

INTERNATIONAL JOURNAL OF
EDUCATION, PSYCHOLOGY
AND COUNSELLING
(IJEPC)

www.ijepec.com



INTEGRATIVE HEALTHCARE APPROACHES FOR CHILDREN
WITH SPECIAL NEEDS: A HOLISTIC STUDY ON
CHALLENGES AND SOLUTIONS

Usman Jaffer¹, Che Mohd Nasril Che Mohd Nassir², Mohamed Ayaaz Ahmed³, Rahmah Ahmad H. Osman^{1*}, Muhammad Dhiyauddin Mohd Abas⁴, Muhammad Lutfi Ridzuan Hon⁴, Nur Anis Suffiah Yusafawi⁴, Nur Arifah Zahidah Baharuddin⁴, Nur 'Arifah Adilah Ahmad Mugni Labib⁴

¹ AbdulHamid AbuSulayman Kulliyah of Islamic Revealed Knowledge and Human Sciences, International Islamic University Malaysia, 50728 Kuala Lumpur, Malaysia.

International Institute of Islamic Thought and Civilisation (ISTAC) International Islamic University Malaysia, Kuala Lumpur, Malaysia

Email: jafferu@iium.edu.my; rahmahao@iium.edu.my

² Department of Anatomy and Physiology, School of Basic Medical Sciences, Faculty of Medicine, Universiti Sultan Zainal Abidin (UniSZA), 20400 Kuala Terengganu, Terengganu, Malaysia.

Email: nasrilnassir@unisza.edu.my

³ Southern Ambition 473 CC, 7764, Cape Town, South Africa

Email: ayaaz@reamz.co.za

⁴ Kulliyah of Pharmacy, International Islamic University Malaysia, 25200, Kuantan, Pahang Darul Makmur.

Email: dhiyauddinabas@gmail.com, muhdlutfihon@gmail.com; nuranissuffiah@gmail.com;

2112316@student.iium.edu.my; arifahadilah27@gmail.com

* Corresponding Author

Article Info:

Article history:

Received date: 30.10.2023

Revised date: 26.11.2023

Accepted date: 24.12.2023

Published date: 31.12.2023

To cite this document:

Jaffer, U., Nassir, C. M. N. C. M., Ahmed, M. A., Osman, R. A. H., Abas, M. D. M., Hon, M. L. R., Yusafawi, N. A. S., Baharuddin, N. A. Z., & Labib, N. 'A. A. A. M. (2023). Integrative Healthcare Approaches

Abstract:

This study delves into the intricate healthcare landscape for children with special needs, shedding light on the multifarious challenges these individuals face and evaluating the effectiveness of integrative healthcare models tailored to their unique requirements. Conducted at Sekolah Kebangsaan Pendidikan Khas Kuantan, this cross-sectional qualitative analysis involved detailed surveys with 20 teachers and engaging discussions with 24 students, aiming to unravel the complexities of providing holistic care to this vulnerable population. The investigation meticulously identifies pivotal concerns such as the prevalence of behavioral issues, particularly in autistic children, who often exhibit aggressive and self-injurious behaviors, and the struggles encountered by hearing-impaired students in communication and learning. It further explores the susceptibility of these children to frequent infections due to immune system dysfunction, exacerbated by dietary imbalances and physical inactivity. The research emphasizes the indispensable role of early detection

For Children With Special Needs: A Holistic Study On Challenges And Solutions. *International Journal of Education, Psychology and Counseling*, 8 (52), 813-828.

DOI: 10.35631/IJEPC.852061

This work is licensed under [CC BY 4.0](https://creativecommons.org/licenses/by/4.0/)



and intervention in mitigating health risks and outlines the significance of specialized supplements, medications, and rigorous oral hygiene practices in maintaining the overall well-being of these children. Additionally, the study brings to the forefront the critical impact of socioeconomic factors on healthcare access, advocating for equitable healthcare solutions. It also highlights the transformative potential of technology, including telehealth and assistive devices, in overcoming barriers to healthcare and education. Through this analysis, the study advocates for a comprehensive, integrative care approach that encompasses medical, educational, social, and psychological services, underscoring the necessity of collaborative efforts among healthcare providers, educators, and families to significantly enhance the quality of life and well-being of children with special needs.

Keywords:

Special Needs Children, Integrative Healthcare, holistic Approach Challenges, Solutions

Introduction

The redefinition of health by the World Health Organization (WHO) marks a pivotal shift in the global health paradigm, emphasizing health as a "state of complete physical, mental, and social well-being" rather than merely the absence of disease (World Health Organization, 2023). This holistic approach to health underscores its value as a fundamental resource for individuals, communities, and societies, advocating for a comprehensive strategy that incorporates the multifaceted aspects of well-being. The evolution of healthcare, as highlighted by Spitzer and Endicott (2018), from focusing primarily on acute interventions and mortality reduction to adopting a more inclusive approach, reflects the recognition of the complexities involved in achieving optimal health. This shift necessitates collaborative efforts spanning individuals, healthcare professionals, and societal structures to address the broad spectrum of factors influencing health.

Children with special needs present a unique set of challenges that differentiate them from their typically developing peers. These challenges include a wide range of emotional, developmental, and physical conditions, such as visual and hearing impairments, autism spectrum disorders, behavioral disorders, and learning difficulties (Rosyida Nurul Anwar, 2021; Kong and Thompson, 2020; Othman et al., 2022). The complexity of these conditions requires specialized attention and care, pointing to the necessity for healthcare systems and caregivers to adapt and provide tailored support.

