**Preliminary Research Results**

A Two-Year Study Conducted on Prison Mindfulness Institute’s “Path of Freedom” Curriculum

*Transcript of presentation by Dr. Jill Harrison (Rhode Island College), Dr. Jennifer Clarke (Brown University) and Fleet Maull (Prison Mindfulness Institute) at the 11th Annual Center for Mindfulness Scientific Conference on April 20, 2013 in Norwood Massachusetts*

**Path of Freedom**

* Is a 12 – unit Mindfulness-Based Emotional Intelligence (MBEI) curriculum.
* Developed & piloted at maximum security juvenile prison in Colorado, 2003 – 2009.
* Currently six classes per week in four Rhode Island DOC women’s & men’s facilities.

POF programs in four countries (U.S., Sweden, Canada, Australia)

**Program Goals:**

The goal of Prison Mindfulness Institute’s *Path of Freedom* program is to provide prisoners with resources and practices for healing & transformation as well as preparing them for eventual successful long-term success in the community. The program is specifically designed to effectively address these criminogenic risk factors:

* anti-social personality
* anti-social attitudes
* negative/criminal values and associates
* poor impulse control
* lack of problem solving skills
* lack of employment skills (indirectly)
* substance abuse and family dysfunction (indirectly)

**POF Curriculum Fidelity**

* Observer/rater attends all sessions to document curriculum delivery using standardized forms and to collect qualitative data – participant responses and questions, cell practice, etc.
* Overall high rating for curriculum fidelity

**Research Objectives**

* To evaluate an MBEI-based curriculum,   
  “The Path of Freedom”
* The 13 week program is offered biannually to inmates at minimum and medium level prison facilities.
* n = 132

**Method**

* Pre-test/Post-test with 4 inventories
* Curriculum offered once per week, 2 hours each session, for three months (total = 13 sessions)
* Inmates are provided a workbook, introduced to a variety of basic, non-secular meditation techniques, and asked to do contemplation exercises out of class.
* Curriculum presents principles of mindfulness and introduces skills to increase emotional intelligence, reduce stress and anxiety
* Mindfulness movement is included, such as yoga and chi kung exercises.

**Inventories Used**

* 1) Schutte et al's (1998) Emotional Intelligence Scale
* 2) Levenson's (2005) Self-Transcendence Inventory
* 3) Speilberger's (1983) State-Trait Anxiety Inventory, youth version
* 4) the Criminal Sentiment Scale (not presented, found not significant)

**Results**

Socio-demographic Characteristics:

* Male participants n = 109, female participants n = 23
* Age range 20’s – 40’s
* < H.S. diploma
* Unemployed
* Most had never practiced or been exposed to meditation prior to this class
* Inmates attended an average of 9 classes out of 13 and were compensated with 2 days of “good time” per month.

**Remarks by Researcher Dr. Jill Harrison:**

“Prisoners in our Path of Freedom classes attended an average attendance of 9 classes. We found a correlation between the number of classes attended and a reduction in non-violent infractions with prison staff and prison policy.”

“Qualitatively, I had inmates come up & tell me, ‘You know, Jill, I was really just here for the Good Time, but I learned something.’”

“We found a noticeable improvement in emotional intelligence scale ratings in women after completing the Path of Freedom curriculum. We did not find as strong of a correlation with the men, which is leading us to consider customizing the curriculum by gender.”

“For both men and women, the curriculum is doing a nice job of reducing anxiety levels in inmates. Measures of temporary states of anxiety drop significantly in both men and women post curriculum. There is also a significant drop in trait (personality-based) anxiety. As inmates learn to check in with their own feelings of stress & anxiety, impulse control will increase. This will potentially reduce recidivism rates.”

“In two of our three inventories, significant results were shown in correlation to attendance. Increased attendance predicts emotional intelligence and reduces anxiety states and traits.”

