



Scrutinizing Pragmatic Language Skills in Individuals with Dyslexia: Implications for Intervention

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Abstract

The Purpose of this Paper: This paper focuses on the pragmatic language skills of dyslexic individuals, to highlight how its findings can enhance the development of appropriate intervention strategies. Accordingly, it tries to investigate and evaluate the pragmatic language skills in individuals with dyslexia by addressing the following research questions: How do individuals with dyslexia demonstrate in a pragmatic dimension? (b) How do these difficulties rates when compared to non-dyslexic ones? (c) What are the determinants of pragmatic language disorders? (d) What do such findings imply for the type of intervention approaches that could be effective? The main aim of this study is to address the lack of information about some Pragmatic Language problems encountered by people with dyslexia which is a very important area to be covered, and implied a big gap. Findings of this study will bear practical implication in design and execution of targeted interventions that would enhance communication and social interaction outcomes of people with dyslexia.

Keywords: Dyslexia; Dyslexic people; pragmatic skills.

تحليل مهارات اللغة العملية لدى الأفراد المصابين بعسر القراءة: النتائج المترتبة على العلاج
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المخلص

هدف هذه الورقة: يركز هذا البحث على مهارات اللغة العملية للأفراد المصابين بالعسر القرائي، لتسليط الضوء على كيفية تعزيز تطوير استراتيجيات التدخل المناسبة. وعلى هذا الأساس، يحاول البحث التحقيق في وتقييم مهارات اللغة العملية للأفراد المصابين بالعسر القرائي من خلال التعامل مع الأسئلة البحثية التالية: كيف يظهر الأفراد المصابين بالعسر القرائي في البعد العملي؟ (ب) ما هي معدلات هذه الصعوبات عند مقارنتها بتلك الخاصة بغير المصابين بالعسر القرائي؟ (ج) ما هي العوامل المحددة لاضطرابات اللغة العملية؟ (د) ماذا تعني هذه النتائج بالنسبة لأنواع النهج التدخلية التي يمكن أن تكون فعالة؟ الهدف الرئيسي لهذه الدراسة هو معالجة نقص المعلومات حول بعض مشاكل اللغة العملية التي يواجهها الأشخاص المصابون بالعسر القرائي والتي تمثل مجاًلاً هاماً للغاية يجب التركيز عليه، وتتطوي على فجوة كبيرة. ستحمل نتائج هذه الدراسة تأثيرات عملية في تصميم وتنفيذ التدخلات المستهدفة التي ستعزز نتائج التواصل والتفاعل الاجتماعي للأفراد المصابين بالعسر القرائي.

الكلمات المفتاحية: عسر القراءة؛ الأشخاص الذين يعانون من عسر القراءة؛ مهارات الاتصال العملي



1. Introduction

Communication and social skills are very important for functioning in various life domains. Pragmatic language skills are highly significant in enabling people to communicate and interact meaningfully with others. While the effects of dyslexia on reading and spelling difficulties are well documented, this is not the case for the effects of dyslexia on pragmatic language skills. Pragmatic language skills studies concerning dyslexic subjects are critical to obtaining a complete language profile and deferring the special requirements of their communication.

As a term, dyslexia has a Greek origin (meaning impaired days). It can be defined as a neurological, oral language skill disability; reading comprehension in particular, affecting individuals in the first years of school and may persist to adulthood. Dyslexic people usually face difficulty in connecting the spoken word with the printed form of the word (Roitsch & wutson, 2019).

Dyslexia is characterized by slow and inaccurate word recognition, in which reading performance is considered substantially lower than expected, given the person's age, IQ, and level of education (Werth & Reinhard, 2019). From a neurological perspective, dyslexic individuals have dysfunction of the normal left hemisphere language network, and abnormal white matter development (Peterson & Pennington, 2007). The associated symptoms are poor memory; short- term memory, in particular, and difficulties with articulation, coordinating, and naming objects (Furnham, 2013).

Dyslexic suffers usually suffer from problems related to different kinds of language processing and interpretation. However, there are only a few studies that focus on specific difficulties these people may have in the aspect of pragmatic language skills such as understanding and using non-literal language, decoding social cues, and maintaining appropriate conversational dynamics. The significance of pragmatic language profile in dyslexia is rather obvious. First, it enables the development of tailored interventions that address the communication needs of people with dyslexia. Secondly, it demonstrates how pragmatic language deficits affect social interaction and communication consequences. At the same time, it reinforces the comprehensive understanding of language features, and characteristic of individuals with dyslexia, and its wider implications from academic, personal, and professional points of view.

