بسم الله الرحمن الرحيم
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Title:

Effectiveness of super brain yoga on children with Autism disorder
Autism Spectrum Disorder

DSM-V

1. Persistent social-communication impairment
2. Restricted and repetitive patterns of behavior

Can be Complicated by Co-Occurring Disorders in some people
Triad of Impairments

- Social Relationships
- Social Communication
- ASD

Rigidity of Thought, Behaviour and Play (Social Understanding)

Expressive Language Level
Level of Support Needed
Autism Spectrum Disorders (ASD)

Core autism spectrum disorder symptoms

Impaired social communication/interaction (3/3):
- Social reciprocity
- Nonverbal communication
- Relationships

Restricted/repetitive behavior (2/4):
- Repetitive speech/behavior
- Insistence on sameness
- Restricted interests
- Sensory abnormalities

Behavioral comorbidities
- Hyperactivity/impulsivity
- Agitation/aggression
- Anxiety

Cognitive comorbidities
- Language impairment
- Intellectual disability

Genetics
- Copy number variants: 16p11.1-p12, 15q11-q13, 22q13, etc.
- Rare variants: NRXN1, NLGN4, Shank3, Sert, etc.

Medical comorbidities
- Severe constipation
- Seizure disorder

Abnormal EEG
Developmental macrocephaly
Neuroimaging: altered brain region size

Biomarkers
- Hyper-serotoninemia
- Altered immune/mitochondrial indices
Genetic risk

Environmental factors
- parental age
- Maternal illness during pregnancy
- Mother’s exposure to high levels of pesticides and air pollution
- Extreme prematurity
- Very low birth weight
- Difficulties during birth (e.g. oxygen deprivation)
Medication

Behavioral Therapy
- Cognitive/Behavioral Therapy
- Parent Management Training
- Social Skills Training

Educational Support

Complementary and alternative therapies
Complementary & Alternative Therapies

### Biological Treatments
- Dietary modifications
- Vitamins/supplements
- Chelation therapy
- Melatonin
- Antibiotics/Antifungals
- Immunoglobulins
- Hyperbaric oxygen

### Non-Biological Treatments
- Auditory integration therapy
- Behavioral optometry
- Craniosacral manipulation
- Music therapy
- Yoga
Energy Channels (Meridians)
فرآیند انجام یوگا تقویت ذهن
Goal:
determination of the Effectiveness super brain yoga on children with Autism disorder was accomplished.
Method:

- experimental & control group
- quasi experimental study
- 80 school age children
- Demographic questionnaire
- Gilliam Autism Rating Scale (GARS)
### Findings:

<table>
<thead>
<tr>
<th>Significant level (P)</th>
<th>control</th>
<th>experimental</th>
<th>participant</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.82</td>
<td>52% female 48% male</td>
<td>50% female 50% male</td>
<td>Gender</td>
</tr>
<tr>
<td>0.22</td>
<td>9/4± 1/4</td>
<td>9/9± 1/8</td>
<td>Age</td>
</tr>
<tr>
<td>-----</td>
<td>87/5%</td>
<td>95%</td>
<td>Habitance in Arak</td>
</tr>
<tr>
<td>-----</td>
<td>77%</td>
<td>70%</td>
<td>Drugs</td>
</tr>
</tbody>
</table>
Mean of severity of autism in to experimental & control groups

Before: 108/6, 106/2
After: 106/1, 88/7

Independent T-test
Before: T = 0.25, P = 0.001
After: T = 0.001
Mean of severity of autism in to experimental & control groups

Before

After

زوجی

$T_{زوجی} = 0.001$

$P = 0.81$
میانگین و انحراف معیار نمرات حیطه‌های پرسشنامه گارز قبل و بعد از مداخله

<table>
<thead>
<tr>
<th>متغیر</th>
<th>پیش از مداخله</th>
<th>پس از مداخله</th>
<th>شاخص</th>
<th>P-value (T زوجی)</th>
</tr>
</thead>
<tbody>
<tr>
<td>حیطه رفتار کلیشه‌ای</td>
<td>8/3 ± 9/28</td>
<td>3/3 ± 1/39</td>
<td>میانگین ± انحراف معیار</td>
<td>P=0.001</td>
</tr>
<tr>
<td>حیطه ارتباطات</td>
<td>8/3 ± 9/28</td>
<td>3/3 ± 1/39</td>
<td>میانگین ± انحراف معیار</td>
<td>P=0.001</td>
</tr>
<tr>
<td>حیطه تعاملات اجتماعی</td>
<td>8/3 ± 9/28</td>
<td>3/3 ± 1/39</td>
<td>میانگین ± انحراف معیار</td>
<td>P=0.001</td>
</tr>
<tr>
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<td>P=0.001</td>
</tr>
<tr>
<td>شاهد</td>
<td>9/2/3 ± 4/25</td>
<td>9/2/3 ± 4/25</td>
<td>میانگین ± انحراف معیار</td>
<td>P=0.063</td>
</tr>
<tr>
<td>آزمون</td>
<td>3/3 ± 1/39</td>
<td>3/3 ± 1/39</td>
<td>میانگین ± انحراف معیار</td>
<td>P=0.001</td>
</tr>
</tbody>
</table>
Conclusion:

Doing super brain yoga have decreased the signs of Autism disorder among school age children
Suggestions

Super brain Yoga as a complement treatment accompany with medical treatment for these children is suggested.
reference

- Kok Sui C. miracles through pranic healing .3rd ed. Manila city, Philippines: institute for inner studies; 2004. (Persian)

چند تن از معروف ترین افراد اتیستیک

آلبرت انیشتین
مایکل آنجلو
اسحاق نیوتن
چارلز داروین
آمادئوس موزارت
نتیجه گیری:

تشکیل کمیته پرستاری درد باعث افزایش میزان مهارت سنجش درد پرستاران درخصوص سوال از کودک و سوال از والدین بعد از تشکیل کمیته در گروه آزمون نسبت به گروه شاهد است.