

ARTISM

The image features the word "ARTISM" in a playful, bubbly font. Each letter is a different color: 'A' is blue, 'R' is light blue, 'T' is yellow, 'I' is red, 'S' is green, and 'M' is dark blue. The letters have thick black outlines and are set against a white background decorated with colorful splatters, stars, and hearts. A faint "dreamstime" watermark is visible across the middle of the letters.

Different, Not disabled

understanding the world of children
with Autism Spectrum Disorder



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WHAT IS CHILD DEVELOPMENT?

- ❑ Child development involves biological, psychological & emotional changes that occur in human beings between birth and the conclusion of adolescence
- ❑ It is particularly from conception to five years of age; a foundation for a prosperous & sustainable society

DEVELOPMENTAL DOMAINS

**Vision &
Fine motor**

**Hearing &
Speech**

**Gross
motor**



Cognition

**Self help &
autonomy**

**Social
emotional**

COMMON CHILDHOOD NEURODEVELOPMENTAL DISABILITIES

**Autism spectrum
disorder
(ASD)**

**Attention deficit
hyperactivity disorder
(ADHD)**

**Intellectual
disability (ID)**

**Cerebral Palsy
(CP)**

**Learning
disorders**

AUTISM SPECTRUM DISORDER

autism

A BRIEF HISTORY OF AUTISM

- ❑ The history of autism (derived from Greek *autos*, "self") began in the early 20th century, evolving from a symptom of schizophrenia to a recognized neurodevelopmental spectrum
- ❑ The term *autism* was first introduced by [Eugen Bleuler](#) in his description of schizophrenia in 1911
- ❑ Autistic children were often diagnosed with childhood schizophrenia

1908

The word autism was used to describe a subset of schizophrenic patients who were especially withdrawn & self-absorbed

1943

American child psychiatrist Leo Kanner, publishes a paper describing 11 children who were highly intelligent but displayed "a powerful desire for aloneness" & "an obsessive insistence on persistent sameness."
He later names their condition "early infantile autism"

1978

Lorna Wing identifies the 'Triad of Impairment' as a tool for diagnosing autism. This is thought to contribute to the sharp increases in autism diagnosis over the following 40 years & remains a core diagnostic tool to this day

1987

Introduction of Autism diagnostic tools for healthcare providers

2009

The Autism Act becomes part of UK legislation. The aim of the act is to ensure all public services are able to effectively meet the needs of autistic people.

Who was the first autistic person in history?

**Donald Triplett in 1943,
was the first-ever person to be formally diagnosed with autism**





APRIL 2

**WORLD
AUTISM**



AWARENESS DAY



**AUTISM & HUMANITY-
EVERY LIFE HAS VALUE**

WHAT IS AUTISM SPECTRUM DISORDER (ASD)

Autism spectrum disorder (ASD) is a broad group of neurodevelopmental disorders that affect an individual's



