# Improving Health Outcomes Through Health Education & Self Advocacy (Health Matters)

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### **PUBH 6299 - The Autism Experience**

- Community Participatory Methods
- Adults d/x Autism/ID
- Transition to Independent Living
- Volunteer Service Learning

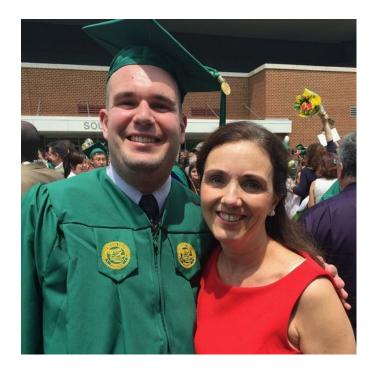


## **Our Stomping Ground**



"To build inclusive communities and strengthen neighborhoods through diverse programming, sustainable, affordable housing, and social spaces for people of all abilities."

- OSG Mission Statement



## The Aim:

### Health 'Really' Matters Program

- 10 week course: nutrition, physical activity, mental health
- Evidence-Based Lessons
- Evaluate Health Outcomes



#### Lesson Plan

| DATE        | LESSON    | TOPIC                                   |
|-------------|-----------|---|
| February 17 | Lesson 1  | What does being healthy mean to you?    |
| February 24 | Lesson 2  | What is physical activity?              |
| March 3     | Lesson 3  | Nutrition                               |
| March 10    | Lesson 4  | Self Care and Self<br>Advocacy          |
| March 17    | Lesson 5  | Energy and Sleep                        |
| March 24    | Lesson 6  | Importance of Water                     |
| March 31    | Lesson 7  | Making a Healthy Menu                   |
| April 7     | Lesson 8  | Heart Health                            |
| April 14    | Lesson 9  | Making an Exercise<br>Plan, Goal Update |
| April 21    | Lesson 10 | Mental Health and<br>Mental Wellbeing   |

The Plan:



| September - October 2022   | January 2022 - February 2023   | March 2023 - May 2023   | March 2023 - May 2023   |
|--|--|---|---|
| Curriculum/Progress<br>Tracker Development   | Community<br>Partnership Outreach  | Didactic Course/Lab   | Short Term Progress<br>Tracking/Reflections   |
| Evidence Based Practice<br>Measures include:<br>fruit/vegetable servings,<br>minutes of physical activity,<br>mood evaluation. | Contact Community Partners:<br>Sites for food labs;<br>Physical activity lab space;<br>student recruitment | Didactic Course for 10 weeks;<br>Physical Activity Labs (6);<br>Nutritional Labs (5);<br>Art Therapy Labs (3)<br>Pre, Mid, Post Intervention<br>Surveys | Statistical Analysis Tracking<br>Health Measures;<br>Progress/reflections with health<br>course |

#### Health Matters Course Self Esteem Plan:

**Self Affirmations:** Affirmations; Things You Like About Yourself; Goals

**Exercise Goals:** Running, Swimming, Yoga, SMART goals.

**Self Care:** What are self care activities that are important to you?

Journaling: Gratitudes, Progress, Reflections

**Friendship:** Who in your life: Gives you advice? Brings you joy? Understands you?



you're doing a really good job.

SELF-CARE



#### **Health Matters Lab**

#### Steps to Guide to Grocery Shopping

- ★ One: Decide what you would like to eat for the week for breakfast, lunch, dinner, snacks, and dessert
- **Two:** Make a list of needed ingredients by category.
- ★ Three: Make sure that you are taking inventory of what you already have and also checking expiration dates.
- ★ Four: Now you can create a list of needed items that you don't have.