Mattson et al. (2019) identify children and youth with special healthcare needs (CYSHCN) as those requiring health and related services beyond those required by children generally. This group is at a higher risk of encountering co-occurring mental health and behavioral issues, necessitating a comprehensive approach to care that addresses both their physical and psychological needs (Mattson et al., 2019).

In Brazil, the categorization of children with special healthcare needs into six distinct categories by Góes and Cabral (2016) illustrates the diversity within this population and the varied care requirements. Furthermore, dental health issues, such as malocclusion, poor oral hygiene, and dental caries, are particularly prevalent among these children, highlighting the need for increased awareness and specialized dental care (Mandić et al., 2018).

The social exclusion of children with special needs and their limited access to essential services are significant barriers to their development and well-being (Okafor, 2023; Nuri et al., 2020). The theory of social development by Vygotsky stresses the importance of social interaction in cognitive development, underscoring the detrimental effects of societal barriers on children with special needs. Moreover, cultural beliefs and practices in certain societies can lead to the mistreatment and neglect of these children, further exacerbating their challenges (Alhassan & Ridwan, 2022; Mkabile et al., 2021; Obiakor & Afolayan, 2011).

The healthcare needs of children with special requirements are often compounded by communication difficulties and financial constraints, particularly among low-income families (Anderson et al., 2007). These challenges necessitate a more inclusive healthcare model that recognizes and addresses the specific needs of children with special needs.

The need for integrative health care models that consider the comprehensive needs of children with special needs is increasingly recognized. Such models should encompass not only medical but also educational, social, and psychological services, facilitating a holistic approach to their care (Eiser & Morse, 2001). Implementing these models requires collaboration among healthcare providers, educators, and social services, ensuring that children with special needs receive the multifaceted support they require (Pelentsov et al., 2015).

Advancements in technology have shown promise in supporting the health and well-being of children with special needs. Telehealth services, for example, have become increasingly vital in providing accessible healthcare services, especially in remote or underserved areas (Snodgrass et al., 2017). Additionally, assistive technologies, including communication devices and educational software, have played a critical role in enhancing the learning experiences and daily lives of these children (Lancioni et al., 2019).

Socioeconomic factors significantly impact the accessibility of healthcare services for children with special needs. Families from lower socioeconomic backgrounds often face greater challenges in accessing necessary healthcare, educational, and social services, leading to disparities in health outcomes (Emerson, 2007; Halfon et al., 2012). Addressing these disparities requires targeted interventions and policies that ensure equitable access to services for all children, regardless of their socioeconomic status.

Cultural competence in healthcare provision is crucial in addressing the needs of children with special needs effectively. Healthcare professionals must be aware of and sensitive to the cultural beliefs and practices of the families they serve, ensuring that care is respectful and aligned with their values and preferences (Betancourt et al., 2003). This approach is essential in building trust and facilitating effective communication between healthcare providers and families, ultimately improving health outcomes.

Children with special needs require extra care, especially concerning healthcare, due to potential communication challenges and the financial strain on low-income families (Anderson et al., 2007). The study aims to shed light on these issues by examining a primary school for children with special needs in Kuantan, utilising customised questionnaires to gather insights from teachers and students. Through this research, we seek to enhance awareness and understanding of the medical-related challenges faced by these children in their daily lives.

Methodology

Study Design

A cross-sectional qualitative study design was chosen to capture a snapshot of the current state of affairs. This approach allows for the examination of various factors at a single point in time, providing a view of the subject matter.

Sample Size and Subject Recruitment

The study focused on Sekolah Kebangsaan Pendidikan Khas Kuantan, engaging both teachers and students on the day of the visit. The sample comprised 20 teachers and 24 students, ensuring a diverse representation for a holistic understanding of the school's ecosystem.

Data Collection Procedures

A formulated printed questionnaire served as the primary tool for interviewing teachers. Consent was sought, and only willing participants were interviewed, respecting ethical considerations. The questionnaire probed into common medical-related issues affecting the students, offering a structured approach to gather valuable information from educators.

Following teacher interviews, a short but meaningful engagement session was conducted with the students. Simple health-related questions were posed to facilitate a brief assessment. This interactive approach aimed to create a comfortable environment for students to express themselves, adding a qualitative layer to the data collection process.

Analysis

All statistical analysis was done using MS Excel and google forms. Observation and descriptive questionnaires were used to distinguish medical issues faced by the special needs student from the perspective of the teachers and the students as well.

Results

Demographics

A diverse cohort of participants was involved in the study. Among the 20 teachers, 16 were female, and 4 were male. The student sample comprised 15 females and 9 males, aged between 7 and 12 years old. The participants reflected a range of ethnic backgrounds, with the majority being Malay, supplemented by representation from the Chinese and Indian communities. Similarly, while the predominant religion was Islam, the sample included individuals practicing Buddhism, Hinduism, and Atheism.

Teachers' Data

Teachers played a crucial role in identifying and reporting common medical-related issues displayed by the special needs students during interactions. The responses were varied and provided a comprehensive picture of the challenges faced by the students.

Tantrums (20%): A significant percentage of teachers observed tantrums, shedding light on the emotional struggles faced by some students.

Audiology and Learning (15%): A notable portion of teachers reported issues related to audiology and learning, underlining the diverse range of challenges encompassing sensory and cognitive domains.

Headache (15%): Teachers identified instances where students experienced headaches, indicating potential physical discomfort.

Preference Not to Stipulate (15%): A percentage of teachers chose not to specify particular issues, respecting the privacy and individuality of the students.

Stress (10%): A portion of teachers reported cases of stress among the special needs students, emphasizing the importance of considering mental health aspects.

