

Resilient Leadership Training Evaluation

Final Report – March 2019

Section 1. Overview of the Resilient Leadership Training Evaluation

The purpose of the Resilient Leadership Training Evaluation is to evaluate the usefulness and impact of the Devereux Resilient Leadership Training model. This training model provides a framework for leaders/supervisors in early childhood programs to reflect upon and implement strategies designed to promote resilient leadership. Resilient leadership, defined as leadership behaviors that help others withstand crisis and adapt to or rebound from adversity (Everly, 2012), is a growing area of interest for the Devereux Center for Resilient Children (DCRC). In our work with early childhood programs, schools, and child welfare agencies, we continually see a ripple effect of resilience (or lack thereof) that ultimately impacts children. Resilient leaders in the education and helping professions are in a position to create workplaces that foster the resilience of the teachers and staff who work directly with children. DCRC believes that a resilient workplace can lead to more resilient staff and in turn, more resilient staff can support the growing resilience of children.

DCRC has developed the Devereux Resilient Leadership Training in response to this need. The training model includes two core components. First, leaders are asked to reflect on 1) their own personal resilience by completing the Devereux Adult Resilience Survey (DARS), and 2) their behaviors for supporting the resilience of their staff by completing the Devereux Resilient Leadership Survey (DERLS). Both the DARS and the DERLS ask raters to self-report on behaviors related to four key adult resilience competencies: Relationships, Internal Beliefs, Initiative, and Self-Control. Second, leaders are introduced to a reflective process that encourages participants to build upon existing strengths, identify areas of concern (goals), and then plan specific strategies to address their goals, based on the results of the DARS and DERLS surveys. Participants are facilitated through this process during six live training sessions as well as brief assignments to practice and apply the skills learned between sessions. To date, the training and reflective planning process has not been systematically evaluated, providing an opportunity for DCRC to examine the effectiveness of the training model and make revisions as needed.

To explore the effectiveness of the Resilient Leadership Training, the Devereux Center for Resilient Children has partnered with Bright Horizons, a national provider of early care and education programs in the United States. All participating center directors completed Bright Horizons' leadership orientation within two years of the evaluation start date. The leadership orientation program is a 12- to 18-month program required of all new directors, including those internally promoted to a director role and external hires with director-level experience at another program. Directors who met these criteria were invited to participate in the evaluation.

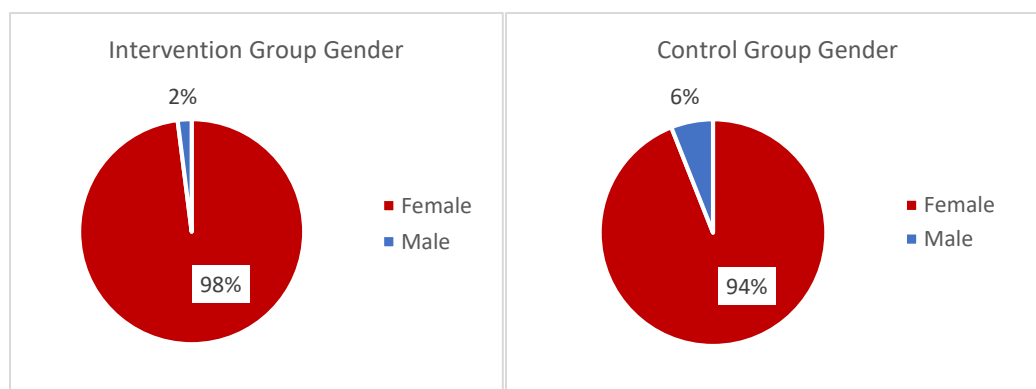
This Resilient Leadership Training evaluation is a randomized control trial with a between-subjects design. Participating directors were randomly assigned to two equally-sized groups, the Intervention Group (n=51) and the wait-list Control Group (n=50). The Intervention Group received the six-session Resilient Leadership Training series from March 2018 through July 2018. The wait-list Control Group will receive the Resilient Leadership Training in early 2019.

The following report details findings from the Resilient Leadership Training evaluation, from the intervention period through a follow-up period of six months post-training.

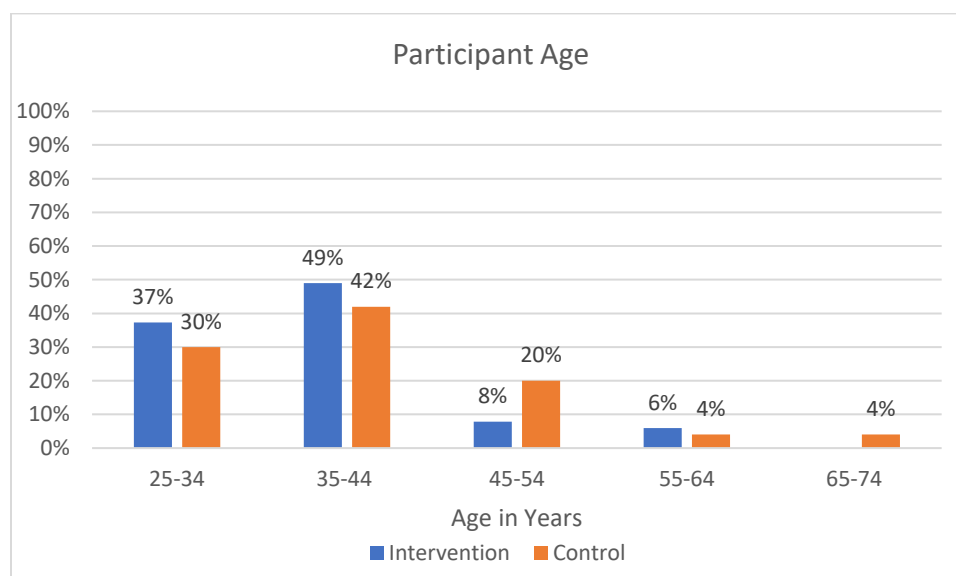
Section 2. Participant Demographics

Bright Horizons directors from around the United States were invited to take part in the Resilient Leadership Training evaluation. A total of 101 directors expressed interest in the evaluation and consented to participate in the study. Fifty-one of the participating directors were randomly assigned to the Intervention Group and received the Resilient Leadership Training over the period from March 29, 2018 through July 19, 2018. The remaining 50 directors were assigned to the wait-list Control Group, which would act as a comparison group for this evaluation and then receive the Resilient Leadership Training series beginning in Spring 2019. All participants completed a demographic survey prior to the start of the training series.

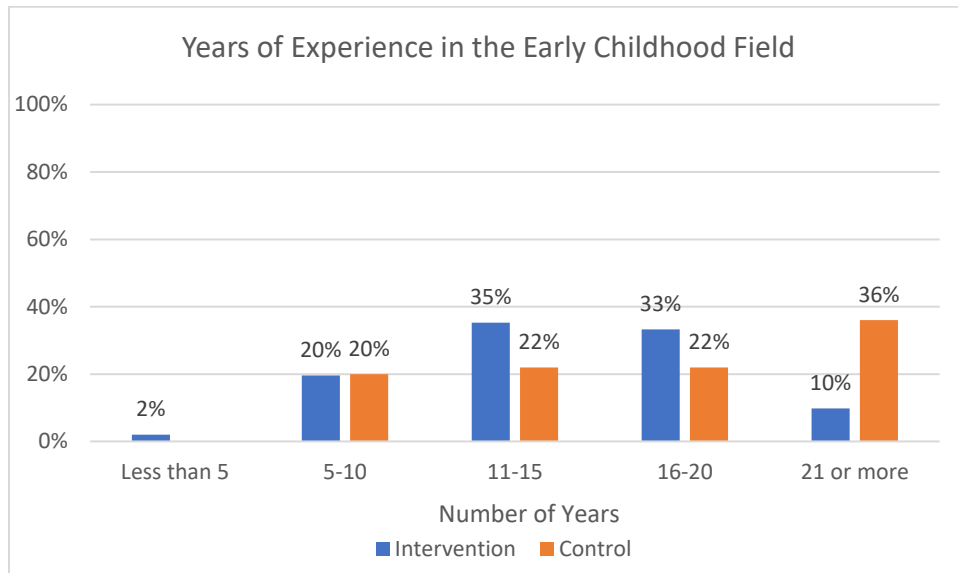
The gender breakdown was similar between groups, with 98% of Intervention Group participants and 94% of Control Group participants identifying as female.



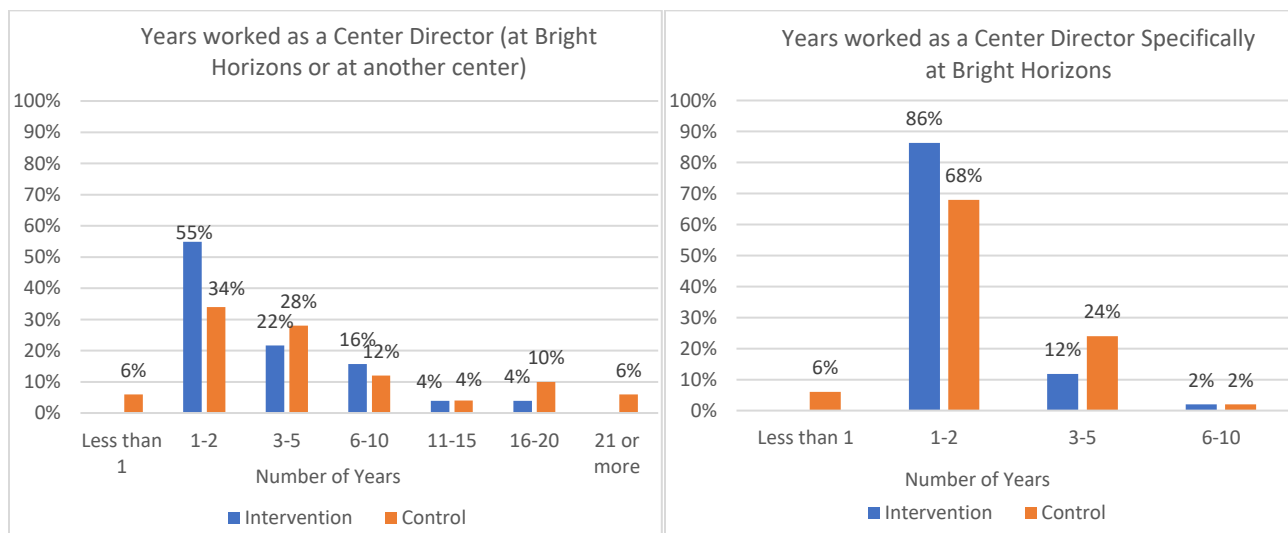
Similarly, the age breakdown between the Intervention Group and the Control Group was similar, with the majority of participants in each group falling between the ages of 25 and 44.



