Evaluating the 2023-24 Butler County Success Program: Reducing Non-Cognitive Barriers to Learning

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Abstract

This study aims to evaluate the effectiveness of the Butler County Success Program, a program designed to help students and families overcome non-cognitive barriers by providing them with assistance and connecting them to resources. Pre- and post-survey data were collected from both English and Spanish-speaking families, as well as the teachers of these students. Parents rated their need across various categories using a Likert scale, and teachers assessed their students' access to many resources, their academic performance, and their behavior on a similar scale. Paired t-tests were performed on the differences in pre- and post-test scores for both the teachers and the parents, using Student ID pairs that were present in both surveys. This program helped students access healthy food, improved their reading level, and improved parent communication with the school. The most statistically significant impact, according to the parents, was their access to housing. The impact of food assistance was found to be significantly different between English and Spanish-speaking families. This program is making a difference in multiple areas, but improvements can still be made in terms of accessing medical and dental care, classroom performance and attendance, and behavioral issues.

Introduction

The Butler County Success Program (BCSP) is a program in Ohio that serves the students and families of nine Butler County school districts. As of 2024, the BCSP provides services to approximately 2,200 students and their families. The goal of this program is to help families overcome non-cognitive barriers so their children can be successful in school. Non-cognitive barriers to learning can negatively impact student achievement, hence, the BCSP is attempting to reduce these factors as much as possible. To combat these obstacles, a Success Liaison is assigned to specific school district buildings. 36 liaisons were assigned to work in one or more of the 74 participating schools across 9 districts. This liaison serves as a mediator between the student/family and the student's teacher. The primary responsibility of the liaison is to help struggling families access resources and meet their needs.

Common examples of non-cognitive barriers to student learning and achievement include, but are not limited to, access to food, housing, clothing, medical care, mental health care, and access to school supplies. This program attempts to assist TANF-eligible families in identifying and accessing these needed services. It aims to provide support for children throughout the day to minimize disruptions to parents' work schedules and offer children and parents the opportunity to build essential skills for achieving self-sufficiency.

With that, this analysis aims to determine the extent to which the Butler County Success Program improved the well-being and self-sufficiency of participating families by addressing non-cognitive needs and linking them to essential services. Some of the families within this program speak Spanish as their primary language, so this study will also touch on the effect on English parents separate from Spanish parents, as well as the effect of the combined group.

Methods

Data has been collected for nine school districts in Butler County from August 2023 to June 2024. These nine school districts are Edgewood CSD, Fairfield CSD, Hamilton CSD, Lakota LSD, Madison LSD, Middletown CSD, Monroe LSD, New Miami Local Schools, and Talawanda CSD. The data was collected in a survey format from 2023 to 2024, following a longitudinal approach. The initial, or pretest, data were collected from August 2023 through March 2024. The post-test data were gathered from the middle of April 2024 to the middle of June 2024. Data was collected from two sources, teachers and parents.

The surveys given to teachers consisted of 22 variables initially. The first 6-7 variables provide insight into the Student ID, their grade level, school district, school name, liaison name, and teacher completing the survey. Next, teachers evaluated certain aspects of the student's life and their access to certain resources on a scale of 'Strongly Disagree' to 'Strongly Agree', with the option of 'Does Not Apply.' These 13 variables consisted of categories such as access to medical and dental care, access to healthy food, appearing physically healthy, reading level, parent communication, homework completion, academic performance, difficulty making friends, spending time alone, behavioral problems, and attendance. This initial survey had 417 responses from the teachers in regards to various students in the program.

After a certain amount of time in the program, the teachers were asked to complete a post-test survey. This survey consisted of the same questions as the initial survey, with a couple of open-ended questions added to the end of the survey. These optional open-ended questions asked about the most effective part of the program and the Success Liaison, as well as what could be done to improve the program. This survey had 125 responses.

Both the pre- and post-survey data required some extensive data cleaning before analyses were able to be conducted. The student's grade level had to be reformatted to ensure uniformity for ease of analysis (i.e., '9th' becomes '9'). Similarly, reformatting was done to the school district (i.e., 'Hamilton CSD' becomes 'Hamilton'). Lastly, and most importantly, the variables evaluated on a scale were changed to a Likert Scale (i.e., '1' corresponds to 'Strongly Disagree' while '4' corresponds to 'Strongly Agree'). This was crucial for analyses and having a numeric interpretation of the results.