|   | -   |      | althy We | hing Hor<br>ekly Mea | l Plan | :om) |     |
|---|-----|------|----------|----------------------|--------|------|-----|
| Meals                                       | MON | TUES | WED      | THURS                | FRI    | SAT  | SUN |
| Dinner                                      |     |      |          |                      |        |      |     |
| Lunc h                                      |     |      |          |                      |        |      |     |
| Breakfast                                   |     |      |          |                      |        |      |     |
| Do Ahead                                    | MON | TUES | WED      | THURS                | FRI    | SAT  | SUN |
| Tasks to do<br>to 'prep'<br>for next<br>day |     |      |          |                      |        |      |     |

| GRAINS<br>(BREADS, PASTAS, RICE, CEREALS) | FRUITS        |
|---|---------------|
|   |               |
|   |               |
|   |               |
|   |               |
|   |               |
|   |               |
|   |               |
| VEGETABLES                                | DAIRY         |
|   |               |
|   |               |
|   |               |
|   |               |
|   |               |
|   |               |
|   |               |
|   | PROTEIN FOODS |
|   |               |
|   |               |
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|   |               |
|   |               |





| - CE                    | Coldfish Cheddar<br>Crackers<br>Namer da Aren<br>7/100 |
|-------------------------|--|
| Negatives               |  |
| Q <sup>4</sup> Addition | e e literature   |
| Socker                  | -  |
| Calories                |  |
| Pusitives               |  |
| Protein                 | • 17   |
| Fiber                   | 11v . •  |
| Q Supe                  |  |
| 1 0                     | NOQ.   |

Food analysis

| 05 | m | et | ic | an | aly | sis |  |
|----|---|----|----|----|-----|-----|--|
|    |   |    |    |    |     |     |  |

Better alternatives

| Go fresh<br>body wash                              |    |
|--|----|
| 8/100  |    |
| (m) 11   |    |
| Drift<br>Original                                  | 0  |
| Phenoxyethania<br>Phenoxyethania<br>Phenoxyethania | Ð  |
| Cocarridopropyl betaine                            | 6  |
| PEG-160 Pentaerytheliyi                            | 6  |
| Tetrosodium EDTA                                   | (D |
| CI 19140   | Ð  |
| × 0 × 0  | 9  |



The Scholarship:

### **Gaps In Literature**

94% of published autism studies are focused on younger populations (infants, toddlers, children, adolescents) (Jang et al., 2014).

Only 3% of U.S. autism research funds in 2018 went to study autism in the transition to adulthood and through adulthood (Sarris, 2021). J. Jang et al./Research in Autism Spectrum Disorders 8 (2014) 1756–1760

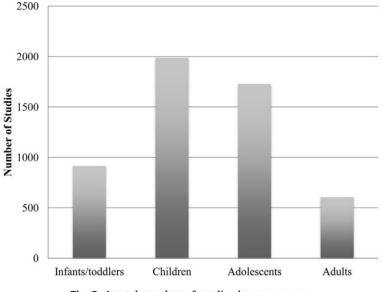


Fig. 3. A total number of studies by age groups.

#### **Data Collection:**

- Pre/Post Course Data Collection
  - Health Measures
  - Qualitative Data
- Data Presentation
- Research Paper

| adulthood?  | ung |
|---|-----|
| 12 responses  |     |
| Make sure we have the communication to get to these stages. |     |
| Extra healthy advice  |     |
| Stay healthy and speak up more                              |     |

What more could have been done to support your transition between adolescence and young

Honestly, I don't know. Probably I could've made a budget a little easier.

I could have seeked out help to deal with mental health issues.

classes like this and more inclusion

More opportunities for inclusion

## Aims / Hypotheses:

Primary: To determine if there is a significant difference in scale points in our health habits in adults (ages 18+) diagnosed with autism/intellectual disabilities over three time points: at baseline, at the 5-week midpoint mark in a health education course, and at the 10-week mark at the end of the course.

Secondary: To determine if sex will modify the association health habit scores over time in a health education course.

#### Methods:

- Self Report Surveys: NHANES score, number of hours of sleep, MFQ scores, IPAQ scores, BEVQ-15 scores
- Pre Intervention, Mid Intervention, Post Intervention