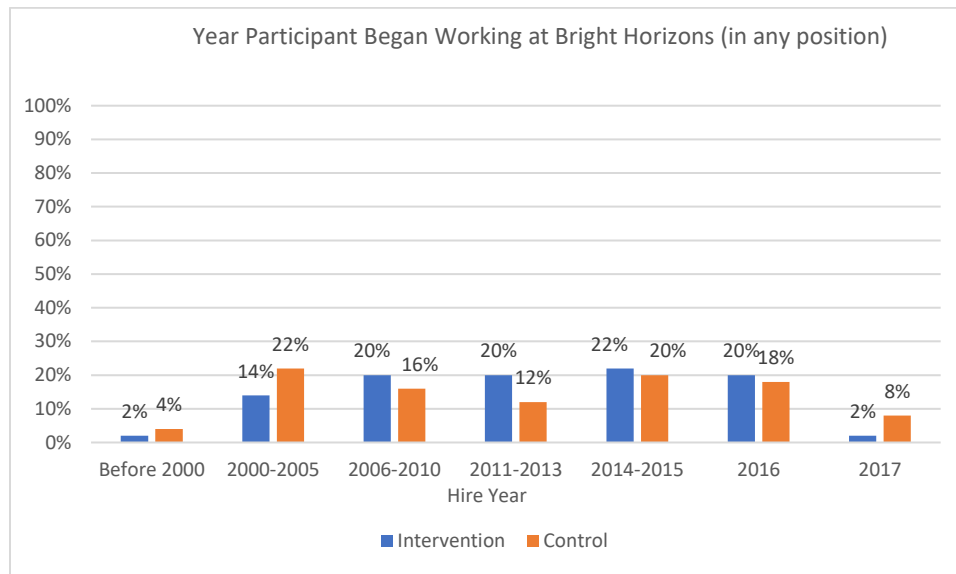
Both the Intervention and Control Group included participants with varied levels of experience in the early childhood field, though the Control Group had a higher proportion of very experienced early childhood professionals (i.e., 21 or more years in the early childhood field).



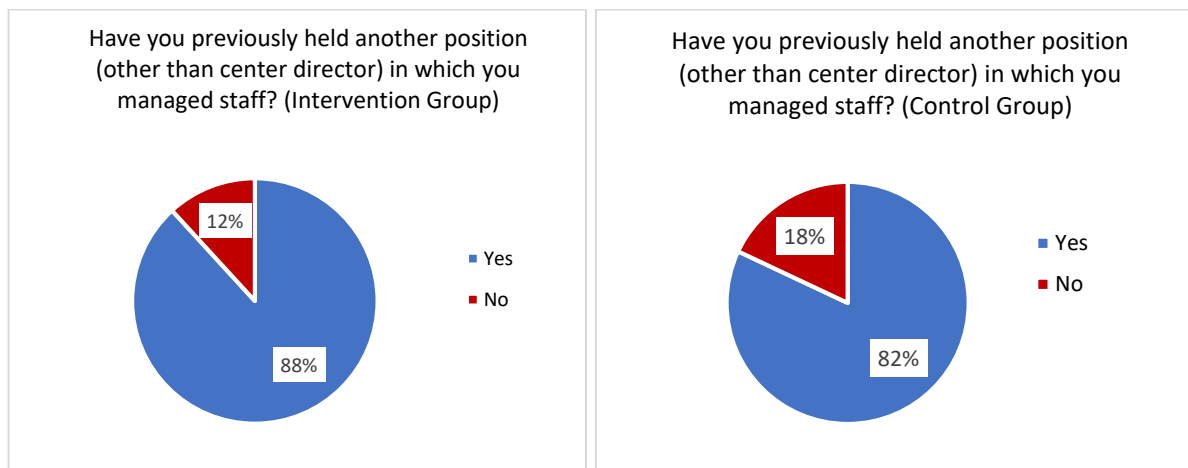
At the start of the training series, the majority of participants in both groups were fairly new to the role of Center Director. The Intervention Group included a slightly higher proportion of participants who had been in this role (at Bright Horizons or elsewhere) for two or fewer years. The majority of participants in both groups had been in the role of Center Director specifically at Bright Horizons for two or fewer years.



Both the Intervention Group and the Control Group included participants beginning employment with Bright Horizons (in any position) across the period of before 2000 through 2017. The distribution across years was similar for the two groups.



The majority of participants in each group had prior management experience in addition to their experience in the role of Center director. The most frequent prior positions were Assistant Director (22 Intervention Group participants; 26 Control Group participants), Educational Coordinator (12 Intervention Group participants; 11 Control Group participants), and Lead Teacher (9 Intervention Group participants; 6 Control Group participants).



Section 3: Pretest Outcome Measures

To evaluate the impact of the Resilient Leadership Training Series, all participants (Intervention and Control) were asked to complete a battery of measures at pretest (before the first session) at posttest (after the conclusion of the last session), and six months after the conclusion of the last session. Three measures were included within this battery of outcome measures: 1) The Devereux Adult Resilience Survey (DARS), 2) The Devereux Resilient Leadership Survey, and 3) The Maslach Burnout Inventory - General Survey. The following describes these measures and details their results at pretest among the Intervention and Control groups.

DARS

The DARS is a 23-item self-reflective checklist measuring four important competencies related to adult resilience: Relationships, Internal Beliefs, Initiative, and Self-Control. Participants responded to each item on a 5-point Likert scale with 1 indicating “Not yet true of me” and 5 indicating “Always true of me”. All DARS items reflect positive behaviors; therefore, higher scores are desirable.

The DARS was completed by 51 Intervention participants and 50 Control participants at pretest. An examination of pretest data indicated no statistically significant differences between Intervention and Control participants mean raw scores on the four DARS scales or the total score. This indicates that participants in both groups reported very similar levels of these competencies related to adult resilience. This is illustrated in the bar chart below. Furthermore, results indicate that all participants reported fairly high levels of these protective factor competencies across the scales and total score. It should be noted that these high pretest scores may contribute to difficulty in detecting improvement in Intervention participants’ resilience following participation in training, a phenomenon known as a “ceiling effect”. Pretest DARS scores for Intervention and Control participants are provided in Table 3.1 below.

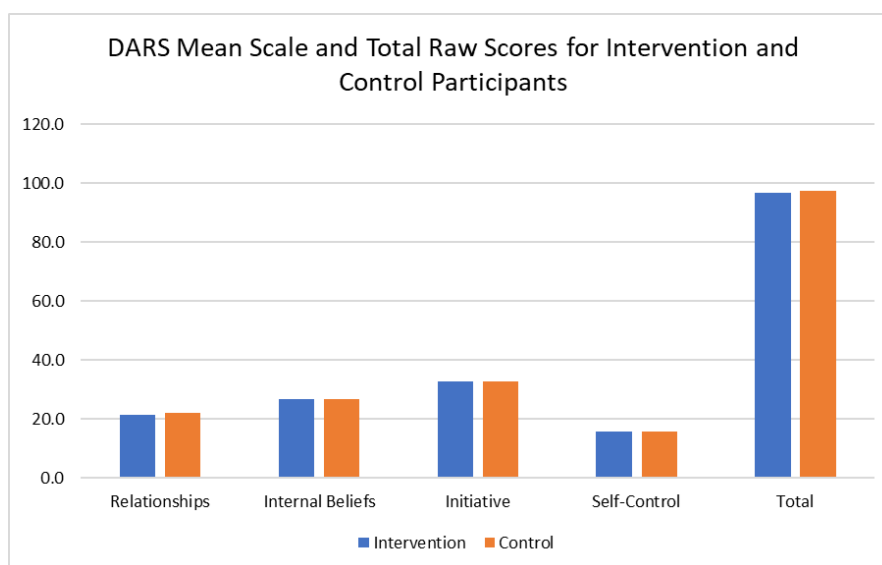


Table 3.1. Pretest DARS Scores for Intervention and Control Participants

DARS Scale	Intervention (n = 51)		Control (n = 50)		Raw Score Range Possible
	Mean	SD	Mean	SD	
Relationships	21.5	2.4	22.1	1.88	0-25
Internal Beliefs	26.7	2.4	26.7	2.7	0-30
Initiative	32.8	3.8	32.8	4.3	0-40
Self-Control	15.8	2.2	15.8	2.1	0-20
Total	96.8	8.9	97.4	8.7	0-115

DERLS

The DERLS is a 23-item self-reflective checklist measuring four important competencies related to resilient leadership: Relationships, Internal Beliefs, Initiative, and Self-Control. Participants responded to each item on a 5-point Likert scale with 1 indicating “Not yet true of me” and 5 indicating “Always true of me”. All DERLS items reflect positive behaviors; therefore, higher scores are desirable.

The DERLS was completed by 50 Intervention participants and 50 Control participants at pretest. An examination of pretest data indicated no statistically significant differences between Intervention and Control participants mean raw scores on the four DERLS scales or the total score. This indicates that participants in both groups reported very similar levels of these competencies related to resilient leadership behaviors. This is illustrated in the bar chart below. Furthermore, results indicate that all participants reported fairly high levels of these behaviors across the scales and total score. It should be noted that these high pretest scores may contribute to difficulty in detecting improvement in Intervention participants’ resilient leadership following participation in training, a phenomenon known as a “ceiling effect”. Pretest DERLS scores for Intervention and Control participants are provided in Table 3.2 below.

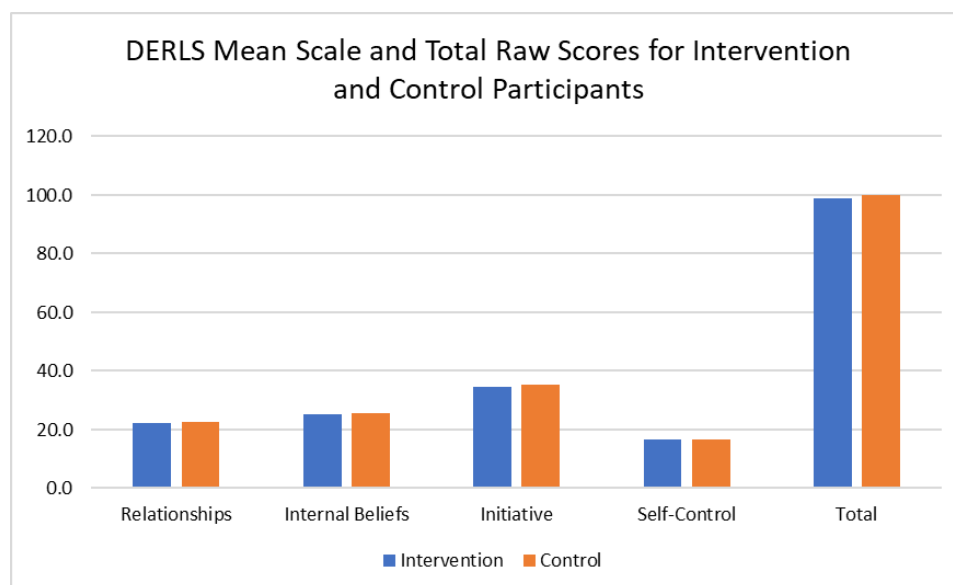


Table 3.2. Pretest DERLS Scores for Intervention and Control Participants

DERLS Scale	Intervention (n = 50)		Control (n = 50)		Raw Score Range Possible
	Mean	SD	Mean	SD	
Relationships	22.1	2.1	22.6	2.4	0-25
Internal Beliefs	25.2	3.0	25.6	3.0	0-30
Initiative	34.7	3.5	35.2	3.5	0-40
Self-Control	16.8	2.0	16.7	1.9	0-20
Total	98.8	9.3	100.1	9.3	0-115

Maslach Burnout Inventory - General Survey

The Maslach Burnout Inventory - General Survey (MBI-GS) is a 16-item survey measuring self-reported workplace stress and burnout. It assesses three aspects of burnout: 1) Exhaustion (feelings of being overextended and exhausted by one's work), 2) Cynicism (an indifference or a distant attitude towards your work), and 3) Professional Efficacy (satisfaction with past and present accomplishments and an individual's expectations of continued effectiveness at work). Participants responded how often they experienced each item on a 7-point Likert scale with 0 indicating "Never" and 7 indicating "Every day". Items on the Exhaustion and Cynicism scales reflect negative experiences (e.g., "I feel emotionally drained by my work"; "I have become less enthusiastic about my work"). High scores on these scales would indicate higher levels of exhaustion and cynicism about one's work. Items on the Professional Efficacy scale reflect positive beliefs and experiences (e.g., "I have accomplished many worthwhile things in this job"). High scores on this scale indicate higher levels of perceived professional efficacy at work. The experience of burnout would be characterized by high levels of exhaustion and cynicism and low levels of professional efficacy. Scores for each scale are reported as both scale raw scores and average scores.

The MBI-GS was completed by 50 Intervention participants and 50 Control participants at pretest. An examination of pretest data indicated no statistically significant differences between Intervention and Control participants mean raw scores on the three burnout domains. This indicates that participants in both groups reported very similar levels of exhaustion, cynicism, and professional efficacy. This is illustrated in the bar chart below. Furthermore, results indicate that all participants reported moderate levels of exhaustion from their work (mean item rating score was 2.8 and 2.5 for Intervention and Control participants, respectively), indicating participants reported experiencing aspects of exhaustion between once a month and a few times of month, on average. Participants' reports of cynicism with their work were low, with average item ratings of 0.9 for both groups, indicating ratings of never or a few times a year for these items, on average. Lastly, participants reported high levels of professional efficacy for their work, with average item ratings of 5.1 and 4.9 for Intervention and Control participants, respectively. This indicates participants experienced these positive beliefs once a week to a few times a week, on average. Taken together, these findings suggest that participants in this study as a whole were not experiencing aspects of burnout at the start of the study. Table 3.3 below provides the mean raw scores, standard deviations, and average item scores for Intervention and Control group participants.

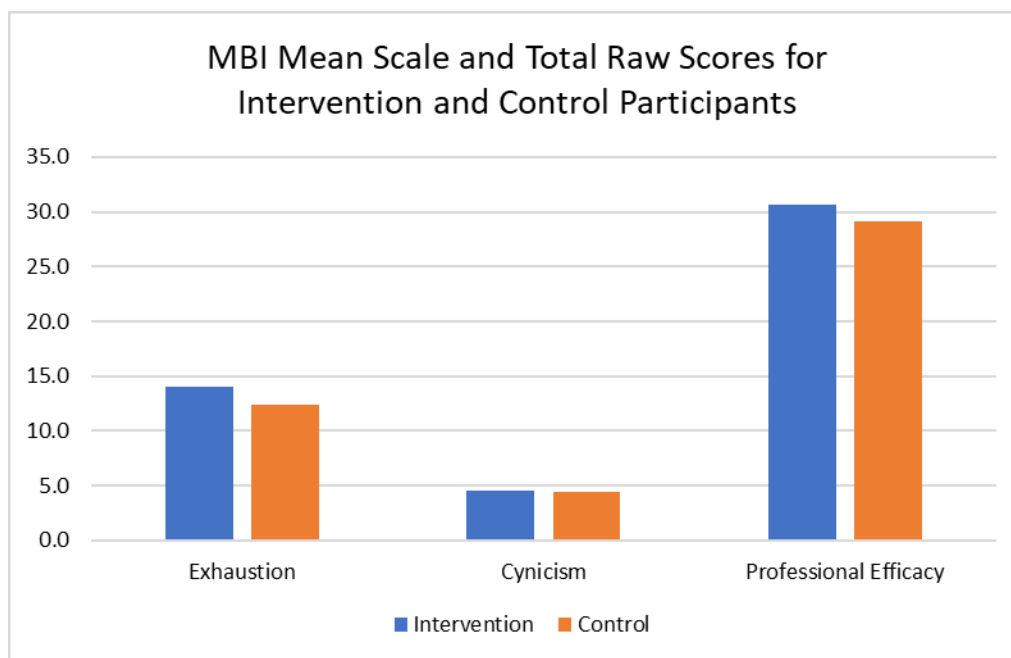


Table 3.3. Pretest MBI-GS Scores for Intervention and Control Participants

MBI-GS Scale	Intervention (n = 50)			Control (n = 50)			Raw Score Range Possible
	Mean Raw Score	Mean Raw Score SD	Mean Average Score	Mean Raw Score	Mean Raw Score SD	Mean Average Score	
Exhaustion	14.0	7.3	2.8	12.4	6.8	2.5	0-30
Cynicism	4.5	5.2	0.9	4.5	5.5	0.9	0-30
Professional Efficacy	30.7	4.2	5.1	29.2	5.4	4.9	0-36

Section 4. Intervention Group Training Attendance and Training Satisfaction

Training Attendance

The Resilient Leadership Training Series included a total of six live training sessions. These sessions were held roughly once per month and were 1.5 hours in length, with the exception of the introductory session, which was 2 hours in length. Intervention Group participants attended training sessions virtually, via Adobe Connect.

Participants had the option of watching recordings of training sessions if they were not able to attend live. Dates of the six training sessions and session attendance are reported in Table 4.1. Attendance was highest for the first training series, with 43 Intervention Group participants attending. Attendance to each training session decreased steadily over the training period, with only 17 Intervention Group participants attending the sixth and final training session.

Table 4.1. Training Session Dates and Attendance

Training Session Number and Title	Date	Number of Attendees (Live + Recorded)
Session 1: Introduction to Resilient Leadership	March 29, 2018	43
Session 2: Focus on Relationships	April 18, 2018	42
Session 3: Focus on Internal Beliefs	May 16, 2018	34
Session 4: Focus on Initiative	June 6, 2018	28
Session 5: Focus on Self-Control	June 27, 2018	22
Session 6: Conclusions – Reflections on Resilient Leadership	July 19, 2018	17

The majority of those who attended each webinar attended live. Participants also had the option of watching recordings of training sessions if they were not able to attend live. Participants were counted as attending a training via recording if they viewed the recording prior to the following training session in the series. The breakdown of each webinar's attendance by attendance type (live vs. recording) is reported in Table 4.2.

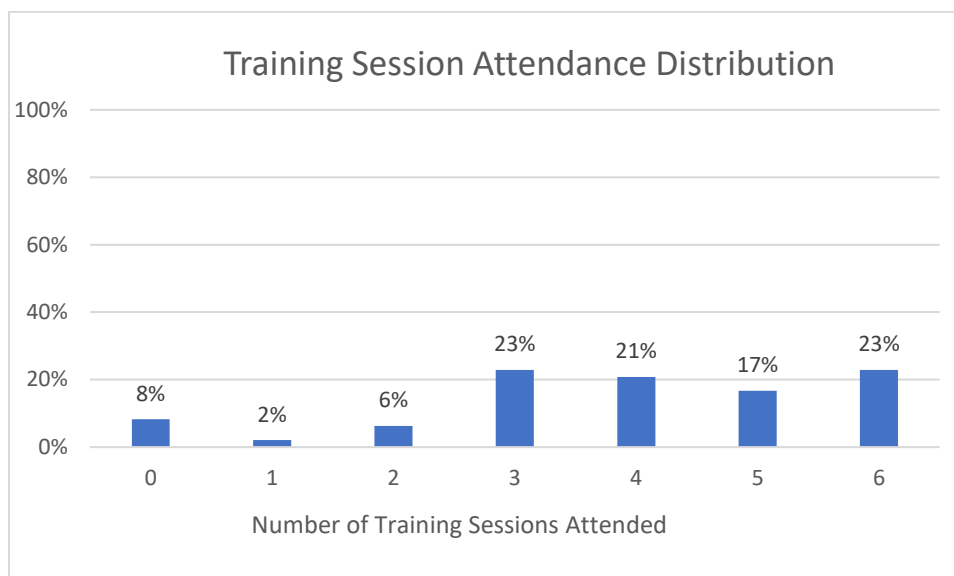
Table 4.2 Training Session Attendance by Attendance Type

Training Session Number and Title	Number of Live Attendees	Number of Attendees who Viewed Recording	Total Number of Attendees
Session 1: Introduction to Resilient Leadership	43	0	43
Session 2: Focus on Relationships	41	1	42
Session 3: Focus on Internal Beliefs	33	1	34
Session 4: Focus on Initiative	25	3	28
Session 5: Focus on Self-Control	21	1	22
Session 6: Conclusions – Reflections on Resilient Leadership	17	0	17

Three intervention group participants left the organization or actively dropped out of the study early in the training series. These three participants attended no training sessions. The mean number of training sessions attended by the 48 intervention group participants who remained in the study was 3.9 (standard deviation = 1.77). Four participants (8.3%) attended zero training sessions, and 11 participants (22.9%) attended all six training sessions. The full distribution of number of sessions attended is reported in Table 4.3.

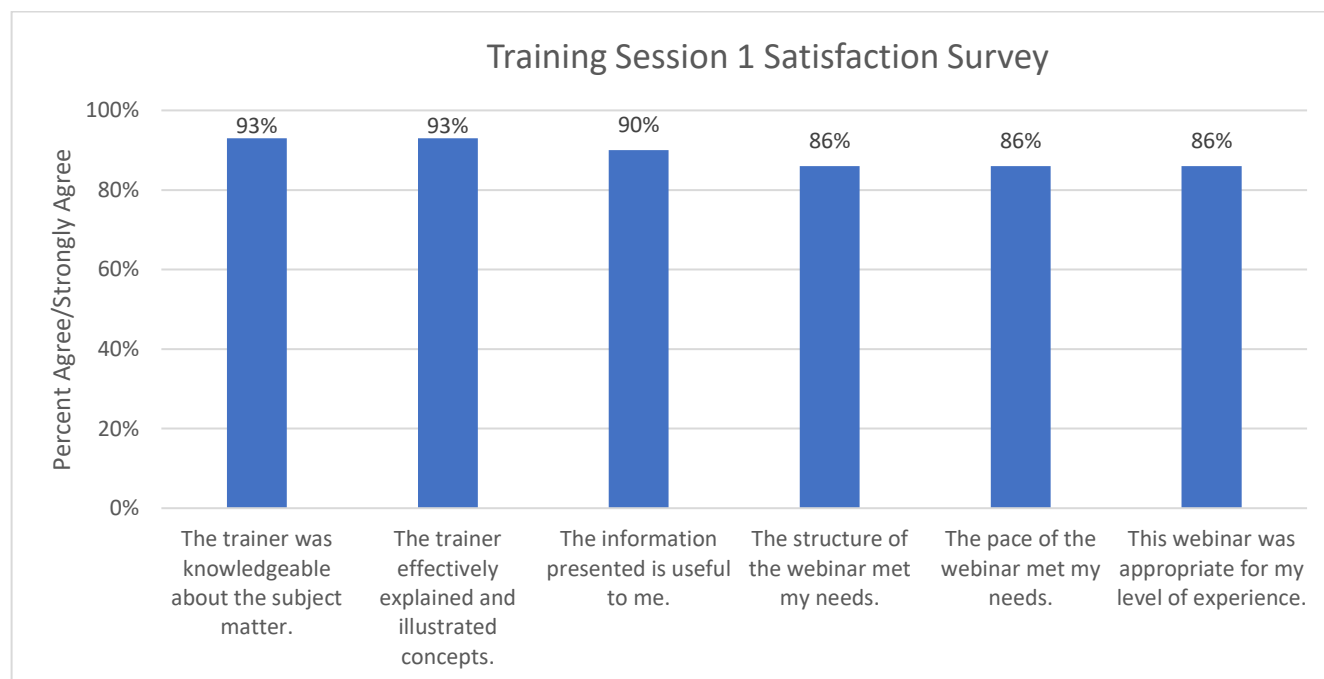
Table 4.3. Training Session Attendance Distribution

Number of Sessions Attended	Number of Participants	Percent of Participants
0	4	8.3%
1	1	2.1%
2	3	6.3%
3	11	22.9%
4	10	20.8%
5	8	16.7%
6	11	22.9%
Total	48	100%



Training Satisfaction

Intervention Group participants were asked to complete a training satisfaction survey shortly after attending the first Resilient Leadership Training session. Twenty-nine Intervention Group participants (60.4%) submitted training satisfaction surveys. Responses to the survey items were positive, with 86% to 93% of participants responding favorably to each item. This suggests that Intervention Group participants were satisfied with the structure, content, and delivery of Training Session 1. Given the positive response to Training Session 1, Training Session 1's pace and structure was maintained throughout the training series.