Similar surveys were conducted with the parents of the students. Since some families in the districts speak Spanish as their primary language, the survey was given in both English and Spanish. These surveys are essentially the same. The initial surveys had 20 and 21 variables, for the English and Spanish versions, respectively. For the sake of this analysis, any demographic information about the student or their family, such as names, addresses, phone numbers, and email addresses, has been removed. Both surveys include information on Student ID number, parent employment status, school district, and the name of the liaison. The Spanish survey has an additional column for the Family ID number. This is particularly useful for families who have multiple children in the program. The remaining variables evaluated each family's need for various categories on a Likert scale, with a value of '0' corresponding to 'No Need' and a value

of ‘5’ corresponding to ‘High Need.’ These categories of need are related to food, clothing, and shoes, personal hygiene and household items, holiday assistance, housing, monetary assistance, employment and adult education services, medical and dental care, mental health resources, support during school conferences, and communication with staff members. Parents were also asked if they had any other needs in an open-ended question. Lastly, they were asked to rate their confidence in providing for their family on a scale of 0-5. There were 326 and 48 responses for the pre-survey for English and Spanish-speaking families, respectively.

Similarly, post-test surveys were given to the parents after a certain amount of time in the program. The same questions were asked in this survey, with the addition of a few more open-ended questions and check-all-that-apply questions. Parents were asked to check all boxes for areas where the Success Program benefited them/their liaison provided assistance. If there were additional ways that the program benefited families, that could be noted in an open-ended question. Families were also asked to check all the boxes that applied to ways the Success Program benefited their children. They were asked if they felt that the program improved their lives, and if so, how the program managed to do so. Lastly, they were asked in which ways they felt the Success Program could improve. The responses for the open-ended questions were sparse, so analyses were not done on these types of questions. This survey included 137 responses from the English-speaking families and 18 responses from the Spanish-speaking families.

Once again, extensive data-cleaning was required on these datasets before analyses could be conducted. The Spanish surveys needed to be translated into English for the analysis. Next, all variables were renamed to have common names for both surveys. The ‘School District’ column was reformatted so that the format was uniform across all rows. Since there were numerous observations, this required a lot of time and tedious effort. The parent pre- and post-data sets were then merged by Student ID. The analyses were conducted only on those students whose Student ID was present in both the pre- and post-analysis.

To analyze the majority of the data, paired t-tests were conducted using R. In regard to the teacher data, there is no issue with the normality of the residuals. The variance is roughly constant across grade-level groups, which is important for later analysis. After Paired t-tests were performed on the pre- and post-data, differences between grade levels were observed. To do this, new variables were created to serve as the difference between the post and pre scores. Another new variable was created to serve as a grade-level grouping. These three groups were K-4, 5-8, and 9-12. An ANOVA was performed on the difference in scores by grade-level group. For the sake of this analysis, any conclusions will be drawn at a significance level of 0.05.

