

RESEARCH ARTICLE

CONNECTING GUARDIANS OF CHILDREN WITH AUTISM SPECTRUM DISORDER (ASD) AND MENTAL HEALTH PROFESSIONALS THROUGH DYNAMIC APPLICATION, AUTEGGO

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ABSTRACT

This study aimed to design and develop a more insightful mobile app 'Auteργο' for guardians of autistic children where they can connect and consult with professionals. This is an attempt to evaluate the usability of the app in establishing a secure community for people with autism. The app is characterized by providing a safe and accessible platform for guardians of individuals and children who are autistic. It is currently in development that will help our specialists from the UAE and MENA region to connect with consumers globally to provide essential support to families and individuals. This will eventually help promote the well-being and health of families with individuals who are autistic and autistic individuals themselves. During the development of this application, several factors are considered such as the deployment of the product in specific regions, customs regulations of other countries and language inclusion. The main focus of this application is to develop a support network that connects guardians and provides a professional guidance and well-catered payment gateway methods with subscription services to enhance a customer's experience. It would be able to make guardians better ready to assist children with autism in their lives.

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INTRODUCTION

Autism spectrum disorder (ASD) is a complex developmental disorder that affects a person's ability to communicate and interact with others. It is a lifelong condition that can cause significant social, communication, and behavioural challenges. One of the major challenges that the individuals with ASD and their families face is the lack of resources and facilities to support their needs. Many people with ASD require specialized interventions and accommodations to fully participate in society and lead fulfilling lives. However, these resources and facilities can be difficult to find, and may not be accessible or affordable for everyone. As a result, many individuals with ASD and their families struggle to access the support and services they need to thrive. Lack of awareness about ASD can have serious negative impacts on both parents and children with autism. For parents, the lack of understanding and resources can be overwhelming and lead to feelings of isolation and stress. This can also lead to parents feeling overwhelmed and unsure of how to properly support and care for their child with ASD, which can result in misunderstandings and miscommunications that can cause harm to the child. Children with ASD may also suffer due to a lack of awareness and understanding.

They may not receive the necessary support and accommodations they need in school and other social settings, leading to challenges in learning and socialization. In addition, if parents do not have a proper understanding of ASD and how to best support their child, they may inadvertently cause psychological damage through mishandling or not properly addressing the child's needs. Both parents and society as a whole need to have a better understanding of ASD to properly support and care for individuals with this condition. There is a pressing need for research on ASD. For example, a study published in the Journal of the American Academy of Child & Adolescent Psychiatry found that children who received the early intervention had significantly better outcomes in terms of cognitive and adaptive functioning compared to those who did not receive the early intervention (Landa *et al.*, 2013). Another study published in the Journal of Child Psychology and Psychiatry found that children with ASD who received the early intensive behavioural intervention had improved cognitive, language, and adaptive skills, as well as decreased severity of ASD symptoms (Smith *et al.*, 2010). In addition to the personal benefits of providing adequate resources and support for individuals with ASD, there are also societal benefits. A study published in the journal Health Affairs found that early intensive behavioural intervention for children with ASD resulted in cost savings for society due to the reduced need for special education and other supports (Ganz *et al.*, 2007).

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These findings highlight the importance of providing adequate resources and support for individuals with ASD to improve their quality of life and reduce the burden on society.

MATERIAL AND METHODOLOGY

A webpage has been designed to provide an access to avail support from therapists along with a range of features to support individuals with Autism Spectrum Disorder (ASD) and their families. The website offers discovery calls with therapists to help individuals find the right fit for their needs and private and group messaging options to connect with others in the ASD community. It includes tools for building a personalized wellness plan, as well as online seminars on how to manage ASD. It also have a system for new sign-ups, to ensure that users are without malicious intent; it has future users who can scan their POD cards to ensure that they are there to seek support and not harass and troll the users. One of the key features of the website is the ability to schedule free phone or text consultations with professionals, giving individuals the opportunity to get advice and guidance without incurring additional costs. The website also offers a one-time lifetime membership option, which gives individuals access to all of the resources and features on the site at a single, low cost of AED 40. The website caters to a wide price range, with options for both individual and group membership, as well as various levels of access to resources and services. The main page of the webpage is (figure 1) helps children with autism spectrum disorder (ASD) by providing them with PD ID verification to prevent trolls and people with malicious intent from disrupting productive activity in the Middle East region (figure 2), private one-to-one messaging (figure 3), discounted therapist rates (figure 4) and chat messaging facilities (figure 5) according to their region has been significant. The website aims to provide a comprehensive and affordable resource for individuals with ASD and their families to find support, information, and safe community.

