International Journal of Multidisciplinary Approach and Studies

ISSN NO:: 2348 – 537X

New Methods Printable match games for autism skills analysis special children's

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ABSTRACT

This article deals with Autism is a 'hidden disability', meaning it is not easy to recognise when someone has the condition recognition games to improve the lives of autism-affected children, while learning to recognize those emotions in others and allowing them to use emotions. This article outlines the process of creating such games. In the first step, children are asked to copy real-time impressions of happiness and sadness while on the computer. Step two challenges them to focus their attention on their eyes and foreheads so as to express and understand feelings of wonder. Individuals with autism have difficulty in accessing sport and leisure activities and other services. Support from staff can make a huge difference, understanding autism has the power to change lives. The information to follow is provided to help you to understand autism and ways in which you can support children and adults with the condition.

Author Keywords

Computer science education; Autism; Face recognition; Emotional identity; Primary

INTRODUCTION

Research on children with autism often focuses on asking others to identify and identify facial expressions, which is essential. To our knowledge, children with autism do not focus on any research using sophisticated facial software using a computer screen and camera to create different facial expressions (ie, their "sad" face). Has been done See Figure 3 for example. We have developed and tested facial emotion play to help a child with autism communicate their thoughts to their peers and to better understand the feelings of their peers. These are two skills that research shows children with autism in school and other contexts. When you see the following pattern on a wristband, card or mobile device it means someone has autism and wants you to know so that you can support.

Famous culture has challenged the current state of facial emotion learning tools for children with autism. Ben Affleck, an autistic accountant at "The Accountant", challenged the current way of using emotional faces on paper when he shot pumpkins with happy and sad faces. In fact, this is part of the movement to create something new and more relevant for the visual autistic children's faces to learn. As shown in Figure 1b, parents had to search through boxes at the "Attic" show on Netflix and receive a facial recognition card used today, so a friend with an autistic child. Can borrow it. Autistic children expressed greater initial contact and

length of conversation with their peers as they learned how to code for computer use compared to their interactions in the classroom. [Teachers] We argue that teaching children with autism using computers using human faces would be a success, while compared to paper-based activities, children smiled through emotional faces such as smiles. Recognized faces. Let's Face Project [14] uses a computer to help autistic children recognize facial expressions. In addition to recognizing the facial expressions of others, we have increased their work on facial recognition by asking children to use their faces in real time.

Related work

Autism finds impairments in interpersonal communication and impairments in verbal and nonverbal communication. [14] Autism sufferers do not understand the feelings of others and lack social interaction. This causes anxiety in social interactions, which are characterized by poor emotional communication communication. Success in social interaction depends on the ability to recognize and explain facial expressions in a social context. If autism sufferers have difficulty understanding facial expressions, they may have a significant disadvantage when explaining the emotions and intentions of others [8] which can be a challenge in daily social interactions.

Autistic children were historically believed to be schizophrenic.In 1943 Leo Kanner (Hopkins) described 11 cases of what he termed “early infantile autism,” noting ways in which it was distinctive from psychosis/schizophrenia .Kanner’s (unfortunate) choice of the word “autism” was meant to convey the unusual self-centered quality of these children (following Bleuler).Although many of Kanner’s observations have lasted, his speculations about certain aspects of the illness (e.g., normal IQ, lack of association with other medical conditions, poor parenting/education) have been proven incorrect

This article focuses on autistic children, a neurodevelopment syndrome defined by challenges in social transmission and communication. [9] People with autism usually struggle to communicate effectively with older people and older people. There is limited research examining how primary school children with autism develop emotions and learn how to express and express emotions.
Snodgrass, Israel and Reese [13] conducted a comparative case study of three elementary school students with learning disabilities, one of whichAnd adolescents with autism (N = 18) or Down syndrome (N = 24). Subjects were asked to enter facial expressions. Articles with autism produced identifiable exposure, but subjects with Down syndrome were less likely to give birth. Down's syndrome subjects performed better on explicit tasks than autistic subjects. Results show that autism sufferers are more likely to have an impression than the same age and IQ symptom.