Section 5: Implementation Surveys

An implementation survey was distributed to all Resilient Leadership Training Intervention Group participants approximately two weeks after each training session. These implementation surveys asked participants to report what DARS or DERLS item they had chosen to work on after attending the most recent training session. Each survey then asked participants to describe the strategy they selected in order to work on their selected item, to describe how often they have implemented the strategy, to answer some questions about their experience implementing the strategy, and to describe how the training session impacted their thoughts and actions regarding the session's focus area.

Implementation Survey Completion

Implementation surveys were distributed after the first five training sessions. Response rates to each survey are reported in Table 5.1. In a similar pattern to that observed in training session attendance, survey completion was highest for the first implementation survey, with 33 Intervention Group participants completing the survey. Completion rates decreased steadily over the training period, with only 4 Intervention Group participants completing the fifth and final implementation survey.

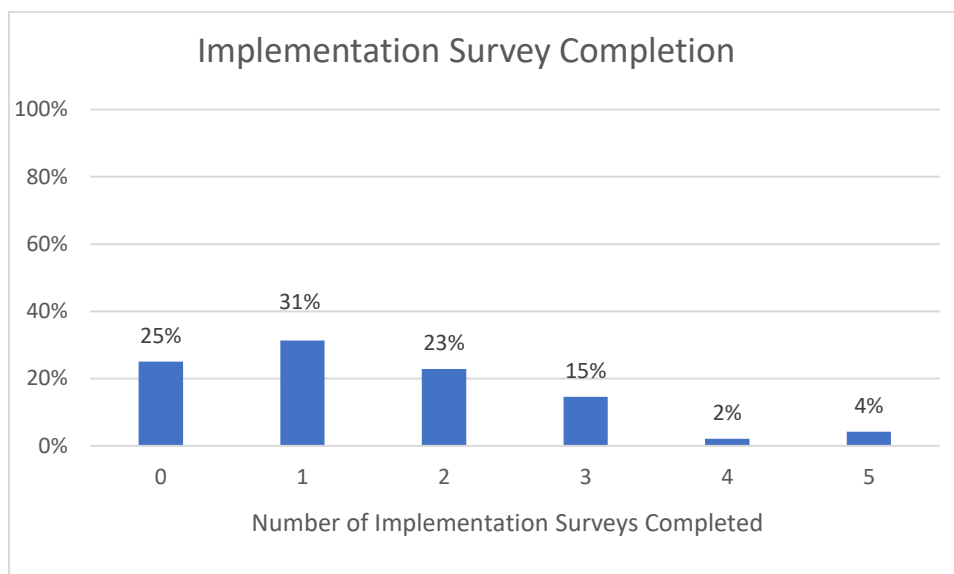
Table 5.1: Implementation Survey Completion

Implementation Survey Number and Focus Area	Number of Participants who Completed Survey	Percent of Intervention Group who Completed Survey
Survey 1: Introduction and Personal Resilience	33	68.8%
Survey 2: Relationships	17	35.4%
Survey 3: Internal Beliefs	10	20.8%
Survey 4: Initiative	8	16.7%
Survey 5: Self-Control	4	8.3%

The mean number of implementation surveys completed by intervention group participants was 1.41 (standard deviation = 1.31). Fifteen participants (29.4%) completed zero implementation surveys, and 2 participants (3.9%) completed all five implementation surveys. The full distribution of number of implementation surveys completed is included in Table 5.2.

Table 5.2: Implementation Survey Completion Distribution

Number of Implementation Surveys Completed	Number of Participants	Percent of Participants
0	12	25.0%
1	15	31.3%
2	11	22.9%
3	7	14.6%
4	1	2.1%
5	2	4.2%
Total	48	100%



Implementation Survey Analysis

Each implementation survey asked participants to describe which item they had selected to work on from the DARS or DERLS and to describe the strategy they had chosen to implement related to this item. After asking participants to describe their chosen strategy, each survey asked participants to describe their use of the strategy and the training session's impact on their practice as a Center Director. Responses to each survey question across the five implementation surveys are displayed in this section. Please note that the sample size for each survey varies, as per the survey completion rates described in Table 5.1.

How often have you used the selected strategy?

Each implementation survey asked participants to report how often they have used their selected strategy over the past two weeks in their efforts to develop their personal resilience (survey 1) or the resilience of their staff (surveys 2 through 5). Across all focus areas, 40% or more of the survey respondents reported using their selected strategy more than once. Across all focus areas except Internal Beliefs, 50% or more of the respondents reported using their selected strategy more than once.

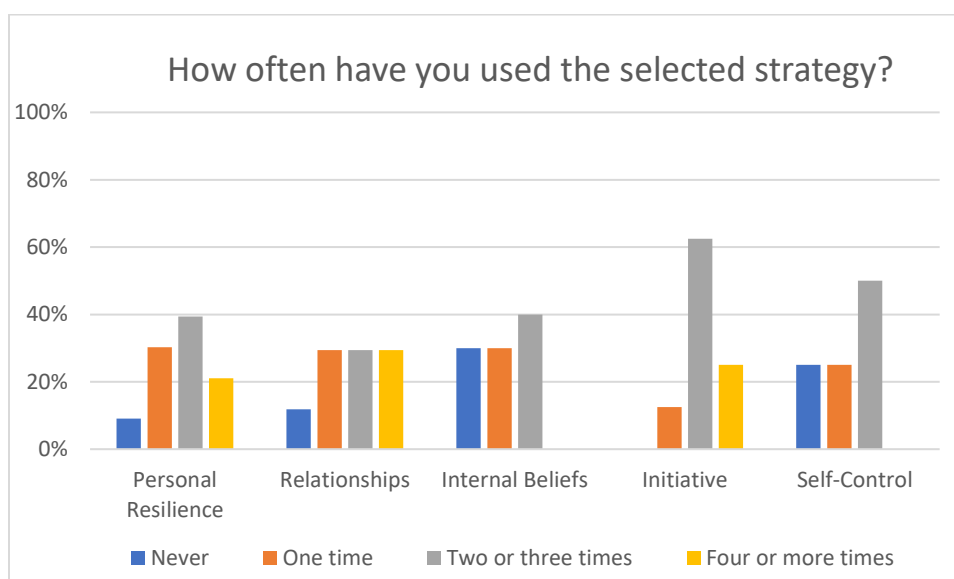


Table 5.3: How often have you used the selected strategy?

Focus Area	Never Used Strategy	Used Strategy Once	Used Strategy Two or Three Times	Used Strategy Four or More Times
Personal Resilience (n=33)	9.1%	30.3%	39.4%	21.1%
Relationships (n=17)	11.8%	29.4%	29.4%	29.4%
Internal Beliefs (n=10)	30.0%	30.0%	40.0%	0.0%
Initiative (n=8)	0.0%	12.5%	62.5%	25.0%
Self-Control (n=4)	25.0%	25.0%	50.0%	0.0%

The use of the selected strategy has been beneficial in helping me to work on the DARS/DERLS item I selected.

Each implementation survey asked participants to report how beneficial they have found their selected strategy to be in helping them work on the DARS/DERLS item they selected. Across all focus areas, the majority of survey respondents agreed or strongly agreed that use of their selected strategy was beneficial as they worked to develop their personal resilience or the resilience of their staff.

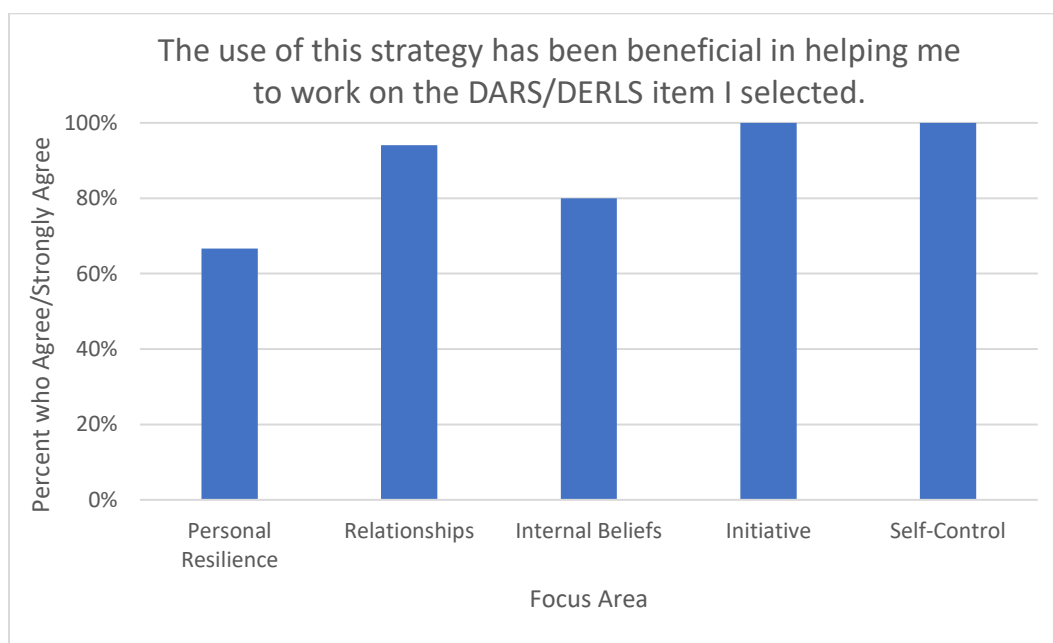


Table 5.4: The use of this strategy has been beneficial in helping me to work on the DARS/DERLS item I selected.

Focus Area	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Personal Resilience (n=33)	3.0%	0.0%	30.3%	57.6%	9.1%
Relationships (n=17)	0.0%	0.0%	5.9%	88.2%	5.9%
Internal Beliefs (n=10)	0.0%	0.0%	20.0%	60.0%	20.0%
Initiative (n=8)	0.0%	0.0%	0.0%	75.0%	25.0%
Self-Control (n=4)	0.0%	0.0%	0.0%	75.0%	25.0%

I will continue to use the selected strategy in the future.

Each implementation survey asked participants to report whether they would continue to use their selected strategy in the future as they working to develop their personal resilience or the resilience of their staff. Across all focus areas, over 90% of survey respondents agreed or strongly agreed that they would continue to use their selected strategy in the future.