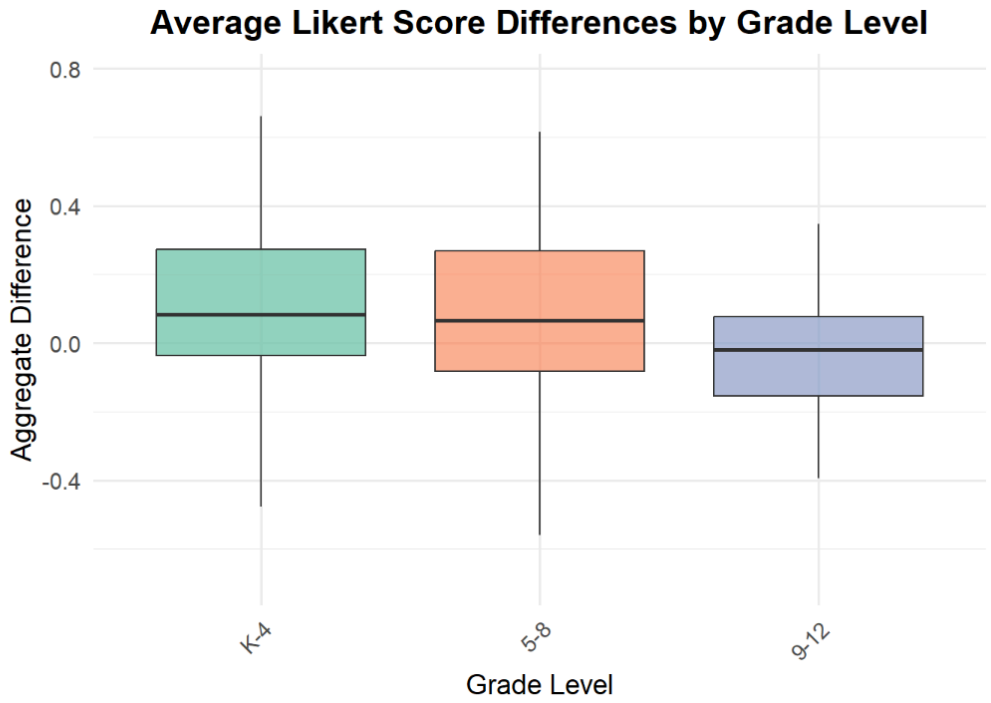
Results

To determine the effectiveness of this program, analyses were conducted on the data from both the parents and the teachers of the students within the program. To analyze the BCSP's effectiveness from the teachers’ survey data, a paired t-test was performed on the aggregated data. This test indicated that the average Likert score after one year of being in the program was

higher than the average Likert score at the beginning of the school year ($t_{df=114} = 2.4675$, *p-value = 0.01509, 95% CI for difference = (0.0123, 0.1124)*); Refer to Appendix Table 1. According to the teachers, this program made a difference in the lives of students and their families in one way or another.

To analyze where the specific differences were made, individual paired t-tests were conducted on each Likert question that was present in both the pre- and the post-surveys. It was found that the students' access to healthy food was improved, on average, by 0.21 points on the Likert scale ($t_{df=98} = 3.6624$, *p-value = 0.0004, 95 % CI for difference = (0.0972, 0.3271)*). After a year of this program, teachers felt more confident in their students' ability to read at or above their grade level ($t_{df=111} = 2.0514$, *p-value = 0.04259, 95% CI for difference = (0.0046, 0.2633)*). According to the teachers, communication with the parents and the school also improved as a result of this program. The BCSP allowed more teachers to agree with knowing the parents of their students ($t_{df=109} = 2.485$, *p-value = 0.0145, 95% CI for difference = (0.0313, 0.2778)*). Similarly, this program improved the number of parents who were communicating with the school in regards to how their students were doing academically. The Likert score for this category increased by an average of 0.157 points ($t_{df=101} = 1.9981$, *p-value = 0.0484, 95% CI for difference = (0.0011, 0.3124)*); See Appendix Table 1. There was no significant difference in the students' access to good medical and dental care, their attendance, or their behavioral problems in class.

Figure 1.