Socialization



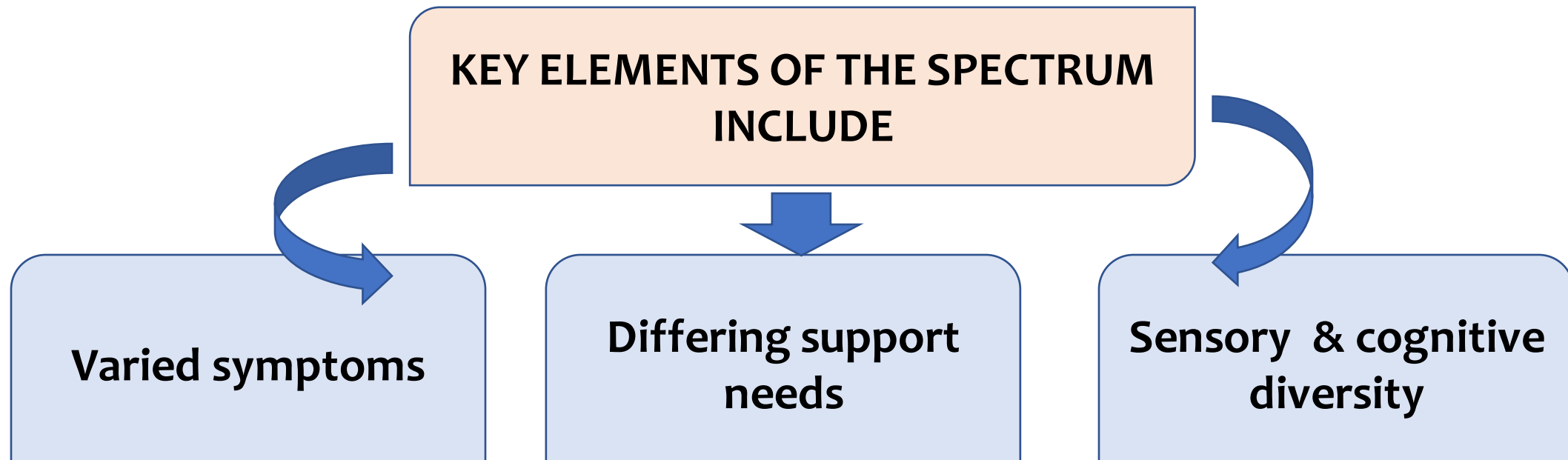
Communication



Behavior

WHY CALLED SPECTRUM?

Autism is called a "spectrum disorder" because its symptoms & severity vary widely from person to person. Different individuals experience it in different way.



WHAT IS THE DSM - 5

CRITERIA FOR

AUTISM SPECTRUM DISORDERS

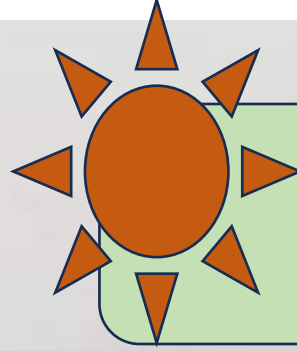


DIAGNOSTIC CRITERIA FOR AUTISM SPECTRUM DISORDER

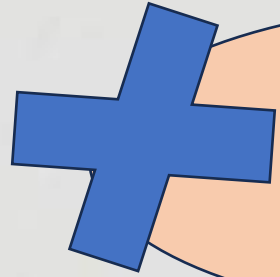
1. **Persistent deficit in social communication and interaction, as manifest by all of the followings:**
 - a. **Marked deficits in nonverbal & verbal communication used for interaction**
 - b. **Lack of social reciprocity**
 - c. **Failure to develop & maintain peer relationship appropriate to developmental level**

2. **Restricted , repetitive patterns of behavior, interest & activities, as manifested by at least 2 of the followings:**
 - a) **Stereotype motor or verbal behaviors or unusual sensory integrity**
 - b) **Excessive adherence to routines & ritualized patterns of behavior**
 - c) **Restricted & fixated interest**

3. **Symptoms must be present in early childhood (but may not become fully manifest until social demands exceed limited capacities)**



Facts



Myths



Autism Myths

It is a mental health condition

It is same for every person

It is diagnosed in childhood

It can be cured




Autism Facts

It is a type of neurodiversity. An autistic person's brain process information differently

It exist in spectrum, each affected individual experience it in different way

It is typically identified in childhood, but in some people it may be detected in adulthood

There is no cure for autism yet, but early intervention can improve quality of life



**THE EPIDEMIOLOGY OF
AUTISM SPECTRUM DISORDER**

PREVALENCE OF AUTISM

The prevalence of children being diagnosed with autism is rising because of the followings:

