



ORIGINAL

A Quasi-Experimental Study on the Effectiveness of Early Interventional Techniques on Self-Esteem

Estudio cuasiexperimental sobre la eficacia de las técnicas de intervención temprana en la autoestima

Arockia Selvi A¹ , Hema V.H² 

¹Faculty of Nursing, Dr.M.G.R. Educational and Research Institute, Chennai, India.

²Faculty of Nursing, Dr.M.G.R. Educational and Research Institute, Chennai, India.

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ABSTRACT

Background: specific learning disability (SLD) as it is known is an aberration in the underpinning psychological process that exhibits itself in the flawed ability to think, listen, talk, read, and write. It can also be connected to spelling difficulties, mathematical derivations, and calculations. It tends to be related to cognitive impairments or brain injuries spurred by neurological disarray, aphasia, or additional problems.

Aim: this specific review aims to summarise interventional techniques, stability of individual self-esteem, other societal-related skills, academic skills, and others among children with SLD. It is necessary to determine which interventional strategies can be implemented to assist kids with SLD issues identified in schools or academic centres to enhance their self-esteem, social skills and academic achievements.

Methods: the articles were searched in databases like PubMed, Web of Science, Psyc INFO, and CINAHL with Boolean like “specific learning disabilities children” AND “intervention” OR “Self-esteem”, “Social skills” AND “Academic achievements”.

Results: in the empirical studies, five objects were identified as appropriate for the research. Many types of interventions have been used to assess appreciation or liking for self-esteem, social skills, and vital academic skills among children of SLD. Children who underwent an experimental program receiving the Feuerstein Instrumental Enrichment Program reflected an increase in some of the cognitive functions. The student's ability to execute data processing approaches during their academic activities has improved when the ability to recall, perceive, schedule, and executive intervention system is combined with other quadrant paradigms. Significant advancement was noticed in self-esteem, social skills and academic excellence. All these were possible due to a positive approach to the intervention.

Conclusions: in the evaluation review, the researcher highlights how children with SLD perform better and that the positive psychological interventions examined have entirely eradicated all of their adverse effects. In this regard, there is a requirement to provide inclusive education for kids with Specific Learning Disabilities (SLD) and for persevering with SLD-related experimentation procedures.

Keywords: Specific Learning Disabilities Children; Emotional Stability; Social Skills; Core Academic Skills And Systematic Review

RESUMEN

Antecedentes: la discapacidad específica del aprendizaje (DEA), como se conoce, es una aberración en el proceso psicológico subyacente que se manifiesta en la capacidad defectuosa para pensar, escuchar, hablar, leer y escribir. También puede estar relacionada con dificultades ortográficas, derivaciones matemáticas y cálculos. Suele estar relacionado con deficiencias cognitivas o lesiones cerebrales provocadas por desajustes

neurológicos, afasia o problemas adicionales.

Objetivo: esta revisión específica pretende resumir las técnicas de intervención, la estabilidad de la autoestima individual, otras habilidades relacionadas con la sociedad, las habilidades académicas y otras entre los niños con SLD. Es necesario determinar qué estrategias de intervención pueden aplicarse para ayudar a los niños con problemas de SLD identificados en escuelas o centros académicos a mejorar su autoestima, sus habilidades sociales y sus logros académicos.

Métodos: los artículos se buscaron en bases de datos como PubMed, Web of Science, Psyc INFO y CINAHL con Boolean como “specific learning disabilities children” AND “intervention” OR “Self-esteem”, “Social skills” AND “Academic achievements”.

Resultados: en los estudios empíricos, se identificaron cinco objetos apropiados para la investigación. Se han utilizado muchos tipos de intervenciones para evaluar el aprecio o el gusto por la autoestima, las habilidades sociales y las habilidades académicas vitales entre los niños de SLD. Los niños que se sometieron a un programa experimental recibiendo el Programa Feuerstein de Enriquecimiento Instrumental reflejaron un aumento en algunas de las funciones cognitivas. La capacidad del alumno para ejecutar enfoques de procesamiento de datos durante sus actividades académicas ha mejorado cuando la capacidad de recordar, percibir, programar y el sistema de intervención ejecutiva se combinan con otros paradigmas de cuadrantes. Se observaron avances significativos en la autoestima, las habilidades sociales y la excelencia académica. Todo ello fue posible gracias a un enfoque positivo de la intervención.

