POSTER ABSTRACT

AUTAPP Project: developing a Clinical Decision Support System for personalizing psychosocial interventions in ASD patients through scientific evidence and mobile technologies

19th International Conference on Integrated Care, San Sebastian, 01-03 April 2019

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Introduction: Management of Autism Spectrum Disorder (ASD) requires complex and integrated interventions, usually tailored for each individual due to the wide variety of symptoms that people diagnosed with ASD present. Some of these interventions could be a combination of psychosocial interventions addressed to the management of emotions, the improvement of social and communicative skills and/or the increase of the autonomy. In this scenario, professionals, families and patients face two main difficulties when they have to choose the best option/s for treatment: a) the lack of evidence on the effectiveness and efficacy of these interventions and the difficulty to access to it; and b) the lack of tools for supporting the decision making process neither for professionals nor for careers/patients.

The objective of AUTAPP is to develop an evidence based personalised Clinical Decision Support System (CDSS) using a mobile technology tool (app) to improve the decision process specifically for psychosocial therapies for the management of ASD.

Methods: AUTAPP is based on two stages:

1- Review and synthesis of the scientific evidence for the effectiveness and efficacy of psychosocial interventions in the management of ASD. Main databases (PubMed, Cochrane Library, PsychoInfo, EMBASE) will be consulted and the quality of the chosen publications will be assessed following SING criteria. Two independent reviewers will review articles and relevant information will be synthesized in evidence tables. The algorithm of decision-making will be developed based on these tables.

2- Design, development and validation of the CDSS. The decision-making algorithm will be implemented in a mobile platform. Professionals, careers and people diagnosed with ASD will validate the app to obtain the final version ensuring its face-validity and feasibility.

Results: The first phase is currently in progress (we started in January 2018) and will be finalised in December. Thus in April 2019 the results of the systematic review and the first prototype of the CDSS will be available. We expect this review to enrich information respect previous that reported scarce evidence on psychosocial interventions (1).
Discussions: Quality of the published research on psychosocial interventions in ASD will determine the reach of the mobile CDSS.

Conclusions: Mobile technology could both facilitate the decision making process when therapeutical approach is complex and requires integration such as in ASD; and enhance the empowerment of ASD people.

Lessons learned: Based on similar projects developed by the team:
- professionals could base their clinical recommendations on real evidence and propose the most personalised interventions
- this kind of tools facilitate patient/careers empowerment

Limitations:
- lack of scientific evidence published, publications of low quality and publication bias
- lack of motivation for professionals to use the CDSS or usefulness of the CDSS in the clinical practice

Suggestions for future research:
- systematic review will allow to identify gaps in psychosocial interventions research
- this approach could be implemented in other chronic diseases

Reference:

Keywords: asd; mhealth; clinical decision support system; evidence