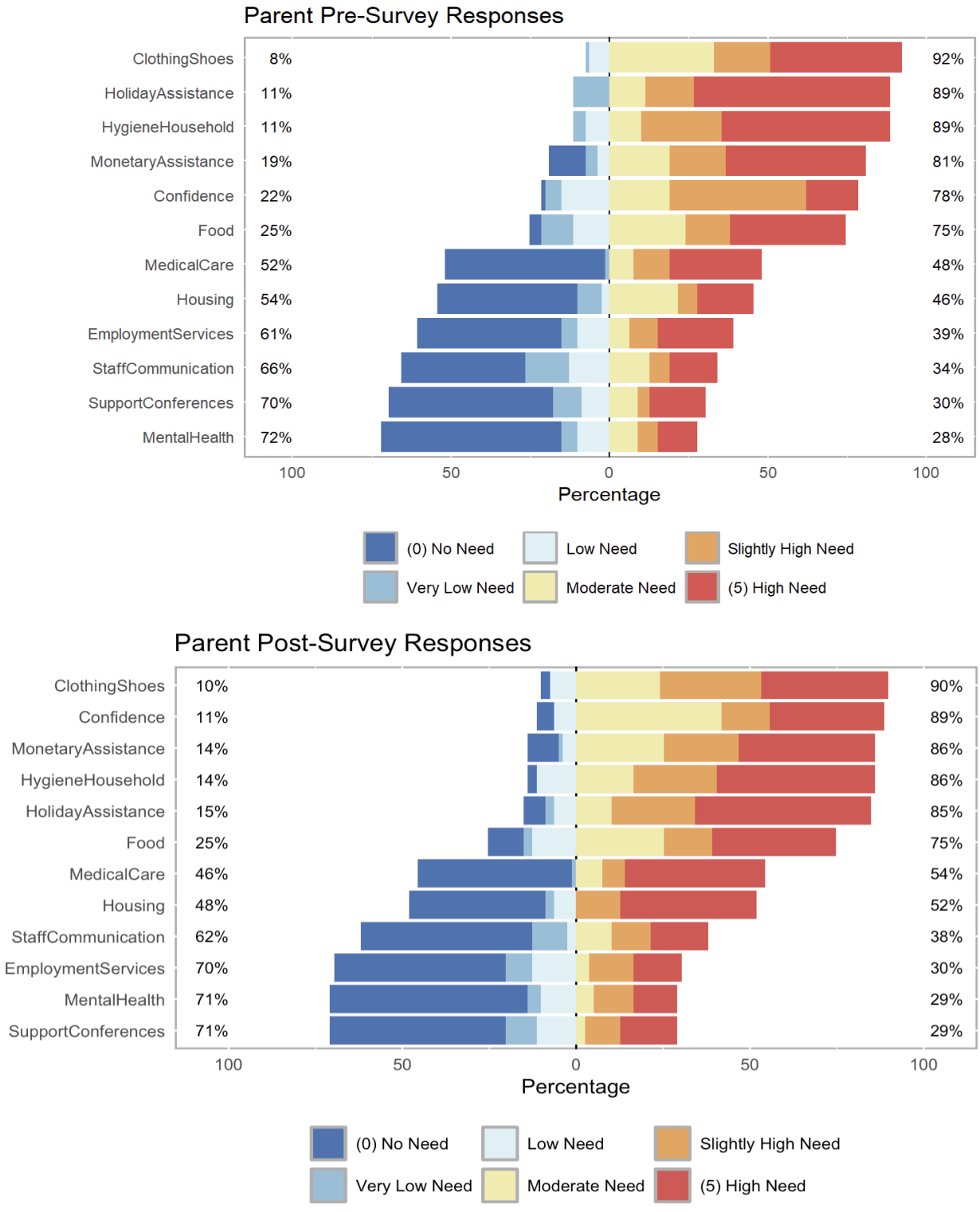
An analysis was conducted on the difference in program effectiveness between different grade levels. An ANOVA test indicated that there is a significant difference in program effectiveness across grade levels (*F = 3.897, p-value = 0.0231*). The differences in fruitfulness between grade levels are most apparent between grades K-4 and 9-12. On average, the aggregate difference in Likert scores is 0.178 points higher for grades K-4 than 9-12 ($t_{df = 112} = 2.786$, *p-value = 0.0171*); Refer to Appendix Table 2. Patterns like this are common across many individual categories. For example, students in grades K-4 had an average improvement of 0.308 points in the accessibility of healthy food, while those in grades 9-12 saw an average decrease of 0.053 points in the same category. A similar pattern exists in regards to the students appearing physically healthy. Those in grades K-4 and 5-8 appeared more physically healthy after a year in this program. On the contrary, students in grades 9-12 appeared less physically healthy after this school year. Grade-level differences were not a factor in program effectiveness for categories such as access to medical and dental care, academic performance, students frequently spending time alone, or behavioral problems.

To evaluate the effectiveness of the Butler County Success Program, we analyzed parent survey responses collected before and after the program. The survey responses, administered in English and Spanish, assessed different needs, services, and students' well-being. Out of 370 total pre-survey responses, 79 were paired with post-survey responses, with 291 responses with no follow-up. While in the post survey, 79 out of 177 were paired with 98 single post survey responses. In most of the service category areas, the matched group reported slightly higher needs than those who did not participate in the follow-up survey; Refer to Appendix Table 4. This may indicate that families with greater needs were more likely to stay engaged with the program and complete the post-survey. To determine whether the unmatched and paired groups differ initially in their pre-response rate, we conducted an independent sample t-test across all survey categories. The paired group had a significantly higher average score ($t_{df = 118.09} = 2.8$, $p = <0.001$), compared to the unmatched group ($t_{df = 118.09} = 2.33$, $p = <0.001$); see Appendix Table 6 for full results. This suggests that participants who responded to both pre- and post-surveys tended to report slightly higher needs for each service category on average. With the difference being significant, it suggests that the parents who completed the follow-up survey a year later were the ones who started with a higher level of need.

