Basic Framework for Reporting Predictive Design Findings

**Step 1: Describe results of predictive analysis, including statistical and practical significance of model**

The regression analysis estimating the influence of predictor variables on CRITERION scores DID/DID NOT result in a statistically significant model, *F*(df, df) = VALUE, *p* = *p*-VALUE, *R2* = *R2* VALUE, indicative of a SMALL, MEDIUM, LARGE effect size and WEAK, MODERATE, STRONG association between variables.

**Step 2: Provide an interpretation of practical significance metric for the model**

This finding suggests that model predictors account for approximately VALUE% of the change among scores predicting CRITERION.

**Step 3: Report statistically significant predictors within the model first, including important elements such as standardized beta value, significance test, and measure of unique variance explained**

Within the model, scores associated with PREDICTOR contributed a statistically significant proportion of variance to the model, β = VALUE, *p* = VALUE, *sr2* = VALUE.

**Step 4: Provide a plainly spoken interpretation of each finding**

This finding accounted for approximately VALUE% of change among participants’ scores on the CRITERION and can be attributed to EXPLAIN THE MEANING OF FINDING.

**Step 5: Report nonsignificant findings all together and use a similar format for significant findings**

Statistically significant findings were not detected for scores related to PREDICTOR, β = VALUE, p = VALUE, *sr2* = VALUE and PREDICTOR, β = VALUE, *p* = VALUE, *sr2* = VALUE.

**Step 6: Develop a summative statement about the findings**

Constructively integrate all this information through your uniquely informed lens to make a conservative, even-handed summative statement about the usefulness of your model for understanding the criterion of interest.

The clinical director developed a multiple-variable predictive design to evaluate relationships between hypothesized mechanisms for change within a DBT-A framework and therapeutic change. The model was tested using a multiple regression analysis. This section will provide a brief application of chapter content to illustrate single-group principles and practices you can replicate in your work.

**Purpose of Evaluation**

 Testing contributions of constructs associated with the DBT-A framework for therapeutic change.

**Related Questions Guiding the Evaluation**

 Are changes among hypothesized mechanisms of change (mindfulness, distress tolerance, emotion regulation, interpersonal effectiveness, and parent–child communication) statistically significant predictors of symptom improvement when completing the six-week DBT-A program?

 To what degree do hypothesized mechanisms of change (mindfulness, distress tolerance, emotion regulation, interpersonal effectiveness, and parent–child communication) predict symptom improvement when completing the six-week DBT-A program?

**Selected Predictive Design**

 Multiple-variable predictive model with one criterion (therapeutic change) and five predictors (mindfulness, distress tolerance, emotion regulation, interpersonal effectiveness, and parent–child communication).

 Statistical and practical significance for model predictors tested using a simultaneous multiple regression analysis.

**Putting Findings Into Context (Results)**

The regression analysis estimating the influence of predictor variables on therapeutic change in psychiatric symptoms resulted in a statistically significant model, *F*(4, 98) = 23.31, *p* < .01, *R2* = .68, indicative of a large effect size and strong association between variables. This finding suggests that model predictors account for approximately 68% of the change among scores predicting therapeutic change among participants. Within the model, associated scores were Distress Tolerance (β = .39, *p* < .05, *sr2* = .15), Emotion Regulation (β = .43, *p* < .05, *sr2* = .18), Interpersonal Effectiveness (β = .39, *p* < .05, *sr2*= .15), and Parent–Child Communication (β = .31, *p* < .05, *sr2* = .14). This finding accounted for approximately 62% of change among participants’ scores associated with psychiatric symptoms and can be attributed to the ability of participants to mobilize DBT-A skills associated with managing distress, positively modulating affect, interacting with others in ways that preserve self-respect, and negotiating middle ground with parents. Statistically significant findings were not detected for scores related to Mindfulness (β = .02, *p* = .12, *sr2* = .06). These findings suggest that the greatest proportions of therapeutic change were associated with mastery and implementation of skills associated with DBT-A modules teaching distress tolerance, emotion regulation, interpersonal effectiveness, and parent–child communication. Although mindfulness skills contributed some proportion of change within the model, scores reflecting this construct were not a statistically significant predictor of therapeutic change within this sample of adolescents.