Problem:

Poor communication causes problems in a wide range of **social** settings (school, work, friendships, dating) Goal is to enhance the student’s quality of life by expanding his/her behaviors and adjusting the learning environment and by making dysfunctional behavior irrelevant & ineffective.

Research works

We did an in-depth research on Chloe's face and found some interesting things. Autistic children struggle to make eye contact and nasal facial expressions. So with that in mind, we

intend to start with the joy and sorrow they are comfortable with Level 1 software. At Stage 2, we were trained to trust the "surprises" (eyes grow bigger and mouthier) about them. When focusing on naming children, we read its face [14], and images of faces reflecting different emotions were shown to the child. As shown in Figure 3b, our game goes a step further by claiming that a child with autism is exposed to a video screen using modified face recognition software in front of them.

Academic researchers are increasingly focusing on design-based research, which is certainly not exempt. [3] Our study adopts design-based research methods [2] and relies on the sharing of multiple stakeholders in the academic and computer science fields.This study is part of a larger research project investigating facial recognition software based on the local binary method [1] and the support vector machine (SVM) from the TLIP toolbox [7]. Local Binary Pattern (LPP) is a simple and highly efficient structure operator that labels the pixels of an image from the threshold of each pixel and interprets the result as binary. The power of differentiation and the simplicity of calculation have been demonstrated. LPP has become a common approach in various applications such as facial recognition [1], facial recognition [5] and system classification [1]. To design the software, we used the Cohen-Canada database [11]. In particular, we choose 1800 images of neutral faces in addition to the six basic emotion types (anger, hate, fear, happiness, sadness, surprise). For each face image, we found 68 faces with normalized faces in the dlib toolbox [7] and 64x64 image sizes. After that, each face was divided into 8x8 blocks. The LPP was used to extract the maps of each block. Finally, the histograms of all the modules are grouped into a feature vector for each face. The 1800 LBP features for the training classification model are multi-class SVM. We modified the existing model to be child friendly, the original is in Figure 2, and the updated version is in Figure 3.

Flow Chart

Fig 1:Austism games processing face games

Participants:

1. Name the 3 diagnostic domains of Pervasive Developmental Disorders
2. Identify 2 major distinguishing factors between Autistic Disorder and Asperger's Disorder
3. Name 3 commonly comorbid psychiatric conditions and 3 commonly comorbid general medical conditions
4. Identify the key prognostic indicator for Autism
5. Describe 3 effective treatments for Autism
6. Describe the primary learning difficulties found in children with pervasive developmental delays

