

Mind Matters Comprehensive Evaluation Final Report Summary

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To read the full report please visit:

<https://www.dibbleinstitute.org/wp-new/wp-content/uploads/2021/10/Mind-Matters-Final-Report.pdf>

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OVERVIEW OF STUDY

The proposed evaluation was a randomized controlled trial (RCT), with youth who registered for the *Mind Matters* program being randomized to the experimental *Mind Matters* or a waiting list control condition. Participants completed surveys at three points in time: baseline on first day before the start of the program, immediate post, and three-month post-survey. (A longer follow up period was not feasible given the limited time frame for the grant and rapid turnover in the residential setting. Data were collected via paper surveys for the pre and immediate post-program surveys; follow up surveys were completed through a multi-method approach: phone, web-based surveys, and face to face completion of paper surveys if necessary. Data were stored in a secure location and on encrypted computers.

Youth registered for a Mind Matters workshop to be provided across twelve sessions in community-based settings by trained facilitators. These partner agencies, which included youth-serving organizations and residential treatment facilities, have previously worked with our research team to implement an RCT comparing *Love Notes* and *Reducing the Risk* with over 1800 youth for teen pregnancy prevention. We identified several successful partners from this past federal grant who were willing to participate in this evaluation of *Mind Matters*. There will be a core group of faculty/graduate students/staff at the CFCWB who were trained in the delivery of Mind Matters. The team also trained staff at the partner agencies so that there is sufficient capacity to cover multiple workshops across the program delivery period, as well as for sustainability beyond the grant.

The limitations of the study included the difficulty in recruiting 200 participants in a twelve-month time frame, as well as challenges associated with randomization to a control condition. Evaluation challenges included collecting follow up data from youth over time. There were financial incentives and food provided for participation in the program and evaluation to address these potential limitations. In addition to the anticipated challenges, the COVID 19 pandemic was also a major challenge for program implementation and evaluation. Access to the partner organizations was significantly restricted due to the pandemic; outside visitors were not allowed on site and the organizations experienced repeated outbreaks. One community-based program suspended all in person activities for over a year and was reluctant to offer this sensitive material on-line.

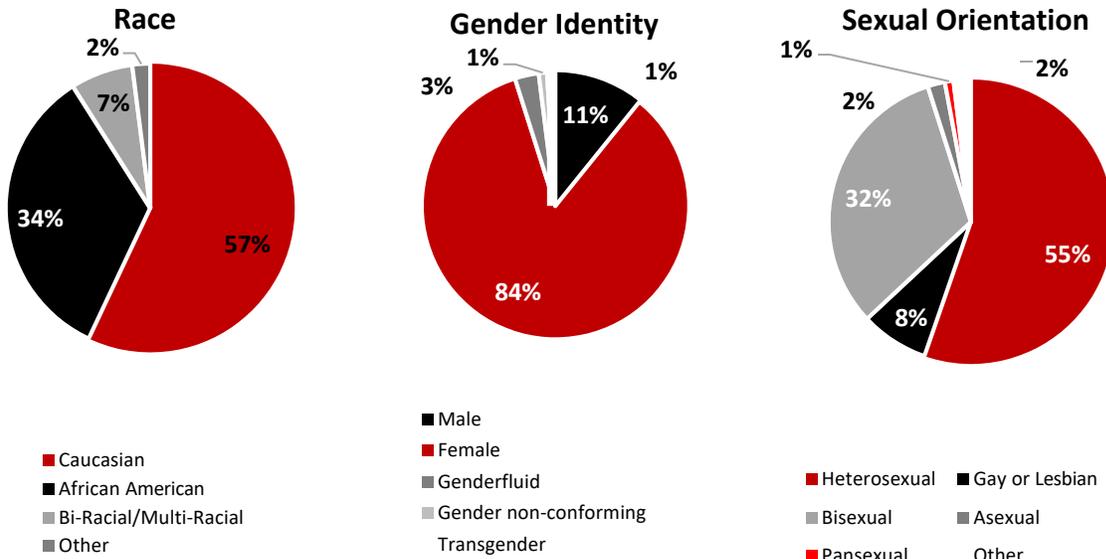
SAMPLE

As a result of these challenges, the total sample size for this study was 103. Of these 103 program participants, 42 completed the pre- and post-tests. There were 54 subjects in the experimental group and 49 subjects in the control group. The experimental group received *Mind Matters* the control group was placed on a waiting list for the program. The population studied was at risk youth in the Louisville, Kentucky community. These youth were drawn from community-based organizations that serve youth who are at risk due to a number of factors, including inner-city youth, youth in foster care or residential treatment, refugee/immigrant youth, and others. These groups have reported high numbers of ACES in previous studies and will therefore be appropriate for the curriculum on trauma and resiliency. This sample fits the age and risk factors of the target population for the curriculum.

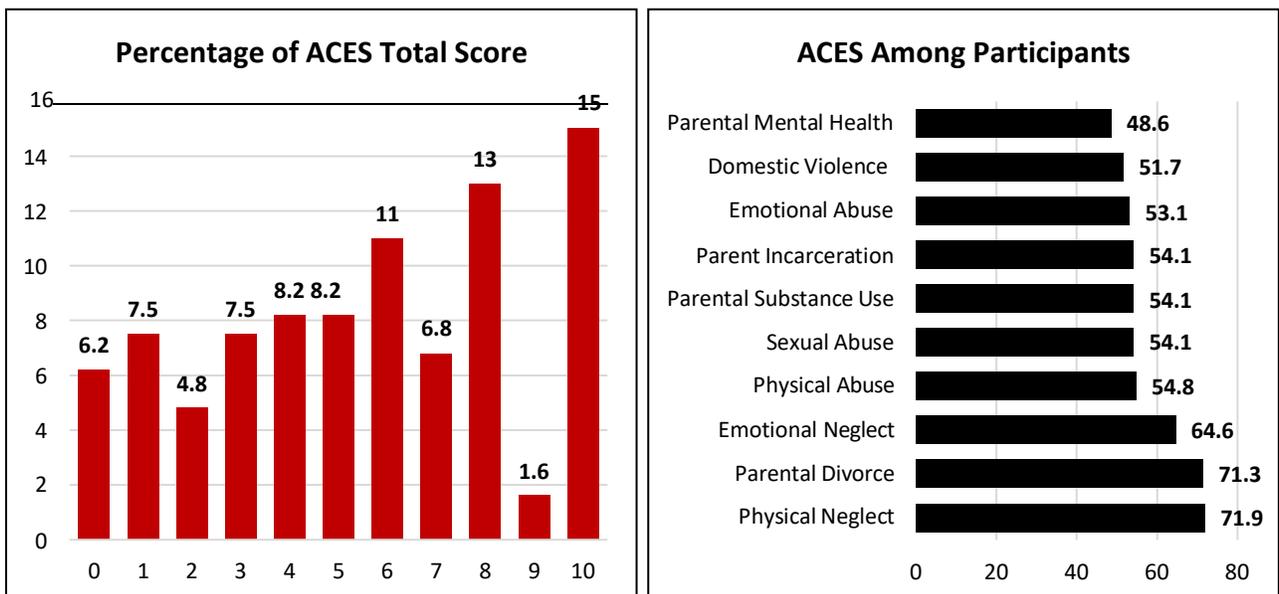
PROGRAM OUTCOMES

DEMOGRAPHICS OF PARTICIPANTS

143 participants have completed baseline surveys for Mind Matters. The following summarizes demographic and outcome data on participants. 89% of the participants received Mind Matters in a residential care treatment setting while 11% attended a community youth service center. The average age of participants was 15.81.



Participants reported an average of 5.56 Adverse Childhood Experiences (ACES). 73.9% of the participants reported an ACES score of 4 or more which indicates long term effects. 71% of the participants reported that their parents were divorced and reported being neglected physically.



PRE- TO POST- KNOWLEDGE GAIN

Overall, there was a statistically significant improvement in knowledge for the experimental group pre (39%) to post (45%).

SKILL GAIN

Mind Matters Coping Skills: Pre- to Post-Training

There was a significant improvement in the trauma coping skills of those in the experimental group from pre- to post-training, including 1) three-part breath; 2) focus time; 3) ACE; 4) efficient sleep; 5) yoga. There was a significant trend for the following coping skills: 1) focused breathing; 2) empathic listening; 3) downtime.

DIFFERENCES IN BEHAVIOR CHANGE TOTAL SCORE

Differences in Behavior Change by Experimental/Control

There is a marked increase in coping behaviors for the experimental group (mean of 98.96 at pre and mean of 109.76 at post) while there is actually a decrease in coping behaviors the control group (mean of 98.11 at pre and mean of 96.22 at post). The difference was not statistically significant due to the small sample size.

PTSD SYMPTOMS

Pre- to Post- Differences in PTSD Symptoms for Experimental Group

There was a significant improvement in the following PTSD symptoms from pre- to post- for the experimental group: 1) I am on the lookout for danger or things I am afraid of (like looking over my shoulder even when nothing is there); 2) I try not to think about or have feelings about what happened; 3) I have thoughts like "I will never be able to trust other people;" 4) I feel alone even when I am around other people. There was a significant trend in the following PTSD symptom from pre- to post: I have trouble going to sleep, wake up often, or have trouble getting back to sleep.

Differences in PTSD Total Score: Experimental vs Control

There was a significant difference in PTSD symptoms between the experimental and control group. There was a significant main effect by group but not a significant difference in change over time due to the small sample size. However, the changes were in the predicted direction.

RESILIENCY

Changes in Resiliency Over Time for Experimental Group

Although not statistically significant, there was an increase in mean scores for each item on the Connor-Davidson Resiliency Scale for those in the Mind Matters group (with the exception of one item: “I can deal with whatever comes.”) All other items showed change in the positive direction.

Differences in Resiliency Total Score: Experimental vs Control

There was an improvement in resiliency scores for both the experimental and control. Differences were not statistically significant. This improvement in resiliency scores for both groups may reflect the impact of treatment as usual outside of Mind Matters involvement given that both groups experienced similar improvements.

GENERAL WELL-BEING (PEDIATRIC SYMPTOM CHECKLIST 17)

Changes in General Well-Being for Experimental Group

Many of the symptoms on the PSC 17 showed an increase from pre- to post-Mind Matters for the experimental group, particularly issues with sharing and understanding others' feelings (statistically significant increases). These increases are not necessarily attributable to participation in the program but may instead reflect an escalation of symptoms/behaviors associated with placement in residential care.

Differences in PSC 17 Total Score: Experimental vs Control

There is an increase in PSC 17 scores for both the experimental and control group, indicating an increase in general symptoms associated with internalizing, externalizing, and attention behaviors. This increase in symptoms may be related to the residential treatment milieu for many of the youth or the impact of placement in out of home care.

EMOTIONAL REGULATION

Changes in Emotional Regulation for Experimental Group

There was a significant change in the rating of “I pay attention to how I feel.” There was a significant trend in items: “When upset take time to figure out how I feel” and “When upset I lose control over my behavior.” Based on reverse scoring of items and lower scores being indicative of better emotional regulation, changes were in the desired direction for those receiving Mind Matters on these specific items.

Differences in Emotional Regulation Total Score: Experimental vs Control

There was no significant change in the emotional regulation scores for either group, although the control group scores increased pre- to post- (100 to 110) while the experimental group scores decreased slightly (104 to 102). This trend is in the desired direction, as higher scores are indicative of more problems with emotional regulation. Those in the Mind Matters group had less difficulty with emotional regulation than those in the control group.

SOCIAL COMPETENCE

Changes in Social Competence for Experimental Group

There were no significant differences or trends in specific dimensions of social competence for the experimental group post-Mind Matters, although most mean scores move slightly toward the desired direction.

Differences in Social Competence Total Score: Experimental vs Control

There was a slight increase in social competence for those in the experimental group (64 to 65) from pre to post, while there was a decrease in social competence scores for the control group (68 to 66). Differences were not statistically significant due to small sample size.

SUMMARY OF FINDINGS AND RECOMMENDATIONS

There was a significant increase in knowledge for the experimental group, and a greater knowledge gain for the experimental versus control group. Differences were explored by key demographic and trauma variables, including race, gender, sexuality, and ACES scores. Similar patterns were found across outcomes. There was a significant improvement in the trauma coping skills of those in the experimental group from pre- to post-training, including 1) three part breath; 2) focus time; 3) ACE, 4) efficient sleep; 5) yoga. There was a significant trend for the following coping skills: 1) focused breathing; 2) empathic listening; 3) downtime. There is a marked increase in coping behaviors for the experimental group (mean of 98.96 at pre and mean of 109.76 at post) while there is actually a decrease in coping behaviors the control group (mean of 98.11 at pre and mean of 96.22 at post).

There was a significant difference in PTSD symptoms between the experimental and control group. There was a significant main effect by group but not a significant difference in change over time due to the small sample size. However, the changes were in the predicted direction, with the mean pre-score for the experimental group of 26.24 and mean post-score of 23.24; the mean pre-score for the control group was 29.47 and the mean post-score was 30.00, suggesting that the PTSD symptoms for the experimental group decreased while the scores for the control group actually increased slightly. There was a significant improvement in the following PTSD symptoms from pre- to post- for the experimental group: 1) I am on the lookout for danger or things I am afraid of (like looking over my shoulder even when nothing is there); 2) I try not to think about or have feelings about what happened; 3) I have thoughts like “I will never be able to trust other people;” 4) I feel alone even when I am around other people. There was a significant trend in the following PTSD symptom from pre- to post: I have trouble going to sleep, wake up often, or have trouble getting back to sleep.

There was an improvement in resiliency scores for both the experimental and control groups. Differences were not statistically significant. This improvement in resiliency scores for both groups may reflect the impact of treatment as usual outside of Mind Matters involvement given that both groups experienced similar improvements. Although not statistically significant, there was an increase in mean scores for each item on the Connor-Davidson Resiliency Scale as for those in the Mind Matters group (with the exception of one item: “I can deal with whatever comes.”) All other items showed change in the positive direction.

Many of the symptoms on the PSC 17 showed an increase from pre- to post-Mind Matters for the experimental group, particularly issues with sharing and understanding others' feelings (statistically significant increases). These increases are not necessarily attributable to participation in the program but may instead reflect an escalation of symptoms/behaviors associated with placement in residential care. There is an increase in PSC 17 scores for both the experimental and control group, indicating an increase in general symptoms associated with internalizing, externalizing, and attention behaviors. This increase in symptoms may be related to the residential treatment milieu for many of the youth or the impact of placement in out of home care. Attention sub-scale scores remain approximately the same for both groups. Internalizing scores remained approximately the same for both groups. Externalizing behaviors increased for both the experimental and control groups.

There was no significant change in the emotional regulation scores for either group, although the control group scores increased pre- to post- (100 to 110) while the experimental group scores decreased slightly (104 to 102). This trend is in the desired direction, as higher scores are indicative of more problems with emotional regulation. Those in the Mind Matters group had less difficulty with emotional regulation than those in the control group. There was a significant change in the rating of "I pay attention to how I feel." There was a significant trend in items: "When upset take time to figure out how I feel" and "When upset I lose control over my behavior." Based on reverse scoring of items and lower scores being indicative of better emotional regulation, changes were in the desired direction for those receiving Mind Matters on these specific items.

There was a slight increase in social competence for those in the experimental group (64 to 65) from pre to post, while there was a decrease in social competence scores for the control group (68 to 66). Differences were not statistically significant due to small sample size. There were no significant differences or trends in specific dimensions of social competence for the experimental group post-Mind Matters, although most mean scores move slightly toward the desired direction.

Future recommendations include 1) continued testing of the program through this rigorous design with a) expansion to other settings; b) addition of longer follow-up data collection period (6-12 months); and c) addition to sample size to reach target of at least 200. Additional research is needed to explore the impact on each of these target outcomes, including differences by key demographic variables and childhood trauma histories. These future studies will be more feasible without the significant constraints of the COVID 19 pandemic on community-based organizations; the pandemic has also added layers of trauma to at-risk youth served by this project that warrant intervention and evaluation.