We further compared the pre- and post-survey scores for the paired group (N=79) to determine changes in scoring and experience after participating in the BCSP. The mean score slightly decreased over time in terms of Clothing and Shoes from ($\mu = 3.92(1.06)$) to ($\mu = 3.87(1.15)$) as well as in the Food Assistance area from ($\mu = 3.44(1.52)$) to ($\mu = 3.37(1.61)$). A slight increase was observed (*Pre* $\mu = 3.47(1.16)$; *Post* $\mu = 3.58(1.29)$) in terms of reported Confidence in providing for the family needs, while in the area of Employemnt Servoces, the mean score decreased (*Pre* $\mu = 2.00(2.12)$; *Post* $\mu = 1.65(1.94)$). A small decline was observed in Holiday Assistance (*Pre* $\mu = 4.16(1.32)$; *Post* $\mu = 3.95(1.46)$) and Hygiene and Houshold Items (*Pre* $\mu = 4.16(1.13)$; *Post* $\mu = 3.96(1.22)$). Household Support and Medical Care Help area experienced an increase in mean score over time (*Pre* $\mu = 1.91(1.99)$; *Post* $\mu = 2.62(2.31)$),

(*Pre μ = 2.15(2.29); Post μ = 2.52 (2.36)*), respectively. Scores remained consistent over time in Mental Health Support and Monetary Assistance (*Pre μ = 1.41(1.87); Post μ = 1.48(1.93)*) and (*Pre μ = 3.16(1.68); Post μ = 3.67(1.59)*). Staff Communication mean scores showed minimal change (*Pre μ = 1.78(1.86); Post μ = 1.73(2.02*)), as well as Support at Conferences showed (*Pre μ = 1.57(1.97); Post μ = 1.62(1.98)*); Detailed summary in Appendix Table 5.

Figure 2.

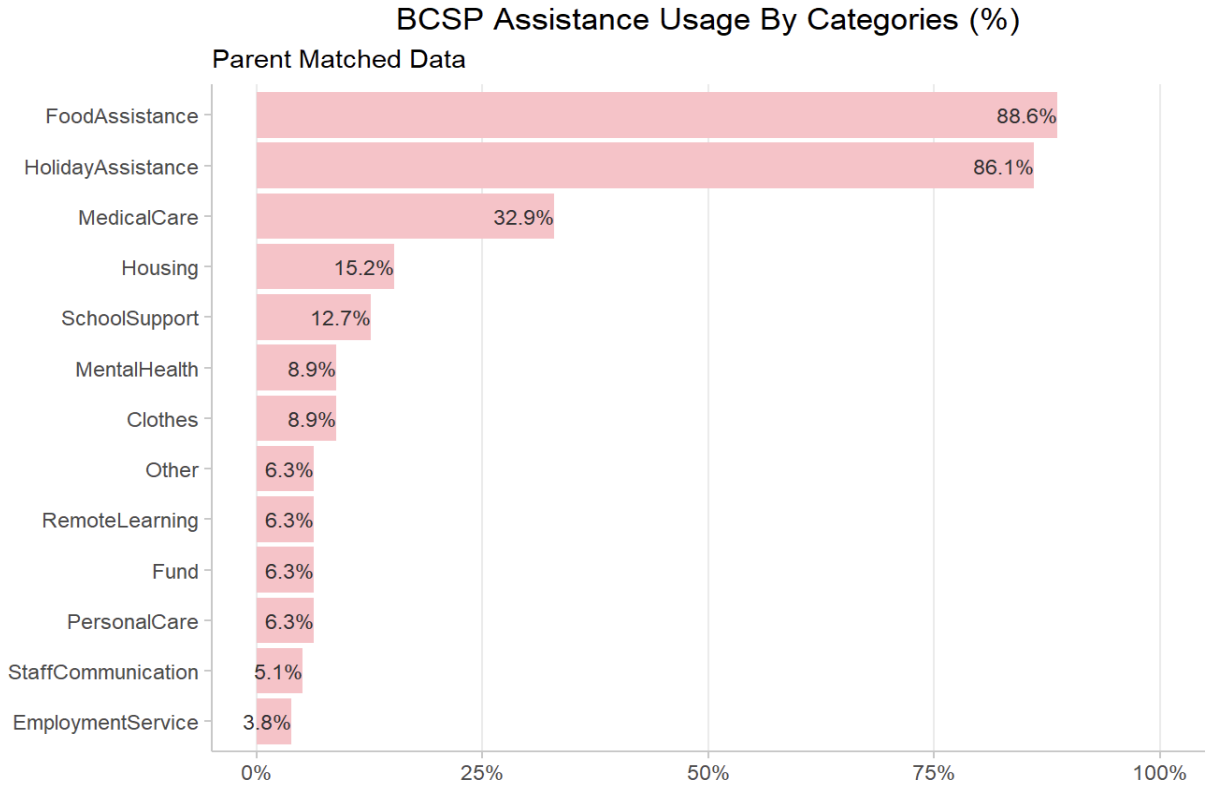


Based on the comparison of pre- and post-responses from the Likert plot (Figure 2), Employment Services has the biggest change, dropping from 39% to 30% in the higher need scale, and Confidence in providing for family needs, going from 78% to 89% in the higher need

scale. We also noticed that some needs stayed the same or even increased in higher needs areas with warm tones (moderate to high need), e.g, Clothing & Shoes, Monetary Assistance, Housing, Medical Care, and Hygiene supplies.

The services are listed from highest to lowest need, with warm colors indicating a higher level of need, and cool tones representing lower to no need. The pattern in this plot suggests that everyday basic needs, such as Clothing & Shoes, Monetary Assistance, and Hygiene Supplies, were rated as more essential for families compared to other occasional support services in both surveys. This indicates that families prioritize immediate needs over situational needs and shows where more attention and resources are needed moving forward with the program.

Figure 3.



The BCSP assistance usage graph (Figure 3) shows that Food Assistance(88.6%) and Holiday Assistance(86.1%) were the most frequently used services among families, indicating that immediate needs are top priorities among families involved in the program. Also, Medical Care assistance (32.9%) was notably used, followed by Housing(15.2%) and School Support(12.7%). The rest of the family support services were used less than 10% of the time, with Employment Services being the least at 3.8%. These areas stood out as the most commonly utilized support during the program. With these areas being actively used. We suggest allocating more resources and support towards these areas in the future to meet the needs of families.

In order to evaluate the changes in perception of support services from parents' perspective before and after the program, a paired t-test was conducted across all the categories. Overall, there were no statistically significant differences in most of the categories. The only

statistically significant change over time was observed in the Housing area ($t_{df = 78} = -2.70, p = 0.0085$), indicating notable need in housing-related assistance from the program, while all the other categories showed no significant differences in pre- and post-differences in scoring ($p > 0.05$); For a complete breakdown, see Appendix Table 7. Based on the findings, we identify the following areas, e.g, Housing, Monetary Assistance, Medical Care, Mental Health, and Support During School Conferences need more attention with higher post-program needs. The rest of the services showed improvements with decreased post-average level of need.

Furthermore, we conducted another paired t-test on the difference between post scores and pre scores and language to explore the differences in assistance between English and Spanish-speaking families. The analysis results suggest that Food Assistance ($t_{df = 15.06} = -2.21, p = 0.0432$) was significantly different between the two groups. With English ($\mu = -0.19$) and Spanish ($\mu = 0.64$), results suggest that English-speaking families experience improvement in food-related services while Spanish-speaking participants reported declined scoring. Across different groups, the overall trends show that Spanish-speaking families reported higher mean scores, particularly on higher scales. This suggests that Spanish-speaking families reported higher post-progrom needs across many areas. Since higher positive score indices a larger gap with post survey need remaining higher than the pre survey, it emphasized an area where the program may need to implement different approaches to better support Spanish-speaking families and more effectively address their needs. Even though most of the individual t-test results indicate no significant difference, the overall improvement became statistically significant ($t_{df = 190.43} = -2.59, p = 0.0103$); Detailed paired t-test results are in Appendix Table 8. This phenomenon can be explained by Simpson's Paradox, meaning Spanish-speaking family post-program need level showed a small but increasing trend across many categories, and when combining these scores cumulative effect led to a significant overall difference.

Discussion

Some changes should be made to the survey in order to maximize participation and make the analysis easier in the future. First, the survey should try to limit the number of open-ended responses. For example, school district, school liaison, grade level, and school name should all be multiple-choice questions, not open-ended. The benefit of this is twofold. First, the analyst no longer has to guess which options the person filling out the survey meant to choose. This was a problem with the school district column specifically, as some parents used abbreviations or numbers, making it difficult to determine what the parents meant. Second, the analyst would not have to spend nearly as much time on data cleaning. Instead, the exploratory data analysis and data analysis could be done almost instantly.

Next, many parents felt that this survey was too long and it took too much time to complete. There were some questions that were repetitive. These should be limited at all costs. Because of the length of the survey, some parents may have put less effort into the open-ended questions. These help to provide insight on where the program needs to improve. Therefore, having as much information as possible on that question is useful.

Third, there needs to be more consistency across the English and Spanish versions of the survey. The wording of certain questions is different across the two versions. Additionally, the English version has columns that the Spanish version does not, and vice versa. For the purpose of determining program effectiveness, there should not be differences between the surveys, as that could introduce some form of bias.

Lastly, it would be a good idea to incentivize the participants to complete both surveys. This would decrease the attrition rate and make the results more generalizable. As mentioned above, our survey found that the average level of need for those who only completed one survey was lower than the average level of need for those who completed the pre- and post-surveys. This indicates that those who completed both surveys may feel stronger about the program or have a greater level of need, giving them a reason to respond to both surveys. Since the number of responses on the post survey was relatively low, the results we found may not be comprehensive of the entire population of families in the program. If the attrition rate were lower, we would be more confident in the generalizability of our results to the entire population. Incentives to complete both surveys could be something such as small gift cards or coupons.

Results from the teachers' surveys indicate that the Butler County Success Program had a positive impact on students and their families for the 2023-2024 school year. There were statistically significant improvements for the categories of access to healthy food, reading level confidence, and parent-school communication. These findings tell us that the Butler County Success Program was successful at reducing multiple non-cognitive barriers to learning.

Many areas did not see any significant improvement from the teacher surveys. One of the categories that saw little change at all was students' attendance. This indicates there may be external factors that affect attendance in schools. Also, access to medical and dental care did not significantly improve. No change in medical/dental care could mean that additional partnerships or strategies are needed to get people the proper care that they need. Lastly, behavioral problems in the classroom showed no major improvement. These areas that saw no improvement might require a more targeted long-term approach, as these are not overnight fixes.

Parent survey data showed us mixed results. Even though slight improvements were made across many categories, only one came back as statistically significant. The category that saw this statistically significant change was housing support. This change was in a bad way, though, as the need for housing was higher in the post. One of the biggest problems with the parents' side of things was the low response rate for the post-survey. This limited the strength of the findings. Potential response bias may also exist for the parents. Families who have greater needs may have been more motivated to remain engaged with the program and fill out the post survey. Despite these limitations, we can see that the overall trend in parent surveys supports small positive impacts of the program.

When breaking down the programming to K-4, 5- 8, and 9-12, we found a few interesting things. The program appeared to be more effective for students in grades K-4. Students in these grades showed great improvements in the areas of healthy food and physical health. Students in high school saw fewer improvements from the program. In some instances, there were even

declines in scores. For grades 9-12, healthy food access saw a small decline, which is interesting since overall this category saw significant improvements.

The Butler County Success Program is generally effective at improving key non-cognitive barriers for students and their families. To make the program better, there are a few steps that can be taken for future improvements. The most important thing is to increase the follow-up survey rate, especially with the parents. Looking into incentives for this could help boost the follow-up rate. Making the survey shorter and simpler could help with the follow-up rate. To help more with older students and more complicated areas like health/dental care, more targeted support should be developed, and even a partnership with an outside source to help with access to dental/medical care.

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Appendix

Table 1: Paired T-Test for Pre & Post Teacher Survey Data

T-Test Results by Category (Teacher Pre & Post Samples)						
Category	Pre Mean (SD)	Post Mean (SD)	t	df	p-value	
Healthy Food	3.08 (0.59)	3.27 (0.54)	3.66	98	0.0004	***
Physically Healthy	3.12 (0.55)	3.19 (0.65)	1.18	113	0.2399	
Medical Care	3.09 (0.41)	3.14 (0.58)	1.65	90	0.1028	
Dental Care	2.97 (0.47)	2.98 (0.66)	0.84	102	0.4007	
Reading Level	2.25 (0.96)	2.39 (0.99)	2.05	111	0.0426	*
Knows Parents	2.32 (0.73)	2.49 (0.80)	2.46	109	0.0145	*
Parent Communication	2.30 (0.80)	2.46 (0.87)	2.00	101	0.0484	*
Homework	2.59 (0.59)	2.53 (0.54)	-0.85	74	0.3998	
Academic Perform	2.53 (0.82)	2.61 (0.92)	1.37	110	0.1747	
Making Friends	2.01 (0.77)	1.9 (0.79)	-1.55	113	0.1234	
By Themselves	2.42 (0.79)	2.50 (0.88)	0.81	112	0.4214	
Behavioral Problems	1.77 (0.76)	1.83 (0.89)	0.96	112	0.3412	
Attendance	2.86 (0.75)	2.75 (0.89)	-1.37	114	0.174	
Overall	2.55 (0.30)	2.61 (0.34)	2.47	114	0.0151	*