Basic Framework for Reporting Single-Group Design Findings

**Step 1: Characterize the general impact of your findings**

The findings from our evaluation indicated MINIMAL/MODERATE/MIXED/STRONG support of changes in OUTCOME VARIABLE over time for participants who completed the INTERVENTION/PROGRAM NAME delivered in SETTING NAME.

**Step 2: Report the findings of your statistical significance test and practical significance estimates**

Findings from a paired samples t-test revealed that participants REPORTED/DID NOT REPORT statistically significant INCREASE/DECREASE in OUTCOME VARIABLE at END POINT when compared to BEGINNING POINT, *t*(df) = *t*-VALUE, *p* = *p*-VALUE .01, *d* = .dVALUE indicative of a SMALL/MEDIUM/LARGE effect size.

**Step 3: Interpret the meaning of your effect size**

These findings illustrate an improvement over time of about d VALUE CONVERTED TO PERCENTAGE standard deviation units among participants completing the INTERVENTION.

**Step 4: Compare your findings to previous studies**

This outcome WAS/WAS NOT consistent with previous studies of INTERVENTION that detected effect sizes ranging within the SMALL/MEDIUM/LARGE range.

**Step 5: Situate your findings into clinical/educational context**

The difference in mean scores from admission to termination of VALUE INDICATES/DOES NOT INDICATE a clinically significant degree of improvement among the severity or frequency of the symptoms representing OUTCOME VARIABLE.

**Step 6: Develop a summative statement about your findings**

Constructively integrate all of this information through your uniquely informed lens to make a conservative, even-handed summative statement about the usefulness of your intervention or program for participants.

A basic pretest-posttest single-group design can be enhanced through the use of other data to describe program effectiveness alongside participant and study characteristics.

**Purposes of Evaluation**

 Measuring meaningful improvement.

 Relating improvement to participant and intervention or program characteristics.

**Related Questions Guiding the Evaluation**

 Do participants report *statistically significant change* in scores on the HAM-A following a ten-session MBSR intervention delivered in a primary care setting during the community rebuilding phase following a major hurricane event?

 Do participants report *clinically significant change* in scores on the HAM-A following a ten-session MBSR intervention delivered in a primary care setting during the community rebuilding phase following a major hurricane event?

 To what degree do participant age and number of sessions attended *predict changes* in HAM-A scores for participants receiving a ten-session MBSR intervention in a primary care setting during the community rebuilding phase following a major hurricane event?

**Selected Single-Group Design**

 Pretest-post design with a quantitative multimethod component.

**Putting Findings Into Context (Results)**

The findings from our evaluation indicated strong support for changes in anxiety over time for participants who completed the ten-week MBSR program delivered in primary care. Findings from a *t*-test revealed that participants reported significantly fewer anxiety symptoms at program termination when compared to admission, *t*(47) = 4.25, *p* < .01, *d* = .57, indicative of a medium effect size. These findings illustrate an improvement over time of about 57% of a standard deviation unit among participants completing the ten-week MBSR program. This outcome was consistent with previous analyses by Khoury et al. (2015) of MBSR that detected effect sizes falling within the medium range (*d* = .55) at posttest. The difference in mean scores from admission (*M* = 35.8, severe range) to termination (*M* = 23.1, moderate range) indicates a clinically significant degree of improvement among the severity or frequency of the symptoms associated with anxiety. Additional analyses suggested that age and number of sessions attended may influence the degree of improvement reported by participants. Statistically significant negative correlations were detected for age (*r* = −.83, *p* < .01) and number of sessions attended (*r* = −.57, *p* < .01), suggestive of large effect sizes. These findings indicate that older participants tended to report greater improvements in anxiety symptoms. Likewise, participants who attended a greater number of sessions tended to report larger decreases in anxiety symptoms. These findings suggest that after ten weeks of MBSR programming, participants reported statistically significant decreases in anxiety symptoms that were consistent with findings from previous researchers and are within the limits of clinically relevant improvements in anxiety management. Additionally, the largest improvements tended to be experienced by older participants who attended the majority of sessions. Taken together, these findings provide some preliminary support for mitigating the deleterious experiences of individuals coping with life following a natural disaster.

Reference

Minton, C. A. B., & Lenz, A. S. (2019). Practical approaches to applied research and program evaluation for helping professionals (1st ed.). Routledge/Taylor & Francis Group. [https://doi.org/10.4324/9781315108933](https://psycnet.apa.org/doi/10.4324/9781315108933)