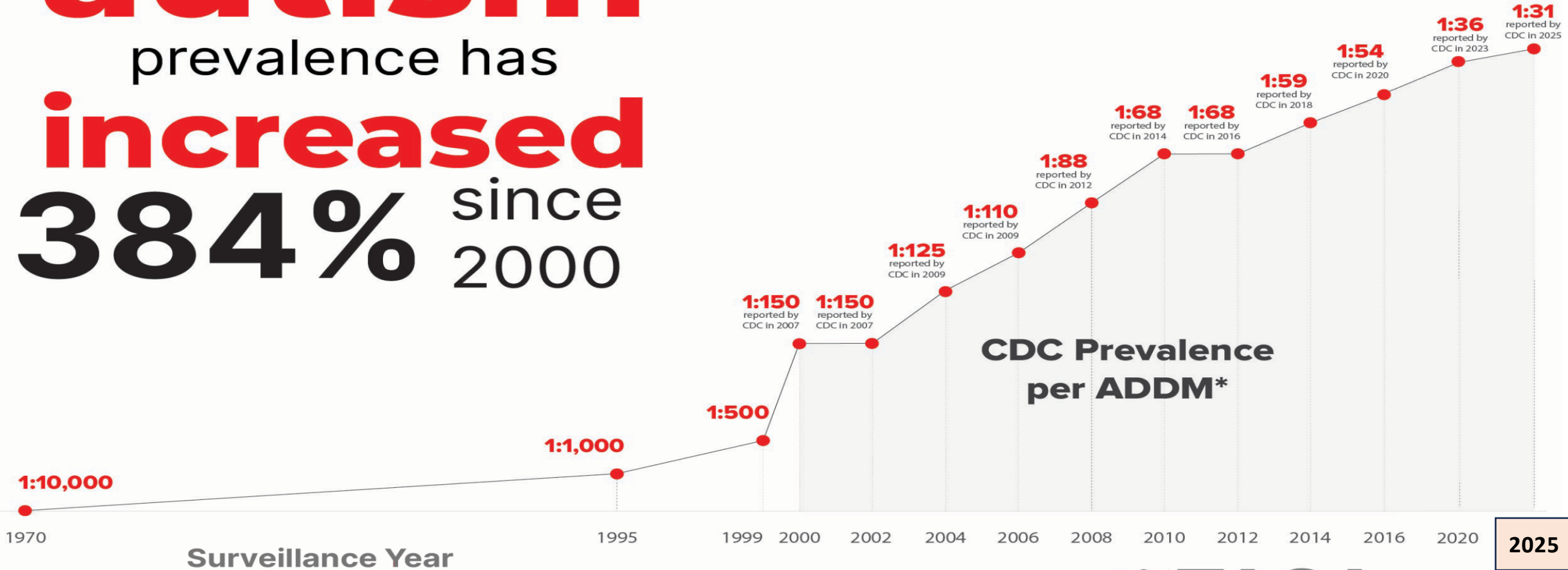
“Increased awareness among general population”

“Early routine developmental screening of all children”

“Increased access to improved health care services”

THE MAGNITUDE OF AUTISM IN USA

autism
prevalence has
increased
384% since
2000



*ADDM (Autism and Development Disabilities Monitoring Network)

