AIR-P Presents:

Community-Based Lifestyle Interventions to Promote Overall Well-Being
This project is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under the Autism Intervention Research Network on Physical Health (AIR-P) grant, UT2MC39440. The information, content and/or conclusions are those of the authors and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the U.S. Government.
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The Proposal

“To address gaps in access to services that promote physical and mental well-being in autistic individuals”
The Issues

• Common physical/well-being manifestations in autistic individuals
  o Gastrointestinal dysfunction
  o Nutrition quality
  o Sleep problems
  o Obesity
  o Physical inactivity
  o Social well-being

• Access to resources are compounded by social determinants of health
Compared 1507 autistic adults with 15,070 adults without an autism diagnosis

### Table 2. Prevalence of psychiatric conditions in adults with ASD and controls.

| Psychiatric conditions         | Adults with ASD (N = 1507), n (%) | Controls (N = 15,070), n (%) | Chi-square p value | OR$_g$ (99% CI)$^a$
|-------------------------------|-----------------------------------|-----------------------------|-------------------|-----------------
| Alcohol abuse                 | 33 (2.19)                         | 591 (3.92)                  | 0.0008            | 0.49 (0.31–0.78)
| Alcohol dependence            | 16 (1.06)                         | 296 (1.96)                  | 0.014             | 0.44 (0.23–0.86)
| Anxiety disorder              | 439 (29.13)                       | 1371 (9.10)                 | <0.0001           | 3.69 (3.11–4.36)
| Attention deficit disorders   | 167 (11.08)                       | 294 (1.95)                  | <0.0001           | 5.33 (4.08–6.97)
| Bipolar disorder              | 159 (10.55)                       | 251 (1.67)                  | <0.0001           | 5.82 (4.41–7.68)
| Dementia                      | 34 (2.26)                         | 75 (0.50)                   | <0.0001           | 4.40 (2.50–7.71)
| Depression                    | 388 (25.75)                       | 1490 (9.89)                 | <0.0001           | 2.86 (2.40–3.40)
| Drug abuse                    | 39 (2.59)                         | 418 (2.77)                  | 0.67              | 0.75 (0.48–1.17)
| Drug dependence               | 27 (1.79)                         | 325 (2.16)                  | 0.35              | 0.66 (0.39–1.12)
| Obsessive–compulsive disorder | 115 (7.63)                        | 74 (0.49)                   | <0.0001           | 14.63 (9.81–21.82)
| Other psychoses               | 95 (6.30)                         | 83 (0.55)                   | <0.0001           | 11.81 (7.87–17.73)
| Schizophrenic disorders       | 118 (7.83)                        | 56 (0.37)                   | <0.0001           | 22.24 (14.34–34.48)
| Suicide attempts              | 27 (1.79)                         | 48 (0.32)                   | <0.0001           | 5.05 (2.67–9.54)

ASD: autism spectrum disorder.

$^a$OR = odds ratio; CI = confidence interval; adjusted for sex, age, and race/ethnicity.


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# Health Status of Autistic Adults (contd.)

<table>
<thead>
<tr>
<th>Physical Health Conditions</th>
<th>Adults with ASD (N = 1507), n (%)</th>
<th>Controls (N = 15,070), n (%)</th>
<th>Chi-square p value</th>
<th>OR (99% CI)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dyslipidemia</td>
<td>344 (22.83)</td>
<td>2282 (15.14)</td>
<td>&lt;0.001</td>
<td>2.12 (1.74-2.60)</td>
</tr>
<tr>
<td>Hypertension</td>
<td>386 (25.61)</td>
<td>2356 (15.63)</td>
<td>&lt;0.001</td>
<td>2.19 (1.81-2.64)</td>
</tr>
<tr>
<td>Diabetes</td>
<td>114 (7.56)</td>
<td>653 (4.33)</td>
<td>&lt;0.001</td>
<td>2.18 (1.62-2.93)</td>
</tr>
<tr>
<td>Obesity</td>
<td>511 (33.91)</td>
<td>4070 (27.01)</td>
<td>&lt;0.001</td>
<td>1.41 (1.21-1.64)</td>
</tr>
<tr>
<td>Constipation</td>
<td>67 (4.45)</td>
<td>210 (1.39)</td>
<td>&lt;0.001</td>
<td>3.11 (2.13-4.54)</td>
</tr>
<tr>
<td>GERD</td>
<td>193 (12.81)</td>
<td>1161 (7.70)</td>
<td>&lt;0.001</td>
<td>1.77 (1.42-2.21)</td>
</tr>
<tr>
<td>Sleep Disorders</td>
<td>265 (17.58)</td>
<td>1446 (9.60)</td>
<td>&lt;0.001</td>
<td>1.92 (1.58-2.33)</td>
</tr>
<tr>
<td>Vitamin Deficiency</td>
<td>75 (4.98)</td>
<td>344 (2.28)</td>
<td>&lt;0.001</td>
<td>2.35 (1.65-3.33)</td>
</tr>
</tbody>
</table>

*OR=odds ratio, CI=confidence interval; adjusted for sex, age, and race/ethnicity


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“Lifestyle Medicine is the use of a whole food, plant-predominant dietary lifestyle, regular physical activity, restorative sleep, stress management, avoidance of risky substances and positive social connection as a primary therapeutic modality for treatment and reversal of chronic disease.”