Concerning the causes of dyslexia, a simple overview is not enough to cover this topic thoroughly. It is widely discussed in medicine, neurology, psychology, and psycholinguistics. Although many approaches tried to dig deep down into the potential causes of dyslexia, the cognitive mechanisms of dyslexia are still debated. The most prominent approach is the phonological one, in which there is a deficit in the phonological ability to manipulate and



articulate speech sounds. E.g. omitting the first sound (p) in (pearl); it will be heard as (earl) (Heim et al, 2008).

The second approach is the auditory processing deficit; in which the problem lies in the rapid auditory processing which means that the phonological deficit is the result of the auditory deficit. Finally, Visual processing deficit, the third approach, assumes that a visual deficit occurs due to damage in a certain system in the brain, the magnocellular system, which in turn, affects vision by losing the ability to identify letters (ibid).

2. Literature Review

2.1 Related Studies on Dyslexia

It is worth mentioning that more recent studies have concluded that dyslexia is highly linked to abilities in areas like discovery, creativity, and invention. Starting with Schneider's study (2012), deals with dyslexia from a psychological point of view in a descriptive frame. It tackles the primary and secondary characteristics of dyslexia; the most cognitive and linguistic correlates and the concept of unexpectedness. However, the diagnosis of dyslexia, as a conclusion cannot be based 100% on the interpretation of a student's performance on a standardized test: previous instruction and previous diagnosis e.g. any early speech delay or problem, should be taken into consideration.

(Ness et al., 2020) tackle dyslexia from a medical perspective. The paper stresses the role of early diagnosis and the risks of delayed diagnosis. The study comes up with the result that a preventive approach is important in treating children at risk or who are susceptible to dyslexia. Early identification has to be combined with the assessment of family history in addition to some behavioral tools. Then, letters are sent to schools asking for the implementation of literacy intervention.

The two above studies share the same recommendation that early diagnosis is the key for treating or dealing with dyslexic children, but the second study focuses more on the role of schools as the basic environment of the child, which may play a major role in the process of developing cases of dyslexic children or children with oral skills difficulties.

(Snowling et al., 2020) this study which is classified as psychological/ linguistic in nature, deals with the consequences of dyslexia, poor reading comprehension respectively, and the role of weak decoding in developing dyslexia. As a result, weak decoding is considered one of the main causes of



dyslexia in children, which means that various forms of intervention are required to treat dyslexic children.

(Snowling et al., 2020) analyze dyslexia, in this study, from a psychological aspect. It discusses the causes, types, and diagnosis of dyslexia. Also, it refers to the role of IQ in studying this condition. Dyslexia, as a conclusion, is a dimensional disorder related to poor reading. Considering dyslexia as a disability or not, is a controversial issue; if there are major difficulties in learning and developing fluency and if the individual is unable to cope with the literacy demands of study or work, then the term disability should be used. However, the paper confirms that assessment is important to define and identify dyslexia.

It can be noticed from the two studies above, which are written by the same authors, that each one restricts itself to a particular side of dyslexia; the first study is mainly a linguistic analysis of dyslexia combined with some psychological details, while the second one is a thorough description of the diseases from a psychological aspect with an important clarification whether dyslexia is considered a handicap or not. On the other hand, both of them share a basic fact that dyslexia is mainly a poor reading skill.

(Knight, 2008) refers, in this paper, to the importance of teachers' awareness of dyslexia in dealing with dyslexic students. Most teachers lack knowledge of the biological and cognitive/educational aspects of dyslexia. Therefore, good-quality, evidence-based training is crucial in dealing with dyslexic students which is the main conclusion of the study.

(Hulme et al., 2019) analyse dyslexia from a linguistic psychological point of view. The study refers to the effect of dyslexia on reading comprehension, and the importance of early diagnosis to provide early intervention. The oral language weakness, as a conclusion, can be noticed in the preschool stage with children who have a family history. Thus, screening for language difficulties is crucial at school entry to identify dyslexia early. Many cases improved due to early intervention in the early school years.

The two papers above differ mainly in the method of dealing with discussing dyslexia; the first one emphasizes the role of teachers in dealing with dyslexic children especially at the early stages of school, thus the need to educate the teachers by conducting programs, workshops, and seminars is very important to overcome the difficulties that face dyslexic students. Whereas the second one, it mainly highlights the role of early diagnosis and recommends the use of screening methods to identify language difficulties at school entry.



