How the Special Needs Education Intervention Can Address the Learning Disabilities and Associated Psychosocial Problems in South Sudan, A Case of Jamjang Camps

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Abstract

The study on the Learning disabilities and associated psychosocial problems among children started in October 2022 in South Sudan. The deepening loneliness and vulnerability of the children with the learning disabilities and the associated psychosocial problems among children resulting from the conflict in Sudan, which tore the family union, social fabric in the community structures, and pushed the families into the refugee camps where they have limited access to livelihood that everything to nurture the children is at the appalling stage. The study aimed at ascertaining the presence of learning disabilities and associated psychosocial problems among children in Jamjang Refugee camps. The study used qualitative, quantitative, and ethnographical/anthropological methods to have in-depth comprehension of the facts surrounding the phenomenon. The tools used in the design include questionnaire, interview, and observation. The pilot study conducted in April 2023 ascertained the presence of learning disabilities among refugee children. This consist of dyslexia, dysgraphia, and dyscalculia elucidated as deficiency to write, spell, comprehend, articulate point in written, grammatical errors, poor paragraph organization, spelling errors, and poor arithmetic calculation. The study also confirmed the presence of the associated psychosocial problems which include low self-esteem, discrimination, bullying, stigmatization, neglect, sexual abuse, and rejection. Finally, the finding confirmed the learning disabilities cause the associated psychosocial problems among the children. Whereas the special needs education with the application of multisensory approaches, different recreational games, and Skinner’s Operant conditioning theory, Cognitive Behavioral theory of Bandura are indispensably crucial in reducing the adverse effects of the phenomenon.

Keywords: Auditory, Anxiety, Dyslexia, Dyscalculia, dysgraphia, Depressive disorder, PTSD, visual.

Introduction

Learning disabilities and associated psychosocial problems among children is a growing phenomenon across the globe. Study shows the learning difficulties, intellectual disabilities, post-traumatic stress disorders (PTSD), depression, and anxiety disorders to be on the elevated prevalence among refugee children in Australia [1].

The learning disabilities are heterogeneous group of conditions with deficit in processing language, and frequently manifested in difficulty to comprehend, speak, read, write, spell, or do mathematical calculations; these include perceptual disabilities, and disorders that affect people’s ability to interpret what they see and hear and how to link the information from different parts of the brain [2].

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Learning disability is known as the neurological learning disorder which consists of dyslexia, dysgraphia, and dyscalculia [3].

Learning disability is largely centered on the children who appeared normal in many intellectual skills, but also exhibits variety of cognitive limitations that interfere with their ability to read, write, and learn in the classroom [4].

Some children with specific learning disabilities have deficits in the basic psychological processes that interfere with learning and academic performance that leads to emotional and behavioral problems [5]. Many people with the learning disabilities have considerable multiples physical and mental health conditions that increase the risk of developing chronic conditions which affect how the person learns new skills, understand information, and communicate throughout their lifetime [6].

The learning disabilities comprised of the clinical views related to the problems in language abilities, manifested in difficulties in reading and writing, while the other problem is concerned with the nonverbal aspects, where the children have difficulties in the acquisition of complex motor movement, low coordination, poor balance, and postural control, decreased muscle tone, below average fine motor ability, arithmetic difficulties, and spatial problem solving, with possible linguistic difficulties in the productive domain [7].

The neurological disorders affect the learners’ ability to either interpret what people see and hear or store information from different parts of the brain, and impede learning to read, write, or do calculable work and the ways to acquire basic academic skills [8].

However, the study suggests similarities between Asperger syndrome and learning disabilities that include the normal range of intelligence, uneven profile of skills, language difficulties, social and interpersonal deficits, cognitive disorganization, academic and interpersonal problems [9].

