



Social Interaction of Children with Autism Reviewed from the Implementation of Diet Therapy in KB-TK Talenta Semarang

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Abstract

Autism is a neurological disorder that occurs due to birth defects and abnormalities that arise during the age of a toddler, abnormal development that is marked by disruption of communication, social interaction, and behavior. One effort to minimize the disorder that occurs in children with autism is therapy, one of them is diet therapy for autistic children. The diet that is often done in children with autism is GFCF (Gluten Free Casein Free). This study aims to explain the social interactions in autistic children who do diet therapy and those who do not take diet therapy at the Talenta KB-TK (Playgroup-Kindergarten) Semarang. This research uses the qualitative method. The main subject of this study is two autistic children who applied diet therapy and two autistic children who do not apply diet therapy. The data collection uses the method of observation, interviews, and documentation. The data is analyzed, and then the data is presented by drawing conclusions about the meaning of the data that has been collected. The results of this study indicate the difference of the social interaction of autistic children who apply the diet and who do not. The social interactions of autistic children who apply diet therapy at KB-TK Talenta Semarang are the existence of eye contact, flat facial expressions when invited to communicate, using body language when communicating, turning when called with voice or touch after several time yet no initiative to speak, joining friends yet no interaction, understanding the daily commands correctly. In the opposite, the social interactions of autistic children who do not apply the diet therapy are little eye contacts, flat face expression, using body language in communicating, inconsistent respond to a calling, one can speak while other only say few words, disengage with friends, understanding the commands yet not right

INTRODUCTION

Children are individuals who have certain and different patterns of development and needs (Nugrahaningtyas, 2014). In this life, there are children who are born with perfect growth and development and there are also children who are born with growth and development under perfect. Those who are born with abnormal growth and development need more attention and special education to provide stimuli that are in accordance with their development that is hampered. In contrast to children who have normal development, children with special needs must obtain special services according to their needs.

James, Lynch Astati (in Irawan, 2016) argues that children that are included in special needs categories are paralyzing children, obstructed or disabled children, children who do not attend school, irregular children, children dropping out schools, sick children, young workers' children, and street children. Whereas according to Smith (in Mastuti, 2014) which includes children with special needs include: blind, deaf, mentally retard, disable, *tunalaras*, learning difficulties, behavioral disorders, gifted children, children with health problems.

Special needs perhaps are caused from the birth or economic problems, emotional community conditions, political conditions, and disasters. But in this case, we do not discuss children with physical barriers, but children with developmental disorders which are often called autism. Fadli (2010: 19) states that autism is a developmental disorder in children in which children are unable to interact socially with the surrounding environment and as if they live in their own world. Another expertise explains that autism is a disorder of social interaction, communication, and imagination play that begins to appear at the age less than 3 years (Priyatna, 2010: 2). Autism is usually labeled with disturbances in language development, social interactions, communication delays, play disorders, behavioral disorders, feelings and emotional disturbances, sensory and repetitive behavior (Artanti, 2012). Interference interaction, communication, emotions, and imagination play began to appear at the age less than 3 years (Hania, 2016).

However, the author will focus on the disruption of social interactions in autistic children. Disorders of social interaction in autistic children are also followed by language and communication disorders. According to Winarno (2013: 8), the disruption of social interactions in autistic children includes disorders of eye contact, facial

expressions, body posture, and gesture. In line with the opinion above, Hasdianah (2013: 68) also conveys the disturbance of social interaction that is no eye contact, not responding to a call, not playing with friends, enjoy with his own world, no empathy for the environment. Besides language and communication, the disorders include late speaking, no attempt to communicate verbally or body language, language is difficult to understand, parroting, not understanding other people's conversations.

The ability to behave socially is very necessary to have since childhood as a foundation for the development of the ability of children to interact with their environment more broadly. The inability of socially behaved children who are expected to be in their environment can result in children being isolated from the environment, not forming self-confidence and withdrawing from the environment. As a result, children will experience obstacles in subsequent developments (Suroningsih, 2013).