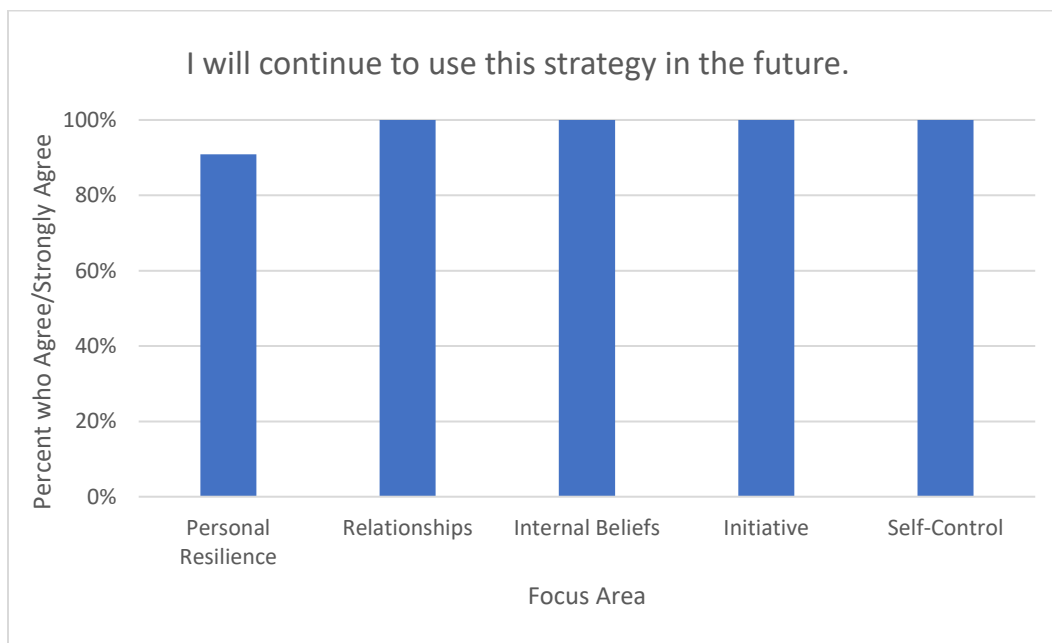


Table 5.5: I will continue to use this strategy in the future.

Focus Area	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Personal Resilience (n=33)	0.0%	0.0%	9.1%	60.6%	30.3%
Relationships (n=17)	0.0%	0.0%	0.0%	88.2%	11.8%
Internal Beliefs (n=10)	0.0%	0.0%	0.0%	60.0%	40.0%
Initiative (n=8)	0.0%	0.0%	0.0%	50.0%	50.0%
Self-Control (n=4)	0.0%	0.0%	0.0%	25.0%	75.0%

This training session helped me understand the importance of cultivating my personal resilience/the resilience of my staff within this session's focus area.

Implementation survey 1 asked participants to report whether the training session helped them understand the importance of cultivating their personal resilience. Implementation surveys two through five asked participants to report whether the training session helped them understand the importance of cultivating their staff's resilience within the session's focus area (Relationships, Internal Beliefs, Initiative, or Self-Control). Across all focus areas, over 90% of survey respondents agreed or strongly agreed that the training session helped them understand the importance of cultivating their personal resilience or the resilience of their staff within the session's focus area.



Table 5.6: This training session helped me understand the importance of cultivating my personal resilience/the resilience of my staff within this session's focus area.

Focus Area	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Personal Resilience (n=33)	0.0%	0.0%	6.1%	63.6%	30.3%
Relationships (n=17)	0.0%	0.0%	5.9%	76.5%	17.6%
Internal Beliefs (n=10)	0.0%	0.0%	0.0%	50.0%	50.0%
Initiative (n=8)	0.0%	0.0%	0.0%	75.0%	25.0%
Self-Control (n=4)	0.0%	0.0%	0.0%	50.0%	50.0%

This training session and the reflective DERLS process has helped me to promote resilience amongst my staff within the session's focus area.

Implementation surveys two through five asked participants to report whether the training session and the reflective DERLS process helped them to promote their staffs' resilience within the session's focus area (Relationships, Internal Beliefs, Initiative, or Self-Control). Across these focus areas, 50% or more of survey respondents agreed or strongly agreed that the training session and reflective DERLS process helped them to promote resilience amongst their staff within the session's focus area. Although over half of respondents agreed with this statement, it should be noted that this was somewhat lower than the proportion who agreed that the training session helped them understand the importance of promoting resilience amongst their staff. In future follow-up surveys, it may be interesting to explore a potential time lag between center directors' internalizing the importance of promoting staff resilience and then implementing new resilience-promoting practices with their staff.

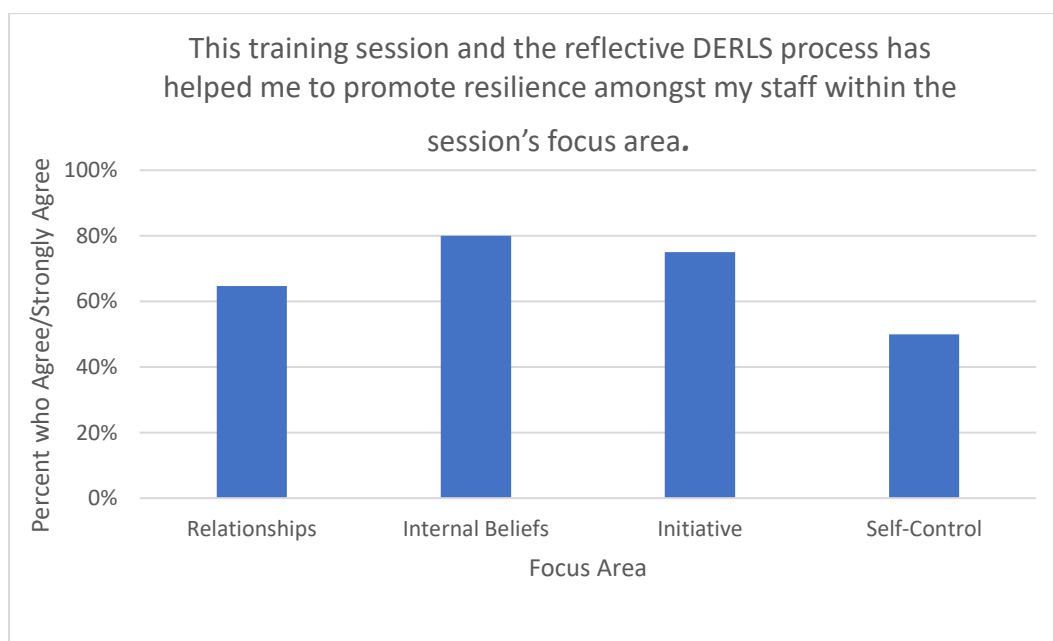


Table 5.7: This training session and the reflective DERLS process has helped me to promote resilience amongst my staff within the session's focus area.

Focus Area	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Relationships (n=17)	0.0%	0.0%	35.3%	64.7%	0.0%
Internal Beliefs (n=10)	0.0%	0.0%	20.0%	50.0%	30.0%
Initiative (n=8)	0.0%	0.0%	25.0%	62.5%	12.5%
Self-Control (n=4)	0.0%	0.0%	50.0%	25.0%	25.0%

The action packet has been a useful resource to me as I've reflected on my own resilience/my leadership in this session's focus area.

Implementation survey 1 asked participants to report whether the action packet has been a useful resource to them as they've reflected on their own resilience. Implementation surveys two through five asked participants to report whether the action packet has been a useful resource to them as they've reflected their leadership within the session's focus area (Relationships, Internal Beliefs, Initiative, or Self-Control). Across all focus areas, over 85% of survey respondents agreed or strongly agreed that the action packet has been a useful resource as they have reflected on their own resilience/their leadership in the session's focus area.

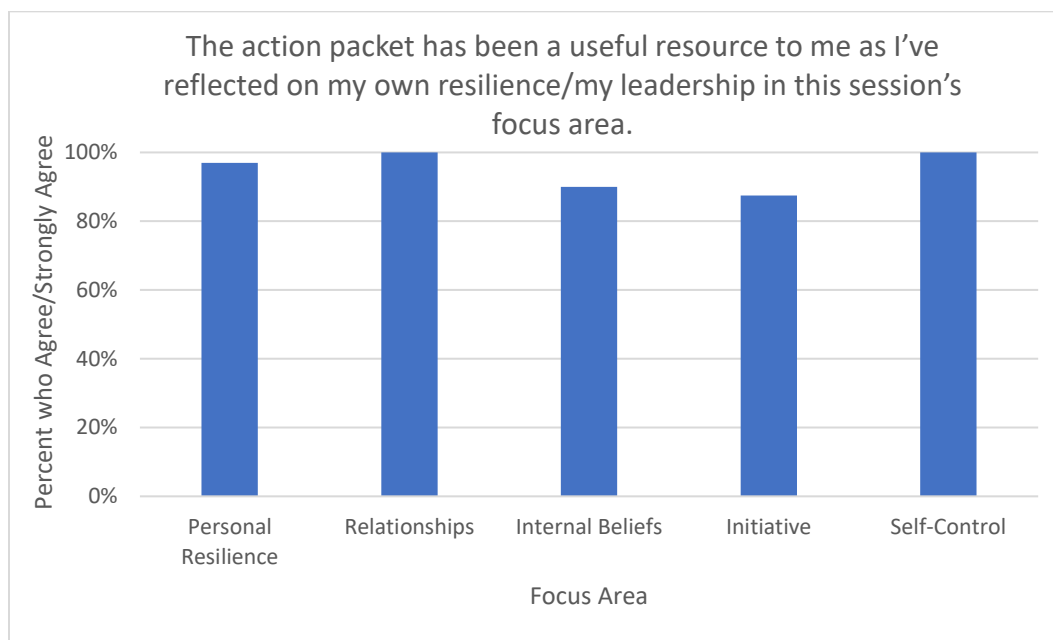


Table 5.8: The action packet has been a useful resource to me as I've reflected on my own resilience/my leadership in this session's focus area.

Focus Area	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Personal Resilience (n=33)	0.0%	0.0%	3.0%	51.5%	45.5%
Relationships (n=17)	0.0%	0.0%	0.0%	64.7%	35.3%
Internal Beliefs (n=10)	0.0%	0.0%	10.0%	50.0%	40.0%
Initiative (n=8)	0.0%	0.0%	12.5%	50.0%	37.5%
Self-Control (n=4)	0.0%	0.0%	0.0%	50.0%	50.0%

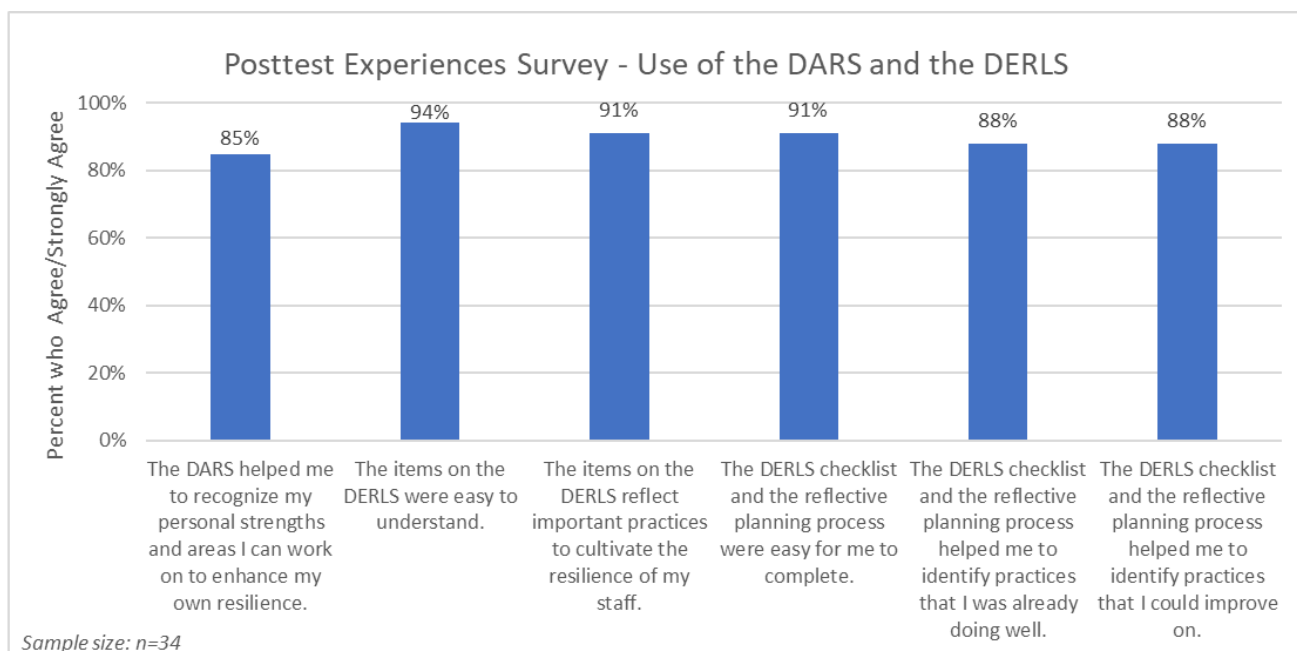
Section 6. Posttest Outcomes

Intervention Group Posttest Experiences

Upon the conclusion of the Resilient Leadership Training series, Intervention group participants were asked to complete a posttest experiences survey. This survey explored participants' experiences using the Devereux Adult Resilience Survey (DARS) and the Devereux Resilient Leadership Survey (DERLS) throughout the course of the training series, as well as their experiences participating in the training series and translating training topics to practice. Thirty-four Intervention group participants completed the posttest experiences survey. Their responses are summarized below. Responses from Intervention group participants who attended zero Resilient Leadership Training sessions (a total of two responses) were excluded from this summary.