Traditional Learning Activities

Childhood neurological damage causes decline in the learning wherein the children receive the rehabilitative educational services. The 2007 report indicated that there were 2.7 million students in America’s public schools who had learning disabilities. These students represented 44% of 6 million school-age children with all kinds of disabilities who received special education services [10]. The Girls Education South Sudan (GESS) reported the deep-rooted stigma and discrimination against persons with disabilities in South Sudan. The children with disabilities experienced neglect, abuse and kept at home without access to education [11]. The African Health Action reported the elevated mental health problems in Jamjang South Sudan, these consist of depression, anxiety, post-traumatic stress disorders and mental retardation [12]. The effects include the learning disabilities which prompted the need to explore the rehabilitative educational services to mitigate and address the increasing childhood neurological damage and impact in the refugee camps in South Sudan.

The Visual Learners

The teaching techniques for the children with dyslexic conditions require multi-sensory approaches which involves seeing, listening, speaking, touching with much variation as possible, and categorizes the teaching techniques into visual, auditory, and kinesthetic learners [13].

The visual learners can be assisted to learn in form of pictorial and multi-media materials; sticking to the spelling of words, looking at the pictures in the books before reading; playing games to improve memory; using the good visual software program and having an uncluttered work area [14]

The Auditory Learners

Similarly, auditory learners can be helped to read the books or the information, ensure that
the instructions are orally clear; and get the students to record the information to listen to it again and use the software with good auditory input [15]. The remedial treatment is used in the drillings and practices where the teacher provides clear examples of good handwriting, and the learners follow the instructions to practice the drilling, using the teacher’s model. Hence, repetitive practice, along with correct position and pencil grip can help with this process and build fine motor skills, and help improve hand functioning, which leads to better handwriting [16].

The Kinesthetic Learners

The strategic method for addressing dyscalculia includes mathematical software, catch up numeracy programmes which help the learners to regain confidence and remember mathematical facts and enhance the ability to conceptualize numbers and solve the simple to complex mathematical problems [17]. The children with learning disabilities can be helped with specific learning strategies to enable them to read, comprehend and study better. This helps them to be organized to collect their information strategically and compensate with tutoring and classroom modifications such as un-timed tests and reduced workload, and direct intervention, which involves teaching learners on how to learn and become independent [18]. The teaching techniques for children with dyslexic conditions should be made multi-sensory involving looking, listening, speaking, touching with much variation as possible, and categorizes the teaching techniques into visual, auditory, and kinesthetic learners. The visual learners can be assisted to learn in form of pictorial and multi-media materials; sticking to the words spelling and looking at the pictures in the book before reading; playing games to improve memory; using the good visual software program and have an uncluttered work area. Similarly, the auditory learners can be helped to read the books or the information; making sure the instructions are orally clear; getting the student to record the information to listen to it again and using software which has good auditory input [15]

Mental Health and Social Support through Behavioral Activities

Psychosocial interventions are instrumentally crucial for mitigating learning disabilities and the identification of behavioral interventions which involves personal, social, and environmental events which precipitate behavioral impact [19].

Behavioral Skills through Games

Significant number of educators acknowledged that the traditional teaching activities failed to match the learners needs, preferences, and expectations; hence the special needs educational services, behavioral therapeutic, and social impact of the serious games supported with gaming technology facilitated through the process of experiment, which fosters the development of the learners cognitive, spatial, motor skills and teach the learners how to solve complex problems. These foster creativity, genuine collaboration, and range of emotions such as joy, empathy, anger, frustrations, and memorization which enhanced motivation, engagement, and progress in a variety of skills and abilities [20].

Skinner B.F theory of operant conditioning is crucial and instrumental tool for the psychosocial interventions that improve not only the psychological dimensions such as thinking, attitudes, and motivation, but also social learning such as teaching and reinforcing new behavioral skills and social discussion aimed at improving mental wellbeing [21].

Behavioral Skills through Work-Skits

Bandura identified three areas for learning which consist of observation, imitation, and modelling, and termed observational learning in his experiment as an effective attention, retention, reciprocation, and motivation. He stressed that children learn through behavioral
imitation, observation, and modeling of other people [22].

Bandura elucidated in Social Cognitive Theory that development of cognitive competencies can be accelerated by symbolically modeling the reasoning strategies for domains, highly informative ways of which the great deal of human thought is linguistically based.

Hence, the children acquire knowledge about objects and the relationships between them through nonlinguistic processing of direct and vicarious experiences. Such understanding helps to impart meanings to linguistic symbols and by relating the utterances, they hear to what they understand to be going on at the time [23].

**Behavioral Responsibility Skills**

Bandura emphasized on changing overt behavior which comprised of environmental changes and social interactions using approaches that enhance self-control and focuses on the client responsibility and the therapeutic relationship, and intervention approaches used in behavioral therapy. These approaches include coping and social skills training, contingency management, modelling, anxiety reduction and relaxation, self-management methods and behavioral rehearsal. In addressing the educational issues, it focusses on two traditional cognitive behavioral learning and changes such as cognitive restructuring and social skill training, social and community responsibility therapy and social-community responsibility skills training [22].

**The Social Rehabilitative Support (SRS)**

The social rehabilitative support carried out covered three areas of behavioral activities which comprised of games, work-skits, and responsibility skills. The observational checklist tables captured the social rehabilitative support to reduce childhood neurological damage covering the three areas of behavioral activities which are useful such as anthropological study tools.

**Methodology**

The study used qualitative, quantitative, and anthropological methods to have an in-depth understanding of the learning disabilities and the associated psychosocial problems in the refugee camps. Given the complexity of the phenomenon under study, the researcher used Mugenda (2003,42) method which takes ten percent as the approved sampling size for qualitative sample. The purposive sampling technique was used to select 60 (32F, 28M) learners out of the 600 learners with disabilities and selected 55 (20F,35M) out of the 550 teachers recruited in camps schools. The teachers were purposively selected to pick those with special needs education skills who are entrusted for teachings of the learners with disabilities in schools.

**Presentation, Discussion, and Results**

The results show the special needs educational services improve on the learning disabilities and psychosocial problems in Jamjang refugee camps.

This came with introduction of the extracurricular and behavioral activities through sport which targeted all the learners with measure focusses on children with learning disabilities and those coming from conflict areas in all the schools and child friendly spaces to enhance their academic performance, as well as physical and psychosocial wellbeing. These consist of football, volleyball, athletic, skipping rope, talent show, dominoes, and dice which were aimed at improving the learners’ participation, boost physical and psychosocial wellbeing, memory, talents, social interaction, discipline, boost reading and arithmetic calculation. While the poem, storytelling, recite the songs build talents on public expression, and use of the art therapy were used to identify the learners’ lives situation at home and school.

In line of the above anthropological observational checklist of the special needs’ education intervention, the behavioral games were used in Jamjang refugee camps by
educational actors to enhance the extracurricular activities in all the schools and child friendly spaces. These consist of football, volleyball, athletics, skipping rope, talent show, dominoes, and dice which enhanced and improved the learners’ participation, boosting physical and psychosocial wellbeing. Similarly, the cocurricular activities enhanced the learners’ memory, talents, social interaction, discipline, boost reading and arithmetic calculation.

The result in the table 1 below also showed that out of 48 children with learning disabilities who were engaged in sport, 87.5% had an enhanced self-esteem, confidence in social interaction, lessened anxiety, and depressive symptoms, improved physical and psychosocial wellbeing, increase happiness, resilience, and relaxation. Out of the 20 learners who were engaged in playing dominoes and dice, 85% of them improved self-confidence, social interaction, and arithmetic calculation. Similarly, out of the 10 learners who played rope skipping, 90% of the learners improved physical & mental wellbeing. The learners equally enhanced spelling and numerical by reciting words and improved on social interaction which increased joy.

Out of the 30 (15 boys, 15 girls) who participated in the talent show, 100% of the learners had an impactful enhancement in participation, and interaction, improved physical and mental wellbeing.