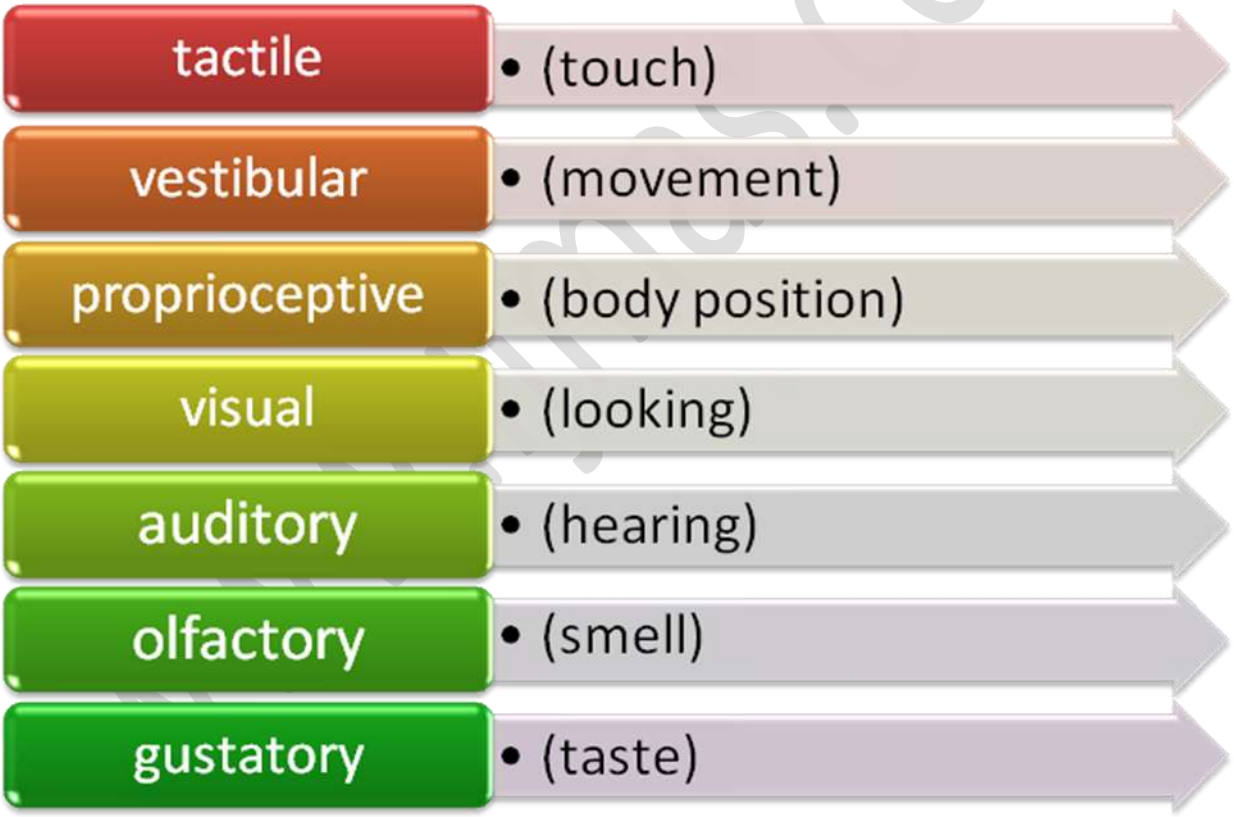

Fig 2: Implementation of printable colors types

Implementation:

In monkeys, MNs are found in the inferior frontal gyrus and inferior parietal lobule. These neurons are active when monkeys perform a task or watch someone perform a similar task. A similar system is theorized to exist in the human brain Copy Number Variations (CNVs).These neurons are theorized to be important for understanding the actions of others and for learning new skills by imitation SHANK3 (chromosome 22). The most basic social

brain system. The mirror system may simulate observed actions and thus contribute to our Theory of Mind skills. FXR1 (20 – 60% of affected kids are autistic) studies have now demonstrated decreasing activity (presumed MN activity) in the inferior frontal gyrus (pars opercularis) in humans with autism.Numerous possible genes and chromosomal regions have been identified:

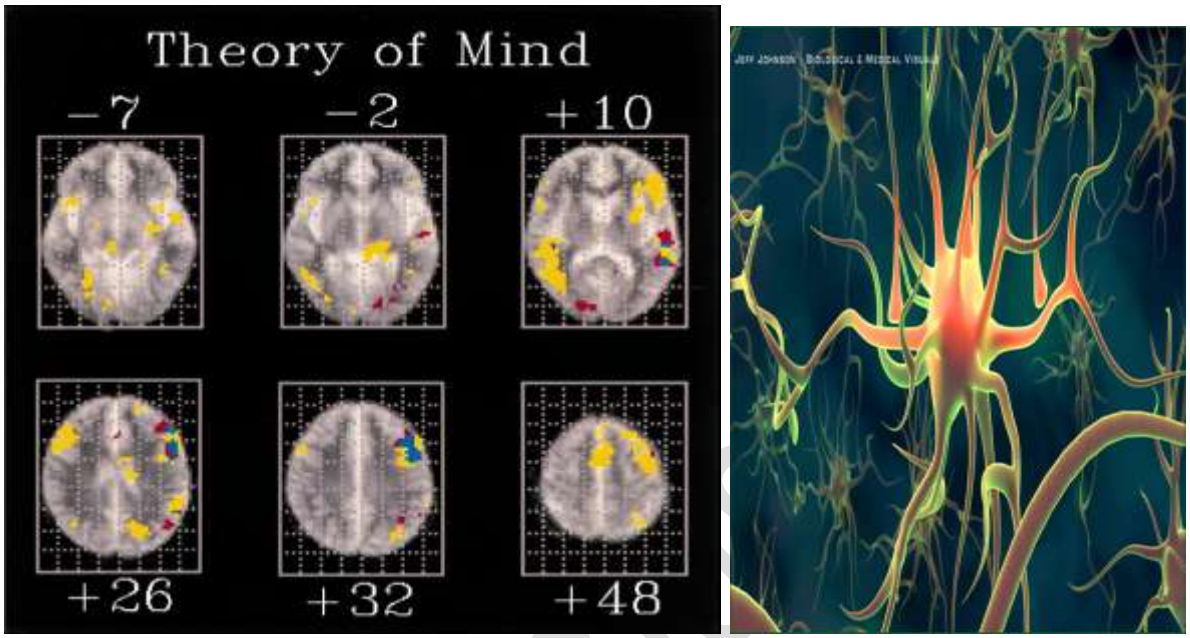

Fig:3 Theory of Mind slice of amydala games function and topxic

- Most recent theories suggest that social fear in autism may initially trigger a hyperactive, abnormally enlarged amygdala, which eventually gives way to a toxic adaptation that kills amygdala cells and shrinks the structure (Davidson, 2006)
- In Davidson's recent study, those in the autism group who had a small amygdala were significantly slower at identifying happy, angry, or sad facial expressions and spent the least time looking at eyes relative to other facial regions. Autistic subjects with the smallest amygdalae took 40 percent longer than those with the largest fear hubs to recognize such emotional facial expressions, and those with the largest amygdalae spent about four times longer looking at eyes than those with the smallest. Eye fixation did not correlate with amygdala volume among 24 control subjects.
- In a related study, another research team led by Davidson found that well siblings of people with autism share some of the same differences in amygdala volume, and in the way they look at faces and activate social/emotional brain circuitry, particularly an area critical for face processing

Cerebellar Findings

Smaller number of Purkinje cells.The cerebellum is one of the brain's busiest computational centers, and the Purkinje cells are critical elements in its data-integration system.At birth the brain of an autistic child is normal in size. But by the time these children reach 2 to 3 years of age, their brains are much larger than normal. This abnormal growth is not uniformly

distributed. Using MRI, Courchesne et al identified that both gray matter of the cerebral cortex and white matter account for this mushrooming in size.One theory: The proliferation of connections projecting to and from the cerebral cortex and other areas of the brain, including the cerebellum, may cause signal overload that injures the Purkinje cells and ultimately kills them.

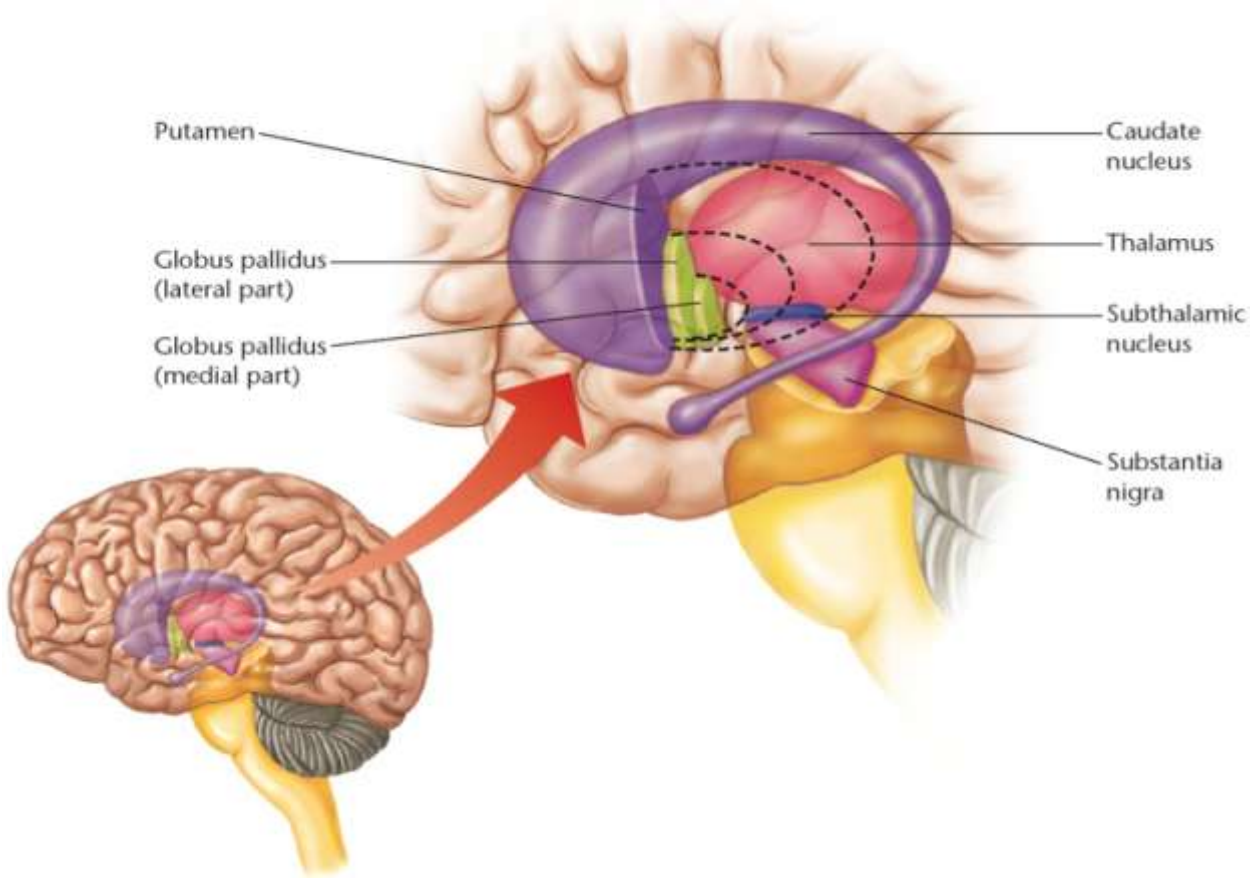

Fig 4: high-probability assessments using standardized diagnostic procedures games function

Discussion

Population based study of all 7- to 12-year-old children (N=55,266) in a Indian special community; the study used a high-probability group from special education schools and a disability registry and a low-probability, general-population sample from regular schools.Autism Spectrum Screening Questionnaire for systematic, multi-informant screening; parents of children who screened positive were offered comprehensive assessments using standardized diagnostic procedures. Prevalence of ASDs was estimated to be 2.64% (95% CI=1.91–3.37) or 1 in 38, with 1.89% (95% CI=1.43–2.36) in the general-population sample and 0.75% (95% CI=0.58–0.93) in the high-probability group; M:F ratios were 2.5:1 (gen pop) and 5.1:1(high-prob); ratio of autistic disorders to other ASD subtypes were 1:2.6 (gen pop) and 2.6:1 (high-prob) 12% in the general-population sample had superior IQs, compared with 7% in the high-probability group; and 16% in the general-population sample had intellectual disability, compared with 59% in the high-probability group.