“Our most significant data is the Steinberger State-Trait Anxiety Inventory, which measures state characteristic of anxiety and trait characteristics of anxiety. In other words, it measures temporary characteristics of anxiety and stress and the more permanent or embedded personality traits. This inventory has been used widely with inmates, war veterans, etc. Nationally Inmates have scores that range between 44-50. For the educated general public, averages are between 34-38. Both women & men had scores *reduced* after the Path of Freedom curriculum. Prior to the curriculum, the men we tested had a mean of 42 on the “state anxiety scale” and women had a mean of 51. After the Curriculum, men tested a mean of 36, and the women’s mean was 37. In long-term anxiety traits, which is based more on personality, the men tested dropped from a mean of 44 to 31 after the Curriculum and the women dropped from 48 to 28. So following the Curriculum, they tested in the range of normal adults.”

**Summary:**

* Encouraging results in stress and anxiety reduction for both males and females.
* Mixed results on increased emotional intelligence – gender difference possible and needs further analysis.
* PoF curriculum appears to have stronger effect on participants above >30 years of age.
* Small correlation between class attendance and reduction in “in-house” nonviolent infractions (not shown).
* PoF curriculum appears to have no effect on Criminal Sentiment Scale (results not shown).

**Future Research:**

* Instruments to measure mindfulness and impulsivity are introduced in 2012-2013 cycle.
* Explore gender as mediating effect; perhaps curriculum can be tailored based on results.
* Analyze inmate feedback on classes and other qualitative data to modify curriculum.
* Example: Inmates want to incorporate more movement into the program (e.g. yoga, walking meditation)
* Control for social support
* Track recidivism and community continuity upon post release

**Levenson’s (2005) Self-Transcendence Inventory** *selected statements*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Statement:** | **Males**  **Pre-test** | **Males**  **Post-Test** | **t** | **Females**  **Pre-Test** | **Females**  **Post-Test** | **t** |
| 1. My peace of mind is not so easily upset as it used to be. | 2.87  (.119) | 3.40  (.081) | -4.21 \*\* | 2.36  (.364) | 3.36  (.310) | -1.85 ^ |
| 2. Material things mean less to me. | 2.91  (..098) | 3.32  (.083) | -3.23 \* \* | 3.36  (.243) | 3.27  (.195) | .23\* |
| 3. I do not become angry as easily. | 2.64  (.116) | 3.35  (.090) | -4.67 \* | 2.72  (.333) | 3.27  (.272) | -2.62\* |
| 4. My sense of self is less dependent on other people and things. | 3.04  (.099) | 3.41  (.080) | -2.26\* | 3.55  (.207) | 3.36  (.279) | .516 N.S |
| 9. I feel that my life is a part of a greater whole. | 2.98  (.106) | 3.23  (.080) | -2.13\* | 2.73  (.304) | 2.55  (.207) | -2.04^ |
| Summary Scores  (10 questions) | 28.9  (.680) | 33.1  (.486) | -5.24\* \* | 30.45  (1.44) | 34.18  (1.57) | -1.61 N.S. |
|  |  |  |  |  |  |  |

paired t-test significance: (standard errors), p < .01\*\*, p <.05\*, p < .10^, N.S. = not significant

**Schutte’s (1998) Emotional Intelligence Scale,** *Selected Statements*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Statement:** | **Males**  **Pre-test** | **Males**  **Post-Test** | **t** | **Females**  **Pre-Test** | **Females**  **Post-Test** | **t** |
| 2. When I am faced with obstacles, I remember times I faced similar obstacles and overcame them. | 3.90  (.109) | 4.02  (.097) | -0.841 N.S. | 3.38  (.311) | 4.31  (.208) | -2.31\* |
| 12. When I experience a positive emotion, I know how to make it last. | 3.33  (.144) | 3.52  (.116) | -1.01 N.S. | 2.77  (.323) | 3.69  (.281) | -2.41 \* |
| 15. I am aware of the nonverbal messages I send to others. | 3.12  (.148) | 3.21  (.139) | -0.444 N.S. | 3.23  (.257) | 3.85  (.154) | -1.76 ^ |
| 17. When I am in a positive mood, solving problems is easy for me. | 3.98  (.087) | 4.04  (.113) | -0.375 N.S. | 3.77  (.122) | 4.31  (.175) | -2.50 \* |
| 19. I know why my emotions change. | 3.40  (.145) | 3.60  (.125) | -1.08 N.S. | 3.23  (.166) | 3.77  (.201) | -2.21 \* |
| 23. I motivate myself by imagining a good outcome to tasks I take on. | 3.88  (.118) | 3.81  (.119) | .4682 N.S. | 3.46  (.183) | 4.15  (.191) | -3.23 \*\* |
| Summary Scores | 116.86  (1.88) | 119.11  (1.53) | -0.957 N.S. | 116.07  (2.87) | 126.23  (4.74) | -1.719^^ |

paired t-test significance: (standard errors), p < .01\*\*, p <.05\*, p < .10^, p = .11^^, N.S. = not significant

**Spielberger’s (1983) State-Trait Anxiety Scale,** *Youth Version Y-1/ Selected Statements*

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| --- | --- | --- | --- | --- | --- | --- |
| **Statement:** | **Males**  **Pre-test** | **Males**  **Post-Test** | **t** | **Females**  **Pre-Test** | **Females**  **Post-Test** | **t** |
| 1. I feel calm. | 2.22  (.113) | 1.74  (.080) | 3.28 \*\* | 2.46  (.268) | 1.85  (.222) | 1.53 N.S. |
| 2. I feel secure. | 2.26  (.123) | 2.02  (.102) | .162 N.S. | 2.62  (.331) | 1.85  (.222) | 1.87 ^ |
| 5. I feel at ease. | 2.49  (.120) | 2.14  (.114) | 2.04 \* | 2.54  (.312) | 1.85  (.274) | 2.00 ^ |
| 15. I am relaxed. | 2.38  (.117) | 1.92  (.088) | 3.04 \*\* | 2.92  (.178) | 2.08  (.265) | 2.86 \*\* |
| 19. I feel steady. | 2.64  (.110) | 2.11  (.089) | 3.87 \*\* | 3.15  (.191) | 2.08  (.265) | 3.27 \*\* |
| 20. I feel pleasant. | 2.52  (.130) | 1.95  (.097) | 2.09 \* | 2.54  (.268) | 1.85  (.274) | 1.90 ^ |
| Summary Scores | 40.96  (1.84) | 35.94  (1.34) | 2.53 \*\* | 49.30  (3.26) | 36.70  (.3.44) | 2.59 \* |

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| --- | --- | --- | --- | --- | --- | --- |
| **Statement:** | **Males**  **Pre-test** | **Males**  **Post-Test** | **t** | **Females**  **Pre-Test** | **Females**  **Post-Test** | **t** |
| 21. I feel pleasant. | 2.52  (.115) | 2.20  (.081) | 2.15\* | 2.69  (.2.23) | 2.37  (.201) | 1.58 N.S. |
| 22. I feel nervous and restless. | 2.69  (..099) | 1.87  (.085) | 2.79\*\* | 2.69  (.200) | 2.00  (.160) | 2.11 ^ |
| 24. I wish I could be as happy as others seem to be. | 2.54  (.117) | 2.09  (.099) | 2.59 \*\* | 2.31  (.208) | 1.92  (.239) | 1.59 N.S. |
| 29. I worry too much over something that really doesn’t matter. | 2.33  (.121) | 1.95  (.105) | 2.27 \* | 2.15  (.222) | 1.92  (.309) | .562 N.S. . |
| 31. I have disturbing thoughts. | 1.90  (.111) | 1.60  (.092) | 2.05 \* | 1.92  (.265) | 1.61  (.213) | .805 N.S. |
| 36. I am content. | 2.59  (.119) | 2.27  (.100) | 2.27\* | 2.85  (.222) | 2.08  (.211) | 2.99\*\* |
| Summary Scores | 40.96  (1.84) | 35.94  (1.34) | 2.53 \*\* | 49.30  (3.26) | 36.70  (.3.44) | 2.59 \* |

paired t-test significance: (standard errors), p < .01\*\*, p <.05\*, p < .10^, N.S. = not significant

