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Appalachian Student Research Forum

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Apr 5th, 8:00 AM - 12:00 PM

### Mental Health Intervention Strategies for Youth in Rural Northeast TN

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## ABSTRACT

Mental health strategies have been underassessed in rural populations, especially in the rural Appalachian adolescent population. This community-based intervention staged three consecutive weeks of interventions and then measured mental health metrics and attitudes from self-reported surveys in a small cohort of middle school-aged boys and girls (n=13) from Hawkins County, TN – a rural Appalachian county. The results of this study suggests that short 1-hour interventions per week, especially those incorporating mindfulness strategies (p=0.017), can influence attitudes and coping strategies in rural adolescent children. Interesting trends in gender differences were also noted but not significant.

## INTRODUCTION

A number of aspects of rural life (social network, geographical isolation, problems with access, rural community, and social exclusion) may have implications for people with mental health problems.

In 2014 it was determined that Hawkins County had eight (8) mental health providers for its entire population of over 56,000 people. The mental health provider rate of 14.1 per 100,000 is approximately ten times less than the average for the entire state (134.6) and approximately fourteen times less than the national average (202.8).

Literature on rural youth and their mental health has suggested that rural adolescents perceived positive past experiences, and social support and encouragement from others as strong aids to the help-seeking process.

## METHODS

### Participants & Recruitment

Eligible participants were recruited from their current grade level (5<sup>th</sup> to 8<sup>th</sup> grade) at the time of the study at the Boys and Girls Club of Hawkins County, TN in Fall 2017. All other grades were excluded to narrow the study population.

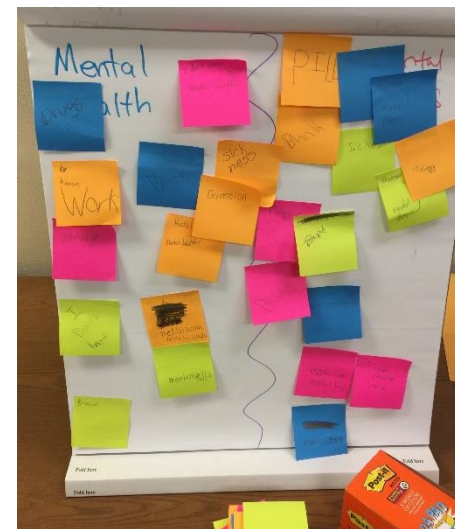
### Baseline Demographics (n=13)

% Female	62%
Average Grade (SD)	5.7 ( $\pm$ 1.3)
Ethnicity (% White)	69.2%
Ethnicity (% Non-white or mixed)	30.8%
% Living with at least 1 biological parent	100%

### Intervention Sessions

#### W1: Unpacking Mental Health

Students were split up into groups of 5 or 6 – mixed age and gender. They wrote down words they associated with "mental health" and "mental illness." We used their words to discuss the meaning of mental health and mental illness as well as the stigmas associated with each of these terms.



#### W2: Mindfulness Activity

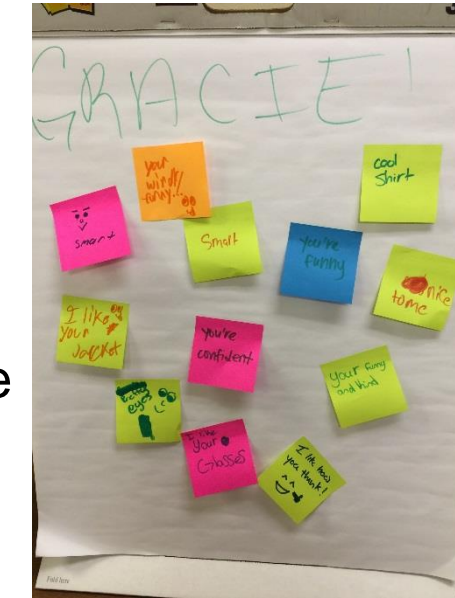
Participants engaged in ~15 minutes of guided mindful meditation and breathing exercises. Afterwards, we discussed how they felt these exercises could be applied to situations that arose in their day-to-day lives.



## METHODS (cont.)

### W3: Compliment Game

In groups of 5 or 6, each participant took turns sitting in front of a group with their back to a large board. The other participants wrote down positive qualities of the student in front. The participant then turned around and read what the Others wrote about the individual.



### Data Analysis

Paired Samples T-test were used to evaluate statistical difference in the survey responses.