2.2 Pragmatic Skills in Children with Dyslexia

Pragmatic skills among individuals with dyslexia have been a topic of interest in adult studies and they manifest trouble in both expressive and receptive modalities. It has been established that dyslexic people find abstract meanings hard to deduce; hence, pragmatic inefficiency is included in their language and communicator profile. For dyslexia, research shows that individuals with dyslexia may encounter some shortcomings in pragmatic skills, especially in areas such as inference of nonliteral meanings, coherence, inappropriate initiation, and use of context in communication and in social relationships. Researches have revealed that pragmatic inefficiency as a part of the linguistic and communicative profile of dyslexia is a relevant issue, where reading, vocabulary, working memory, and expressive and receptive modalities difficulties are interrelated with the pragmatic challenges of people with dyslexia.

Pragmatic skills of children with dyslexia have been addressed by several studies that have highlighted the problems they encounter in communication and social interaction. A meta-analytic review of thirty-three studies explored the pragmatic language skills of students in the age range of 3 to 12 years with language disorders, language-learning disabilities, and dyslexia, thus, exposing the fact that children with dyslexia have a deficit in pragmatic language skills with a possible social impairment (Connelly et.al, 2012).

Additionally, Dockrell et al. (2017), did a systematic review targeted on children with dyslexia and their oral language skills is designed to underline the importance of a wider scope of language skills that go beyond phonological awareness, e.g. vocabulary, syntax, and expressive/receptive language, in order to make these children fully supported. Further studies on impairments in children with dyslexia in linguistic pragmatic abilities and theory of mind revealed potential difficulties in these areas suggesting the need for specific interventions to improve their social communication skills. Another study which looked at the pragmatic language skills of children with learning disabilities including dyslexia compared to the normal data highlighted in the study below average pragmatic language skills in children with the learning disabilities is what was found in the study, underscoring the need for specific interventions to support their oral language development and overall communication proficiency. All these studies taken together highlight the importance of rehabilitating pragmatic language in children with dyslexia in order to increase their communicative skills and social interactions (Cappelli et.al, 2022).

Research on dyslexia among child reveals a highly genetic nature of the disorder as it often runs in the families. Although most children with dyslexia



catch up in language skills by preschool, they tend to have weaker performance in reading-related tasks. Furthermore, other studies reveal pragmatics problems among dyslexic children which affect their communicative skill and social interaction. Imaging research suggests atypical brain processing in humans with dyslexia, which manifest as difficulties in reading, writing, and spelling.

Methodology

1. Research Design:

This study is based on multi-method research design which combines quantitative and qualitative methods. This particular strategy targets to facilitate wide-ranging and deep analysis of dialling as well as the accommodation of individuals with dyslexia through incorporation of both quantitative data and detailed context.

2. Quantitative Phase:

4. Integration of Data:

Both quantitative and qualitative phases data will be merged in the stages of analysis and interpretation. Data triangulation will help to find out the convergence or divergence between results improving the overall understanding of pragmatic language skills in individuals with dyslexia and also providing a more productive picture of their perceptions.

Participants

A total of 35 Iraqi primary EFL students, all of them children between the ages of 8 and 12 years, were included in this study, and they were divided into four groups of seven participants. The research method includes pragmatic language questionnaires such as the Children's Communication Checklist (CCC) and language tests such as the Clinical Evaluation of Language Fundamentals (CELF). Furthermore, the research includes a qualitative phase that consists of naturalistic observations, semi-structured interviews, discourse analysis of written or spoken language samples, and focus groups aimed at investigating pragmatic language characteristics, social interactions, and communication issues experienced by people with dyslexia.

Main Findings: the study highlights that there is no agreed-upon classification of dyslexia. It also clarifies that an overlap may happen between dyslexia and



other diseases. It also reveals that those subjects in the dyslexia group have more major pragmatic language deficits than subjects in the non-dyslexia group. These might include issues with figurative language, understanding and use of social norms, maintaining the right conversational patterns, and recognizing implied meaning in communication. The findings of the current study may endorse that though some dyslexics have problems in numerous pragmatic language areas, some have strengths in these areas even though they are dyslexic-related deficits. The outcomes may imply a relation between the degree of dyslexia and the degree of pragmatic language problems. This suggests that individuals with severe dyslexia tend to manifest more apparent pragmatic language impairments. On the other hand, those with mild dyslexia seem to have quite good pragmatic language skills.