RESULTS AND DISCUSSION

With an estimated 1 in 64 children in the UAE signing up for this program, it has been seen an increasing rate of children getting support for ASD and improving cognitive, emotional and behavioural wise in the region. In the launch year, it has been estimated that 46 downloads will take place in the Middle East, with an exponential increase of 4% expected in the second year. Based on a survey, it has been estimated that 100-227 downloads will be made, with around 57-65 returning customers by the end of 2025 (Figure 6).

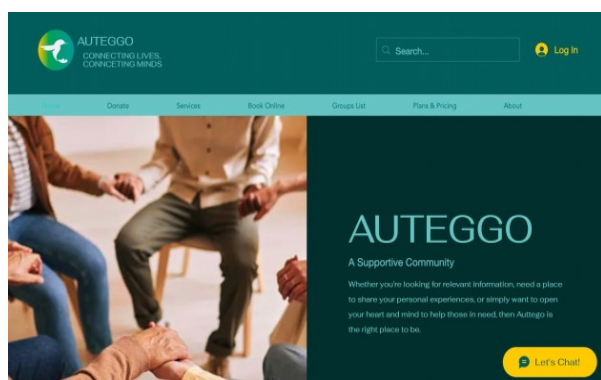


Figure 1. Application interface main page

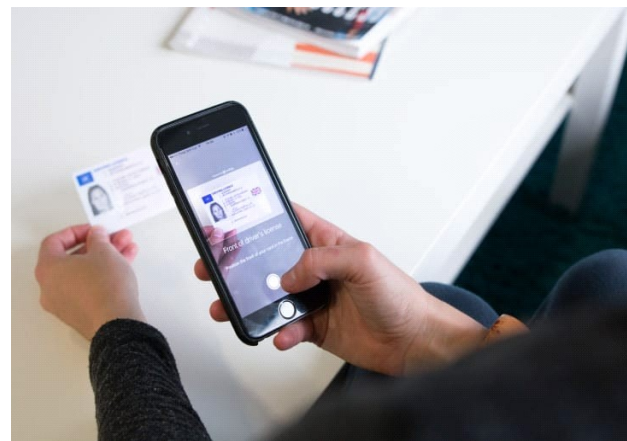


Figure 2. POD verification interface

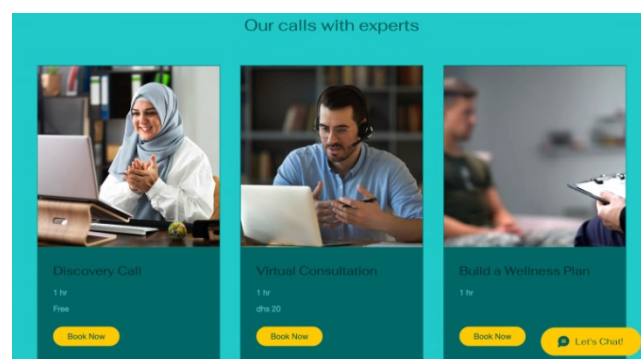


Figure 3. Call application with experts

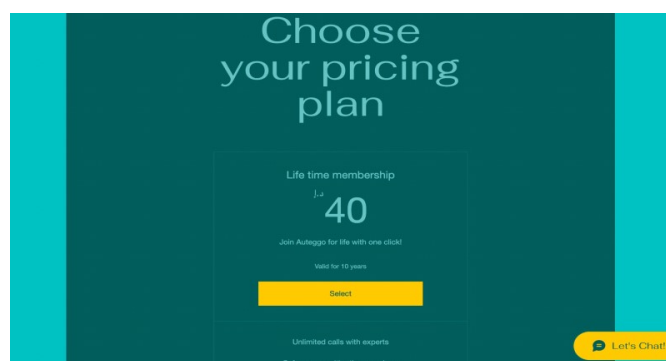


Figure 4. Lifetime membership payment

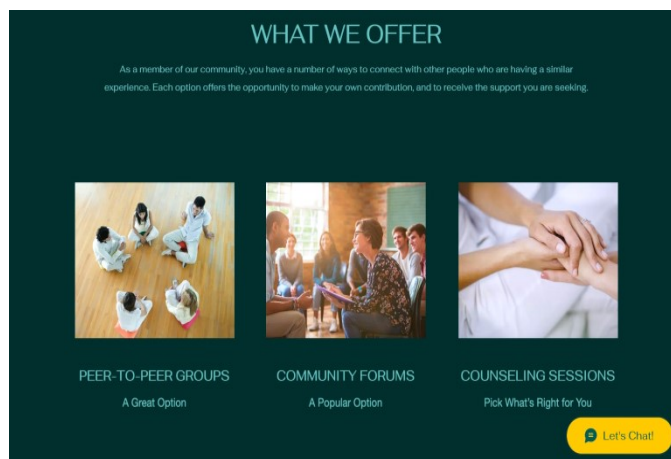


Figure 5. Group sessions interface

Overall, this application is providing a valuable service for children with ASD in the Middle East region, promoting communication and support through the use of technology. Parents must provide accurate information about the needs of a child which is an important aspect for the establishment of a relationship with professionals [Dunst, 1994]. Otherwise, mental health professionals waste a lot of time and resources to figure out what such children need to propose an effective intervention [Seligman, 1997]. Parents who are not sure of their child's actual mental condition may fail to keep agreements and dishonor the deadlines. Hence, they will be responsible for jeopardizing their ward's progress [McNaughton, 1997]. Finally, there might be some parents who remain connected with the mental health professionals and continue to cooperate in each aspect. These parents might