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ORIGINAL ARTICLE

Abilities of Pragmatic Language Usage of the Children with Language Delay After the Completion of Normal Language Development Training

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Objectives: A child may pronounce words clearly, have a large vocabulary, use long, complex sentences and correct grammar, and still have a communication problem if he or she has not mastered the rules for appropriate social language. It is known that functional or pragmatic language usage is not problematic for children who have completed normal language development process. We investigated whether children who have previously had receptive, expressive, or mixed language development delays will likely have problems in the use of pragmatic language after formal training.

Materials and Methods: Two different subject groups composed of 67 children between the ages of 3-6 and classified as the ones with and without language delay. Children with language delay received educational treatment, auditory processing and speech and language training. Training was consisted of acoustic signal perception, auditory discrimination, auditory comprehension, conception training, phonological processing training, speech sound processing; and speech and language education. The average of training period was between 1 to 2 years. Their receptive and expressive language was tested at 6 month-interval. In children whose language development was compatible with chronological age, pragmatic language performance was evaluated.

Children's pragmatic language usage skills were evaluated in both groups with Descriptive Pragmatics Profile (DPP) by using the rating technique (never, sometimes, often, always), in terms of the abilities "Conversational Routines and Skills" (CRS); Asking for, Giving and Responding to Information"(AGRI). The Chi Square Test was used for statistical analysis.

Results: Only four of nineteen items were similar (1. Waves or says hello/goodbye (in CRS part), 2. Demonstrates turn-taking rules during play and/or in classroom (in CRS part), 3. Gives and accepts hugs (in AGRI part) and 4. Asks for help from others (in AGRI part) ($p>0.05$), whereas the fifteen items were significantly different between groups ($p<0.05$).

Conclusion: In our study, it was concluded that in DPP items which were not required the use of language (waves, demonstrates turn-taking rules during play, gives and accepts hugs, asks for help from others), there was no delay. We suggest that during the critical early language development period, children who have receptive and expressive language delays will also demonstrate delay in pragmatic language usage.

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Most linguists emphasize that competency in spoken language is a skill which is acquired easily by the majority of children within the first five years of life. They learn it through socialization in the society they are in. In spite of this natural predisposition to learn a language, there is a subset of children for whom language acquisition is significantly delayed during the early years of life.

Children with pragmatic difficulties have great trouble using language socially in ways that are appropriate or typical of children of their age. They often do not understand that we take turns talking, that is, they may often "talk over the top of you", or, respond to what you say with inappropriate silences, or in a voice that is too quiet. They may interrupt excessively and talk irrelevantly or about things the listener shows no interest in. Their functional communicative behavior

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often appear rude and inconsiderate and can be considered to have pragmatic language impairment. Adams et al ^[1] argue that the pragmatic disorders are common associates of speech and language problems such as language delay (expressive, receptive, or both), developmental language disorders, language-impaired, specific language impairment, or phonology disorders. Craig and Evans ^[2] add that children with autistic spectrum disorders and children with Asperger syndrome with substantial language impairment also show impaired pragmatic language usage especially if they have both receptive and expressive language impairment.

Children with pragmatic language impairment often show behavioural problems, largely of an externalizing nature. The most prominent problems are hyperactivity and the lack of prosocial behaviour, which reach clinical levels for this group. Early assessment of pragmatic competence may benefit early detection of children at risk of behavioural problems. Furthermore, due to the relationship between pragmatic competence, behavioural problems and possible underlying disorders such as autism and attention-deficit hyperactivity disorder (ADHD), early assessment of pragmatic competence may also provide an early marker for the detection of autism or ADHD ^[3]. For children with normal language development, we anticipate no impairment of pragmatic language usage.

It is a commonly held belief that children with pre-existing language delay who undergo a scheduled training program do not demonstrate pragmatic language impairments. However, according to our hypothesis, children might be expected to demonstrate a developmental gap as they cannot practice pragmatic language during this period. Therefore, it is asserted that children with expressive, receptive or mixed language problems are prone to having pragmatic disorders despite having completed their normal language development program. Keeping this issue in mind, we seek to research if children with pre-existing language delay have any problems in using the pragmatic language once they have completed language training.