Experiences using the DARS and the DERLS

The first section of the posttest experiences survey asked Intervention group participants about their experiences using the DARS and DERLS reflective tools throughout the intervention period. Responses to the survey items were positive, with 85% to 94% of participants responding favorably to each item. This suggests that Intervention group participants found both the DARS and the DERLS to be easy to understand, easy to use, and helpful in supporting their own resilience and the resilience of their staff.



Experiences with the Resilient Leadership Training Series

The second section of the posttest experiences survey asked Intervention group participants about their experiences participating in the Resilient Leadership Training series. Responses to the survey items were generally positive, with 61% to 94% of participants responding favorably to each item. This suggests that Intervention group participants found the Resilient Leadership Training helpful in promoting their own personal resilience and the resilience of their staff. Notably, the item with the fewest favorable responses was, "Participating in the Resilient Leadership Training series has improved relationships with my staff." Open-ended comments suggest that several of the neutral or unfavorable responses reflect leaders who already had positive relationships with staff prior to the Resilient Leadership Training; the training series helped them maintain these positive relationships. Overall, 94% of Intervention group participants responded that they would recommend the Resilient Leadership Training series to another early childhood leader.



Pretest-Posttest Outcomes

To evaluate the impact of the Resilient Leadership Training Series, all participants (Intervention and Control) were asked to complete the battery of outcome measures at posttest (after the conclusion of the final training session). Three measures were included within this battery of outcome measures: 1) The Devereux Adult Resilience Survey (DARS), 2) The Devereux Resilient Leadership Survey (DERLS), and 3) The Maslach Burnout Inventory - General Survey (MBI-GS). The following describes the pretest-posttest outcomes observed across the intervention period; analysis of long-term outcomes across the follow-up period are presented in the next section of this report. Intervention group participants who attended zero Resilient Leadership Training sessions ($n = 2$) were excluded from the following pretest-posttest analysis.

DARS

The DARS was completed by 33 Intervention group participants and 41 Control group participants at both pretest and posttest. An examination of pretest data indicated no statistically significant differences between Intervention and Control group participants mean raw scores on the four DARS scales or the total score. This indicates that participants in both groups reported very similar levels of these competencies related to adult resilience at pretest. Furthermore, results indicate that all participants reported fairly high levels of these protective factor competencies across the scales and total score at pretest.

To examine differences on the DARS total score and scale scores between Intervention group participants and Control group participants, a series of 2X2 factor ANOVAs examining the conditions of group (Intervention or Control) and Time (Pretest to Posttest) were conducted. These analyses showed a significant interaction effect on the DARS total score ($F(1, 72) = 4.80, p = .03$) and Initiative scale score ($F(1, 72) = 5.15, p = .03$). This means that the change in scores from pretest to posttest significantly differed between the two groups, on the DARS total score and the DARS Initiative scale.

To explore these interactions, paired-samples t -tests were conducted. These analyses indicated that, among Intervention group participants, the DARS mean total score and mean Initiative score did not significantly change from pretest to posttest. That is, Intervention group participants began the Resilient Leadership Training with high total scores and Initiative scores and maintained these high scores throughout the intervention period. Conversely, the paired samples analysis found that the DARS mean total score among the Control group significantly decreased over time ($t(40) = 2.58, p = 0.014, d = 0.32$), indicating a small but significant mean decrease in protective factors related

to personal resilience. A significant decrease was also observed in mean scores on the Initiative scale ($t(40)=2.80$, $p=0.008$, $d=0.34$). While no other DARS scales exhibited a significant interaction effect, mean scores among the Intervention group trended positively over time on all scales except the Relationships scale. In contrast, mean scores among the Control group trended negatively over time on all scales.

While this analysis does not provide evidence that the Resilient Leadership Training is related to significant increases in protective factors related to personal resilience, it does suggest that the Resilient Leadership Training may serve to help participants maintain high levels of protective factors and protect participants from protective factor decline that may have otherwise occurred.

Pretest and Posttest DARS scores for Intervention and Control group participants are provided in Table 6.1 below.

Table 6.1. Pretest and Posttest DARS Scores for Intervention and Control group Participants

DARS Scale	Intervention (n = 33)				Control (n = 41)				Raw Score Range Possible
	Pretest Mean	Pretest SD	Posttest Mean	Posttest SD	Pretest Mean	Pretest SD	Posttest Mean	Posttest SD	
Relationships	21.7	2.4	21.2	2.1	22.3	1.9	21.5	2.0	0-25
Internal Beliefs	27.0	2.1	27.6	2.2	26.7	2.7	26.4	3.0	0-30
Initiative	33.1	3.7	33.4	3.6	32.9	4.0	31.6	3.7	0-40
Self-Control	15.8	2.3	16.1	2.2	15.7	2.1	15.4	2.3	0-20
Total	97.6	8.3	98.2	7.7	97.7	8.7	94.9	8.7	0-115

DERLS

The DERLS was completed by 33 Intervention group participants and 40 Control group participants at pretest and posttest. An examination of pretest data indicated no statistically significant differences between Intervention and Control group participants mean raw scores on the four DERLS scales or the total score. This indicates that participants in both groups reported very similar levels of these competencies related to resilient leadership behaviors at pretest. Furthermore, results indicate that all participants reported fairly high levels of these behaviors across the scales and total score at pretest.

To examine differences on the DERLS total score and scale scores between Intervention group participants and Control group participants, a series of 2X2 factor ANOVAs examining the conditions of group (Intervention or Control) and Time (Pretest to Posttest) were conducted. These analyses showed no significant interaction effect on the DERLS total score or scale scores. This means that the change in scores from pretest to posttest did not significantly differ between the two groups, on the DERLS total score or on the DERLS scale scores. While no significant differences were observed, mean scores among the Intervention group trended positively over time on the DERLS total score and all scales except the Relationships scale. In contrast, mean scores among the Control group trended negatively over time on the DERLS total score and on the Relationships and Initiative scales.

Pretest and Posttest DERLS scores for Intervention and Control group participants are provided in Table 6.2 below.

Table 6.2. Pretest and Posttest DERLS Scores for Intervention and Control group Participants

DERLS Scale	Intervention (n = 33)				Control (n = 40)				Raw Score Range Possible
	Pretest Mean	Pretest SD	Posttest Mean	Posttest SD	Pretest Mean	Pretest SD	Posttest Mean	Posttest SD	
Relationships	22.2	2.0	22.0	2.3	22.8	2.0	22.1	2.1	0-25
Internal Beliefs	25.3	3.0	26.3	2.7	25.6	2.7	25.7	3.1	0-30
Initiative	34.8	3.5	35.2	3.4	35.0	3.3	34.4	3.8	0-40
Self-Control	16.8	1.9	17.1	2.3	16.8	1.9	16.8	1.9	0-20
Total	99.0	9.0	100.6	9.7	100.2	8.2	99.0	10.0	0-115

Maslach Burnout Inventory - General Survey

The MBI-GS was completed by 32 Intervention group participants and 40 Control group participants at pretest and posttest. An examination of pretest data indicated no statistically significant differences between Intervention and Control group participants' mean raw scores on the three burnout domains. This indicates that participants in both groups reported very similar levels of exhaustion, cynicism, and professional efficacy. Furthermore, results suggest that participants in this study as a whole were not experiencing aspects of burnout at the start of the study.

To examine differences on the MBI-GS scale scores between Intervention group participants and Control group participants, a series of 2X2 factor ANOVAs examining the conditions of group (Intervention or Control) and Time (Pretest to Posttest) were conducted. These analyses showed no significant interaction effect on the MBI-GS scales. This means that the change in scores from pretest to posttest did not significantly differ between the two groups. Both the Intervention and Control groups maintained high levels of Professional Efficacy, low levels of Cynicism, and low-to-moderate levels of Exhaustion throughout the intervention period.

Pretest and Posttest MBI-GS scores for Intervention and Control group participants are provided in Table 6.3 below.

Table 6.3. Pretest and Posttest MBI-GS Scores for Intervention and Control Participants

MBI-GS Scale	Intervention (n = 32)				Control (n = 40)				Raw Score Range Possible
	Pretest Mean	Pretest SD	Posttest Mean	Posttest SD	Pretest Mean	Pretest SD	Posttest Mean	Posttest SD	
Exhaustion	13.2	7.3	13.6	7.0	12.5	7.0	14.4	6.1	0-30
Cynicism	3.8	3.8	5.7	6.0	5.0	5.8	5.5	5.9	0-30
Professional Efficacy	31.1	4.3	31.7	3.8	29.2	5.0	29.0	5.3	0-36

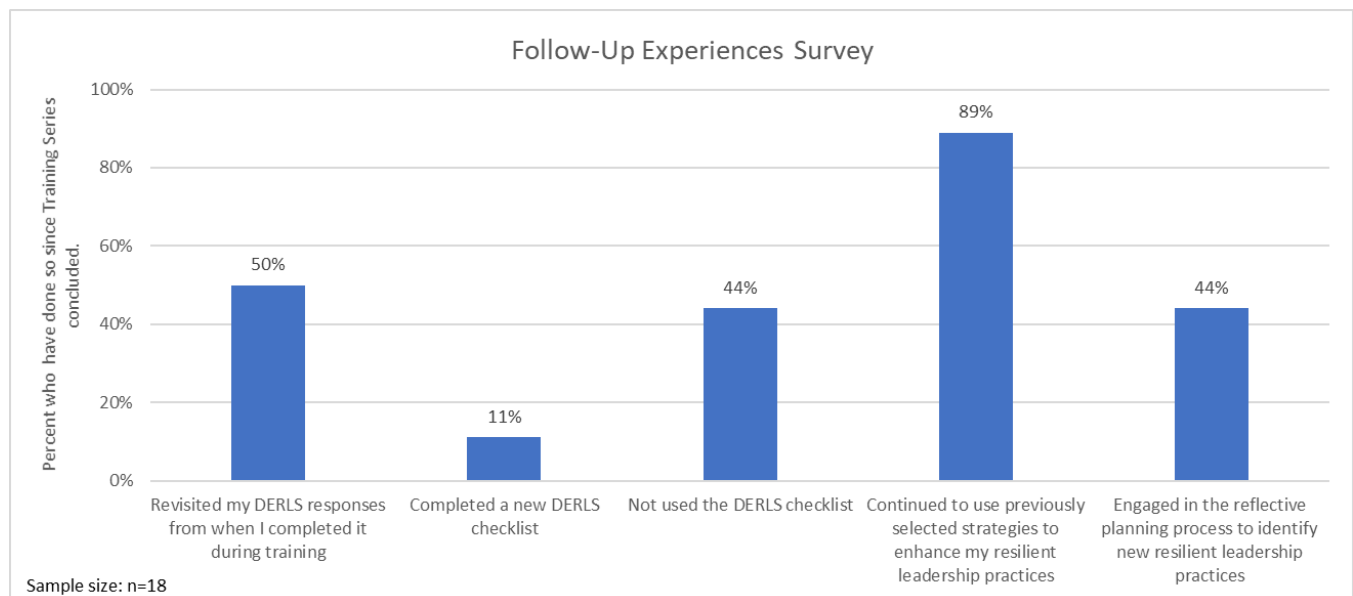
Section 7. Outcomes after Six-Month Follow-Up Period