Based on research conducted by Widiastuti (2014) in Semarang Public SLB, it is found that social relations and communication with the surrounding environment are still difficult to interact with, still experiencing delays in speaking, children's responses tended to be indifferent, flat facial expressions, not knowing what to do if it happened something, used to using actions if you want something.

Many types of therapies can be used to help the development of autistic children close to normal, one of which is by treating the autistic diet or commonly referred to as gluten-free and casein therapy. Veskarisyanti (2008: 55) states that gluten free casein free diet therapy is to reduce or even eliminate consuming foods containing gluten and casein. Murtie (2014: 30), states that gluten substances are found in flour and derivative products, while casein substances are found in cow's milk and derivative products. Besides that, you should also avoid foods containing preservatives, flavorings, dyes, and foods that contain sugar. In autistic children, consuming these foods can cause children to tend to be hyperactive, aggressive, and lack of confidence, so children will be difficult to interact with. Gluten and casein are one of the foods that must be avoided because gluten and casein are types of proteins that are difficult to digest for autistic children. Digestive enzymes in autistic children are lacking, so making foods containing gluten and casein cannot be completely digested (Khusna, 2016).

The success of the application of diet therapy in autistic children is closely related to the

compliance of parents specifically for the mother. The mother is very important in preparing a daily meal menu. The mother is very required to be selective in terms of regulating the diet of children and also must be able to sort out the types of food that are processed, not only seeing the quality but also the nutritional content contained in the food ingredients. Ramadayanti (2013) which states that influencing the inconsistency in the application of diets in autistic person is a factor of family support and the surrounding environment including food availability. In addition, external factors such as snacks that are containing gluten and casein, both in the home and school environment. This disobedience will cause disruption in the behavior of autistic children such as tantrums. Autistic children who undergo the GFCF diet obediently have more stable and calmer emotions. So parents and teachers should help each other so that children's development can develop optimally and provide opportunities for their success (Linawati, 2012).

The objectives of this study are (1) to describe social interactions in autistic children who take diet therapy, (2) To describe social interactions in autistic children who do not take diet therapy.

The advantage of this study is that readers can find out about the importance of dietary food therapy in the development of social interactions in autistic children because very rarely studies that discuss the social interactions of autistic children in terms of the application of dietary diet therapy to PAUD educators.

METHOD

Based on the objectives that are to describe social interactions in autistic children who do diet therapy and those who do not do diet therapy, this study is a qualitative research with a descriptive approach. The reason why the researcher uses this method is that the researcher tried to find facts and the truth of the data which then described the social interactions of autistic children in terms of the application of food therapy. Thus, this qualitative descriptive character leads to the description of the social interactions of autistic children in terms of the application of food therapy.

The main subjects in this study are 2 (two) autistic children who applied diet therapy and 2 (two) autistic children who did not apply diet therapy. This research is carried out at the KB-TK Talenta Semarang on Puspowarno Tengah Street IX No. 6 Semarang.

The data sources for this study are 4 autistic children, homeroom teacher for each child, mother of each child, and 1 shadow teacher. The data is collected through observation, interviews, and documentation. While the data analysis technique uses data collection, data reduction, data presentation, and conclusion (Miles and Huberman in Sugiyono, 2016).