In one instance of the physiological development, the 16-year-old female learner with cerebral palsy conditions that affected her motor systems since earlier childhood where she became a wheelchair-ridden or crawl on her knees up to her enrollment in primary school 6 years ago. The learner could participate in random games and joyfully run on her knees while playing with fellow learners. Her limbs became stronger over time, and gradually started learning to stand on her feet and finally walking with clumsy movement now.
<table>
<thead>
<tr>
<th>Activity Done</th>
<th>Type of Learners Expected</th>
<th>Benefit Expected</th>
<th>Time Space</th>
<th>Results Obtained</th>
<th>Principal Caretaker</th>
<th>Sponsor</th>
</tr>
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<tbody>
<tr>
<td>Sport (Football, volleyball, and athletic)</td>
<td>48 (24 boys and 24 girls) between 6-17 years old</td>
<td>Improve participation boost talents and psychosocial wellbeing.</td>
<td>School and child friendly spaces</td>
<td>42 (25 boys &amp; 17 girls) learners had an enhanced self-esteem, confidence, social interaction &amp; networking, lessened anxiety, and depressive symptoms, and increased resilience and relaxation</td>
<td>School admin</td>
<td>LWF</td>
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<tr>
<td>Dominoes &amp; Dice</td>
<td>20 Boys Between 6-17 years old</td>
<td>Enhance discipline &amp; observe rules, enhances memory, critical &amp; strategic thinking.</td>
<td>-</td>
<td>17 learners improved in observing game rules, social interaction skill, visual perception and few arithmetic calculation.</td>
<td>Child friendly spaces every evening</td>
<td>LWF</td>
</tr>
<tr>
<td>Skipping rope game</td>
<td>10 Girls 6-17 years old</td>
<td>Improve health, memory, and social interaction.</td>
<td>-</td>
<td>9 learners improved physical &amp; mental wellbeing. Enhanced reciting numerical count, and social interaction, and finally became joyous.</td>
<td>School and child friendly spaces everyday</td>
<td>LWF</td>
</tr>
<tr>
<td>Talent show</td>
<td>30 (15 Girls and 15 boys) 6-17 years old</td>
<td>Enhanced talent</td>
<td>School</td>
<td>30 (15 boys, 15 girls) enhanced participation, and interaction, improved physical and mental wellbeing</td>
<td>School</td>
<td>LWF</td>
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Table 2. The Work-Skit Behavioral Activity

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<tr>
<th>Activity Done</th>
<th>Type of Learners Expected</th>
<th>Benefit Expected</th>
<th>Time Space</th>
<th>Results Obtained</th>
<th>Principal Caretaker</th>
<th>Sponsor</th>
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<tr>
<td>Poem</td>
<td>10 (5 Boys and 5 girls) 6-17 years old</td>
<td>Pass the message to fellow learners, teachers, parents, and leaders.</td>
<td>School &amp; community function</td>
<td>7 (3 boys, 4 girls) learners enhanced word memory &amp; confidence in speaking, Messages passed</td>
<td>School admin</td>
<td>LWF</td>
</tr>
<tr>
<td>Recite songs</td>
<td>30 (15 Girls &amp; 15</td>
<td>Boost words</td>
<td>school</td>
<td>25 (15 girls, 10 boys) learners</td>
<td>School</td>
<td>LWF</td>
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and storytelling boys) 6-17 years old memorization improved reading alphabets, numeral count, and words spelling memory, and improved psychosocial wellbeing

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<td>3</td>
<td>Drawing</td>
<td>20 (10 Boys and 10 girls) 6-17 years old</td>
<td>To identify psychosocial wellbeing</td>
<td>Child friendly spaces</td>
<td>Cases of the trauma, child abuse and neglect were identified and subsequently supported</td>
</tr>
<tr>
<td>4</td>
<td>Play recorded lesson</td>
<td>60 (30 Boys &amp; 30 girls) 6-17 years old</td>
<td>Improve reading, and auditory skill</td>
<td>Schools &amp; FM radio</td>
<td>20 (12 boys, 8 girls) Enhanced reading, memory, phonetic sounds, and auditory skill</td>
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<th>Table 3. The Responsibility Skills Behavioral Activity</th>
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<td><strong>Activity Done</strong></td>
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Meanwhile in the responsibility skills of behavioral activity, the education actor LWF introduced this activity to enhance learners’ safe learning environment, physical and mental wellbeing through environmental health, hygiene, and sanitation. This activity fosters change of lifestyle among the learners regarding the health risk sensitization, such as cholera, covid-19, and human immunodeficiency virus, and acquired immunodeficiency syndrome (HIV/AIDS).