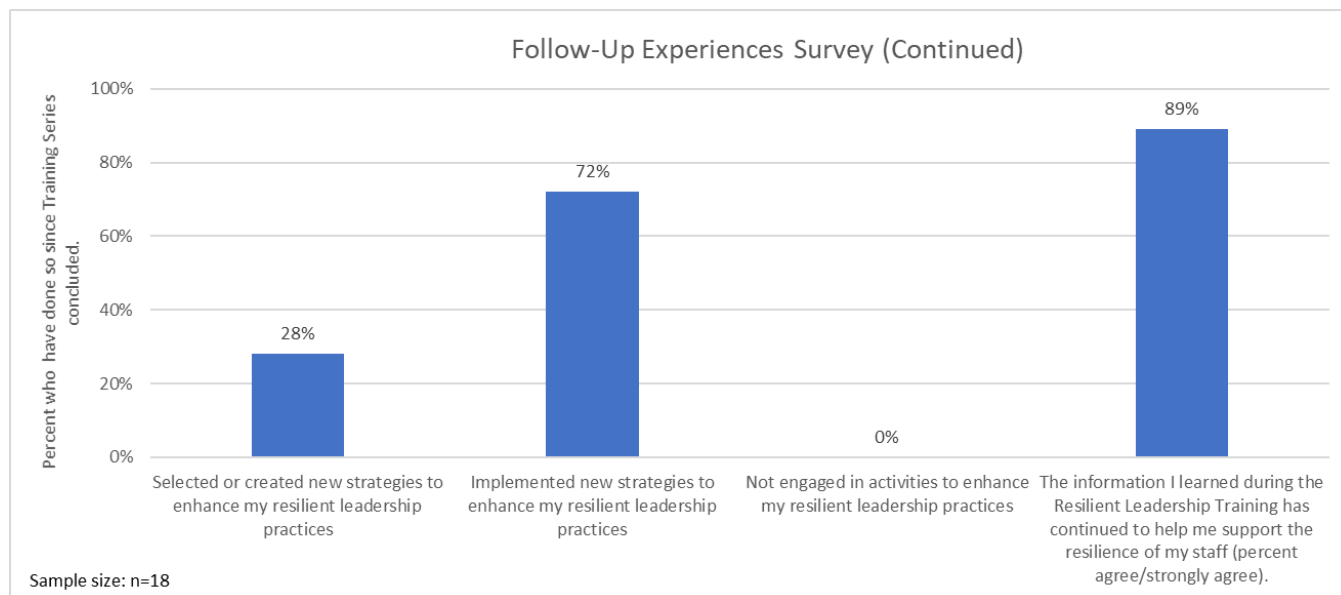
To evaluate the longer-term impact of the Resilient Leadership Training series, all participants (Intervention and Control) were asked to complete the battery of measures completed at pretest and posttest for a third time in late January 2019, approximately six months after the Training Series concluded. Three measures were included within this battery of outcome measures: 1) The Devereux Adult Resilience Survey (DARS), 2) The Devereux Resilient Leadership Survey (DERLS), and 3) The Maslach Burnout Inventory - General Survey (MBI-GS). Intervention group participants were also asked to complete a follow-up experiences survey which explored their continued engagement with the DARS, the DERLS, and the reflective process and resilient leadership strategies introduced in the Training Series.

Follow-Up Experiences

Eighteen Intervention group participants completed the follow-up experiences survey. Their responses are summarized below. Intervention group participants who attended zero Resilient Leadership Training sessions (n = 2) were excluded from the following analysis.

The follow-up experiences survey asked Intervention group participants about their experiences after the conclusion of the Resilient Leadership Training series. Specifically, it asked participants to report whether they had engaged in certain activities after the Training series concluded. The majority of respondents reported that they had continued to use their previously-selected strategies to enhance their resilient leadership practices (89%) and implemented new strategies to enhance their resilient leadership practices (72%) over the six months following the conclusion of the Resilient Leadership Training series. This suggests that attending the Training series promoted long-term behavior change among these center directors. Half of the participants (50%) referred back to their initial DERLS results, while a small percentage (11%) also chose to complete a new DERLS checklist, in this six-month period. Nearly half of participants (44%) engaged in the reflective planning process to identify new resilient leadership practices after the series concluded, and 28% identified or developed new strategies to further enhance their resilient leadership. Overall, the vast majority of participants (89%) felt that the information they learned during the Resilient Leadership Training series continued to help them support the resilience of their staff in the six-month period following the series conclusion.





Pretest, Posttest, and Follow-Up Outcomes

Eighteen Intervention group participants and 27 Control group participants completed each of the pretest, posttest, and follow-up battery of outcome measures. Their outcomes are summarized below. Intervention group participants who attended zero Resilient Leadership Training sessions ($n = 2$) were excluded from the following analysis.

DARS

To examine differences on the DARS total score and scale scores between Intervention group participants and Control group participants, a series of two-factor repeated measures ANOVAs examining the conditions of group (Intervention or Control) and Time (Pretest to Posttest to Six-Month Follow-Up) were conducted. No significant interaction effects between group assignment and time were observed from Pretest to Six-Month Follow-Up meaning that Intervention group participants' personal resilience growth over time did not significantly differ from Control group participants' personal resilience growth over time. While the pretest-posttest analysis suggested that the Resilient Leadership Training may serve to protect participants from protective factor decline over the Training period, the one-year analysis which encompasses the six-month follow-up period suggests that Control group participants and intervention group participants eventually reach similar levels of personal resilience. As participants were primarily new center directors, further examination may be warranted to explore whether the initial decline in personal resilience observed among the Control group may reflect the adjustment period to this new position and potential protective effect of the Training series during this adjustment period.

It should be noted that the attrition rates for this study were moderate at 46% for the Control group and 64% for the Intervention group. The outcomes summarized here reflect only those who remained employed as center directors at Bright Horizons for the entire one-year study period, those who did not choose to withdrawal from the study at any point, and those who took the time to respond to each set of outcome measures throughout the study. It is possible that this subset of center directors significantly differs from the initial full sample of center directors, in ways related to their personal resilience or otherwise.

Pretest, Posttest, and Follow-Up DARS scores for Intervention and Control group participants are provided in the graphs and in Tables 7.1 and 7.2 below.



Table 7.1. Pretest, Posttest, and Follow-up DARS Scores for Intervention group Participants

DARS Scale	Intervention (n = 18)						Raw Score Range Possible
	Pretest Mean	Pretest SD	Posttest Mean	Posttest SD	Follow- up Mean	Follow- up SD	
Relationships	22.8	1.9	22.3	1.8	22.3	2.5	0-25
Internal Beliefs	27.1	2.0	27.8	1.8	26.9	3.1	0-30
Initiative	32.9	4.0	33.3	4.1	33.7	3.5	0-40
Self-Control	15.9	2.3	16.7	1.9	16.7	1.9	0-20
Total	98.8	8.3	100.1	8.1	99.5	9.5	0-115

Table 7.2 Pretest, Posttest, and Follow-up DARS Scores for Control group Participants

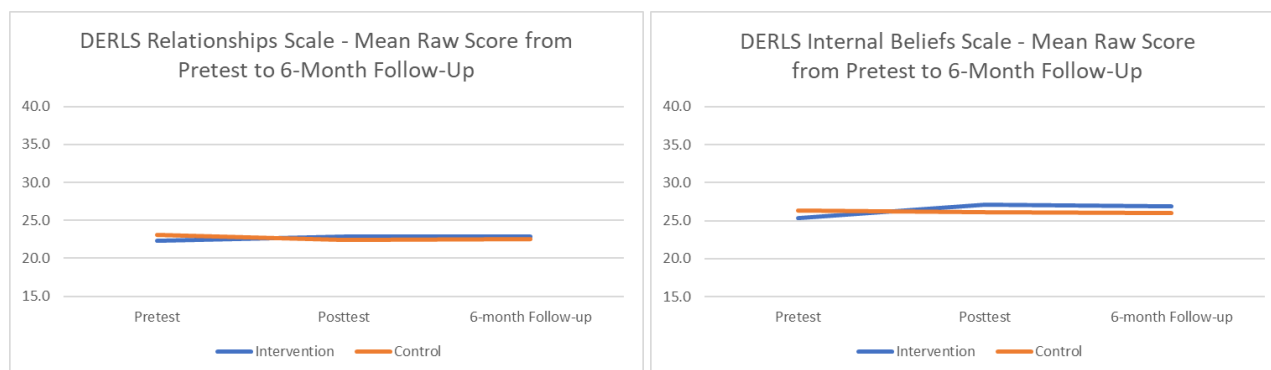
DARS Scale	Control (n = 27)						Raw Score Range Possible
	Pretest Mean	Pretest SD	Posttest Mean	Posttest SD	Follow- up Mean	Follow- up SD	
Relationships	22.7	1.7	21.6	2.0	22.0	2.2	0-25
Internal Beliefs	27.0	2.8	26.8	2.9	26.6	3.1	0-30
Initiative	33.4	4.2	32.0	3.9	33.2	3.4	0-40
Self-Control	15.7	2.1	15.6	2.0	15.8	2.0	0-20
Total	98.7	8.5	96.1	8.5	97.6	8.8	0-115

DERLS

To examine differences on the DERLS total score and scale scores between Intervention group participants and Control group participants, a series of two-factor repeated measures ANOVAs examining the conditions of group (Intervention or Control) and Time (Pretest to Posttest to Six-Month Follow-Up) were conducted. These analyses showed a significant interaction effect between time and group on the DERLS total score ($F(2, 84) = 3.61, p = .03$) and a marginally significant interaction effect on the Internal Beliefs scale score ($F(2, 84) = 3.1, p = .05$). This means that the change in scores from pretest through six-month follow-up significantly differed between the two groups, on the DERLS total score and the DERLS Internal Beliefs scale.

To explore these interactions, repeated-measures analyses were conducted independently for the Intervention group and the Control group. These analyses indicated that, among Intervention group participants, the DERLS mean total score significantly increased over time ($F(1, 17) = 3.65, p = .04$), indicating a significant increase in factors related to resilient leadership. A significant increase was also observed in mean scores on the Internal Beliefs scale over time ($F(1, 17) = 3.73, p = .03$). Conversely, these analyses indicated that among Control group participants, the DERLS mean total score and mean Internal Beliefs score did not significantly change from pretest through six-month follow-up. This suggests that participation in the Resilient Leadership Training Series may lead to significant long-term increases in factors related to resilient leadership among new center directors. Again, the small sample size and moderate study attrition rate should be considered in interpreting these outcomes.

Pretest, Posttest, and Follow-Up DERLS scores for Intervention and Control group participants are provided in the graphs and in Tables 7.3 and 7.4 below.