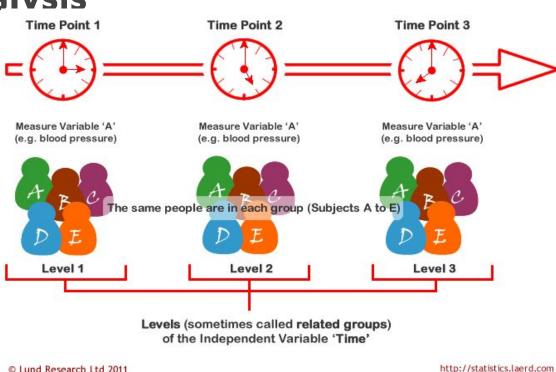
| - 130 v  | н   | low o                 | OFTEN                       | (MAI                        | RK OF                | IE)                      |                           |                                    | HOW M              | UCH EAC               | H TIME               | MARK ON               | IE)   |
|--|---|-----------------------|-----------------------------|-----------------------------|----------------------|--------------------------|---------------------------|------------------------------------|--------------------|-----------------------|----------------------|-----------------------|---|
| Type of Beverage   | Never or<br>less than 1<br>time per<br>week<br>(go to next<br>beverage) | 1 time<br>per<br>week | 2-3<br>times<br>per<br>week | 4-6<br>times<br>per<br>week | 1 time<br>per<br>day | 2<br>times<br>per<br>day | 3+<br>times<br>per<br>day | Less<br>than<br>6 fl oz<br>(¾ cup) | 8 fl oz<br>(1 cup) | 12 fi oz<br>(1½ cups) | 16 fl oz<br>(2 cups) | 20 fl oz<br>(2½ cups) | > 20 fl oz<br>(specify<br>TOTAL<br>daily<br>amount) |
| Water<br>or unsweetened sparkling water  | 0   | 0                     | 0                           | 0                           | 0                    | 0                        | 0                         | ο                                  | ο                  | 0                     | 0                    | 0                     |   |
| 100% Fruit Juice   | 0   | 0                     | 0                           | 0                           | 0                    | 0                        | 0                         | 0                                  | 0                  | 0                     | 0                    | 0                     | -   |
| Sweetened Juice Beverage/Drink<br>(fruit punch, juice cocktail,<br>Sunny Delight, Capri Sun)   | 0   | 0                     | 0                           | 0                           | 0                    | 0                        | 0                         | 0                                  | 0                  | 0                     | 0                    | 0                     |   |
| Whole Milk: red cap,<br>Reduced Fat Milk 2%: purple cap,<br>or Chocolate Milk  | 0   | 0                     | 0                           | 0                           | 0                    | 0                        | 0                         | 0                                  | 0                  | 0                     | 0                    | 0                     |   |
| Low Fat 1%: green cap,<br>Fat Free/Skim Milk: light blue cap,<br>Buttermilk or Soy Milk  | 0   | 0                     | 0                           | 0                           | 0                    | 0                        | 0                         | 0                                  | 0                  | 0                     | 0                    | 0                     |   |
| Nut Milk<br>(almond, cashew, coconut)<br>O Flavored, Original, or Plain<br>O Unsweetened   | 0   | 0                     | 0                           | 0                           | 0                    | 0                        | ο                         | 0                                  | 0                  | 0                     | 0                    | 0                     |   |
| Soft Drinks, Regular   | 0   | 0                     | 0                           | 0                           | 0                    | 0                        | 0                         | 0                                  | 0                  | 0                     | 0                    | 0                     |   |
| Energy & Sports Drinks, Regular<br>(Red Bull, Gatorade, Powerade)  | 0   | 0                     | 0                           | 0                           | 0                    | 0                        | 0                         | 0                                  | 0                  | 0                     | 0                    | 0                     |   |
| Diet or Artificially Sweetened Soft<br>Drinks, Energy & Sports Drinks<br>(Diet Coke, Crystal Light,<br>artificially sweetened sparkling water,<br>Sugar-Free or Total Zero Red Bull,<br>Powerade Zero) | 0   | 0                     | 0                           | 0                           | 0                    | 0                        | 0                         | 0                                  | 0                  | 0                     | 0                    | 0                     |   |
| Sweet Tea (with sugar)   | 0   | 0                     | 0                           | 0                           | 0                    | 0                        | 0                         | 0                                  | 0                  | 0                     | 0                    | 0                     |   |
| Tea or Coffee, black<br>(no creamer or milk)<br>O Sugar, O Artificial Sweetener, O N/A   | 0   | 0                     | 0                           | 0                           | 0                    | 0                        | 0                         | 0                                  | 0                  | 0                     | 0                    | 0                     |   |
| Tea or Coffee (w/ milk &/or creamer)<br>O Sugar O Artificial Sweetener O N/A<br>Milk &/or Creamer:<br>O Milk O Haif & Half or Cream O N/A<br>Creamer: O Flav. O Plain O Sugar-Free                     | o   | 0                     | 0                           | 0                           | 0                    | 0                        | 0                         | 0                                  | 0                  | 0                     | 0                    | 0                     |   |
| Wine (red or white)  | 0   | 0                     | 0                           | 0                           | 0                    | 0                        | 0                         | 0                                  | 0                  | 0                     | 0                    | 0                     | _   |
| Hard Liquor<br>(vodka, rum, tequila, etc.)   | 0   | 0                     | 0                           | 0                           | 0                    | 0                        | 0                         | 0                                  | 0                  | 0                     | 0                    | 0                     |   |
| Beer, Ales, Wine Coolers,<br>Non-alcoholic or Light Beer   | 0   | 0                     | 0                           | 0                           | 0                    | 0                        | 0                         | 0                                  | 0                  | 0                     | 0                    | 0                     |   |
| Other (list):  | 0   | 0                     | 0                           | 0                           | 0                    | 0                        | 0                         | 0                                  | 0                  | 0                     | 0                    | 0                     |   |