In the anthropological study in which 60 (32F, 28M) children with different kind of disabilities were interviewed, 73% of the interviewed population were found with the learning disabilities which comprised of the difficulties in writing, spelling, reading, following grammatical rules, following straight line in writing, poor memorization, difficulty in performing basic arithmetic calculation and numerical count.

Out of the 10 learners who were engaged in hygiene and sanitation practices, 60% of the learners had improved personal hygiene & environmental cleanliness.

In an instance of the 14-year-old dyslexic primary 4 learner, despite his age and grade, he was unable to spell ‘girl, father, and man’ correctly. Instead, he spelled the girl as ‘biu’, father as ‘eam’ and man as ‘mai’.

Another example of the 17-year dyscalculic learner despite being in primary 3, was unable to make basic arithmetic calculation. E.g., 5+5=1 and 5 ÷5=5 which were all wrong

Associated Psychosocial Problems

The study found most of the children with learning disabilities expressed frustration, anger, low self-esteem, feeling discriminated against, and stigmatized for being bullied by their fellow learners, which subsequently caused anxiety and depressive disorder.

Meanwhile the children with learning disabilities experience parental neglect which include no bathing, clothing, and lack of care for emotional attachment. In furthermore, some children with learning disabilities complained of harsh treatment from the teachers, which include physical and emotional abuse during lessons.

The African Health Action (AHA) reported the elevated mental health problems in Jamjang camps, South Sudan, these consist of depression, anxiety, post-traumatic stress disorders and mental retardation [12].

Findings and Discussions on Hypothesized Notion that the Special Needs Education Services Reduce the Learning Disabilities and the Associated Psychosocial Problems

Considering the existing special needs’ education services intervention that consists of sign language, braille instructions, and the variety of extracurricular activities introduced in Jamjang camps schools to foster the learning and mitigate the adverse effects of the learning disabilities and psychosocial problems.

The special needs intervention included additional approaches in the cases of learning disabilities and psychosocial problems. The approach encompasses cocurricular activities that comprised of football, volleyball, skipping rope, swing, talent show, drama, dominoes, ludo, draw therapy, and sing of songs. These extracurricular activities were aimed at addressing physical, emotional, mental, social, cultural, and academic problems. Nevertheless, the approach made number of achievements in the learning disabilities and psychosocial problems that made this multisensory approach indispensably effective in school and child friendly spaces where children were subjected
to playing variety of games after school hours. This approach subsequently improved the learners’ self-esteem, confidence, social participation, reduced anxiety and depressive disorders and increased resilience. The multisensory approach made a significant improvement on children’s physical, emotional, mental, academic, and social wellbeing.

The other approach includes drama, drawing therapy, fastening words in songs to improve learning, memory, participation, self-esteem, confidence, self-expression, mental and physical health, and enhance academic performance.

Despite all the achievements of all the approaches in mitigating the learning disabilities, the lack of guidance from the teachers in tailoring the games into learning, made it harder not only for the learners with the learning disabilities to improve writing, spelling, arithmetic calculation, grammatical errors and to follow the straight line, but lose the intended value and therefore become a routine traditional game without significant impact.

This is largely attributed to the teachers’ lack of knowledge and skill to apply the multisensory approach to improve the learning but using the game in a traditional way of recreation and passing time. The fact that the teachers do not apply the targeted extracurricular activities to specific category of learners in multisensory approaches to enhance the learning through the reciting of the words, spelling, alphabetical & numerical reading which are tailored in the game to improve the numeracy, spelling, writing, and vocabulary memorization reduced the impact of the tool.