Other Random Reports (25%): Additional observations included contagious diseases, fever, asthma, and weak immune systems, illustrating the multifaceted nature of health challenges faced by these students.

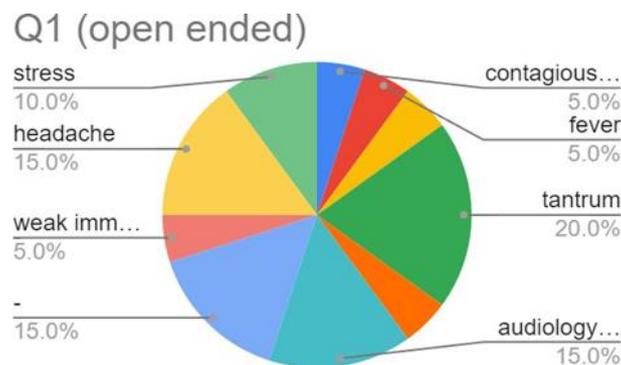


Figure 1.0 Common Medical Issues Faced By The Teachers in Taking Care of The Children.

Regarding the frequency of these medical conditions in a week, 45% chose 2-3 times, 25% chose 4-5 times, and 15% chose 0-1 times and more than 5 times respectively.

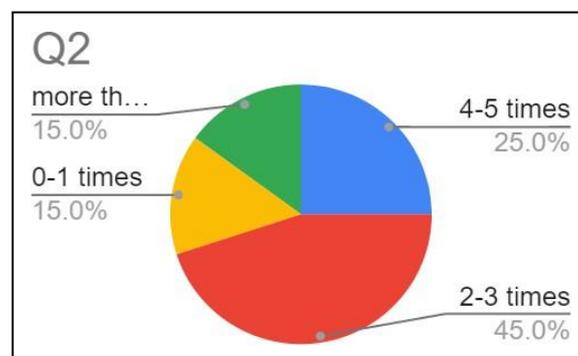


Figure 2.0 Percentage of Times for All the Medical Issues to Occur in A Week.

Moreover, regarding the frequency for required intervention to tackle these medical issues per week, 85% chose 0-1 times per week while 15% of them chose 2-3 times per week.

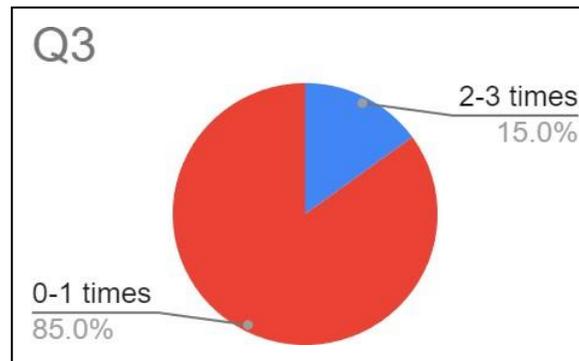


Figure 3.0 Percentage of Times for An Intervention Is Required During Handling the Medical Issues Per Week

Next, based on teachers' interpretation in dealing with these issues, 60% of them select moderate, 20% select fairly difficult and 15% select very easy. Only 5% choose very difficult.

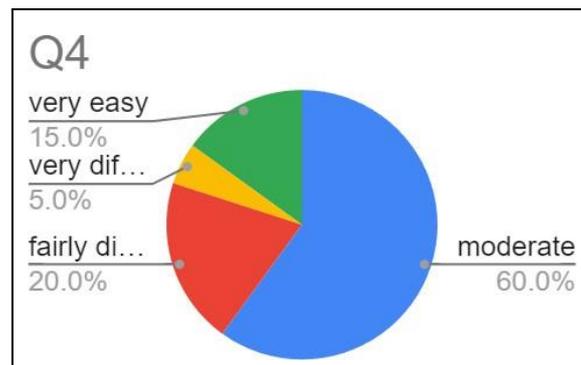


Figure 4.0 Percentage of Difficulty Level When Handling Those Medical Issues

Concerning the frequency of medical aids such as financial, equipment or medication sponsorship given to the school from external parties per month, 90% chose 0-2 times while 10% chose 3-5 times in a month.

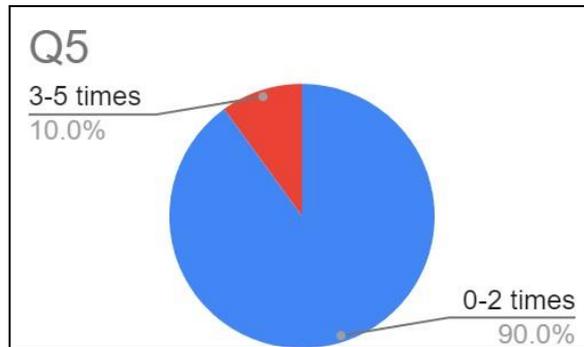


Figure 5.0 Percentage Frequency of Medical Aids Received by The School from External Parties in A Month.

Students Data

The present study involves a sample of 24 students, with 37.5% being male and 62.5% being female.

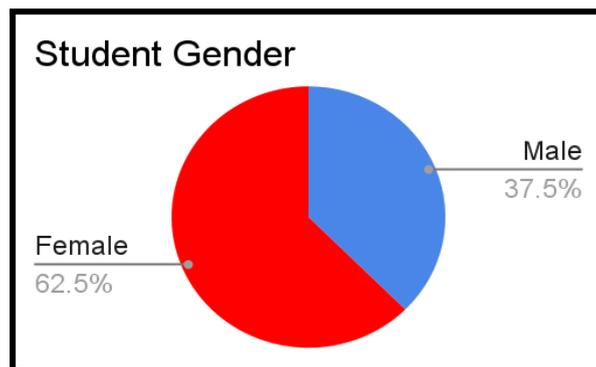


Figure 6.0 Percentage of The Student Gender

According to the frequency of medication or health supplements intake, half of the respondents answered affirmatively, while the other half responded negatively.

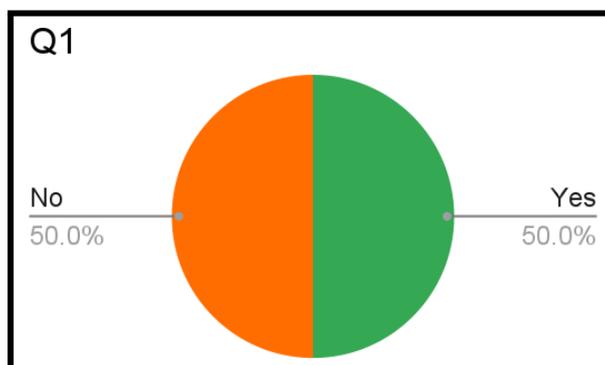


Figure 7.0 Percentage of Daily Consumption in The Medication or Health Supplement

The majority of students adhere to a daily oral hygiene routine, with 66.7% responding yes to the question of whether they brush their teeth on a daily basis. Conversely, only 33.3% of respondents indicated their answer was no.

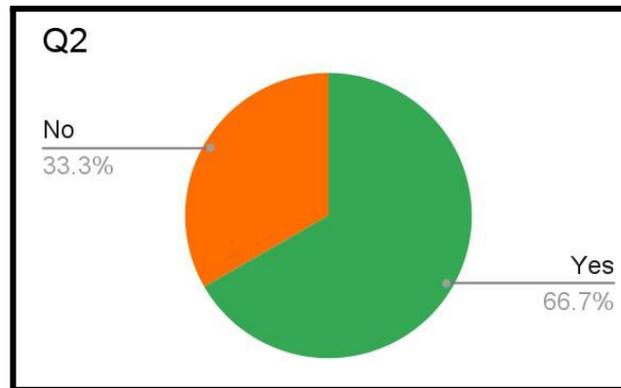


Figure 8.0 The Percentage of Frequency in Brushing Teeth At Least Twice A Day

The data reveals that 62.5% of students expressed a preference for scheduling appointments with a doctor, while the remaining 37.5% indicated an opposite response.

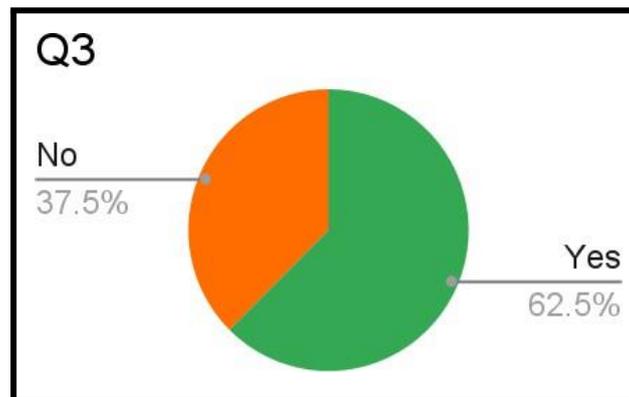


Figure 9.0 Percentage of The Students Who Like to Meet Doctor

Approximately 54.2% of students responded affirmatively to sleeping at 11 pm or later, while the remaining 45.8% provided an opposite response.

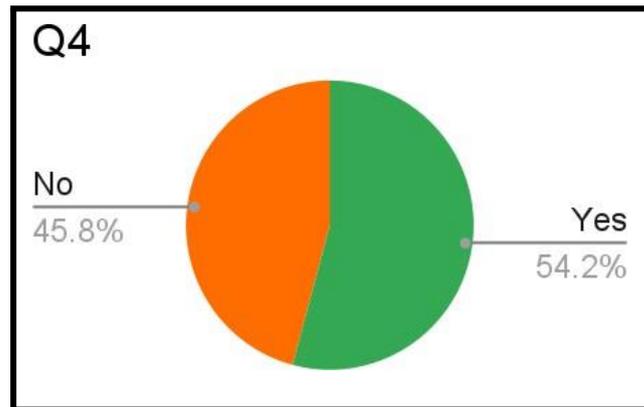


Figure 10.0 The Percentage of Sleep Frequency Above 11 P.M.

With respect to the utilisation of hearing aids, a mere 20.8% of individuals employed them, while the remaining 79.2% refrained from using any form of hearing support.

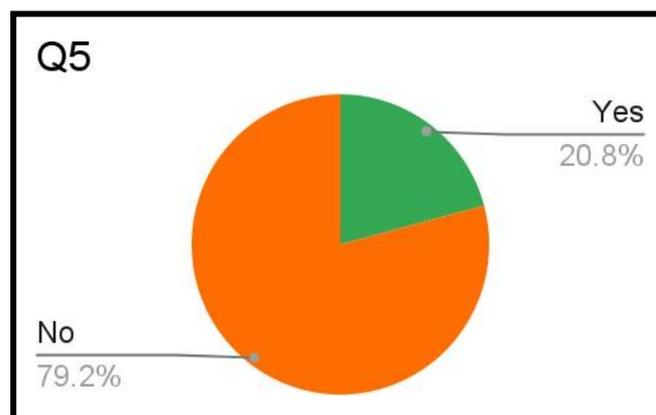


Figure 11.0 Percentage of Hearing Aids Used

Finally, it should be noted that 29.2% of students experiencing learning difficulties responded affirmatively, while the remaining 70.8% responded oppositely.