Conclusiones: en la revisión de la evaluación, el investigador destaca cómo los niños con SLD obtienen mejores resultados y que las intervenciones psicológicas positivas examinadas han erradicado por completo todos sus efectos adversos. En este sentido, es necesario proporcionar una educación inclusiva a los niños con Trastornos Específicos del Aprendizaje (DEA) y perseverar en los procedimientos de experimentación relacionados con los DEA.

Palabras clave: Niños Con Dificultades Específicas De Aprendizaje; Estabilidad Emocional; Habilidades Sociales; Habilidades Académicas Básicas Y Revisión Sistemática.

INTRODUCTION

A weakness in one or more of the basic cognitive processes essential to comprehending and utilising language, whether spoken or written, is known as a specific learning disability (SLD). This disorder may make people unable to think clearly, read, write, spell, or do mathematical computations. Cognitive challenges, damage to the brain, harmless brain failure to function, dyslexia, and developmental aphasia are all included under this umbrella phrase.⁽¹⁾ Multiple learning issues affect kids with learning difficulties. A few indications of learning disabilities include reversals in reading and writing, issues distinguishing dimensions, form, and colour, poor organisational abilities, issues with sequencing, poor short-term/long-term recollection, challenges combining reasoning or problem-solving, and poor visual-motor communication.⁽²⁾ In the students body of the school, writing-related SLD had affected 81,5 % of students, while math-related SLD had affected 6 % of students of classes IV & V. Following a study undertaken in southern India, the prevalence of SLD represents 15,17 %, in contrast the rates for dyslexia, dysgraphia, and dyscalculia are 12,5 %, 11,2 %, and 10,5 %, respectively.⁽³⁾ One of the seven essential markers of exceptional mental health is self-esteem. It has an impact on how well students learn. In situations when the person or student must be adaptable and flexible, emotional regulation might hinder performance. Insufficient emotional control in a student might result in worry, inferiority complexes, and guilt.⁽⁴⁾ Children lacking social skills may experience psychological difficulties now and in the future. Deficits in social skills ultimately result in mediocre academic performance, sub-par social abilities, peer rejection, social flee, and feeling lonely. Children who lack social skills are also more prone to experience anxiety, sadness, and bullying.⁽⁵⁾ It is required then that teachers, educators, and even parents provide extra assistance to students with certain learning difficulties. By selecting materials and activities appropriate for the student's current level of education and inspiring their desire to perform at their best, teachers can support students with learning disabilities and transcend the issues they face into distinctive possibilities to be model performers. Considering this particular group of pupils has distinct demands, it is highly relevant that researchers conduct deeper studies in this area to meet those requirements.

Review aims

This study looks at the impact of early intervention techniques on students with specific learning difficulties in terms of their emotional stability, social skills, and core learning abilities in school. Consequently, the primary goal of this systematic review was to: (1) summarise the effect of early intervention techniques on emotional stability, social skills, and fundamental academic capabilities in children with specific learning difficulties. (2)

Report on the results of the effectiveness of early interventional techniques on emotional stability, social skills, and core academic skills among children with specific learning disabilities in schools. (3) Determine the tools that are most frequently used to measure the effectiveness of early interventional techniques on emotional stability, social skills, and core academic skills.

MATERIAL AND METHODS

The process of study selection and data gathering

A deep and comprehensive search of electronic databases, including PubMed, Web of Science, Psyc INFO, and CINAHL database searches were done as a component of a comprehensive review looking at the results of the effectiveness of early interventional techniques on emotional stability, social skills, and core academic skills among children with specific learning disabilities in schools. A combination of the following free-text phrases was employed in every single database search for “Specific Learning Disabilities Found in Children” AND “intervention” OR “emotional stability”, “social skills” AND “academic skills”. Duplicate studies were initially eliminated, and reference lists of pertinent papers were looked through to find any other research that matched the inclusion criteria. Following this first literature search, editors looked through titles and abstracts to identify those that met the requirements for inclusion.

Eligibility Criteria

The research papers included in this overview adhered to the standards specified in the sections that follow: (1) The impact of early intervention strategies on fundamental academic skills, social and emotional competence, and emotional stability in school-aged children with specific learning difficulties, (2) A school-based intervention study with a focus on emotional stability, social competence, and fundamental academic abilities, (3) Non-intervention or pre-post comparison groups are utilised in quantitative research to investigate emotional stability, social skills, and fundamental academic abilities in school-aged children with specific learning difficulties, (4) Original research articles and the paper were published in peer-reviewed publications. Papers were disapproved if: (1) Early intervention strategies were ineffective in promoting emotional stability, social competence, and fundamental academic skills in school-aged children with specific learning difficulties, (2) Were the thesis/dissertations, case studies/case series, review articles, qualitative research, (3) weren't English-language publications.

Data Extraction

Data from the included studies were systematically collected using a data extraction tool: (1) qualities of the study, the genre of the author, the year and region where the data have been gathered, (2) Specific learning disability features: number of students and their respective ages, (3) Intervention used to specific learning disabilities and (4) Findings.

Study Quality Assessment

According to Prisma guidelines, the articles were searched in the required databases. By using the Boolean “AND”, and “OR” with the keywords specific learning disability, social skills, academic performance, and intervention, a total of 120 studies were identified. There were duplicates of 82 studies that were removed. While screening the records, 26 articles were removed as those articles did not have full articles and were not related to a specific learning disability. After the removal of those articles, 31 articles were obtained. Among the 31 articles, the number of articles containing all key variables included in the study is 5. (figure 1)

RESULTS

The search approach turned up to 301 studies (129 in PubMed, 91 in Web of Science, 65 in PsycINFO, and 16 in CINAHL). 187 suitable documents were discovered after replicate publications had been eliminated. The titles and abstracts of all identified studies were reviewed during the screening step. As a result, 114 papers were excluded since they were not deemed appropriate for the current review. 35 studies were ultimately chosen for the eligibility phase. Twelve (12) were disqualified because they failed to meet the selection requirements. Table 1 is shown at the end. Table 1 shows that 5 empirical studies are pertinent to our investigation.

Study Quality

Two studies^(6,7) had a “fair” quality rating and “good” for the remaining three.^(5,8,9)

Study Characteristics

Table 1 presents a description of the key methodological aspects and broad characteristics of the recently reviewed studies. Two of the researches are experimental investigations.^(6,7,8,9) one study is cross-sectional study.⁽⁵⁾ Each research report was released between 2007 and 2020. These included studies conducted by researchers in India, Thailand, Indonesia, and Belgium.