#### **Statistical Analysis**

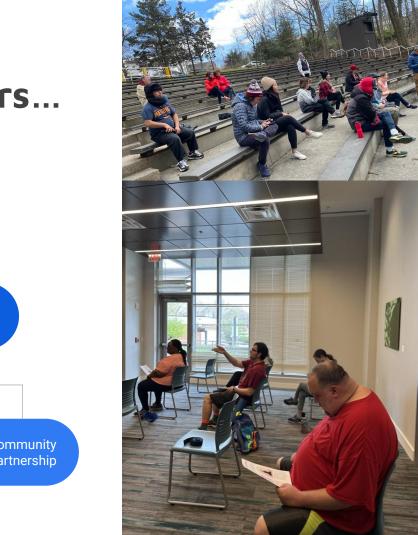
Univariate repeated measures ANOVA

Potential Confounders: age, race, ethnicity

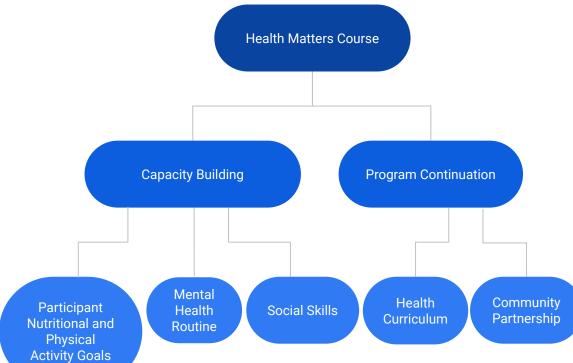
Potential Effect Modifiers: sex



## The Sustainability:



### Through Health Matters...



#### **Class Participation**



#### **Health Matters Course**

#### Acknowledgements

Thank you Donna, Dr. Cleary, Robin, all of student participants in the Autism Experience course and all of our wonderful OSG participants!



### **Works Cited**

Catala-Lopez, F., Hutton, B., & Page, M. (2022, February 14). *Mortality in Persons With Autism Spectrum Disorder or Attention–Deficit/Hyperactivity Disorder: A Systematic Review and Meta–analysis | Attention Deficit/Hyperactivity Disorders | JAMA Pediatrics | JAMA Network.* 

https://jamanetwork.com/journals/jamapediatrics/fullarticle/2789090?utm\_campaign=articlePDF&utm\_medium=article PDFlink&utm\_source=articlePDF&utm\_content=jamapediatrics.2021.6401

Jang, J., Matson, J. L., Adams, H. L., Konst, M. J., Cervantes, P. E., & Goldin, R. L. (2014). What are the ages of persons studied in autism research: A 20-year review. *Research in Autism Spectrum Disorders*, *8*(12), 1756–1760.

https://doi.org/10.1016/j.rasd.2014.08.008

Roux, A. M., Shattuck, P., Rast, J., Rava, J., & Anderson, K. (2015). *Living Arrangements of Young Adults on the Autism Spectrum*. AJ Drexel Autism Institute.

 $https://drexel.edu/ \texttt{media/Files/autismoutcomes/publications/LCO\% 20 Fact\% 20 Sheet\% 20 Living\% 20 Arrangements.ashx and the set of the set$