THE BURDEN OF ASD IN BANGLADESH

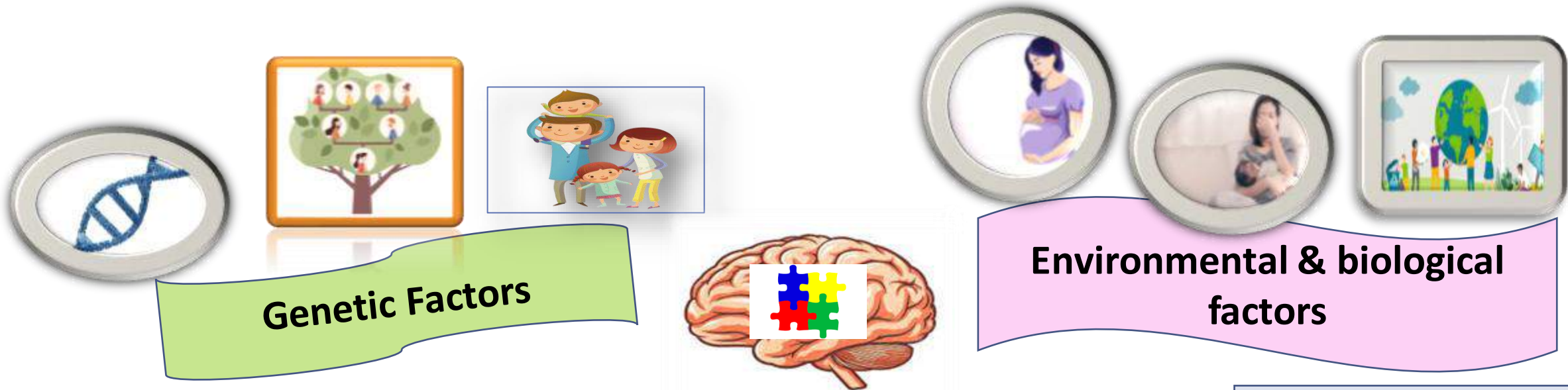
- ❑ The prevalence of ASD in Bangladesh is approximately **17/10,000** between 16-30 months of children
- ❑ **Boys** 24/10,000, girls 9.8/10,000
- ❑ Prevalence is higher in urban than rural (25/10,000 and 14/10,000 respectively)
- ❑ The prevalence of autism has been steadily increasing over the years, highlighting the need for educators to be well-equipped in supporting children with autism

AUTISM

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RISK FACTORS; LOOKING BEYOND SINGLE CAUSE

RISK FACTORS



Single or many genes

Runs in family

Age of the parents

NOT
Caused BY

vaccine

SCREEN TIME

Signs of bad parenting aren't fixed for change

Prenatal & birth complications

Maternal health & stress

Environment pollution

**UNDERLYING BIOLOGICAL BASIS OF
AUTISM SPECTRUM DISORDER**

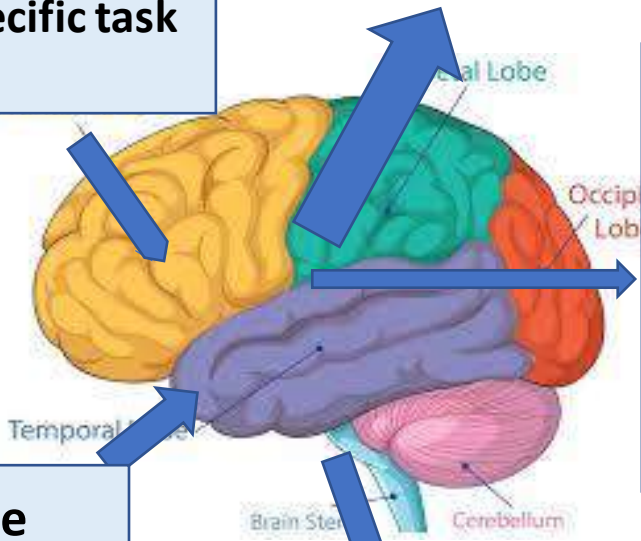
Frontal lobe
Diverse activity here indicates why it can be complicated to specific task

Basal ganglia
Dysfunction of this area leads to restricted repetitive behavior

Amygdala & Hippocampus
Abnormalities in these areas affect memory, learn & emotion

Temporal lobe
Differences in this area causes communication issue

Brain steam
Underdevelopment in this area is responsible for aggression



The areas of the brain that are affected in children with ASD

RESULTING IN


Characteristic features of ASD

NEURO-ANATOMIC FINDINGS ON MRI OF BRAIN OF ASD CHILDREN

Rapid brain growth in the 1st 2 years is marked in frontal, temporal, cerebellum & limbic region



These areas of brain are responsible for cognitive, emotional, social & language functions, which are impaired in autism



This period of early accelerated growth of brain stops in early childhood & is followed by abnormally slow or arrested growth