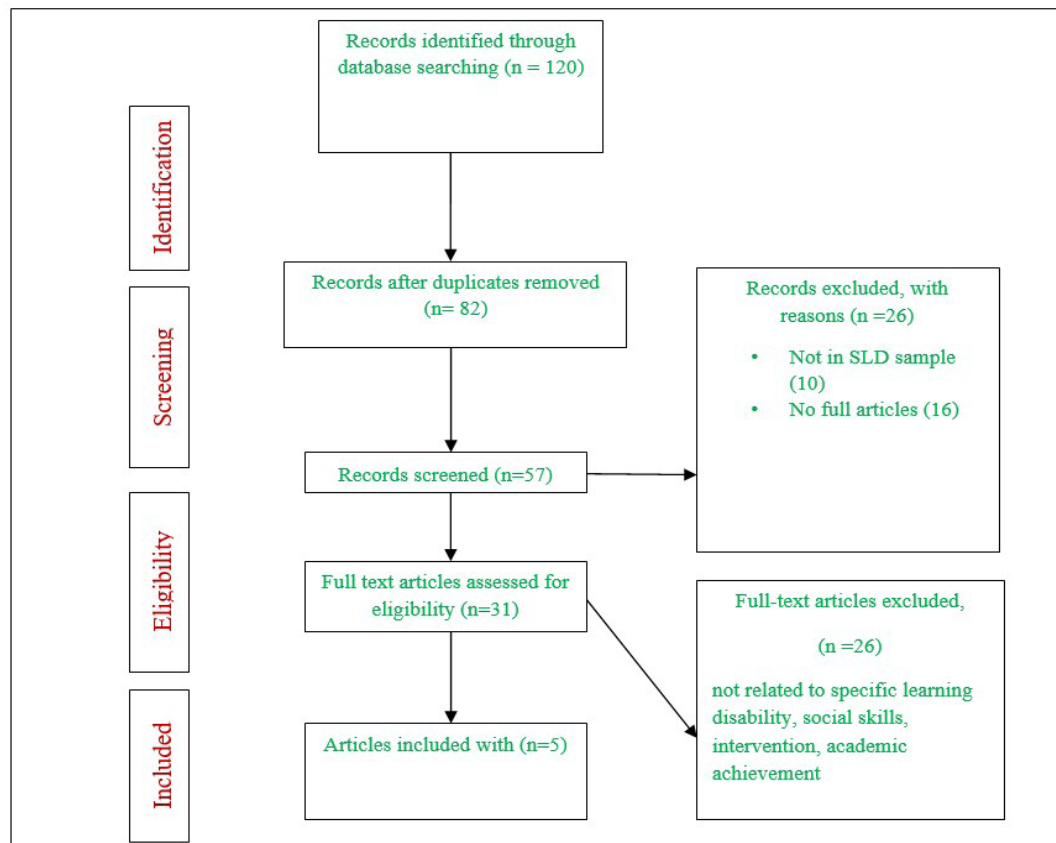


Figure 1. Flowchart of identification of studies for the review

The Characteristics of Children

There were 243 school children in all of these 5 investigations, ranging in age from 8 to 13.

Intervention used to Specific Learning Disabilities

The cognitive intervention, Feuerstein's Instrumental Enrichment Programme, was employed by Gila Schnitzer, Caroline Andries, and Jo Lebeer, 2007.⁽⁶⁾ According to this study of interventions used to treat specific learning disorders, The Perceive, Recall, Plan, and Perform (PRPP) the structure of Enforcement was put into action. In Sutinun Juntorn, and Peeraya Munkhetvit, 2017;⁽⁷⁾ Using a 4-point Likert scale, FitriDwiArini, Sunardi, and Sri Yamtinah, 2019 studied the social skills of students with specific learning disabilities;⁽⁵⁾ Positive psychology intervention was put into effect by Usha Tiwari Upadhyay in 2020,⁽⁸⁾ whereas learning interventions in phonology, morphology, semantics, syntax, and pragmatics were administered by S. Pandiammal and S.J. Poornakala 2020.⁽⁹⁾

Results show that early intervention programmes help raise children's self-esteem, social skills, and fundamental academic achievements.

In several studies, in schools with specific learning difficulties, it was discovered that early intervention techniques helped school-aged kids with particular learning shortcomings develop their emotional stability, social competence, and fundamental academic skills. Children in the experimental group demonstrated significantly improved hypothetical reasoning, perception adherence to the 14 activities of Feuerstein's Instrumental Enrichment Programme (FIE), and knowledge of enjoyment, according to research by Gila Schnitzer, Caroline Andries, and Jo Lebeer, 2007.⁽⁶⁾ A scientific study indicates that the four-quadrant model and the PRPP therapy approach may enhance participants' capacity to use information-processing strategies during coursework. by Sutinun Juntorn, Sarinya Sriphetcharawut, and Peeraya Munkhetvit, 2017.⁽⁷⁾ According to FitriDwiArini, Sunardi, and Sri Yamtinah's 2019 study, 82,5 % of students with impairments have social skills that range from low to very poor.⁽⁵⁾ Usha Tiwari Upadhyay, 2020 reported that after undergoing a positive psychological intervention, children with SLD saw a considerable improvement in their emotional well-being in terms of greater life satisfaction, boosted positive effects, and diminished negative consequences.⁽⁸⁾ In accordance with S. Pandiammal and S.J. Poornakala, 2020, total self-esteem scores for the control and experimental groups were low before the intervention, at 14,21 and 14,20, respectively.⁽⁹⁾ They were low (14,20) in the control group and moderate (24,01) in the experimental group.