**ANOVA RESULTS***The Effect of Attendance on Post-Test Inventories* (n=132)

MALES n = 109 FEMALES = 23

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **DEPENDENT VARIABLE** | **F statistic** | **df** | **Prob > F** | **Adj. R-Square** | **F Statistic** | **df** | **Prob > F** | **Adj. R-Square** |
| Self-Transcendence Inventory | 1.07 | 13 | .402n.s. | .015 | 1.07 | 6 | .470n.s. | .032 |
| State-Trait Anxiety Inventory | 2.07 | 9 | .047\* | .124 | 1.02 | 6 | .410n.s. | .010 |
| Emotional Intelligence Scale | 1.98 | 9 | .056^ | .116 | 1.41 | 6 | .329n.s. | .160 |
|  |  |  |  |  |  |  |  |  |

^p <.10, \*p < .05, \*\*p < .01, N.S. = not significant

**Path of Freedom Pre Release Pilot Study run by Dr. Jennifer Clarke   
(Memorial Hospital, Brown University) :**

**Objectives:**

To determine the effect of the *Path of Freedom* intervention on:

* + Measures of mindfulness
  + Measures of depression
  + Drug use behavior

**Methods**

Obtained IRB and prison approval for the study

* Recruited 32 inmates from male medium security
  + - Used drugs prior to incarceration
    - Release with 6-12 weeks
* Randomized to PoF or educational videos with sessions ~ 3 times a week
* Questionnaires pre/post intervention, post release:
  + - FFMQ
    - Importance of remaining drug free
* 4 weeks post release – urine drug screen

**Issues:**

* Only 30% went to 10 or more of the 12 classes
* Many interruptions in the schedule
  + - “Supper Storm Sandy”
    - Flu clinic
    - Class rooms booked for different times on different days
* Often classes were cut short
* Despite this there were significant differences between groups
* Other pre-release issues (meetings with discharge planners, outside agencies, housing etc)

**Future Steps:**

* Test the efficacy of the *Path of Freedom* intervention in large RCT for:
  + \*Drug use outcomes
  + \*Recidivism/ return to prison
  + Depression/Stress
  + Employment
  + Family / Social well being
* Follow up 1 year post release
* Add MP3 players (guided meditations) for community use

**Dr. Jennifer Clarke Remarks:**

“Our research study is looking at ‘how does this work improve mindfulness?’, ‘how does this work improve depression?’, & ‘how does it improve behavior when people get out.”

“We got IRB permission to do a pre-release pilot with 32 inmates. We offered 12 sessions of Path of Freedom to see how it affected behavior after getting out. We had 32 randomized people. They either got Path of Freedom or educational videos on basic health care tips. We did questionnaires at baseline, right after intervention and then 4 weeks later when they were out of prison. We also did a urine test to look at substance use.

We had significant results. People in Path of Freedom marked staying drug-free as a 9 in a 1-10 priority scale. In the 5-Facets of Mindfulness questionnaires we saw significant improvements in all areas except for awareness.

Urine tests showed that ½ of prisoners taking Path of Freedom were drug-free while only 1/3 were drug-free in the control group.

Issues we encountered in the study: participants were not self-selected, they were recruited according to an upcoming release date.

Only 30% of our participants went to 10 or more classes, yet still we saw improvements.

There was some interruption in the class flow due to extreme weather conditions, a flu outbreak and irregularities in classroom availability.

Because results were promising though, we are wanting to follow-up with a longer-term study, for which we will secure a classroom & regular class-time as well as review our material and consider making the initial classes more exciting for new participants.”

|  |  |  |  |
| --- | --- | --- | --- |
| **Pilot Results** | | **PoF** | **Control** |
| Importance Drug free | Baseline | 7.6 | 7.9 |
| Post | 9.1\* | 7.0 |
| Changes in FFMQ  higher score better | Describe | 0.0\*\* | -1.4 |
| Nonreact | 1.8\* | -0.2 |
| Nonjudge | 1.4\*\* | -0.6 |
| Observe | 1.4\* | -0.9 |
| Awareness | 1.4 | -0.3 |
| Total | 6.0\* | -3.4 |
| Drug Free Urine test 4 weeks post release | | 50% | 33% |
| \*p<0.05 \*\*p<0.1 | | | |