

A Survey Based on NeuronUp App

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Abstract

SLPs provide speech language intervention in individuals with special needs to prevent, examine, diagnose and treat speech, language, social communication, cognitive communication, and swallowing disorders. A range of therapeutic strategies are used by speech and language therapists to achieve interventional goals. Different countries employ various apps to carry out speech-language intervention. This study looks at the NeuronUP app, a tool for speech therapy. This study contributes to our understanding of SLPs' and parents' expertise and familiarity with NeuronUP. In order to thoroughly assess the awareness of the NeuronUP app, the study used 15 closed sets of questionnaires. According to the statistical analysis, NeuronUP is a successful speech and language therapy programme.

Introduction

Speech-Language Therapist also called speech language/communication therapist, are well learnt about human communication, its development, and its disorders. Speech language professional assess speech, language, cognitive-communication, and oral/feeding/swallowing skills. Speech language intervention is the treatment for most children and adult with speech and/or language disorders. The speech language disorders include articulation, fluency, voice, receptive expressive language disorders, autism, down syndrome etc.

Speech language intervention is when a speech-language therapist helps a kid to overcome challenges one-on-one, in a small group, or in a classroom. Different therapy methods and resources are employed by speech and language therapists for intervention purposes.

Speech and language intervention in different countries are carried out using the different apps. App is increasingly being used in speech and language Assessment and Rehabilitation practices. Intervention can be done using apps like zoom and goggle meet. Other than this there are many apps specifically for speech language pathologists.

Different apps used for speech and language therapy include Articulation station, Spingo, Speech Tutor, Conversation Therapy, Naming Therapy, LAMP words for life, Proloquo 2 GO, Apraxia Therapy, DAE Pro, Gemiini, NeuronUP, Verge App.

A mobile app is a software application developed specifically for use on small, wireless computing devices, such as smartphones and tablets, rather than desktop or laptop computers. (Ivy Wigmore,2013).

Apps are very much beneficial, and they are cost friendly where children can practice their speech at home by their own self. Not much wastage of time for parents in bringing their children to clinical setups.

The present research is based on one of the best speech intervention App – NeuronUP app. NeuronUP is based on a consistent theoretical framework overseen by a committee of scientific experts. NeuronUP is a digital web platform designed to act as a key support for speech language pathologist and other professionals involved in occupational therapist, cognitive rehabilitation and stimulation processes. It consists of numerous materials and resources for design treatment sessions in addition to a patient manager for organizing and saving the results of those sessions.

Regardless of age, this programme is helpful for practically all speech and language difficulties. This software also includes cognitive components. The daily lesson plans are saveable by the user on the app. A key advantage of NeuronUP is that professionals can personalise sessions (tailoring materials to each patient's needs) and do so from the patient's location. Professionals can also utilise the system in the future to keep tabs on their patients' progress and modify follow-up activities as necessary at any time and from any location.

The effectiveness of interventions in speech and language therapy is currently the subject of research. According to meta-analytic studies, the type of intervention and treatment outcome are what determine whether therapy will be successful. Depending on the type and extent of the disability, it may differ substantially amongst people.

Carolyne (2016) investigated on speech therapy mobile application for speech and language impairment children and study shows that the mobile application, which also helps children develop their ability to produce correct sounds, received favourable feedback from kids and their parents.

Lisa (2018) studied mobile apps for treatment of speech disorders in children an evidence based on analysis of quality and efficacy. The study showed that there is a greater need than ever for rigorous and effective mechanisms to find and retrieve apps and assess their therapeutic efficacy. Speech therapy services are tough to acquire worldwide, therefore mHealth promises therapy benefits when apps are dependable, legitimate, and simple to find. Atiyeh (2020) examined mobile apps that are currently widely available to adults with communication disorders for speech – language therapy and to assess their content and quality using the validated Mobile App Rating Scale (MARS). The study concluded that the apps lacked interactive and interesting features, which are essential for maintaining self-managed speech-language treatment. To increase effectiveness and long-term use, more evidence-based apps are needed with an emphasis on human factors, user experience, and a patient-led design approach.

There are different types of speech and language therapy apps. Some of them are: Conversation Therapy, Apraxia Therapy, Splingo, Articulation Station, Speech tutor, Proloquo2Go, Gemiini, NeuronUP, Constant Therapy App, Verge App.

Carolina (2007) Structured and Clinically Validated Programs and found out clinically validated programs like: NeuronUP: Integrated Metacognitive and Neurocognitive Training in Schizophrenia: A Single-Blind Randomized Controlled Trial; Prospective observational study to examine the efficacy of a cognitive rehabilitation with technological support (Neuron UP) carried out by patients with multiple sclerosis in a face-to-face or distance modality; Non-pharmacological Treatment of Alzheimer's Disease; Clinical Trial for the study of Neuron UP's effectiveness in a Multiple Sclerosis patient population.