RESULT AND DISCUSSION

1. Social Interaction of children with autism who apply the diet therapy

a. Eye Contact

Eye contact is one of the characteristics that is used to see a child suffering from an autism disorder. Murtie (2014: 29) says that one characteristic of autistic children is that it is difficult to look at the other person's eyes. The data obtained in this study indicate that eye contact of autistic children who apply diet therapy are exist even though it is limited and is on a stable 3-4 second scale. This is in line with the opinion of Handojo (2008: 24) explaining that in the aspect of relationships with other people autistic children have limited eye contact and do not communicate with the eye.

b. Facial Expression

Facial expressions are one of the characteristics that must be seen in children who suffer from autism. Handojo (2008: 24) says that one of the characteristics of autistic children in the aspects of language and communication is a flat facial expression and in terms of relationships with people that is no social smile. In this study, it is found that the facial expression of the autistic children who applied diet therapy is flat when the children are invited to communicate. There is no expression that really corresponded to the conversation. However, if they like the gymnastic or the song and it express their mood they will laugh.

c. Body Language

Children with autism disorder often use body language to communicate with others, because most of them have a disruption or delay in speaking. Handojo (2008: 24) says that autistic children have characteristics in aspects of language and communication that are not using language or body signals.

But the results of this study indicate that autistic children who apply diet therapy are accustomed to using body language to communicate with other people and their body language can be understood by others, such as holding, pointing directly to the desired thing. If they want

to pee, they do not want to sit as sign of body language. Autistic children those who apply diet therapy they will scream and whine if they don't like something.

d. Responding to a call

Hasdianah (2013: 68) says that one characteristic of autistic children in social interaction does not turn when called. At NIMH (National Institute of Mental Health) (in Priyatna, 2010: 12) also explained that when called by his name an autistic child does not respond.

In this study, it is found that the response of autistic children who apply diet therapy when called by voice or touch want to turn and respond, even though they had to call several times.

e. Speaking Ability

Speaking ability is the most natural things done by everyone, including children. Speaking ability is always needed every day as a means to communicate (Azizah, Nur: 2013). However, one characteristic of autistic children is a delay in terms of speaking. The results of this study indicate that in terms of the speaking ability of autistic children who apply diet therapy has a delay in speaking, both are able to say a few words even though sometimes not realized, such as when KZ saying the word "*iya miss* (yes, miss), "*ini miss* (this is miss)", "*jumpa* (see)", numbers from 1-10, alphabet from a-z, "*apa* (what)", "*tidak* (no)", "*permisi* (excuse me)", "*sabar* (be patient)", etc. In the other hand, KS says the words "*aduh* (ouch)", "*bye*", "*moh* (no)", "*mamam* (eat)", and others. KZ is able to speak a little, but there is no initiative to speak. He/she is accustomed in echolalia.

The results of this study indicate that both children who apply diet therapy have a delay in speaking. The results are in accordance with what is delivered by Hasdianah (2013: 68) that also explains that one characteristic of autistic children in aspects of language and communication is being late in speaking and if he can speak, he speaks in difficult language.

f. Playing Activity

Children with autism are children who seem to have their own world and do not care about the environment. The results of the research in playing with friends of autistic children who apply diet therapy still need guidance and little by little want to join other people even though there is no interaction in it. For example, autistic children who apply diet therapy want to sit join with their friends in the BC activity, he also wants to sit close to his friend when playing.

From the results of this study, autistic children who apply diet therapy are still enjoying their own world if they are not helped and given

direction. These results are in accordance with those delivered by Hanjodo (2008: 24) which say that autistic children seem to enjoy their own world if they are left alone.

g. Understanding to Command

Hasdianah (2013: 68) conveys the characteristics of autistic children in aspects of language and communication is not understanding other people's conversations. In line with these opinions, Handojo (2008: 24) also conveys the characteristics of autistic children in aspects of language and communication, which seemed to not understand the meaning of the word.

Even though they have delays in speaking, at least autistic children understand other people's conversations, such as the commands they often do every day. The results show that autistic children who apply diet therapy understand the daily instructions and able to do daily commands well, such as "Throw out the garbage!", "Wash your hands!", "Sit!", "Do it!", "Come here!" and so on.

h. GFCF Therapy

Gluten is a type of protein which is found in wheat flour and all its derivatives products such as cereals, bread, and similar foods. This substance becomes one type of food that must be avoided by autistic children. While Casein is a type of protein which is found in milk and all types of derivative products. Casein can cause allergies in autistic children, so it must be avoided.