It is worth noting that the multisensory approach is incredibly indispensable for the treatment of learning disabilities such as dyslexia, dysgraphia, dyscalculia, and mitigation of the associated psychosocial problems. The approach succeeded in the scenario of four (8-12yrs) dyscalculic learners who could not do mathematical calculation after being in primary school for 3-5 years. The learners succeeded in addition, and division of physical items after repeatedly given physical materials for numerical count, do arithmetic calculation on addition and division.

**Contribution to the New Knowledge**

Although the solitary use of traditional special needs education on the application of sign language, braille and mental health self-care were helpful in addressing hearing, visual, and mental impairment cases; the approach fell short not only on the mitigation of the learning disabilities such as dyslexia, dysgraphia, and dyscalculia, but also the associated psychosocial problems such as depression, anxiety disorders, attention deficit hyperactivity disorder in an effective manner.

This was proven in significant number of special need education learners including 7 visual-impaired and 3 hearing-impaired learners who did not respond well with the traditional education of sign language and braille instructions, and paradoxically believed to be uneducable wherein 30% of the learners with learning disabilities dropout. The sign language failed to address the learning gaps for the 2 learners with hearing impairment due to challenges in understanding and adjusting to the international sign language after being raised up in the environment where communication was on natural sign language. This discouraged the learners, and they drop out from the school.

The combined use of the traditional special needs’ education approaches integrated with the application of mental health support and cognitive theories such as operant conditioning, cognitive behavioral theory, lesson recording, and multisensory teaching approaches such as looking, listening, speaking, touching with much variation as possible, and categorizes the teaching techniques into visual, auditory, and kinesthetic learners proved to be effective.

The visual learners can be assisted to learn in form of pictorial and multi-media materials; sticking to spelling words anywhere to be
viewed; looking at the pictures in a book before reading; playing games to improve memory; using a good visual software program and having an uncluttered work area. Similarly, the auditory learners can be helped to read books or the information to be learned; making sure instructions are orally clear; getting the student to record the information to listen to again using software which has good auditory input [15].

Given the fact that the study on learning disabilities was the first of its kind not only in Jamjang Camps, but it is the first study in South Sudan at large. This study was indispensably instrumental and impactful for both teachers and learners in paradigm shift from traditional teaching and learning to multisensory approach where different approaches are used to enhance the teaching and learning that mitigate the learning disabilities and psychosocial problems.

Conflict of Interest in the Research

Concerning the conflict of interest and disclosure, the researcher acknowledged the resources used in the study with references and maintained the integrity of the study in all aspects, and therefore declare no conflict of interest.

Conclusion

In conclusion, the learning disability is defined as a heterogeneous group of conditions with a deficit in processing language, and manifested in difficulty to comprehend, speak, read, write, spell, or do basic mathematical calculations, including perceptual disabilities, and disorders that affects people’s ability to either interpret what they see and hear and how to link the information from different parts of the brain [2].

The African Health Action reported the elevated mental health problems in Jamjang South Sudan, consisting of depression, anxiety, post-traumatic stress disorders and mental retardation [12]. The effects include the learning disabilities which prompted the need to explore the rehabilitative educational services to address or mitigate the increasing childhood neurological damage and impact in the refugee camps of South Sudan.

The anthropological observational checklist of special needs education confirmed the hypothesized notion that the special need educational services reduce learning disabilities and associated psychosocial problems.

Behavior games and extracurricular activities were introduced at schools and child friendly spaces to improve learners’ participation and boost physical and psychosocial wellbeing. This also enhance memory, talents, social interaction, discipline, boosts reading and arithmetic calculation. Although the approach was limited due to lack of technical skill from the teachers to apply the multisensory approach effectively. The approach succeeded in the enhancement of self-esteem, confidence in social interaction, lessened anxiety, and depressive symptoms, improved physical and psychosocial wellbeing, increased happiness resilience and relaxation.

Recommendations

Whilst it is important to use the special needs education services to address the learning disabilities, and associated psychosocial problems, it is essentially crucial to use multisensory approaches for better results in academic performance and behavioral change.

Extracurricular activities are vitally important for use to improve learning when they are properly tailored with learning activities and therefore should be used in special needs education interventions to enhance learning.

Acknowledgement

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Reference


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