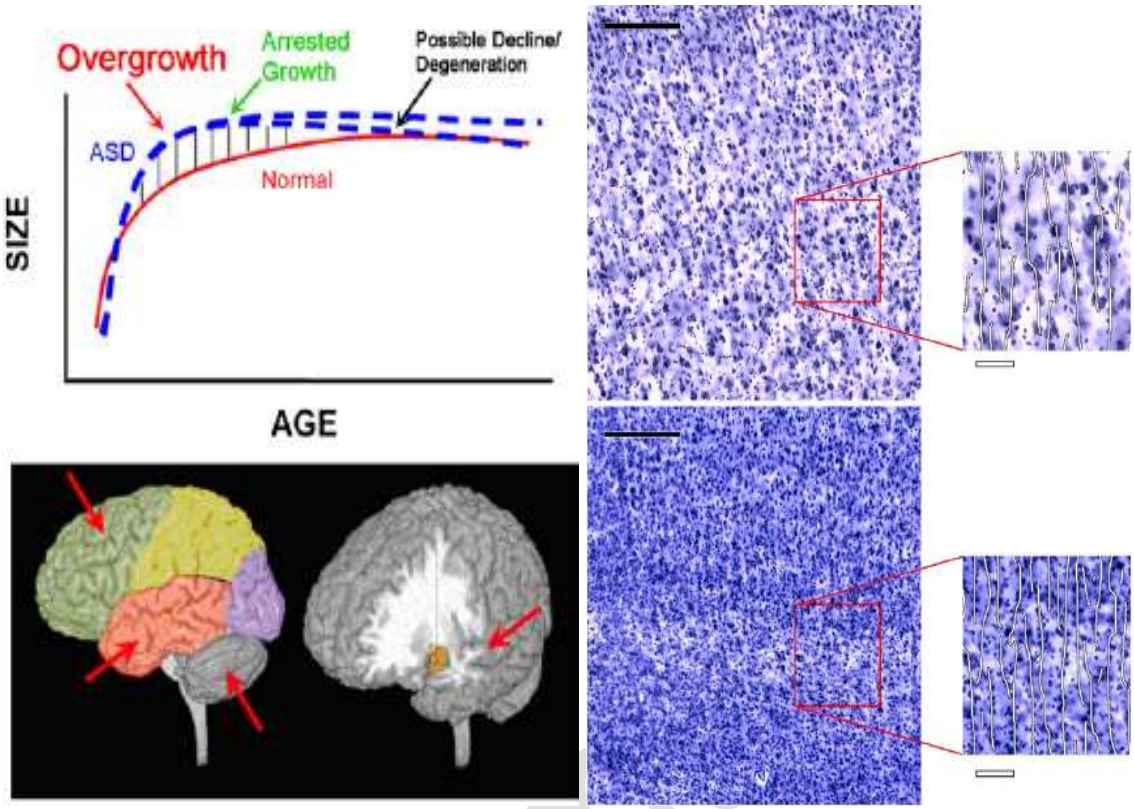

Fig 5: Two-thirds of ASD cases in the overall sample were in the mainstream brain

Two-thirds of ASD cases in the overall sample were in the mainstream brain population, undiagnosed and untreated 218 children and adolescents (6 – 17 years) with a diagnosis of autistic disorder, and with behaviors such as tantrums, aggression, self-injurious behavior a combination of these symptoms, were randomized to aripiprazole (5, 10, or 15 mg/day) or placebo in this 8-week randomized DB/PC study.

Test and Treatments

1. Antecedent Package
2. Behavioral Package
3. Comprehensive Behavioral Treatment for Young Children
4. Joint Attention Intervention
5. Modeling
6. Naturalistic Teaching Strategies
7. Peer Training Package
8. Pivotal Response Treatment
9. Schedules

10. Self Management
11. Story Based Intervention Package

RESULTS

Aberrant Behavior Checklist Irritability subscale was the primary efficacy measure, along with the clinician rated CGI.All aripiprazole doses produced significantly greater improvement than placebo in mean ABC Irritability subscale scores (5 mg/day, -12.4; 10 mg/day, -13.2; 15 mg/day, -14.4; versus placebo, -8.4; all $p < .05$). All aripiprazole doses demonstrated significantly greater improvements in mean CGI vs. placebo. Discontinuation rates due to adverse events were as follows: placebo 7.7%, aripiprazole 5 mg/day 9.4%, 10 mg/day 13.6%, and 15 mg/day 7.4%.

Fig 6: Primary measures sedation results

The most common adverse event leading to discontinuation was sedation. There were two serious adverse events: pre syncope (5 mg/d) & aggression (10 mg/d).At week 8, mean weight change (last observation carried forward) was as follows: placebo +0.3 kg, aripiprazole 5 mg/day +1.3 kg, 10 mg/day +1.3 kg, and 15 mg/day +1.5 kg; all $p < .05$ versus placebo.

Results of studies done last year by autism games revision committee indicated that 95% of kids who were previously diagnosed with autism on printable would continue to receive the diagnosis under the autism. we recommend the use of computers as a powerful tool for thought and action. In our case, the computer can serve as a tool for communicating and expressing the feelings of children with autism and understanding the feelings of both peers and adults. For students with autism to succeed in school and other environments, we need to participate as facilitators to learn social indicators.