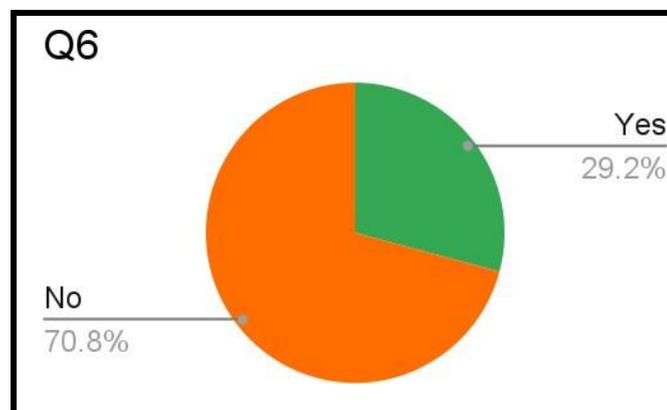


Figure 12.0 The Percentage of Students Who Have Learning Difficulties

Discussion

Behavioral Challenges

Educating children with special needs requires extraordinary efforts from educators due to the distinct and often challenging behaviors exhibited by these students. Among these, autistic children frequently display behaviors that can be both aggressive and unpredictable, such as tantrums, which pose considerable challenges in educational settings (Matson, 2009). These behaviors not only disrupt the learning environment but also have been linked to potential risks to the mental and physical well-being of the children involved.

Aggressive tendencies in autistic children, including kicking, striking, scratching, punching, biting, and throwing furniture, present significant challenges for caregivers, educators, and peers (Matson, 2009). Such behaviors can stem from a variety of sources, including frustration, inability to communicate effectively, or sensory overload—a common issue among individuals with autism (McGill et al., 2015). Addressing these behaviors requires a tailored approach that often involves behavioral interventions, environmental modifications, and, in some cases, pharmacological treatments aimed at reducing instances of aggression and improving overall functioning (Chebli et al., 2016).

It is crucial to recognize that these challenging behaviors often serve as a form of communication for autistic children, signaling unmet needs or demands (Matson, 2009). For instance, an act of aggression might indicate the child's discomfort with a particular situation or a sensory processing issue. Therefore, understanding and appropriately responding to these behavioral cues are essential in providing effective care and support. This approach emphasizes the importance of developing a communication framework that enables these children to express their needs in a less harmful manner (Carr & Durand, 1985).

Self-injurious behaviors, such as biting, head-hitting, and scratching, are particularly concerning in autistic children. These actions can lead to severe health risks, including concussions, fractures, infections, and even life-threatening conditions (Summers et al., 2017).

The motivations behind self-injury in autism can vary, often linked to sensory dysregulation, communication difficulties, or as a response to environmental stressors (Richards et al., 2012). Managing self-injurious behavior requires a comprehensive strategy that may involve behavioral therapy, sensory integration interventions, and family support to mitigate the risks and improve the child's quality of life (Minshawi et al., 2015).

Communication Challenges for Hearing-Impaired Children

Children with audiological issues, particularly those with hearing impairments, encounter significant challenges in both communication and learning. These challenges stem from various factors, including genetic predispositions, traumatic experiences, infections, and exposure to loud noises, all of which can contribute to hearing loss (Yoshinaga-Itano et al., 1998; Moeller, 2007). Such conditions significantly impede the development of language and communication skills, necessitating the adoption of alternative methods for effective interaction to ensure these children can engage with their environment meaningfully.

Children with hearing impairments often experience delayed development in communication and linguistic skills. This delay impacts their ability to effectively convey health-related

concerns and interact with caregivers, educators, and peers (Marschark & Spencer, 2010). The slow progression in acquiring language skills not only affects academic achievement but also hinders social interactions, contributing to feelings of isolation and frustration among these children.

The absence of effective communication channels can significantly affect the mental health of children with hearing impairments, leading to early-onset depression and other mental health issues (Graydon et al., 2019). The inability to communicate needs, desires, and feelings can result in a profound sense of exclusion and loneliness, exacerbating the risk of mental health struggles. Early detection and intervention, including comprehensive auditory assessments and tailored support services, are crucial for mitigating these consequences, ensuring that these children receive the necessary care and support to thrive both emotionally and psychologically (Hindley & Kitson, 2000).

For children with hearing impairments, the mastery of sign language becomes an indispensable tool, enabling them to bridge the communication gap and interact more effectively with the world around them (Calderon & Greenberg, 2003). Sign language offers a visual and dynamic means of communication that can significantly enhance the expressive and receptive language capabilities of these children. Furthermore, it provides a solid foundation for developing literacy skills and accessing education, thereby reducing the potential for exacerbating health-related and psychological conditions due to communication barriers (Power & Hyde, 2002). The inclusion of sign language in educational and social settings is essential for fostering an inclusive environment where children with hearing impairments can express themselves freely and participate fully in their communities (Spencer & Marschark, 2010).

The integration of sign language education, coupled with supportive interventions aimed at addressing the unique needs of hearing-impaired children, is fundamental to overcoming the challenges posed by auditory disabilities. Such measures not only facilitate effective communication but also contribute to the overall well-being and mental health of these children, enabling them to lead fulfilling lives despite the challenges associated with hearing impairments.

