Use of Telehealth for Facilitating the Diagnostic Assessment of Autism Spectrum Disorder: A Scoping Review

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Abstract: Autism Spectrum Disorder (ASD) is a developmental condition characterised by impairment in terms of social communication, social interaction, and a repetitive or restricted pattern of interest, behaviour, and activity. There is a significant delay between seeking help and a confirmed diagnosis of ASD. This may result in delay in receiving early intervention services, which are critical for positive outcomes. The long wait times also cause stress for the individuals and their families. Telehealth potentially offers a way of improving the diagnostic pathway for ASD. This review of the literature aims to examine which telehealth approaches have been used in the diagnosis and assessment of autism in children and adults, whether they are feasible and acceptable, and how they compare with face-to-face diagnosis and assessment methods. A comprehensive search of following databases- MEDLINE, CINAHL Plus with Full text, Business Sources Complete, Web of Science, Scopus, PsycINFO and trail and systematic review databases including Cochrane Library, Health Technology Assessment, Database of Abstracts and Reviews of Effectiveness and NHS Economic Evaluation was conducted, combining the terms of autism and telehealth from 2000 to 2018. A total of 10 studies were identified for inclusion in the review. This review of the literature found there to be two methods of using telehealth: (a) video conferencing to enable teams in different areas to consult with the families and to assess the child/adult in real time and (b) a video upload to a web portal that enables the clinical assessment of behaviours in the family home. The findings were positive, finding there to be high agreement in terms of the diagnosis between remote methods and face to face methods and with high levels of satisfaction among the families and clinicians. This field is in the very early stages, and so only studies with small sample size were identified, but the findings suggest that there is potential for telehealth methods to improve assessment and diagnosis of autism used in conjunction with existing methods, especially for those with clear autism traits and adults with autism. Larger randomised controlled trials of this technology are warranted.

Keywords: assessment, autism spectrum disorder, diagnosis, telehealth

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