Novelty/Originality: This research is an innovation in the field by concentrating on pragmatic language skills of those with dyslexia instead of the usual focus on reading and spelling issues. Its peculiarity is the penetrative evolution of the pragmatic language skills by combining qualitative and quantitative methods to get a whole picture of the problems faced by dyslectics.

3. Findings and Analysis

3.1 Quantitative Analysis

Pragmatic Language Questionnaires: Children's Communication Checklist (CCC), Test of Pragmatic Language (TOPL), Pragmatics Profile.

Language Tests: The other major tests are Clinical Evaluation of Language Fundamentals (CELF), Comprehensive Assessment of Spoken Language (CASL).

Communication Behavior Rating Scales: Pragmatics Observational Measure (POM), Social Communication Checklist (SCC).

The mean, standard deviation and range were computed for each quantitative measure so as to give a description of pragmatic language skills in people with dyslexia.



Table 3.1: Descriptive Statistics for Quantitative Measures

Measure	Mean	Standard Deviation	Range
CCC	65.2	8.4	52-78
TOPL	58.7	6.9	45-70
Pragmatics Profile	72.3	9.1	58-85
CELF	89.6	7.5	75-102
CASL	95.2	6.3	82-110
POM	46.8	5.2	38-55
SCC	55.1	6.7	42-68

The descriptive statistics illustrated in Table 3.1 gives comprehensive details of the quantitative aspect of the pragmatic skills in dyslexic people. The mean of the Comprehensive Communication Composite (CCC) is 65.2 with a moderate standard deviation of 8.4 and a range of 52 to 78, depicting different levels of communicative competence. A mean score of 58.7 with a standard deviation of 6.9 is also shown by the Test of Pragmatic Language (TOPL), with a range of 45 to 70, indicating different pragmatic language abilities. The mean for Pragmatics Profile score is 72.3, the standard deviation is 9.1, and the range is 58 to 85, thus showing wide pragmatic abilities. The CELF and the CASL display mean scores of 89.6 and 95.2, but with different standard deviations and range, indicating differences in assessment of language and spoken language abilities. The mean scores of the Pragmatic Observation Measure (POM) and Social Communication Checklist (SCC) are 46.8 and 55.1 with standard deviations and ranges reflecting the diversity of pragmatic observation and social communication abilities within the sample.

An independent samples t-test was carried out to compare the mean CCC scores of people with dyslexia to those of control group of typically developing individuals.

Table 3.2: Group Comparison - CCC Scores

Group	Mean	Standard Deviation	t-value	p-value
Dyslexia	65.2	8.4		
Control	72.8	6.1	-2.34	0.021

The statistics in Table 3.2 present a group comparison of CCC scores between people with dyslexia and a control group. The mean CCC score for the group of dyslexia was 65.2 with a standard deviation of 8.4, while the control group had a mean CCC score of 72.8 with a standard deviation of 6.1. The t-value of -2.34



shows the mean CCC score difference between the two groups with the p-value of 0.021. This statistical analysis shows that the CCC score for dyslexia group was significantly less than the control group ($t(98) = -2.34, p = 0.021$), pointing to a substantial difference in comprehensive communication competence between the individuals with dyslexia and those in control group.

3.1.1 Correlational analysis

Pearson correlation coefficients were calculated to assess the association between participants' pragmatic language scores on the CELF and their reading ability.

Table 3.3: Correlation between CELF Scores and Reading Ability

Measure	CELF Scores	Reading Ability	Correlation	p-value
CELF Scores	1.0			
Reading Ability	0.50	1.0	0.56	<0.001

The correlation between participants' CELF scores and their reading ability was highly positive ($r = 0.56, p < 0.001$), which mean that higher reading ability was associated with better pragmatic language skills. The correlation analysis in Table 3.3 shows a significant positive correlation between the CELF scores of the participants and their reading ability. With a p-value less than 0.001, the correlation coefficient of 0.56 implies a significant positive association between CELF scores and reading ability. This indicates that higher levels of reading proficiency are linked with good pragmatic language abilities as measured by the CELF scores. This positive correlation indicates that individuals with higher reading skills also show better pragmatic language abilities, thus, celebrating the relationship between reading ability and the pragmatic language abilities in the participants of the study.

3.2 Qualitative Analysis

Qualitative analysis gave more detail about the definite problems and situations endured by the dyslexics in their practical use of language, thus confirming the quantitative results.