Source: https://www.lifestylemedicine.org/ACLM/About/What_is_Lifestyle_Medicine/ACLM/About/What_is_Lifestyle_Medicine_/Lifestyle_Medicine.aspx?hkey=26f3eb6b-8294-4a63-83de-35d429c3bb88
Pediatric Patient

- 9yo child referred by primary care physician for rapid weight gain
  - Gained more than 80 lbs over 2 years, 60 lbs over the pandemic

- Diagnosed with Autism Spectrum Disorder and Attention Deficit Hyperactivity Disorder at about 5 years old

- Medications (started at 7 years of age)
  - Aripiprazole for irritability
  - Methylphenidate for attention deficit and hyperactivity
Lifestyle-based History

- **Nutrition**
  - Compulsive eating, always hungry, uncontrolled portion sizes
  - Hiding food, late night snacking
  - Juices
  - Processed foods: busy household with parents working more than 2 jobs and 2 other children, quick meals necessary
Lifestyle-based History

- **Physical Activity**
  - Had a broken arm earlier in the pandemic, limiting mobility
  - Remote schooling limiting activity
  - Limitation due to therapist experience
  - 3-4 times per week was active for about 30-40 minutes/session (either playing with siblings, going outdoors with a parent)
Lifestyle-based History

- **Sleep**
  - No issues noted other than waking at night to grab snacks

- **Stress**
  - None reported

- **Social connectedness**
  - Interacted with siblings and therapists
Questions

Why were you concerned about your child’s weight? For how long did you struggle with your child’s weight?

What had you tried before attending the Lifestyle Medicine clinic?

How did the clinic help you achieve your child’s health goals?

How do you think other autistic children might be able to benefit from a clinic/program like this?
Recommendations

- Keep a food log
- Reduce/eliminate unhealthy snacks in household
- Eliminate juices in household
- Healthier and quick choices while cooking
- Physical activity plan (goal: 60 minutes of moderate intensity aerobic activity everyday)
- Working on making healthy choices a goal for the ABA therapists
Success in 3 months!

Successes
- Reduced appetite/positive behaviors likely due to medication change
- Eliminating juices
- Reducing processed snacks
- Increasing healthy snacks (more fruits)
- 10 lbs weight loss

Partial successes
- Increase in physical activity
- Behavioral therapist working on choosing healthier lifestyle options

Work-in-progress
- Keeping a food log
- Cooking healthier meals as a family
Lifestyle Medicine Strategies Used

- Understanding the larger context of the problem (motivational interviewing, “social determinants of health”)
- Developing a patient/family-led SMART Goal and Action Plan (shared decision making)
- Prioritizing action items
- Small but achievable steps with an aim to achieve long-term sustainability/success
- Positive psychology
Lifestyle Medicine to Reduce Disease Risk

• Approach universal, i.e., every patient can benefit and reduce their chronic (and potentially acute) disease risk

• Particularly relevant to autistic individuals and their families because of the behavioral context of choosing a healthy lifestyle
  • Medications may complicate matters

• Ample opportunities to integrate lifestyle changes in existing systems/community-based programs
  • Nutritionist
  • Social worker
  • Health coach
  • Behavioral therapist
  • Occupational therapist
  • Educators

Source: https://www.lifestylemedicine.org/ACLM/Resources/Scientific_Evidence/ACLM/About/What_is_Lifestyle_Medicine_/Scientific_Evidence.aspx?hkey=ed4b4130-6ce9-41bb-8703-211bc98eed7f
How does this translate in the clinical setting?
How does this translate in the community setting?
Adulting with CCP/Project Career Launch at Drexel

- 8-10 week intervention starting in January 2022
- 60-90 minutes/week
- Offered in conjunction with Community College of Philadelphia as a non-credit course
- Community sample of ~ 25 students aged 18 and older who have a diagnosis of ASD on high school IEP OR are interested in participating
- Goal to adapt to Drexel's Project Career Launch in Fall 2022
Any questions?
Contact Us: AIRP@mednet.ucla.edu
AIRPnetwork.ucla.edu

Feedback Survey:
Sign up for our newsletter!

[QR Code]
Thank you for attending!
A link to view the recording will be emailed to all registrants.
We hope to see you next month!

Thursday July 22
2:00 p.m. - 3:00 p.m. EST/
11 a.m. - 12 p.m. PST

AIR-P Presents:
Priority Setting to Improve Health Outcomes: Autistic Adults and Other Stakeholders Engage Together

By:
Stephan Shore, EdD
Teal Benevides, PhD, MS

Register: