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## Introduction

- Depression is prevalent in adolescents, having an estimated 1.1% occurrence among ages 10-14, and 2.8% among 15-19<sup>1</sup>
- In 2019, suicide was the second leading cause of death for the age groups 10-15, 15-24, and 25-34 in the United States<sup>2</sup>
- Depression and its symptoms are a risk factor for suicide<sup>3</sup>
- Self-expression through creative exercise works and allowing for creative freedom in adolescents 15-18 years of age reduced depressive symptoms<sup>4</sup>
- Creativity Camp is an 8-day intervention aiming to reduce depressive symptoms in adolescents using creative exercises
- **Purpose:** To assess changes in depression and suicidality in adolescents after a Creativity Camp intervention

## Methods

- Participants: **69** adolescents (mean age=15.09, SD=1.64; 54 assigned female at birth, 14 assigned male at birth; race: 71.01% white)
- Treatment: 39 adolescents attended Creativity Camp in summer 2022, and 29 in summer 2023
  - Camps consist of eight four-hour sessions over two weeks with creative exercises
- Measures completed at pre- and post-camp:
  - **Depression Severity:** Child's Depression Inventory-2 (CDI-2), parent and adolescent separately
  - **Suicidality:** Item 8 of the adolescent CDI-2, asking to rate their suicidality on a 3-point scale (0 means no suicidality, 1 indicates ideation, 2 indicates intent)
- Analysis:
  - **Paired t-test** for CDI-2 total scores
  - **McNemar's test** (for paired, dichotomous traits) for Item 8 responses
  - Due to low variability in responses post-camp, suicidality was assessed as two categories instead of three: **no suicidality (response of 0) or suicidality present (response of 1 or 2)**
  - **Significance level:** <0.05

## Results

Figure 1: CDI-2 Total Score for Parent and Adolescent Across Time

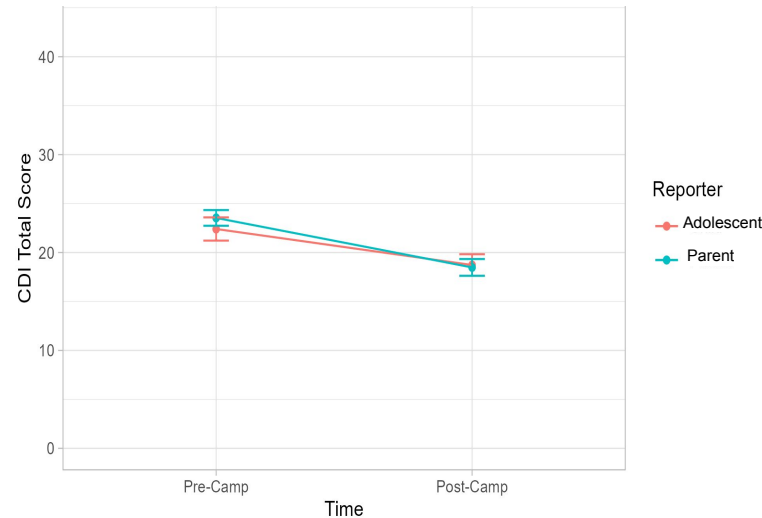
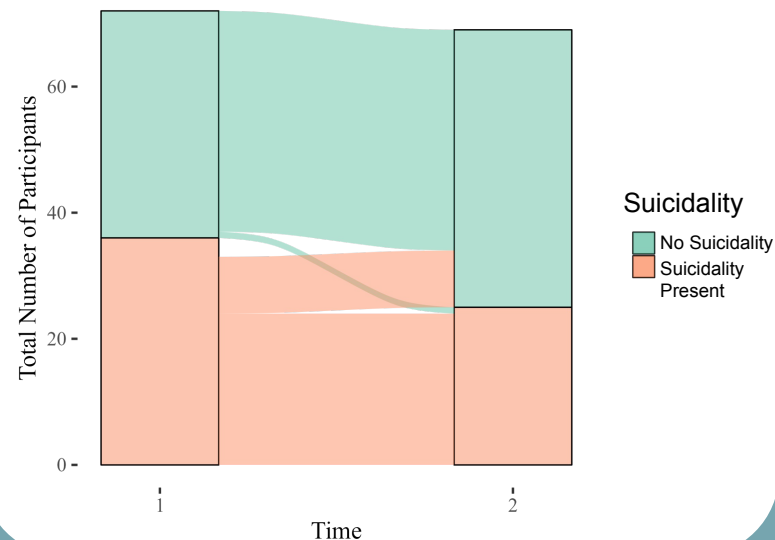


Figure 2: Transitions of Participants Between no Suicidality and Suicidality Groups Pre- and Post-Camp



## References

- [1] World Health Organization. (2021, November 17). Mental health of adolescents.
- [2] Centers for Disease Control and Prevention. (2019). "Suicide - Health, United States".
- [3] Orsolini, L., Latini, R., Pompili, M., Serafini, G., Volpe, U., Vellante, F., Fornaro, M., Valchera, A., Tomasetti, C., Fraticelli, S., Alessandrini, M., La Rovere, R., Trotta, S., Martinotti, G., Di Giannantonio, M., & De Berardis, D. (2020). Understanding the Complex of Suicide in Depression. 17(3), 207-221.
- [4] Kennedy, H., Marley, M., Torres, K., Edelblute, A., & Novins, D. (2018). Youth's experiences in an arts-based . . . Group aimed at mental health stigma reduction. 12(1), 23-37.

## Results

- **Depression severity:** There were statistically significant decreases in parent and child CDI-2 total scores from pre- to post-camp (Figure 1)
  - Parent:  $t(67) = 6.60, p < .001$ 
    - Pre-camp mean: 23.38 (SD = 6.49)
    - Post-camp mean: 18.47 (SD = 7.11)
  - Child:  $t(68) = 5.32, p < .001$ 
    - Pre-camp mean: 22.26 (SD = 10.14)
    - Post-camp mean: 18.72 (SD = 9.15)
- **Suicidality:** The proportion of participants reporting suicidality changed from pre- to post-camp:
  - $\chi^2(1, N = 69) = 4.9, p = 0.027$
  - The proportion of participants reporting suicidality decreased from pre- to post-camp
  - Figure 2 shows the transitions of participants between no suicidality and suicidality groups between pre- and post-camp
  - As shown in Figure 2, more participants transitioned from the suicidality present group to the no suicidality group (N=9) than from the no suicidality group to the suicidality present group (N=1).

## Discussion

- The results suggest a decrease in depression severity and suicidality from pre-camp to post-camp
- Implies that the Creativity Camp may have been an effective treatment for depression and suicidality
- Using Creativity Camp allows for a unique mode of treatment for those who may be resistant to standard treatments

## Limitations

- **Outpatient care:** Outside effects (treatment, mood changes, life events) could explain decrease in suicidality
- **Categorical analysis:** Binary choice for suicidality limits clinical significance somewhat