The results showed that KZ and KS are autistic children who apply diet therapy so that they do not consume foods from wheat flour and its derivatives (Gluten Free), such as bread. Even KS is also consuming Carbo Free. In addition, they also do not consume casein or milk and its derivatives (Casein Free). Even KS does not drink milk at all even though soya milk. It is different from KZ who drink soya milk.

Children with autism who apply diet therapy are calmer and focused on their daily lives, although they still often walk around. This is in line with the opinion of Murtie (2014: 30) who says that consuming gluten causes autistic children to be hyperactive, lack of confidence, and over aggressive.

Beside the GFCF diet, autistic children must also avoid foods/drinks that contain flavorings, preservatives, coloring, and sugar. Murtie (2014: 30) states that additives in foods or drinks that contain preservatives, coloring, and chemical flavorings can cause autistic children to become hyperactive. Foods that are commonly eaten by autistic children who apply bland diet therapy have no taste and they avoid sweet foods.

2. Social Interaction of children with autism who do not apply the diet therapy

a. Eye Contact

There is eye contact of an autistic child who does not apply diet therapy, but only exist for about 2-3 seconds and still with direction or help. This is in line with the opinion of Handojo (2008: 24) explaining that in the aspect of relationships with other people autistic children have limited eye contact and do not communicate with the eye.

b. Facial Expression

Autistic children who do not apply dietary therapy show flat facial expressions when invited to communicate. There are no expressions that are truly in accordance with the conversation, but expressions according to mood begin to appear even though inconsistent. For example, they laugh when they like gymnastics and songs. However, NY cries and whines without reason on its own.

These results are in accordance with the opinion of Handojo (2008: 24) that one of the characteristics of autistic children in the aspects of language and communication is a flat facial expression and in terms of relationships with people that is no social smile.

c. Body Language

Children with autism who do not apply diet therapy are also used to using body language when communicating, but sometimes their body language is less understandable. For example, NY sometimes is holding and pointing to something that he wanted, but sometimes NY is crying and he does not know whether he wants or dislikes something so it is less understandable. Whereas NJ, if he likes something he will laugh, flapping while jumping up and down, if he wants something NJ speaks yet less understandable and when NJ is communicating with body language like he is rocking when he is asked whether he wants to pee, NJ answer no.

Handojo (2008: 24) says that autistic children have characteristics in aspects of language and communication, namely not using language or body signals. Similar to what has conveyed by Handojo, Hasdianah (2013: 69) also says that in the communication and language aspects of autistic children there is no attempt to communicate non-verbally or with body language.

d. Responding to a call

Anak autism yang tidak menerapkan terapi diet respon ketika dipanggil menoleh, namun kadang-kadang tidak konsisten dan itupun dengan bantuan. Jika menoleh kontak mata ada, sekitar 2-3 detik namun masih dengan arahan atau

bantuan supaya fokus. NJ biasa menoleh seperti males-malesan.

Pendapat Hasdianah (2013:68) menyampaikan bahwa salah satu ciri anak autisme dalam interaksi sosial tidak menoleh saat dipanggil. Pada NIMH (*National Institute of Mental Health*) (dalam Priyatna, 2010:12) juga menjelaskan bahwa ketika dipanggil namanya anak autisme tidak merespon.

e. Speaking Ability

Hasdianah (2013: 68) explains that one characteristic of an autistic child in aspects of language and communication is being late in speaking and if he can speak, he speaks in a language that is difficult to understand.

The speaking ability of autistic children who do not apply diet therapy is different. The NY's speaking ability is still lacking. NY's spoken words without realizing it are still in small number such as the letter a-z. There is no sound coming out when NY is asked to imitate. While NJ is able to speak even though sometimes the meaning is not clear, and he answers if he is asked.