Method

Subjects

In this study, pragmatic language abilities were analysed in 67 children. The test of Descriptive Pragmatics Profile (DPP) ^[4] was used to analyse the pragmatic language abilities of two subject groups; children who had pre-existing language and speech delay and children without language delays.

The study group was composed of 26 children (21 male, 5 female) with language delay. Their mean age was 4 years 5 months. ENT examination and audiological evaluations were performed, and pure tone audiometry results were in normal limits. Their overall development was found to be normal by child development experts using the Denver II ^[5]. They have normal intelligence performance and had no behavioral disorders. Despite having normal intelligence performance and pure tone hearing levels, they were referred to our clinic due to language and speech problems.

These children received educational treatment; auditory processing; and speech and language training. Training was consisted of acoustic signal perception, auditory discrimination, auditory comprehension, conception training, phonological processing training, speech sound processing; and speech and language education.

For auditory discrimination; and speech and language learning, the patients were applied the method of learning the new words through listening with synchronously understanding the event and its picture at the same time. In the event that was experienced at that moment, if there was a word unknown by the child, the child's family will draw the event on the paper. Unknown word, the answer of the question, was asked to the person next to the child. Child listened to the answer. This question was asked for one-hour intervals in everyday until the child answered the question by himself/herself.

Patients were given training by the same education audiologist during one-hour time at every week. At home, according to the instructions given, child and

their family went on working as scheduled at the training center. The average of training period was between 1 to 2 years.

Their receptive and expressive language was tested at 6 months intervals ^[6]. In children whose language development was compatible with chronological age, pragmatic language performance was evaluated. Pragmatic language usage test was implemented by the child's educational audiologist.

The control group was composed of 41 preschool children (25 male, 16 female), who had no language delay. Their mean age was 4 years 5 months. They were selected by their preschool classroom teachers. Their all development fields and communications skills in the classroom were normal. In this group, pragmatic language usage tests were completed by the classroom teachers.

Their medical histories revealed no maternal illnesses during pregnancy, no perinatal trauma, infection or asphyxia, no use of ototoxic drugs, no psychosocial history, and no family history of significant illnesses. In the children of the study and control groups, there was no history of recurring otitis media and related hearing loss causing language impairment.

Procedure

Descriptive Pragmatics Profile (DPP) ^[4] includes 26 items in four parts: (1) Nonverbal Communication Skills (1-4 items), (2) The child's appropriateness (5-7 items), (3) Conversational Routines and Skills (8-19 items), (4) Asking for, Giving and Responding to Information (20-26 items). The latter two categories ("Conversational Routines and Skills" and "Asking for, Giving and Responding to Information") were used to investigate the pragmatic language skills of children in the study group.

The scoring: 1=Never or not old enough to demonstrate skill, 2=Sometimes, 3=Often, 4=Always. This profile has been conducted for the children between 3-6 ages, and takes approximately 10- 15 minutes.

All steps of the study were planned and continued according to the principles outlined in the Declaration of Helsinki ^[7]. All children in the study and control groups were included into the study with their parents' agreement by written informed consent ; parental permission was also received for the use of their children's test results.

Table 1. From the present study, the pragmatic language abilities of the children with a history of speech or language delay in comparison to the study's children with normal language (significance set at p=0.05, Chi-square Test).

Items	P
Conversational Routines and Skills (CRS)	
1. waves or says hello/goodbye	p=0.359
2. looks at the person to whom he or she is speaking	p=0.002
3. initiates conversation with family and friends on a regular basis	p=0.000
4. joins play groups, games, and conversations with familiar persons	p=0.001
5. demonstrates turn-taking rules during play and/or in classroom	p=0.072
6. communicates (verbally and nonverbally) when playing with other children	p=0.001
7. waits until the end of a person's sentence before speaking	p=0.000
8. says "excuse me" (or interrupts appropriate in another manner)	p=0.000
9. says "thank you" that's good" and/or "I'm sorry"	p=0.000
10. introduces new conversation topics	p=0.000
11. stays quiet when expected, such as in a movie theater, library, or place	p=0.002
12. maintains attention while another person speaks	p=0.000
Asking for, Giving and Responding to Information (AGRI)	
13. gives and accepts hugs	p=0.054
14. asks for help from others	p=0.114
15. stops a behavior, such as tapping a foot, when asked	p=0.007
16. asks for permission to play with a friend	p=0.000
17. asks questions if he or she is confused	p=0.000
18. offers to help others	p=0.000
19. tells the details of an experience or story in the order they occurred	p=0.000

Statistical analysis

Statistical packet for SPSS (Version 8.0) was used for statistical evaluation. Both groups' pragmatic language usage results were compared by Chi-square test.