RECOGNIZING THE WARNING SIGNS OF ASD

RED FLAG SIGNS

EARLY SIGNS OF AUTISM IN CHILDREN

0-6
months

- No eye contact
- No social smiles
- Little or no response to sound

6-12
months

- No babbling
- Doesn't respond to name
- No gestures (no waving/pointing)

1-2
years

- No words/very few words
- Limited interest in toys
- Repeated actions over & over

2-4
years

- No interest in peer play
- Loss of language skills
- Unusual repetitive behaviors



FAILS TO RESPOND TO
HIS OR HER NAME

Red Flag Signs of **Autism** for Children: **What Every Parent** **Should Know**



Early detection of autism can significantly impact a child's development & quality of life

Understanding the red flag signs of autism is crucial for parents, caregivers & educators

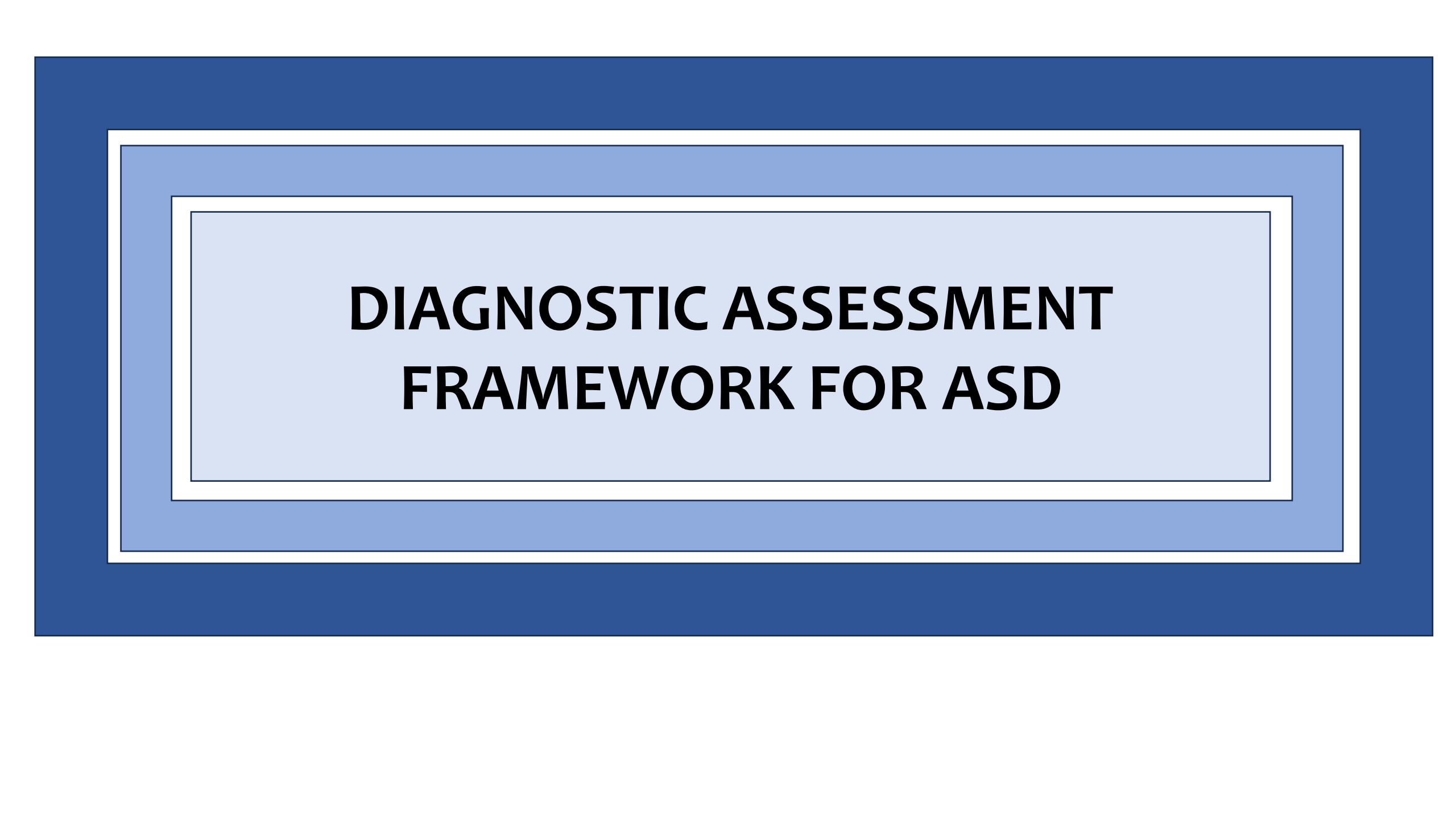
Recognizing these signs early can lead to timely intervention & better outcomes