Method

AIM: The aim of the study was to analyse the awareness of NeuronUP app among parents and speech language therapist using NeuronUP app.

The study was carried out in two phases.

Phase 1: Developing questionnaire

In order to determine the level of knowledge of the NeuronUP app of 15 closed-set (yes/no) questions were created. All of these questions were validated by 10 speech-language pathologists with more than three years of experience in the area. The correction and suggestion advised by SLP's were incorporate and final questionnaire was ready to administer.

The final questionnaire is as follows.

1. Does NeuronUP app is a mobile app or not? (yes/no)
2. Is NeuronUP app costly? (yes/no)
3. Does NeuronUP app offer a free trial? (yes/no)

4. Does NeuronUP app provide training? (yes/no)
5. Does NeuronUP app offer any kind of support options? (yes/no)
6. Does NeuronUP app support different language? (yes/no)
7. Does NeuronUP app work with different kind of users and organization? (yes/no)
8. Are you aware that your data is saved in the app? (yes/no)
9. Are you aware that this app can work with several patient at once? (yes/no)
10. Does NeuronUP app features help in school-based sessions? (yes/no)
11. Have you observed any improvement in your child or client after using this app? (yes/no)
12. Do NeuronUP app provides any attendance logs and count hours of therapy provided each student manually? (yes/no)
13. Does NeuronUP app schedule demo with specialists through their innovative platform? (yes/no)
14. Does NeuronUP app have any help centre to enquire about the doubts? (yes/no)
15. Do Speech therapist need to be licensed to use the app? (yes/no)

Phase II: Participants

Thirty participants including parents and speech-language pathologists of various age groups who often used this app participated in the present study. The validated tool was circulated to these two groups.

The parents and professionals not using the NeuronUP app are excluded.

Stimulus used: A closed-ended (yes/no) questionnaire which developed and validated was used.

Procedure: The participants were supposed to read and comprehend the questions and correctly respond either with Yes or No.

Analysis: The responses elicited from the participants were further examined and graded as "1" for "Yes" and "0" for "No." Statistical analysis was carried out for Frequency, percentage, Mean and Standard Deviation.

Results and Discussion

The aim of the present study was to analyse the awareness of NeuronUP app among SLP's and parents and the obtained results are discussed below.

Table 1:
shows the responses of the SLP's and parents regarding their awareness about NeuronUP app. (in %).

	Not aware	Aware
Q1	83.3%	16.7%
Q2	80.0%	20.0%
Q3	0.0%	100.0%
Q4	3.3%	96.7%
Q5	0.0%	100.0%
Q6	6.7%	93.3%
Q7	0.0%	100.0%
Q8	0.0%	100.0%
Q9	3.3%	96.7%
Q10	3.3%	96.7%
Q11	0.0%	100.0%
Q12	0.0%	100.0%
Q13	23.3%	76.7%
Q14	6.7%	93.3%
Q15	83.3%	16.7%

From table 1 it can be seen that most SLPs and parents were familiar with the NeuronUP app. Question 1 was about NeuronUP app as a mobile app. 16.7 percent were aware about the app, while 83.3 percent were not aware.

Question 2 was about the affordability of the NeuronUP app. The cost of the app was known by 20.0 percent and 80.0 percent were not aware.

Question 3 was about the free trials offered by this app. 0 percent were unaware, while 100 percent were aware of the app.

The 4th question concerned the NeuronUP app's training features. 96.7 percent were aware about the app, while 3.3 percent were not aware.

Question 5 concerned a support feature offered by the NeuronUP app. 0 percent were unaware, while 100 percent were aware of the app.

Question 6 shows the different language that stimulates the child. 93.3 percent were aware about the app, while 6.7 percent were not aware.

The 7th question about various people and organisations who use the NeuronUP app. 100 percent were aware about the app, while 0 percent were not aware.

Question 8 was about the awareness regarding their data which is saved in the app. The app was known about by 100 percent, with 0 percent not aware.

Question 9 was whether the NeuronUP app can manage several patients at a time. 96.7 percent of the participants attended was aware and 3.3 percent was not aware.

Question 10 was whether the app features help in school -based sessions. 96.7 percent of the participants attended was aware and 3.3 percent was not aware.

Question 11 asked how the child has improved after using the app. 100 percent of the children who used this app has improvement.

Question 12 was about the attendance log and count hours.100 percent was aware and 0 percent was unaware.

Question 13 was about the demonstration with the specialist using this app. 76.7 percent people were about this app and 23.3 percent were not aware.