Impact of Immune System Dysfunction

Children with special needs are often more vulnerable to weakened immune systems, which increases their susceptibility to frequent illnesses and infections. This increased vulnerability can be attributed to a range of factors, including prenatal and postnatal dysfunctions, genetic conditions, and dietary imbalances (Sullivan & Knutsen, 2008). The compromised immune function in these children can lead to a higher incidence of infections and other health issues, underscoring the importance of understanding and addressing the underlying causes of immunodeficiency in this population.

The consequences of immunodeficiency in special needs children are multifaceted. Dysfunctional immune cells, stemming from genetic anomalies or acquired conditions, and poor dietary habits can significantly contribute to a heightened risk of infections (Gennery, 2012). These infections not only affect the physical health of these children but can also impact their development, education, and quality of life. Furthermore, the recurrent nature of these infections often necessitates repeated medical interventions, which can impose additional stress on the children and their families.

Physical activity is known to play a critical role in maintaining a robust immune system. However, children with special needs, particularly those with movement impairments, may engage in less physical activity, which can further compromise their immune function (Doreswamy et al., 2020). The lack of physical activity can lead to secondary health issues, such as overweight and obesity, which are known to be associated with a range of complications, including cardiovascular disease and type 2 diabetes (Rimmer et al., 2010). Therefore, promoting accessible and appropriate physical activities for children with movement impairments is essential in supporting their immune function and overall health.

Early detection of immunodeficiency in special needs children is crucial for enabling timely interventions and lifestyle adjustments. By identifying immune dysfunctions at an early stage, healthcare providers can implement targeted strategies to enhance immune function and reduce the risk of infections (Gennery, 2012). These strategies may include nutritional support to address dietary imbalances, immunizations to prevent specific infections, and personalized exercise programs to promote physical activity within the child's capabilities (Sullivan & Knutsen, 2008). Early intervention can play a significant role in minimizing the impact of immunodeficiency on the overall health and development of special needs children, ultimately improving their quality of life.

The interplay between weakened immunity, dietary imbalances, and lack of physical activity highlights the complex health challenges faced by children with special needs. Addressing these challenges requires a comprehensive approach that includes early detection, tailored interventions, and supportive care to enhance the immune function and overall well-being of these vulnerable children.

Supplements, Medications, and Oral Hygiene

Children with special needs often face unique health challenges that necessitate a multifaceted approach to care, including the use of dietary supplements, medications, and a focus on maintaining good oral hygiene. These interventions are essential for addressing the various aspects of their well-being, from cognitive development to emotional and behavioral regulation.

Nutritional supplements can play a vital role in supporting the cognitive development of children with cognitive disabilities, providing essential nutrients that may not be adequately obtained from their diet (Eilander et al., 2010). For instance, omega-3 fatty acids have been shown to have positive effects on cognitive function and are often recommended for children with developmental disorders (Richardson & Montgomery, 2005). Furthermore, medications are commonly prescribed to manage conditions such as Attention Deficit Hyperactivity Disorder (ADHD), which can significantly improve attention, impulsivity, and hyperactivity in affected children (Wigal et al., 2006). The involvement of parents and caregivers in the careful administration of these supplements and medications is crucial, ensuring adherence to treatment plans and monitoring for any potential side effects.

Maintaining oral hygiene can be particularly challenging for children with special needs, such as those with autism, who may struggle with the sensory experiences associated with brushing and flossing (Stein et al., 2012). These children might find it difficult to understand the importance of oral hygiene or to master the techniques required for effective oral care. As such, caregivers and educators play an indispensable role in teaching and monitoring oral hygiene practices,

adapting strategies to meet the individual needs of each child and ensuring that they maintain good oral health.

Sleep disturbances are common among children with special needs, including those with ADHD and autism spectrum disorders (ASD). These conditions are associated with a higher prevalence of sleep disorders, which can significantly impact the child's and family's overall well-being (Cortesi et al., 2010; Malow et al., 2012). Issues such as insomnia, sleep-disordered breathing, and irregular sleep-wake patterns can affect daily functioning, concentration, and health, underscoring the importance of identifying and treating sleep disturbances in this population (Spruyt & Gozal, 2011; Westgreen, 2022).

Insomnia and other sleep disorders are notably prevalent in children with ASD and ADHD, contributing to difficulties in daily functioning and overall health (Spruyt & Gozal, 2011; Westgreen, 2022). Effective management of sleep disturbances may include behavioral interventions, such as establishing a consistent bedtime routine and creating a conducive sleep environment, as well as pharmacological treatments when necessary (Owens, 2005; Malow et al., 2012). Addressing these sleep-related issues is critical for improving the quality of life for children with special needs and their families.

The comprehensive care of children with special needs involves a holistic approach that addresses dietary, behavioral, dental, and sleep-related challenges. Through the collaborative efforts of healthcare providers, caregivers, and educators, these children can achieve improved health outcomes and a better quality of life.

Conclusion

The culmination of this study accentuates the intricate and diverse healthcare needs of children with special needs, spotlighting the imperative for a holistic and integrative approach to their care. Our findings elucidate several critical areas of concern, from the behavioral challenges that disrupt both educational settings and personal development, particularly evident in children with autism, to the profound communication barriers faced by those with hearing impairments. These issues not only impede academic and social integration but also significantly affect the mental and emotional well-being of these children. Moreover, the study reveals a pronounced vulnerability among this population to immune system dysfunction, attributed to a combination of genetic, environmental, and lifestyle factors, highlighting the crucial role of nutritional supplements, proper oral hygiene, and the management of sleep disorders in safeguarding their health.

Importantly, our research underscores the pivotal importance of early detection and proactive intervention in addressing these multifaceted health challenges. It also sheds light on the transformative potential of technology in enhancing healthcare accessibility and educational support, presenting telehealth services and assistive technologies as valuable tools in bridging the gap between these children and the care they require.