ASD & CO-EXISTING PSYCHIATRIC CONDITIONS

Up to 70% of children with ASD have at least 1 co-occurring psychiatric condition

- **Attention deficit hyperactivity disorder (ADHD)**
- **Depression**
- **Obsessive compulsive disorder (OCD)**
- **Oppositional defiant disorder (ODD)**

- **Sleep disorder**
- **Eating disorder**
- **Bipolar disorder**
- **Tic disorder**
- **Intellectual disability**



**DIAGNOSTIC ASSESSMENT
FRAMEWORK FOR ASD**



The American Academy of Pediatrics recommends, all children should be screened for developmental delays & disabilities during regular well-child doctor visits at 9 months, 18 months, and 30 months

All children should be screened specifically for ASD during well-child doctor visits at 18 months and 24 months

SCREENING TOOLS FOR ASD

- Modified Checklist for Autism in Children, Revised, with Follow-up (M-CHAT-R/F)
- Social Communication Questionnaire (SCQ)
- Autism spectrum rating scale(ASRS)

DIAGNOSTIC TOOLS

- Autism diagnostic observation schedule (ADOS)
- Childhood autism rating scale (CARS)
- autism behavior check list(ABC)

Three functional levels of ASD



LEVEL-1

Requiring support

- a. Difficulty initiating social interaction
- b. Problems with planning and organization of time



LEVEL-2

Requiring substantial support

- a. Social interactions are limited to narrow special interest
- b. Restrictive & repetitive behavior



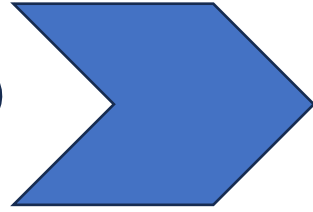
LEVEL-3

Requiring very substantial support

- a. Severe deficits with verbal & non-verbal communications
- b. Narrowly focused & great distress when changing behavior



ASD TREATMENT

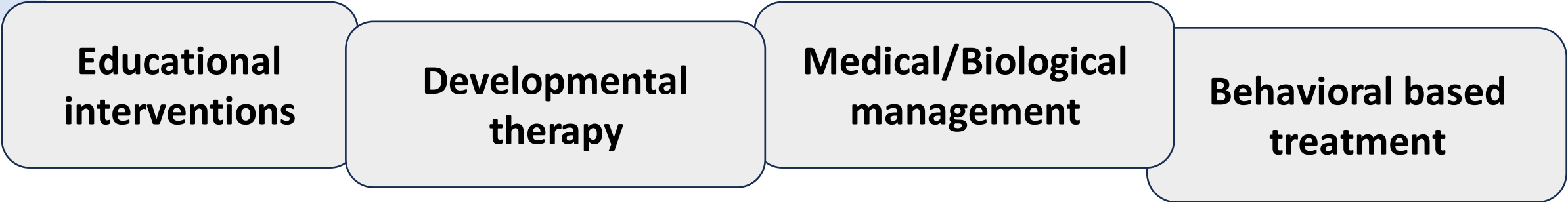


GOALS OF TREATMENT

- Minimize core features & associate deficits**
- Maximize functional independence & quality of life**
- Alleviate family stress**

ASD - TREATMENT

Management is multidisciplinary approach



A. Educational interventions

*Applied
Behavioral
analysis*

*Speech
therapy*

*Occupational
therapy*

*Physical
therapy*



B. MEDICAL TREATMENT OF ASD

- ❑ Rx should be tailored to individual, as symptoms vary greatly in each autistic children**
- ❑ Recent updates in autism medical treatment focus on managing co-occurring conditions (ADHD, anxiety, irritability)**
- ❑ Close & ongoing monitoring is crucial as drugs used in treating varying associated co-morbidities has potential side effects**

TREATMENT OF COMORBIDITIES IN ASD

Involves a combination of cognitive behavioral therapy (CBT) & targeted pharmacological interventions to address the following conditions:

- ❑ **Anxiety disorder:** CBT + SSRIs + caregivers involvement
- ❑ **ADHD:** Behavioral therapies + Stimulant & non stimulant drugs
- ❑ **Irritability & aggressions:** Risperidone & Aripripazole
- ❑ **Sleep disorders:** Behavioral strategies + Melatonin
- ❑ **Epilepsies:** Anticonvulsants
- ❑ **GIT issues:** Dietary modification + Gut microbiomes



FOOD

&

AUTISM



IMPACT OF DIET IN CHILDREN WITH ASD

Many children with ASD have strong preferences for certain foods that make it hard to try new ones

Certain ingredients in regular diet result in

Gut inflammation

Constipation/diarrhea

Irritability

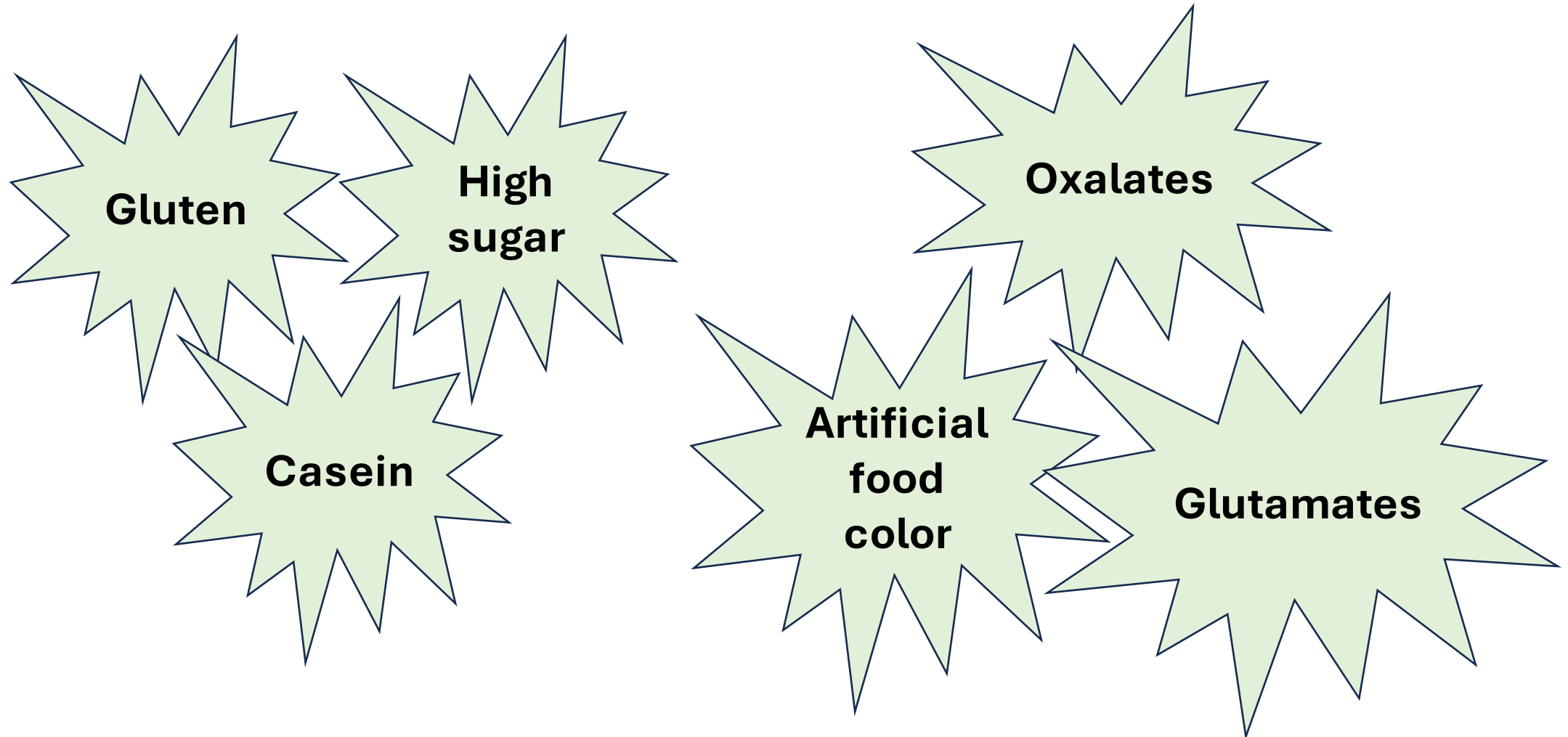
Sleep disturbance

Hyperactivity

Overweight/obesity



Avoidance of the following ingredients in diet often result in improvement in symptoms of ASD



DIETARY ADVICE FOR AUTISM



**Vitamin B complex, vit D, vit A, Omega3, Folic acid , Folinic acid
Calcium, Zinc, Iron, Ketogenic/high fat diet**

WHAT'S NEW???

- Stem cell therapy for autism is considered an experimental treatment that is not officially approved by major regulatory bodies like the FDA or WHO
- Responses to therapy vary significantly from one individual to another

Improvement in ASD after the stem cell therapy

- Better tolerance of different foods and improved digestion
- Easier contact with the child
- More adequate behavior at home & outside
- Improved verbal & writing skills
- Improved attention span and concentration

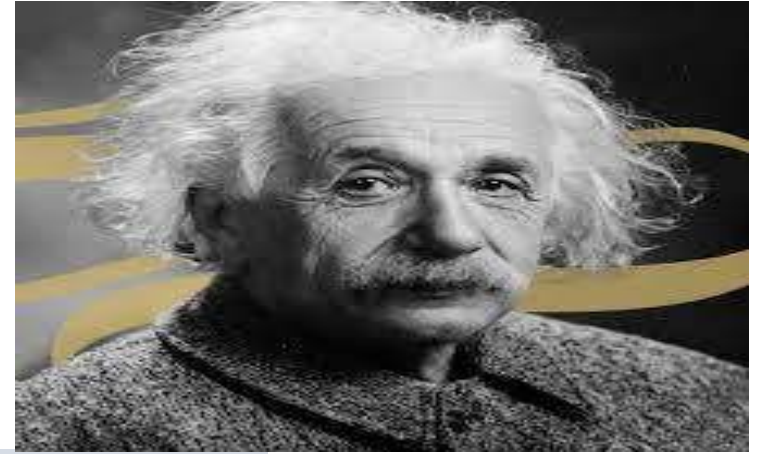
CONCLUSION

- ❑ ASD is a complex neurodevelopmental condition that requires early identification, comprehensive assessment, and a multidisciplinary approach to management**
- ❑ Healthcare professionals, educators, and families must work collaboratively to ensure timely diagnosis, continuous support, and inclusive environments**
- ❑ Increasing awareness and reducing stigma are essential to promote acceptance and integration of individuals with ASD into society**

TAKE HOME MESSAGE

- Although autism is a life-long disorder, the prognosis is much better than in the past
- For many of the autism spectrum, best outcome could include full-time job, living independently and marrying
- No miracles cures, but intervention can gently improve outcome





**“Autism is not a limitation
it’s a different kind of brilliance
waiting to be understood”**