Conclusion

Affect aware video games seem to be very interesting to players as they engage players emotionally and can dynamically react to players emotional state which was confirmed by a prototype game developed within new methods sushisen project. Such video games can have an entertainment character but can also be used in other applications, such as e-learning, psychological training or therapy, and even in marketing systems.

Automatic emotion recognition is a key to create affect-aware software. A prototype emotion recognition system proved that real-time emotion recognition is possible, though fusion of many input channels is needed to receive reliable results. A comprehensive data set, such as new methods sushisen project, is also needed to develop emotion recognition system. The next task in new methods sushisen project project is to develop a bidirectional framework that could connect affect recognition application with any affect-aware videogame using a specific application programming interface. Further steps cover development of more efficient affect recognition algorithm using multimodal data such as RGB and depth video, audio channel, and physiological sensors. Also other affect aware video games will be developed that could increase players satisfaction from a gameplay.

REFERENCE

i. [1.] Shattuck PT, Narendorf SC, Cooper B, Sterzing PR, Wagner M, Taylor, JL. Postsecondary education and employment among youth with an autism spectrum disorder. *Pediatrics*. 2012 Jun;129(6):1042-9. [PMID: 22585766]

ii. [2.] Roux AM, Shattuck PT, Rast JE, Rava JA, Anderson KA. *National Autism Indicators Report: transition into young adulthood*. Philadelphia, PA: Life Course Outcomes Research Program, AJ Drexel Autism Institute, Drexel University. April 2015.

iii. [3.] Myers E, Davis B.E, Stobbe G, Bjornson K. Community and social participation among individuals with autism spectrum disorder transitioning to adulthood. *J Autism Dev Disord*. 2015 Aug;45(8):2373-81. [PMID: 25725812]

iv. [4.] Taylor JL, Adams RA, Bishop SL. Social participation and its relation to internalizing symptoms among youth with autism spectrum disorder as they transition from high school. *Autism Res*. 2017 Apr;10(4):663-672. [PMID: 27739234]

v. [5.] Tobin M, Drager K, Richardson L. A systematic review of social participation for adult with autism spectrum disorders: Support, social functioning, and quality of life. *Research in Autism Spectrum Disorders*. 2014 Mar; 8(3), 214-229. https://doi.org/10.1016/j.rasd.2013.12.002

vi. [6.] Anderson KA, Shattuck PT, Cooper BP, Roux AM, Wagner M. Prevalence and correlates of postsecondary residential status among young adults with an autism spectrum disorder. *Autism*. 2014 Jul;18(5):562-70. [PMID: 23996904]

vii. [7.] Taylor JL, Henninger NA, Mailick MR. Longitudinal patterns of employment and postsecondary educational activities for adults with ASD and normal-range IQ. *Autism*. 2015 Oct;19(7):785-793. [PMID: 26019306]

viii. [8.] Wei X, Wagner M, Hudson L, Yu JW, Shattuck P. Transition to adulthood: Employment, education, and disengagement in individuals with autism spectrum disorder. *Emerging Adulthood*. 2015 Feb; 3(1), 37-45. https://doi.org/10.1177/2167696814534417

ix. [9.] Howlin P, Moss P, Savage S, Rutter M. Social outcomes in mid- to later adulthood among individuals diagnosed with autism and average nonverbal IQ as children. *J Am Acad Child Adolesc Psychiatry*. 2013 Jun;52(6):572-81.e1. [PMID: 23702446]

x. [10.] Taylor JL, Mailick MR. A Longitudinal Examination of 10-Year Change in Vocational and Educational Activities for Adults With Autism Spectrum Disorders. *Dev Psychol*. 2014 Mar; 50 (3): 699-708. [PMID: 24001150]

xi. Zuckerman KE, Lindly OJ, Sinche BK. (2015). Parental concerns, provider response, and timeliness of autism spectrum disorder. J Pediatr. doi: 10.1016/j.jpeds.2015.03.007.