Based on the explanation above, it can be concluded that autistic children who do not apply diet therapy have a delay in speaking, even if they can speak sometimes it is difficult to understand the meaning.

f. Playing Activity

Handojo (2008: 24) says that autistic children seem to enjoy their own world if they are left alone. In line with Hasdianah (2013: 68) who says that one of the characteristics of autistic children in aspects of social interaction does not want to play with friends and enjoy playing with themselves.

Autistic children who do not apply diet therapy need guidance in playing activity because if not they will be busy with their own world. NY will be alone with his book if he is not guided to join his friend. While NJ when he is not guided to join his friends he will turn his back on his friends and often flapping.

From the results of the presentation, autistic children who did not apply diet therapy in their activities are still enjoying their own world if they are not helped and given direction.

g. Understanding Command

Hasdianah (2013: 68) conveys the characteristics of autistic children in aspects of language and communication do not understand other people's conversations. In line with this opinion, Handojo (2008: 24) also conveys the characteristics of autistic children in aspects of language and communication, which seemed do not understand the meaning of the word.

The autistic children who do not apply diet therapy understand the usual daily commands yet inconsistent. For example, when NY is asked to dispose of garbage or wash his hands will stand up yet go to the book place. While NJ will stand up, but stop and then flapping while jumping, when he is asked to do something NJ will just stay quiet. When NY is asked to sit he will not sit without help.

h. GFCF Therapy

Gluten is a type of protein that is found in wheat flour and all derivative products such as cereals, bread, and similar foods. This substance becomes one of food that must be avoided by autistic children. While Casein is a type of protein found in milk and all types of derivative products. Casein can cause allergies in autistic children, so it must be avoided.

The results show that NY and NJ are indeed autistic children who do not apply diet therapy, so both of them still consumed foods from wheat flour and derivatives such as bread, chips, crackers, biscuits, wafers, and others. Besides that, NY has avoided the consumption of cow's milk and packaged milk and changed to soy milk, while NJ still consumes cow's milk or packaged milk and sometimes still eat chocolate and cheese. NY and NJ who still consume gluten cannot focus, NY always whines, flapping feet continuously, and NJ is also less able to control hands, NJ often flapping, NJ is also a child who is not confident. This is in line with Murtie's opinion (2014: 30) which says that consuming gluten causes autistic children to tend to be hyperactive, lack of confidence, and over aggressive.

In addition to the GFCF diet, autistic children must also avoid foods/drinks that contain flavorings, preservatives, coloring, and sugar. Murtie (2014: 30) states that additives in foods or drinks that contain preservatives, coloring, and chemical flavorings can cause autistic children to become hyperactive. NY and NJ still consume foods that are preservative and sweeteners and dyes, such as wafers, nuggets, jelly.

CONCLUSION

Based on the discussion of the research's results on the social interactions of children with autism in terms of the application of diet therapy, it can be concluded that autistic children who apply diet therapy at KB-TK Talenta Semarang do not consume gluten, casein, and foods containing sugar, preservatives, flavorings, and food coloring. Some even don't eat rice.

The social interactions of autistic children

who apply diet therapy at KB-TK Talenta Semarang are the existence of eye contact, flat facial expressions when invited to communicate, using body language when communicating, turning when called with voice or touch after several time yet no initiative to speak, joining friends yet no interaction, understanding the daily commands correctly.

At the same time, autistic children who do not apply diet therapy at KB-TK Talenta Semarang consume foods that contain gluten, such as bread, biscuits, chips, crackers, and others. Besides that, they still consume foods that contain casein, such as chocolate, cheese, packaged milk, and others. Children who do not apply the diet also eat foods containing preservatives, flavoring, coloring, and sugar, such as nuggets, sausages, jelly, foods containing monosodium glutamate.

The social interactions of autistic children who do not apply the diet therapy are little eye contacts, flat face expression, using body language in communicating, inconsistent respond to a calling, one can speak while other only say few words, disengage with friends, understanding the commands yet not right

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