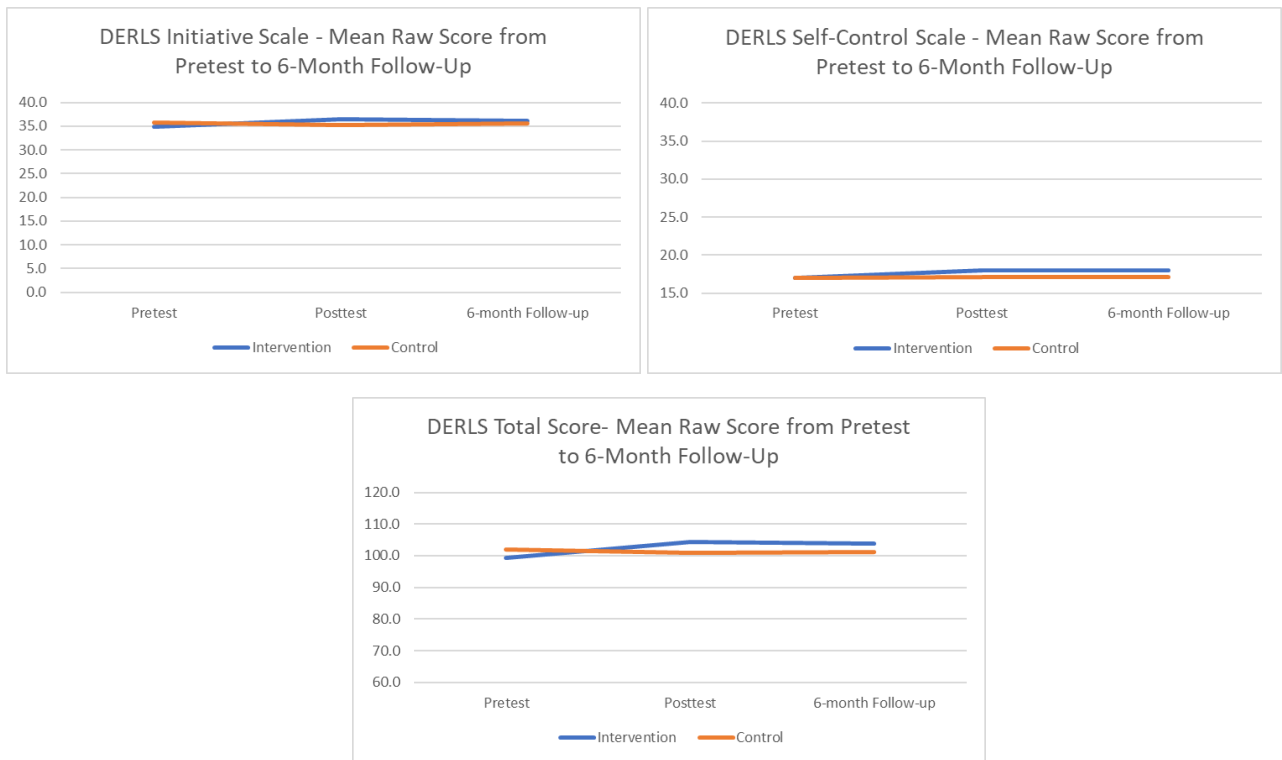


Table 7.3. Pretest, Posttest, and Follow-up DERLS Scores for Intervention group Participants

DERLS Scale	Intervention (n = 18)						Raw Score Range Possible
	Pretest Mean	Pretest SD	Posttest Mean	Posttest SD	Follow-up Mean	Follow-up SD	
Relationships	22.3	1.9	22.9	1.8	22.8	1.9	0-25
Internal Beliefs	25.3	3.4	27.1	2.2	26.9	2.1	0-30
Initiative	34.8	4.0	36.4	2.9	36.1	3.0	0-40
Self-Control	16.9	1.9	18.0	1.5	18.0	1.8	0-20
Total	99.4	9.6	104.3	7.1	103.8	7.9	0-115

Table 7.4. Pretest, Posttest, and Follow-up DERLS Scores for Control group Participants

DERLS Scale	Control (n = 26)						Raw Score Range Possible
	Pretest Mean	Pretest SD	Posttest Mean	Posttest SD	Follow-up Mean	Follow-up SD	
Relationships	23.0	1.8	22.5	2.1	22.6	2.3	0-25
Internal Beliefs	26.3	2.6	26.2	3.1	26.0	2.9	0-30
Initiative	35.7	2.9	35.2	4.2	35.6	3.2	0-40
Self-Control	17.0	1.8	17.1	2.1	17.1	2.0	0-20
Total	102.0	7.3	100.9	10.5	101.3	8.8	0-115

Maslach Burnout Inventory - General Survey

To examine differences on the MBI-GS scale scores between Intervention group participants and Control group participants, a series of two-factor repeated measures ANOVAs examining the conditions of group (Intervention or Control) and Time (Pretest to Posttest to Six-Month Follow-Up) were conducted. These analyses showed no significant interaction effect on the MBI-GS scales. This means that the change in scores from pretest to posttest did not significantly differ between the two groups. Both the Intervention and Control groups maintained high levels of Professional Efficacy, low levels of Cynicism, and low-to-moderate levels of Exhaustion throughout the intervention period and the six-month follow-up period.

Pretest and Posttest MBI-GS scores for Intervention and Control group participants are provided in the graphs and in Tables 7.5 and 7.6 below.

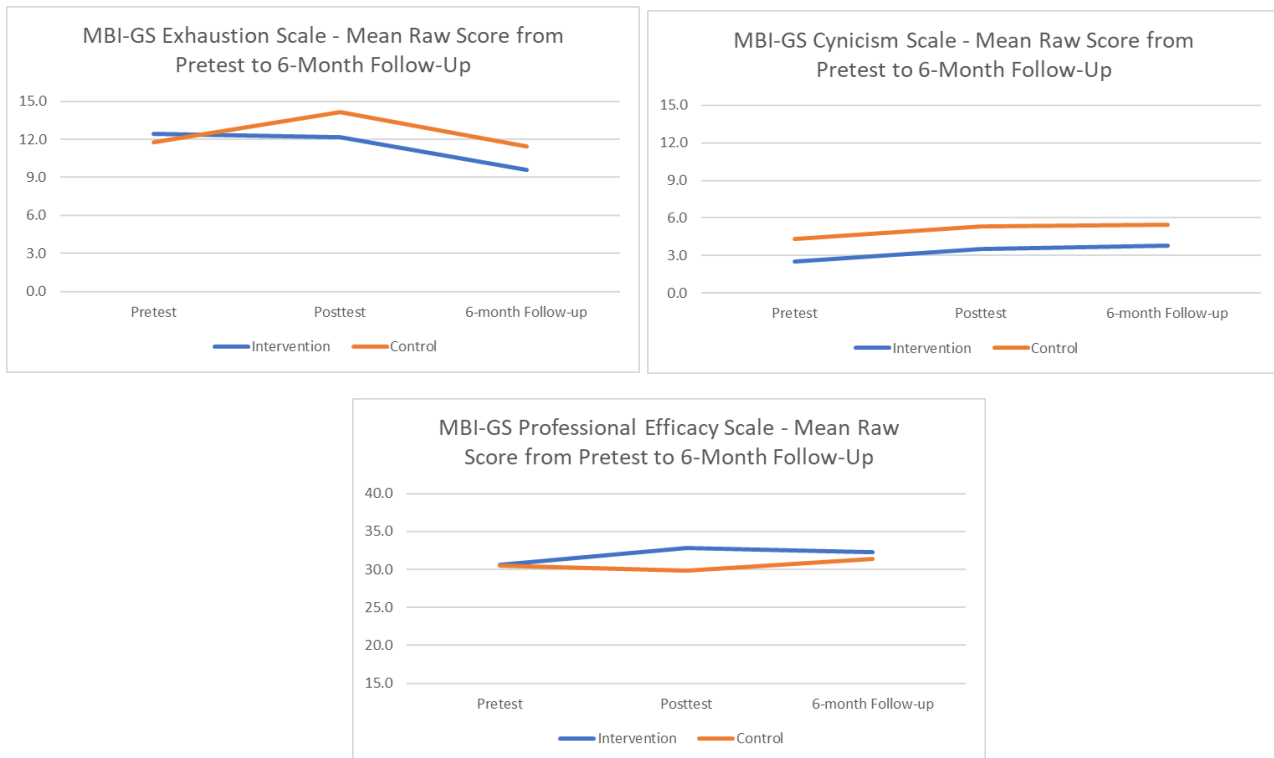


Table 7.5. Pretest, Posttest, and Follow-up MBI-GS Scores for Intervention group Participants

MBI-GS Scale	Intervention (n = 18)						Raw Score Range Possible
	Pretest Mean	Pretest SD	Posttest Mean	Posttest SD	Follow- up Mean	Follow- up SD	
Exhaustion	12.4	7.2	12.2	6.7	9.6	6.3	0-30
Cynicism	2.5	2.7	3.5	4.7	3.8	3.8	0-30
Professional Efficacy	30.6	4.8	32.8	2.2	32.2	4.7	0-36

Table 7.6. Pretest, Posttest, and Follow-up MBI-GS Scores for Control group Participants

MBI-GS Scale	Control (n = 27)						Raw Score Range Possible
	Pretest Mean	Pretest SD	Posttest Mean	Posttest SD	Follow- up Mean	Follow- up SD	
Exhaustion	11.8	6.8	14.2	6.0	11.4	6.6	0-30
Cynicism	4.3	4.8	5.3	6.0	5.4	6.1	0-30
Professional Efficacy	30.5	4.4	29.8	4.8	31.4	3.3	0-36

Section 8. Summary

In summary, the data explored in this report have favorable implications for the Resilient Leadership Training series. While attendance to the training sessions decreased over the course of the training period, attendance was generally high, with the average number of sessions attended 3.9 out of 6. Intervention Group participants were satisfied with the training series and found it to be helpful in reflecting on their personal resilience and the resilience of their staff. Participants were successful in identifying strategies to support their staff's resilience and report that they will continue to implement these strategies in the future. They overwhelmingly responded that they would recommend the series to other early childhood leaders. Follow-up survey results indicated that Intervention group participants were still using the strategies and resources introduced in the Resilient Leadership Training series six months after the series concluded.

The analysis of outcomes from pretest to six months post-training suggests that participation in the Resilient Leadership Training series significantly increased participants' competencies related to resilient leadership. While no significant effect on protective factors related to personal resilience was observed from pretest to six months post-training, the pretest-posttest outcomes suggest that further exploration may be warranted in this area. Participants in both the Intervention and Control groups maintained similarly low evidence of burnout from pretest to six months after the Resilient Leadership Training series concluded. Taken together, the evaluation suggests that participation in the Resilient Leadership Training series was valuable to Bright Horizons center directors and may be a successful strategy for building competence in resilient leadership practices moving forward.

Some limitations of the evaluation study should be noted. First, the sample size for the study was limited. A larger sample may have allowed us to further explore additional research questions, such as those related to the differential impact of the Resilient Leadership Training among frequent training attendees vs. those who attended training sessions sporadically. Second, the high outcome measure scores observed among the Intervention and Control groups on the DARS and the DERLS at pretest may have contributed to difficulty in detecting improvement in Intervention participants' personal resilience or resilient leadership following participation in training, a phenomenon known as a "ceiling effect". Finally, we observed a moderate rate of attrition in this evaluation from pretest through six-month follow-up. In addition to reducing our sample size, this attrition may have contributed to a phenomenon known as "survival bias," meaning that those who remained in the study may have differed from those who did not in one or more meaningful ways (for example, those who remained engaged in the study may value resilient leadership more highly than those who did not remain in the study). These limitations may be explored in future evaluations of the Resilient Leadership Training series.