Furthermore, the study brings to the fore the significant impact of socioeconomic disparities on access to healthcare services, calling for targeted policies and interventions to ensure equitable care for all children, irrespective of their socioeconomic status. The necessity for cultural competence in healthcare provision is also highlighted, emphasizing the need for

healthcare professionals to be attuned to the cultural sensitivities and practices of the families they serve.

This study therefore advocates for a concerted effort among healthcare providers, educators, and families to adopt a comprehensive care model that integrates medical, educational, social, and psychological services. Such an approach is essential for not only addressing the immediate health concerns of children with special needs but also for fostering an environment that supports their holistic development and well-being. Moving forward, further research is warranted to develop, implement, and evaluate integrative care models that are responsive to the evolving needs of this diverse population, leveraging advancements in technology and policy reform to create a more inclusive and supportive healthcare ecosystem.

Acknowledgements

We would like to thank the teachers of Sekolah Kebangsaan Pendidikan Khas Kuantan for allowing us to visit the school and conduct our study. This research paper is an initiative of the IIUM Ar-Rahmah Flagship 3.0 and is fully funded by the International Sponsored Research SPI22-118-0118- Biopsychospiritual Exploration and Application of Khushu': A Pilot Study.

References

- Anderson, D., Lebon, F., Jacobs, P., & Azzaria, L. M. (2007). The Personal Costs of Caring for a Child with a Disability: A Review of the Literature. *Public Health Reports, 122*(1), 3–16. <https://doi.org/10.1177/003335490712200102>
- Anwar, R. N. (2021). Management of Islamic Religious Education Learning in Children with Special Needs. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini, 6*(1), 539–548.
- Betancourt, J. R., Green, A. R., Carrillo, J. E., & Ananeh-Firempong, O. 2nd. (2003). Defining cultural competence: A practical framework for addressing racial/ethnic disparities in health and health care. *Public Health Reports, 118*(4), 293-302.
- Calderon, R., & Greenberg, M. (2003). Social and emotional development of deaf children: Family, school, and program effects. In M. Marschark & P. E. Spencer (Eds.), *Oxford Handbook of Deaf Studies, Language, and Education* (pp. 177-189). Oxford University Press.
- Carr, E. G., & Durand, V. M. (1985). Reducing behavior problems through functional communication training. *Journal of Applied Behavior Analysis, 18*(2), 111-126.
- Chebli, S. S., Martin, V., & Lanovaz, M. J. (2016). Meta-analysis of the effects of pharmacotherapy on lower-limb self-injurious behavior in individuals with intellectual disabilities. *Research in Developmental Disabilities, 53-54*, 118-140.
- Cortesi, F., Giannotti, F., Ivanenko, A., & Johnson, K. (2010). Sleep in children with autistic spectrum disorder. *Sleep Medicine, 11*(7), 659-664.
- Doreswamy, S., et al. (2020). The impact of movement impairment on immune system function in children with special needs. *Clinical Immunology, 213*, 108-374.
- Eilander, A., Gera, T., Sachdev, H. S., Transler, C., van der Knaap, H. C., Kok, F. J., & Osendarp, S. J. (2010). Multiple micronutrient supplementation for improving cognitive performance in children: Systematic review of randomized controlled trials. *The American Journal of Clinical Nutrition, 91*(1), 115-130.
- Emerson, E. (2007). Poverty and people with intellectual disabilities. *Mental Retardation and Developmental Disabilities Research Reviews, 13*(2), 107-113.
- Gennery, A. R. (2012). Immunodeficiency and the impact on health and development. *Journal of Clinical Immunology, 32*(2), 233-237.