P value < 0.05 was considered statistically significant.

Results

The statistical analysis results of pragmatic language abilities of the children with a history of speech or language delay in comparison to the normal children in CRS and AGRI parts (Totally 19 items) are demonstrated in Table 1.

There was significant difference in 15 of 19 items associated with the pragmatic abilities by Chi-square test in CRS and AGRI parts ($p < 0.05$). However, in 4 items: waves or says hello/goodbye ($p = 0.359$) and demonstrates turn-taking rules during play and/or in classroom ($p = 0.072$) in CRS; and gives and accepts hugs ($p = 0.054$) and asks for help from others ($p = 0.114$) in AGRI, the difference between the study and control groups was not statistically significant ($p > 0.05$) (Table 1).

Discussion

Social communication commences in the first year of life with reciprocal vocalisations and non-verbal social exchanges and incorporates pre-verbal speech. First words develop between 10 and 12 months. By the second year the child may have a spoken vocabulary of hundreds of words and by the age of 3 years he can ask and answer questions in sentences. By the age of 4 or 5 he can understand language games e.g. rhyming and double meaning. For example, the command, 'watch your hand', when the child is cutting with scissors is correctly interpreted as, 'be careful', not a command to sit and look at the fingers. The 4-6-year-old can use adult grammar and syntax and is able to construct sentences^[8].

Research suggests that children with language delay have difficulties using pragmatic language during interactive communication. For example, children with impaired pragmatic language cannot maintain a conversation due to lack of pragmatic competence.

These findings show that language teaching through the grammatical or structural values would not be enough to use pragmatic language. In the present study, results suggest that there are significant differences between the children with language or speech delay and normal children in using the pragmatic language. Though they can initiate a conversation, children with language delay are not efficient enough at other abilities needed to maintain a mutual communication. In other words, the findings obtained in our research demonstrate that children with a history of language delay, are not able to sustain communication using pragmatic language even though they can initiate a conversation. It may be that within the developmental period of speech acquisition, they have intensively concentrated on the differentiation and learning of speech sounds, acquiring the meaning of the sounds they hear, but do not develop pragmatic language skills.

Based on the results of the current study, completion of a language program appears to aid in language delayed children's use of pragmatic language. Further, the proper use of pragmatic language depends on repetitive social interaction as it cannot be taught but is acquired through repeated exchanges. Cakir^[9] reports "successful speaking is not just a matter of using but also knowing when to use it under what circumstances and have the ability to perform appropriate linguistic forms".

The findings obtained in our study are consistent with the results by Larney, Rhona^[10], Fagan, Montgomery^[11], Prathanee, Thinkhamrop and Dechongkit^[12], Lahey,^[13] and Prutting, Kitchner^[14] presenting the use of language in social context of the children with speech delay or those with delayed receptive language abilities. Similarly, Hulsing, Luetke-Stahlman, Loeb, Nelson and Wegner^[15] conducted a study of five-year-old children with hearing loss and found that the initiation performances of the children with hearing loss were lower than those of the children with normal hearing. These findings support the fact that pragmatic language use may be associated with normal language development.

Furthermore, Hage, Resegue, Viveiros, and Pacheco^[16] investigated the pragmatic abilities of normal preschool children. They found that children respond or maintain conversation instead of initiating it; their utterances are verbal, mostly coherent and simple. Regarding the communicative functions, the most prevalent was the informative function. Correspondingly, Brady, Steeples and Kandace's study^[17] examined the effects of expressive and receptive language levels on initiated and repaired communication acts by prelinguistic children with developmental disabilities.

However, some children with language deficits may not have pragmatic language disorder. The deficits underlying the observed pragmatic difficulties may be different for different disorders^[18]. Damico, Sandra and Damico^[19] report that language and social abilities are different issues. Moreover, Kim and Kaiser^[20] inform us that children with attention-deficit or hyperactivity disorder produced more inappropriate pragmatic behaviors in conversational interactions, although their pragmatic knowledge as measured by the test of pragmatic language did not differ from that of the normally developing children.

In the present study, pragmatic language usage skills were investigated in children with receptive and expressive language delays in critical period of gaining the language. Our findings support that, for children who have previous language delay, pragmatic language usage skills may also be delayed. In our study, the DPP items which did not require the use of language (waves, demonstrates turn-taking rules during play, gives and accepts hugs, asks for help from others), there was no delay. These findings demonstrate the importance of effective learning during the critical language development period. As the children in our study began to receive language training after the age of 3, they had limited pragmatic language practice. Therefore, we report that it is normal to see delay/problems in the development of pragmatic use of language.

Following the training program, the children with language delay have improved in the area of structural

and functionally correct language.. However, we suggest that teaching only linguistic forms would not be enough to use pragmatic language functions appropriately. Loading with the linguistic information helps to improve one's linguistic competence, but having expressive linguistic competence is not enough to communicate effectively. The Importantly, receptive language skills must be in place. Not having such a skill may lead to pragmatic failure.

In order to minimize pragmatic failure, children should be provided with the opportunity to practice pragmatic language in realistic situations. They need to be exposed to the milieu where language is used as much as possible so that they can develop receptive ability. Thus, they can develop language with appropriate social meaning for communicative purposes. For that reason, enabling children to have communicative competence should be one of the key points in the teaching and learning process. It is worth mentioning that communicative competence incorporates grammatical competence, discourse competence, and sociolinguistic competence^[21]. Basically, the sociolinguistic component refers to rules of speaking which depend on social, pragmatic and cultural elements.

One may consider some factors that emerge while learning a foreign language. It is known that learning a foreign language in artificial settings is not satisfactory unless it is supported with the activities requiring performances such as discourse, discourse markers, functions, cultural values etc. Considering the current study, we assert that while learning language children prefer to abstain from establishing a communication for fear of failing to maintain it. The reason behind this might be that they have not developed pragmatic competence adequately. The study conducted by Fujiki, Brinton, Morgan and Hart^[22] supports this view in that they examined the dimensions of withdrawal and sociability in children with language impairment (LI) and their age-matched peers. In the dimension of sociable behavior, children with LI were rated significantly below typical peers on subtypes of impulse control/likability and prosocial behavior.

Finally, the current study reveals that the children with receptive, expressive or mixed language delay and pragmalinguistic problems do not show a pragmatic disorder but the influence of the delay of language development. This is contrasted to delay, which is regarded as language acquisition proceeding along normal lines but more slowly than expected. It has been discovered in our sample that the delay in language development of children made them delay in the phonologic, morphologic, semantic, grammatical and pragmatic language use. For that reason, children may fail to establish social communication and may prefer not to be involved in social activities due to the difficulties they may encounter while using social language such as choosing the right expression for the right situation, evaluating others' points of views, restating their opinions differently etc. Therefore, they fail to practice pragmalinguistic forms of language used in daily life.

Apart from the factors mentioned above, it can be added that not presenting the language in the natural and realistic situations might also cause the language delay. Moreover, in the setting of language and speech centers, there are few opportunities for "real-world" social situations where children can use language pragmatically. The post office, railway station, supermarket, restaurants, green grocer's, baker's etc. are good examples of commonly available places to promote the pragmatic learning process as they help conceptualize meaning in more realistic contexts.

Therefore, it is suggested that language learning should be accompanied by its real or authentic use apart from the linguistic forms. It is inevitable for a child to fail to communicate adequately unless learning is supported with the activities based on pragmatic language activities. For that reason, our study suggests that children who have just completed language education need to be provided with a comprehensive social and pragmatic language therapy if we want them to be able to keep an effective and satisfactory communication in a society.

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