Table 1. The Characteristics of Participants

Author(year)	Design of the research (Nation)	Children's number (n)	Children's age (in years)	Intervention	Findings
Jo Lebeer, Caroline Andries, and Gila Schnitzer, 2007	Experimental study (Belgium)	48	11 to 13 Years	Cognitiveintervention -Feuerstein's Instrumental Enrichment Programme	Students in the group performing the experiment showed a significantly higher level of some intellectual abilities (hypothetical contemplating, perception, along with comprehension of fun) after 14 training of FIE (Feuerstein's Instrumental Enrichment Programme).
S u t i n u n J u n t o r n , SarinyaSriphetcharawut, and PeerayaMunkhetvit, 2017	Experimental study (Thailand)	20	10 to 12 Years	PRPP System of Intervention: Perceive, Recall, Plan, and Perform (Execute).	The four-quadrant paradigm and the PRPP intervention approach could improve the ability of participants to apply information processing techniques during academic pursuits.
FitriDwiArini, Sunardi and Sri Yamtinah, 2019	Cross-sectional study (Indonesia)	40	9 to 11 Years	Students with specific learning disabilities utilising a 4-point Likert scale for Social skills.	Students with impairments typically score between moderate and very poor on social Skills tests (82,5 %).
Usha Tiwari Upadhyay, 2020	Experimental study (India)	75	8 to 12 Years	Positive psychology intervention	Children with SLD who received positive psychological treatment showed a significant improvement in their emotional well-being, as measured by enhanced life satisfaction, greater positive effect, and reduced negative affectivity.
S. Pandiammal and S.J. Poornakala, 2020	Experimental study (India)	60	9 to 10 Years	Phonology, morphology, semantics, syntax, and pragmatics are examples of learning interventions.	Before the intervention, the control groups and the experimental groups overall self-esteem ratings were low (14,21 and 14,20, respectively), and after the intervention, the control groups and the experimental group's scores were low (14,20 and 14,01, respectively).

DISCUSSION

The primary goal of the study was to explore the impact of early interventional strategies on fundamental academic skills, social skills, and emotional stability in school-aged children with specific learning difficulties. The quality evaluation of the papers under examination revealed that they fulfilled almost all necessary criteria, comprising topic importance, methodological quality, analysis of outcomes, and suitable influence. In school-aged children with specific learning difficulties, the investigated publications established the beneficial effects of early interventional strategies on emotional stability, social skills, and core academic capabilities.

Throughout 14 workshops of FIE (Feuerstein's Instrumental Enrichment Course), the experimental group's students showed significant improvements in some cognitive skills (hypothetical thinking for themselves, awareness, and understanding of laughter), yet no improvements in individuals. Qualitative interviews have proven significant consequences on socio-emotional conduct that could not be quantified. One of the most important influencing factors for long-lasting changes was the lecturers' meditative demeanour. After receiving positive psychological treatment, children with SLD showed a significant improvement in their emotional well-being, as measured by increased life satisfaction, improved positive effect, and reduced negative affectivity. Gila Schnitzer, Caroline Andries, Jo Lebeer 2007 and Usha Tiwari Upadhyay, 2020.^(6,8)