- Góes, F. G. B., & Cabral, I. E. (2017). Discursos sobre cuidados na alta de crianças com necessidades especiais de saúde. *Revista Brasileira de Enfermagem*, 70(1), 163–171. <https://doi.org/10.1590/0034-7167-2016-0248>
- Graydon, K., et al. (2019). The impact of communication barriers on the mental health of hearing impaired children. *Journal of Pediatric Psychology*, 44(5), 654-663.
- Halfon, N., Inkelas, M., & Hochstein, M. (2012). The health development model: An integrated framework for determining health policies for children and families. *Annual Review of Public Health*, 33, 41-58.
- Hindley, P. A., & Kitson, N. (2000). Mental health and deafness. *British Journal of Psychiatry*, 177, 201-207.
- Kagan, J. (2021, June 23). What Is a Special Needs Child?
- Lancioni, G. E., Singh, N. N., O'Reilly, M. F., Sigafos, J., Alberti, G., Zimbaro, C., & Megna, M. (2019). Assistive technology: Interventions for individuals with severe/profound and multiple disabilities. Springer.
- Malow, B. A., Byars, K., Johnson, K., Weiss, S., Bernal, P., Goldman, S. E., Panzer, R., Coury, D. L., & Glaze, D. G. (2012). A practice pathway for the identification, evaluation, and management of insomnia in children and adolescents with autism spectrum disorders. *Pediatrics*, 130(Supplement 2), S106-S124.
- Mandić, J., Jovanovic, S., Mandinic, Z., Ivanović, M., Kosanović, D., Milicic, B., & Živojinović-Toumba, V. (2016). Oral health in children with special needs. *Vojnosanitetski Pregled*. <https://doi.org/10.2298/vsp160707372m>
- Marschark, M., & Spencer, P. E. (Eds.). (2010). The Oxford handbook of deaf studies, language, and education (Vol. 2). Oxford University Press.
- Mattson, G., Kuo, D. Z., Yogman, M., Baum, R., Gambon, T. B., Lavin, A., Esparza, R. M., Nasir, A. A., Wissow, L. S., Apkon, S., Brei, T. J., Davidson, L. F., Davis, B. E., Ellerbeck, K. A., Hyman, S. L., Leppert, M. O., Noritz, G. H., Stille, C. J., & Yin, L. (2019). Psychosocial Factors in Children and Youth With Special Health Care Needs and Their Families. *Pediatrics*, 143(1). <https://doi.org/10.1542/peds.2018-3171>
- Matson, J. L. (2009). Aggressive and tantrum behaviors in children with autism: A review of behavioral treatments and maintaining variables. *Journal of Mental Health Research in Intellectual Disabilities*, 2(3), 169-187.
- McGill, P., et al. (2015). Examining the function of problem behaviors and the effects of an intervention based on the hypothesis of the behaviors' functions. *International Journal of Positive Behavioural Support*, 5(1), 33-42.
- Minshawi, N. F., Hurwitz, S., Fodstad, J. C., Biebl, S., Morriss, D. H., & McDougle, C. J. (2015). The association between self-injurious behaviors and autism spectrum disorders. *Psychology Research and Behavior Management*, 8, 125-136.
- Moeller, M. P. (2007). Current state of knowledge: Psychosocial development in children with hearing impairment. *Ear and Hearing*, 28(6), 729-739.
- National Academies Press (US), Chvala, C., & Sharfstein, S. (1999). Introduction. *Definition of Serious and Complex Medical Conditions - NCBI Bookshelf*. <https://www.ncbi.nlm.nih.gov/books/NBK224968/>
- Okafor, S. (2023). The Wellbeing and the Education of Special Needs Children Within a Nigerian Cultural Context: A Qualitative Phenomenological Study.
- Othman, M. F., Rahmat, N. E., Aziz, N. A., Hak, N. A., & Kamaruddin, D. (2022). Children with Disabilities in Malaysia and Their Educational Rights. *International Journal of Academic Research in Progressive Education and Development*, 11(2), 360–372. <https://hrmars.com/index.php/IJARPED/article/view/12986>

- Owens, J. (2005). The ADHD and sleep conundrum: A review. *Journal of Developmental & Behavioral Pediatrics, 26*(4), 312-322.
- Pelentsov, L. J., Laws, T. A., & Esterman, A. J. (2015). The supportive care needs of parents caring for a child with a rare disease: A scoping review. *Disability and Health Journal, 8*(4), 475-491.
- Power, D., & Hyde, M. (2002). The characteristics and extent of participation of deaf and hard-of-hearing students in regular classes in Australian schools. *Journal of Deaf Studies and Deaf Education, 7*(4), 302-311.
- Richardson, A. J., & Montgomery, P. (2005). The Oxford-Durham study: A randomized, controlled trial of dietary supplementation with fatty acids in children with developmental coordination disorder. *Pediatrics, 115*(5), 1360-1366.
- Rimmer, J. H., Rowland, J. L., & Yamaki, K. (2010). Obesity and secondary conditions in adolescents with disabilities: Addressing the needs of an underserved population. *Journal of Adolescent Health, 47*(3), 230-233.
- Richards, C., Oliver, C., Nelson, L., & Moss, J. (2012). Self-injurious behaviour in individuals with autism spectrum disorder and intellectual disability. *Journal of Intellectual Disability Research, 56*(5), 476-489.
- Snodgrass, M. R., Chung, M. Y., Biller, M. F., Appel, K. E., Meadan, H., & Halle, J. W. (2017). Telepractice in speech-language therapy: The use of online technologies for parent training and coaching. *Communication Disorders Quarterly, 39*(1), 448-460.
- Spencer, P. E., & Marschark, M. (2010). Evidence-based practice in educating deaf and hard-of-hearing students. *Professional Psychology: Research and Practice, 41*(4), 320-327.
- Spruyt, K., & Gozal, D. (2011). Sleep disturbances in children with ADHD: The impact on the child's health. *Sleep Medicine Reviews, 15*(6), 383-394.
- Stein, L. I., Polido, J. C., Mailloux, Z., Coleman, G. G., & Cermak, S. A. (2012). Oral health care for children with developmental disabilities. *Pediatric Dentistry, 34*(3), 238-242.
- Sullivan, K. E., & Knutsen, A. P. (2008). Immunodeficiency in children: Recognition and management. *American Family Physician, 78*(5), 562-568.
- Summers, J., Shahrami, A., Cali, S., D'Mello, C., Kako, M., Palikucin-Reljin, A., Savage, M., Shaw, O., Lunskey, Y. (2017). Self-injury in autism spectrum disorder and intellectual disability: Exploring the role of reactivity to pain and sensory input. *Brain Sciences, 7*(11), 140.
- Weismer, S. E., & Kover, S. T. (2015). Preschool language variation, growth, and predictors in children on the autism spectrum. *Journal of Child Psychology and Psychiatry, 56*(12), 1327-1337. <https://doi.org/10.1111/jcpp.12406>
- Westgreen, L. (2022). Insomnia and sleep disturbances in children with attention-deficit/hyperactivity disorder. *Journal of Sleep Disorders and Therapy, 11*(2), 1-10.
- World Health Organization. (2023). Redefining Health.
- Yoshinaga-Itano, C., Sedey, A. L., Coulter, D. K., & Mehl, A. L. (1998). Language of early- and later-identified children with hearing loss. *Pediatrics, 102*(5), 1161-1171.