at level A4 was carried out on Monday, November 20 2023, taking the initiative in selecting the beat or rhythm and correctly sounding Fu Ici and Hitada according to the selected beat or rhythm (in groups). In the A4 level evaluation, the subject managed to get a score of 59 with a final result of passing.

During the A4 learning session, Subject D understood how to hold the Fu Ici and maintain correct posture, as well as perform breathing techniques. However, during group activities, he was observed daydreaming and not focusing, leading to mistakes in sounding beats. After a verbal prompt to refocus, he improved his attention. When asked to determine beats,

he initially repeated his friend's answers but was able to choose correctly with the numbers written on the board, needing repetition to sound the beat accurately.

On the Hitada instrument, the way the subject holds the tube and his body posture looks correct. Even though his attention is sometimes not completely focused on the facilitator, he still listens and is able to sound out random beats or rhythms given. When asked to determine the beat or rhythm, the subject can choose easily using the numbers listed on the board and sound them according to the selected beat or rhythm.

5) A5

Data collection at level A5 was carried out on Monday, November 20 2023, able to follow instructions from the facilitator with tapping or rhythmic and precise in playing Fu Ici and Hitada simultaneously (in groups). In the A5 level evaluation, the subject managed to get a score of 64 with a final result of passing.

In learning session A5, subject D was seen holding the instrument and maintaining proper body posture. However, sometimes his legs are not in a tight position and he needs to be reminded to close his legs tightly. When asked to recall the previously selected beat or rhythm, D appeared silent, so the facilitator gave an inducement by saying the initial syllable while showing the previously selected number. D appeared to be listening well when the facilitator asked him to count the total number of beats or selected rhythms. When he first practiced with Fu Ici, D's gaze seemed less focused on the facilitator, so he was a little late in ringing it. Likewise with Hitada, he didn't seem to lift both tubes simultaneously on the first try.

B. Psychological Examination Results in the Use of Level Rahaidi Instruments

The atmosphere in the practice room seemed calm but full of concentration when the first training session began. Three subjects, namely S1, S2, and S3, sat attentively in front of musical instruments that they had not known before: Rahaidi, consisting of Fu Ici and Hitada musical instruments. At the beginning of the meeting, all three showed a response that tended to be passive. Their concentration seemed easily distracted, and the process of adapting to the learning method used, namely the individual demonstration technique, took a long time.

According to psychologist Melissa Luckyanti, S.Psi., M.Psi., graph 4.1 notes that there was a significant change in the ability to maintain concentration during the five training sessions. In sessions 1 to 3, although the adaptation process was still ongoing, there was an increase in the percentage of success in maintaining focus. This was influenced by the partial prompts approach, namely gradual assistance that is slowly reduced as participants' understanding of the use of the instrument increases.

However, the atmosphere changed entering the fourth and fifth sessions. The learning method was shifted from being based on individual demonstrations to drill learning in a group format. This change, although intended to strengthen skill mastery, actually had an impact on decreasing concentration consistency. The graph shows that the success of participants in maintaining focus is no longer stable, and even tends to decrease.

Melissa explained that changing methods too quickly affects the adaptability of participants—especially since they are

individuals on the autism spectrum who tend to prefer stable routines. They need more time to adjust to changes in learning formats. Therefore, although demonstration learning is very effective in building initial understanding, the transition to group drill learning should be done gradually, taking into account individual readiness.

Table 2 also shows the flow of learning methods applied: in sessions 1 to 3 an individual approach was used, while sessions 4 and 5 switched to group methods. This change provides an illustration that success in maintaining concentration is not only influenced by the tools used, but also by the method and sensitivity to the characteristics of the participants.

CONCLUSION

"Rahaidi Bamboo Music Therapy for Concentration in Adult Autism Patients". That, there is an increase in the percentage of success in maintaining concentration from S1 to S3 during the training process using Rahaidi (Fu Ici and Hitada), although the subjects need time to adapt. However, in sessions 4 and 5 the percentage of success decreased due to changes in the learning method from individual (demonstration learning) to group (drill learning). and this study still has limitations, but it is expected to contribute as a new reference in research on bamboo music as a therapy medium in Indonesia. In addition, this study is also expected to provide reflection material for readers, especially therapy practitioners, psychologists, lecturers and students who are involved in similar fields. As a suggestion, to improve consistency in maintaining concentration, the individual learning method (demonstration learning) should still be used or gradually combined with the group method (drill learning). Before the method is changed, the subject needs to be given sufficient time to adapt, and some instructions must still be given to support the transition process. Combining both methods in a balanced way can help minimize the decline in concentration in the next session. This study was limited to 3 subjects with mild-moderate autism spectrum. Further research requires a larger sample size and a wider spectrum of subjects.

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