Question 14 about the help centre to enquire queries. 93.3 percent people were aware and 6.7 percent were not aware about this app.

Question 15 was about licensed speech therapist. 16.7 percent were aware and 83.3 percent people were unaware.

Table 2:

shows the overall knowledge of SLP's and parents about the awareness of NeuronUP app.

Awareness	Freq	Percentage
Low	0	0
Moderate	0	0
High	30	100

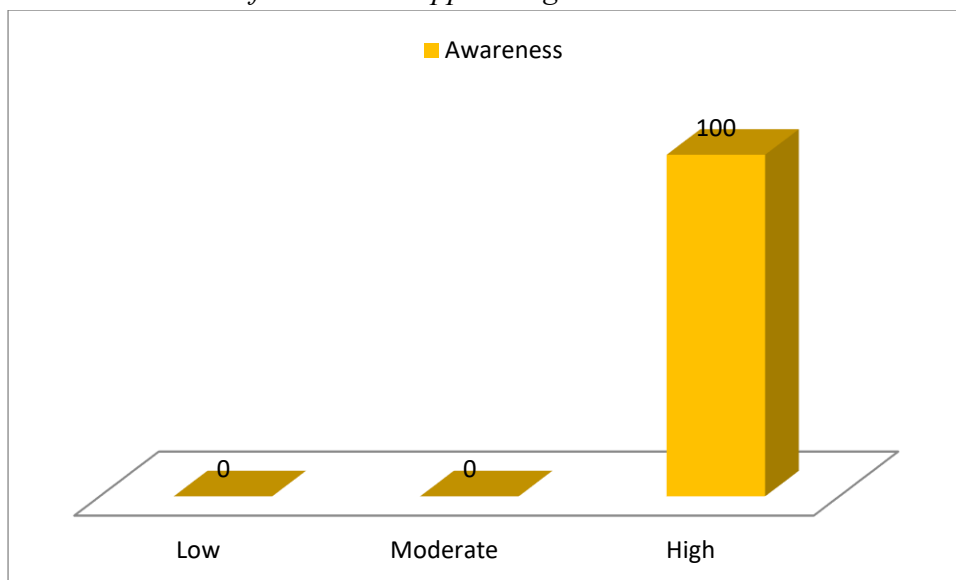
Table 3:

shows the standard deviation of awareness of NeuronUP app.

	N	Minimum	Maximum	Mean	Std. Deviation
Overall awareness	30	11	14	12.07	.944

Figure 1:

shows awareness of NeuronUP app among SLP's and Parents.



The graph above shows that all participants who used this app reported using it well 100% of them in their responses.

Discussion

The percentage data for survey based on NeuronUP app shows that 100 percent was attained in six questions, above 70 percent (71–99) in six questions, above 15 percent (15 - 20) in three questions. Three questions were below 50%, with the majority of the questions being above 50%. There is a misconception that NeuronUP is a mobile application, however it is not. Most parents are unaware that we may use this software to conduct therapy sessions via laptop, desktop, and other devices. The price of the NeuronUP app is another point of discussion. The expense of offline and online treatment sessions is something that most parents are unaware of. Another query is whether the therapist is licenced to conduct

sessions. Most parents are unaware of their licences and other credentials. hence, parents are less aware of the question.

Conclusion

People with special needs can access educational therapy, activities, and tests through the software NeuronUP, which has received clinical validation. Our research's aim was to confirm the NeuronUP app's awareness. From the aforementioned study's findings, it can be inferred that the NeuronUP app, which can be utilised as a technological technique for the assessment and administration of speech and language therapy is efficient and valuable.

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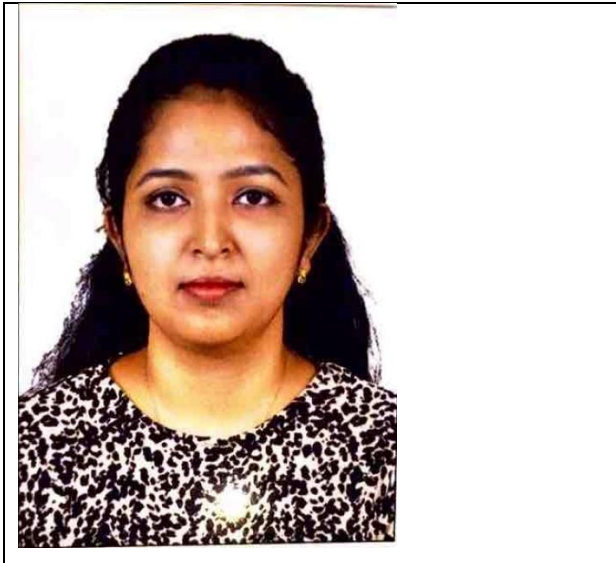
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