start believing in the progress of a child's health during their collaboration with the mental health professional [Blue-Banning, 2000 and Turnbull AP]. This research confirms the findings of prior studies [Summers, 2003] that a healthy relationship between parents of children with ASD and mental health professionals is a bit challenging. However, the application will be able to ensure to identify the existing problems and propose relevant possible solutions from experts.

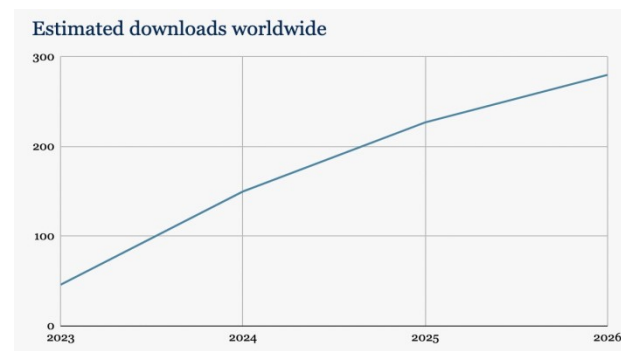


Figure 6. Projected global downloads show an accelerating increase in customers.

CONCLUSION

In conclusion, the lack of resources and support for individuals with ASD and their families is a pressing issue that needs to be addressed. This research focuses on the development of an application called Auteggo which is based on a user-centered methodology involving connecting needs of family and professional caregivers for children with ASD. The results of this research reveal that the application has the potential to make a significant impact on the lives of individuals with ASD and their families. By providing access to low-cost professional consultations, personalized plans created by specialists, and online seminars, the application can help individuals with ASD and their families better understand the needs and take steps towards managing it. The application also provides a platform for individuals with ASD and their families to connect with others with a similar need in the community. Overall, it helps reduce feelings of exclusion and providing a sense of community as well as being able to connect with others similar to them.

In conclusion, resources like Auteggo are crucial in improving the lives of individuals with ASD and their families.

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