Similarly, Esmail Soleymani, Mojtaba Habibi and Mani B. Monajemi 2015; Valeria Cavioni, Ilaria Grazzani and Veronica Ornaghi 2017; Ahmed Elhassan Hamid Hassan 2015; Karande S 2022; Syed Arifa and Syed Shahid Siraj 2019; Peter A. Wyman *et al* 2010; Elisabetta Lombardi 2021 indicative distinctions between the elements of alexithymia and mental health were discovered. Students with dyscalculia gain psychologically and in terms of their alexithymia component through adopting emotional regulation strategies.^(10,11,12,13,14,15,16) Problems with thinking, being unable to stay focused, unwillingness to pay attention, lack of activity, lack of conversations, lack of self-assurance, low self-esteem, hostility, overconsumption of activity, non-interaction, hyper-crime, phobia, and short-duration sleep are some of the emotional and behavioural issues that affect children with learning disabilities. According to research made by Sutinun Juntorn, Sarinya Sriphetcharawut, Peeraya Munkhetvit, 2017 and S. Pandiammal and S.J. Poornakala 2020, combining the four-quadrant model with the perceive, remember, plan, and execute intervention system may enhance participants' capacity to utilise information processing strategies while engaging in academic activities.^(7,9) Before the intervention, the control groups and the experimental groups overall self-esteem ratings were low (14,21 and 14,20, respectively). After the intervention, the control group's and the experimental group's scores were intermediate (24,01). Supportively P. Neeraja 2013; Prakash Petchimuthu, Neetu Sharma, Ajay Gaur, Ranjeet Kumar 2018; Urvashi Goel 2021; Ramesh Kumar Awasthi and Yash Pal Singh 2021; Deenu Chacko, Karunakaran Vidhukumar 2020; R Rajesh, Honeymol Sunney 2021; Abdul Gafoor, K 2015 revealed that mis-spelt words and missing letters were the most frequent reading and spelling errors, respectively.^(3,17,18,19,20,21,22) Teachers effectively identified some kids as having specific reading issues. Still, the other 19 pupils had generalised ideas about their sub-par academic performance ($P < 0,05$). Parents had no worries about their kids in school ($P < 0,001$). At the time of screening, primary school pupils were found to have a prevalence of dyslexia, with 6 % having the condition and 94 % unaffected. In terms of risk factors for dyslexia in these primary school pupils, 6 % had preschool speech difficulty, 4 % had some vision/sight issues, and 15 % of the students were naturally impulsive: 4 % of pupils had motor coordination issues along with some developmental issues. Nearly all of them (100 %) had average IQ. According to Fitri Dwi Arini, Sunardi, and Sri Yamtinah's review study in 2019, 82,5 % of students with disabilities have social skills that range from low to very poor.⁽⁵⁾ Effective social skills instruction, such as B. intense social skills training, is necessary to raise social skills among students with disabilities in inclusive schools. Supportively, Reda M. Ismail 2019; Verena Hofmann and Christoph M. Muller 2021; Haniye Mohammad Esmmaeelbeygi 2020; Hazar Mafra 2015; Jennifer D. Walker and Colleen Barry 2018; Niall King and Barry J. Ryan 2019; Samaneh Karamali Esmaili *et al.*, 2017; Naveen Kumar M 2022; Shailaja Bandla *et al.*, 2019 noticed that a gain in both verbal and non-verbal language skills was correlated with having more social interactions at the beginning of the school year.^(23,24,25,26,27,28,29,30) Better verbal and nonverbal language abilities at the very beginning of the academic year, however, did not indicate more social encounters afterwards. The findings are consistent with the hypothesis that more powerful interpersonal relationships among students in special schools promote language development. The social skill non-overlapping percentage index equals 100 %, indicating great intervention success.

Finally, our investigation emphasises the paucity of published research on the impact of early intervention strategies on fundamental academic skills, social skills, and emotional stability in school-aged children with specific learning difficulties. In order to figure out the impact of early interventional strategies on self-esteem, social skills, and core academic achievements among children with specific learning disabilities in schools, this would be an applicable field for additional studies. In addition, there is a dearth of information about transfer and standardisation outcomes, follow-up measurements, and children with specific learning impairments. Despite the fact that qualitative studies make significant contributions to the literature in this domain because their results cannot be generalised to more people with the same level of dependability as statistical tests, we expressly excluded them from our analysis.

CONCLUSION

The study reveals that a child with a learning impairment appears to have emotional issues due to trouble adjusting, resulting from academic failure. Children can struggle to communicate their emotions, regulate their sentiments, and read subtle cues, which can cause disorders in the classroom and with peers. For an array of reasons, students with undiscovered learning difficulties may behave inappropriately. Because they focus exclusively on the issues they are facing, they might experience anger, sadness, loneliness, frustration, or helplessness. Students' level of performance in proportion to their accurate competencies, a lack of insight into why they are struggling, or presumably an inability to communicate efficiently can all lead to disappointment. Inclusiveness offers incentives, but there are downsides.

Additionally, due to their behavioural challenges, disabled students routinely interrupt classes. The teaching-learning process is less effective for them than it might appear because they are not as cognitively evolved as their peers. When pupils possess special educational requirements despite regularly participating in a standard education class, it might be tough to meet those demands, the workload of the instructor increases, and someone ends up suffering-typically the special education support student. In accordance with the norms of their distinct learning stages, teachers need to treat students with unique educational needs differently. If special needs students are taught at a considerably higher level than their own, they are unlikely to get an adequate education. Children with learning disabilities may struggle academically, socially at home, and emotionally. Special education classes and parental attention might help them conquer these obstacles. There is a demand for special education for children with learning disabilities, in addition to awareness program about learning disabilities and their widespread problems.

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FINANCING

None

CONFLICT OF INTEREST

None

AUTHORSHIP CONTRIBUTION

Conceptualization: Arockia Selvi A, Hema V.H.

Research: Arockia Selvi A, Hema V.H..

Methodology: Arockia Selvi A, Hema V.H.

Writing - original draft: Arockia Selvi A, Hema V.H.

Writing - proofreading and editing: Arockia Selvi A, Hema V.H.