## RESULTS

### Attitudes and Perceived Stress Average Score

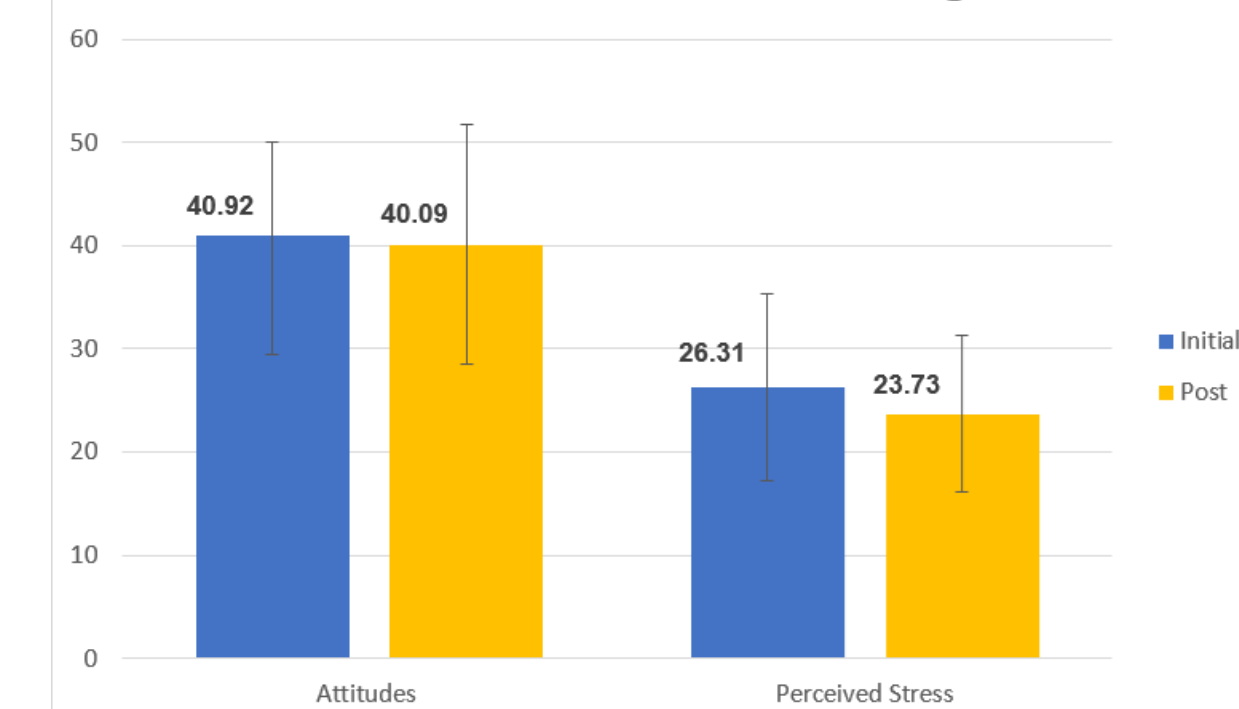


Figure 1: Attitudes and Perceived Stress Average Score

### Positive and Negative Coping Average Score

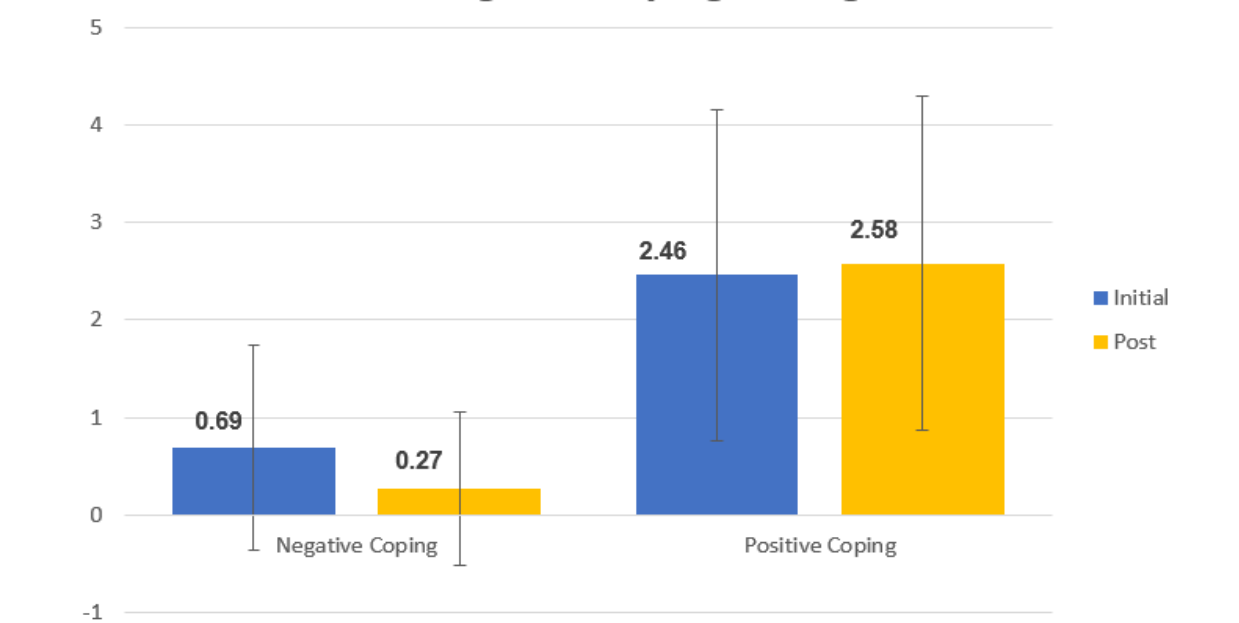


Figure 2: Positive and Negative Coping Average Score

## RESULTS (cont.)

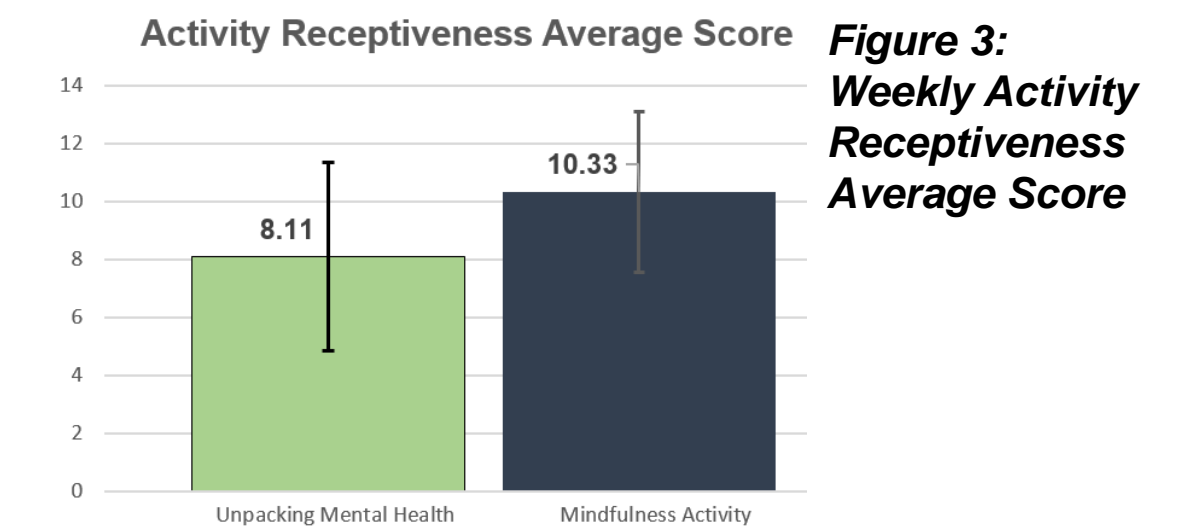


Figure 3: Weekly Activity Receptiveness Average Score

## SUMMARY

- No statistically significant changes in Attitudes Toward Mental Health (p=0.552), Perceived Stress Levels (p=0.716), or Use of Positive Coping Strategies (p=0.653), or Negative (maladaptive) Coping Strategies (p=0.193) was observed between Initial and Post Survey.
- The Mindfulness Activity was statistically significant (p=0.017) in receptiveness compared to the baseline knowledge session.

## CONCLUSIONS

While no significant relationships were found regarding changes in attitudes, perceived stress, or the practice of maladaptive coping skill there was still promising trends which might be statistically significant given a larger power. Trends in gender differences could underlie cultural and societal norms. Due to the limited number of mental health providers, evaluating behaviors were considered but not utilized. These trends, especially in mindfulness activities, could help further guide community partner mental health strategies for youth in rural Appalachia.

## ACKNOWLEDGEMENTS