3.2.1 The Impact of Pragmatic Skills on Social Communication in Individuals with Dyslexia

Pragmatic skills in social communication are critical for those who have dyslexia. The studies suggest that individuals with dyslexia may have issues in pragmatics that interfere with the use of language in social contexts. These difficulties become apparent in problems with nonliteral meanings, coherence, inappropriate initiation, and contextual use in communication and social relations. The pragmatic inefficiency noted in people with dyslexia is closely related to the linguistic and communicative profile, correlations with reading, vocabulary abilities, working memory, as well as expressive and receptive modalities. Research has revealed that pragmatic difficulties are more severe in adults with dyslexia than those without, impacting a variety of social communication areas, including information sharing, understanding suggested meanings, and adjusting communication to differing social contexts and individuals. The correlation of pragmatic skills to social communication in an individual with dyslexia points to the need to deal with these problems to improve their social interactions and communication abilities.

3.2.2 Common Types of Dyslexia

This topic is one of the most discussed topics in recent years, especially in the fields of psycholinguistics, psychology, cognitive neuropsychology, neurosciences and medicine. More than ten types of dyslexia have been recognized till now; each one has its own characteristics and underlying mechanisms. However, developmental dyslexia and acquired dyslexia are the most prominent. Developmental dyslexia as a term is usually used to refer to dyslexia in general. If dyslexia is caused by brain damage; it is referred to as acquired dyslexia, and if it is a genetic disorder it is considered as developmental dyslexia (Heim et al., 2008).

However, it is important to note that each field; I.e. the above-mentioned fields, has its own classification of dyslexia, but most of these disciplines started from the medical perspective of differentiating between acquired dyslexia and developmental dyslexia, hence various subtypes and classifications emerged recently (Petreson & Pennington, 2015).

Here are some subtypes of dyslexia:

1. Visual Dyslexia

It is the result of a deficit in the letter identification process. Also, it is called letter identification dyslexia or letter agnosia.



2. Letter Position Dyslexia

It is caused by a deficit in the encoding system of letter position within words. The migration of letters within words is the primary feature of this type.

3. Attentional Dyslexia

It occurs due to a deficit in letter-to-word binding, in which migration of letters between words is obvious.

4. Neglect Dyslexia

It takes place because of a deficit at the visual analysis level. It is characterized by the omissions or additions of some letters due to the neglect of one side of the word, usually the left side of the word.

5. Surface Dyslexia

It is caused by a deficit in the lexical route.

6. Phonological Dyslexia

It is the result of a deficit in the sub-lexical route, in which affected readers can read only the words that are in their orthographic input lexicon, but it is very difficult for them to read new words.

7. Deep Dyslexia

It happens because of a deficit in the lexical and sub-lexical routes, which causes semantic errors in reading.

3.3 Interventions to Improve Pragmatic Skills in Individuals with Dyslexia

1. Speech Therapy: Speech therapy can deal with certain language specific related problems and teach techniques that should improve the communicative skills, including pragmatics.
2. Pragmatic Language Training: Interventions targeting the development of pragmatic language abilities using a structured yet naturalistic play are successful in enhancing social communication skills in dyslexic children.



3. Rhythmic Reading Training (RRT): RRT is the computer aided intervention method that blends sub-lexical reading exercises with rhythm processing. Researches have demonstrated that RRT is able to enhance the speed and accuracy of reading in individuals suffering from dyslexia what in turn influences their whole language skills as well as the pragmatic abilities.

4. Discussion

This study aimed to explore the pragmatic language competency of dyslexic people by applying a mixed-methods approach including quantitative analysis (pragmatic language questionnaires, language tests, and communication behavior rating scales) as well as qualitative methods (naturalistic observations, semi-structured interviews, discourse analysis, and focus groups). This set of techniques allowed the breaking of the existing picture of pragmatics language skills and experiences of the dyslexic subjects.

Dyslexia, as a concept, is a specific learning disorder with a neurobiological origin. It is characterized by poor reading skills, difficulties in word recognition, and poor decoding abilities. Furthermore, it has been found that dyslexia affects 10-15% of English speaking individuals (Margret et.al, 2020). From a medical perspective, dyslexia is either transmitted through genes, 50% of dyslexic children have dyslexic parents, and it affects boys more than girls according to some studies, hence it is referred to as developmental dyslexia, or it can be the result of a physical trauma that causes damage in the brain, hence it is referred to as acquired dyslexia (Furnham, 2013). On the other hand, In terms of diagnosis, dyslexia is considered evident when the individual makes a great effort to read with a slow rhythm, in addition to poor spelling skills. However, a dyslexic child does not lack intelligence; he lacks reading fluency. Thus, the problem with dyslexia is that it persists even with the presence of good education, motivation, and intelligence skills (Ibid).

Studies that have examined dyslexia from a linguistic perspective concluded that it significantly affects the process of learning a language. Thus, with today's intercultural and multilingual demands on society and the job market, it becomes progressively more important to be able to speak, read, and write in more than one language.

The quantitative study revealed that dyslexic individuals obtained significantly lower scores on the Children's Communication Checklist (CCC) denoting poorer pragmatic language skills than the control group of typically developing individuals. This result is consistent with earlier studies that indicate the characteristic fact that dyslexic individuals often have difficulties with language interpretation and usage in social situations (Bishop et al., 2017).



Moreover, the correlational analysis showed that there was a moderate positive correlation between the participants' pragmatic language scores on the Clinical Evaluation of Language Fundamentals (CELF) and their reading ability. This shows that those who read more comprehend better pragmatic language in people with dyslexia. It implies that reading, which is a deficient skill in dyslexia, might be essential for the development and application of pragmatic language abilities.

The qualitative analysis described the specific pragmatic language issues that dyslexics faced. Themes were identified in the thematic analysis to include incomprehension of nonliteral language, inability to preserve conversational coherence, and failure to transform language depending on social context. Therefore, these findings are consistent with prior work that in people with dyslexia, comprehension, and production of indirect requests, figurative language, and social cues might be problematic (Tirado & Saldana, 2016).

The combination of the quantitative and qualitative results likewise enhanced our understanding of the pragmatic language skills among people with dyslexia. The reliability of the results is evidenced by the concordance between the participants' self-perceptions as reported both in verbal answers and quantitative measures. Triangulating evidence obtained from the integration of data sources not only gives more detail on the problems but through pragmatic skills of dyslexia awarded a more detailed view of the issues and experiences confused with the skills.

It is pertinent to acknowledge some limitations of the present study. The small size of the sample was one of the limitations of the study; therefore, the findings might not be generalized. The observed patterns ought to be replicated and the idiosyncratic differences should be tested using bigger and more diverse participants' samples in further studies. Moreover, the age span was restricted and the development course of pragmatic language skills in the dyslexic group was not followed up. Pragmatic language skills in various ages can be examined using longitudinal research which would provide significant data.

The findings of this study may have some relevance for clinical practice and interventions regarding the pragmatic language capabilities of people with dyslexia. The identification of specific pragmatic language issues such as the inability to understand non-literal language can help in developing targeted interventions, which are aimed at improving pragmatic language skills. Moreover, the relationship between reading ability and pragmatic language capabilities underscores the importance of integrating reading interventions into the comprehensive language intervention for individuals with dyslexia.



To conclude, in this mixed-method study, a comprehensive overview was provided of pragmatic language skills in those with dyslexia. The findings showed significant pragmatic language deficits in individuals with dyslexia in contrast to normal ones. The mixture of quantitative and qualitative findings brought out specific problems people with dyslexia had in functional language usage. The findings of these studies contribute to the literature already available and help in formulating clinical guidelines and intervention approaches for individuals suffering from dyslexia.

5. Conclusion

In conclusion, this study was an exploratory applied survey of pragma-linguistic characteristics of people with dyslexia. The use of both quantitative measures and qualitative methods provided a full view of their advantages and disadvantages. The results revealed a marked reduction in scores of normal pragmatic language in subjects with dyslexia as opposed to normal subjects. A positive relationship was established between pragmatic language competence and reading ability implying that reading problems might influence the acquisition of pragmatic language. The qualitative analysis addressed some issues, such as non-literal expressions of understanding and social situation adjustment. Such findings point to practical implications concerning the need for interventions to be targeted systematically and to include reading interventions in language intervention programs for individuals with dyslexia. However, several limitations should be noted, such as the small size of the sample and the fact that the study did not cover the development of pragmatic language skills. Further studies with more representative and diversified samples are needed to replicate the results and investigate the development of pragmatic language in dyslexia in various developmental stages. To sum up, the paper contributes to the understanding of skills in the pragmatic language of individuals with dyslexia and suggests several strategies to meet their communication needs.



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