Table 2: ANOVA and Emmeans Results for Pre & Post-Teacher Survey Data

Average Change in Likert Scores for Each Category by Grade Level			
	Grade	Mean Difference (CI)	F (p-value)
Healthy Food	K-4	0.308 (0.152, 0.463)	2.822 (0.0645)
	5-8	0.214 (0.002, 0.427)	
	9-12	-0.053 (-0.310, 0.205)	
Physically Healthy	K-4	0.148 (-0.020, 0.316)	3.011 (0.0533)
	5-8	0.143 (-0.066, 0.352)	
	9-12	-0.200 (-0.447, 0.047)	
Medical Care	K-4	0.078 (-0.064, 0.221)	0.478 (0.622)
	5-8	0.160 (-0.043, 0.363)	
	9-12	0.000 (-0.263, 0.263)	
Dental Care	K-4	0.08 (-0.085, 0.245)	0.184 (0.832)
	5-8	0.00 (-0.203, 0.203)	
	9-12	0.05 (-0.211, 0.311)	
Reading Level	K-4	0.226 (0.040, 0.412)	2.279 (0.107)
	5-8	0.176 (-0.056, 0.409)	
	9-12	-0.120 (-0.391, 0.151)	
Knows Parents	K-4	0.264 (0.087, 0.441)	1.458 (0.237)
	5-8	0.057 (-0.161, 0.275)	

	9-12	0.046 (-0.229, 0.320)	
Parent Communication	K-4	0.235 (0.014, 0.457)	0.51 (0.602)
	5-8	0.094 (-0.186, 0.373)	
	9-12	0.053 (-0.310, 0.415)	
Homework	K-4	-0.037 (-0.346, 0.272)	2.168 (0.122)
	5-8	0.115 (-0.199, 0.430)	
	9-12	-0.364 (-0.706, -0.021)	
Academic Perform	K-4	0.096 (-0.096, 0.289)	0.092 (0.912)
	5-8	0.118 (-0.121, 0.356)	
	9-12	0.040 (-0.238, 0.318)	
Making Friends	K-4	-0.148 (-0.360, 0.063)	1.027 (0.362)
	5-8	-0.200 (-0.463, 0.063)	
	9-12	0.080 (-0.231, 0.391)	
By Themselves	K-4	0.056 (-0.198, 0.309)	0.153 (0.859)
	5-8	0.029 (-0.290, 0.349)	
	9-12	0.160 (-0.213, 0.533)	
Behavioral Problems	K-4	0.170 (-0.045, 0.384)	0.899 (0.41)
	5-8	-0.057 (-0.321, 0.207)	
	9-12	0.040 (-0.272, 0.352)	

Overall	K-4	0.116 (0.045, 0.187)	3.897 (0.0231 *)
	5-8	0.069 (-0.018, 0.156)	
	9-12	-0.062 (-0.167, 0.042)	

Table 3: Multiple Comparisons Between Grade Levels for Pre & Post-Teacher Survey Data

Differences in Average Improvement in Likert Scores Between Grade Levels				
	Contrast	Mean (SE)	t (df)	p-value
Healthy Food	K-4 vs 5-8	0.093 (0.133)	0.704 (96)	0.7616
	K-4 vs 9-12	0.360 (0.152)	2.375 (96)	0.0506
	5-8 vs 9-12	0.267 (0.168)	1.587 (96)	0.2562
Physically Healthy	K-4 vs 5-8	0.005 (0.135)	0.039 (111)	0.9992
	K-4 vs 9-12	0.348 (0.151)	2.310 (111)	0.0586
	5-8 vs 9-12	0.343 (0.163)	2.101 (111)	0.0942
Medical Care	K-4 vs 5-8	-0.082 (0.125)	-0.653 (88)	0.7912
	K-4 vs 9-12	0.078 (0.150)	0.522 (88)	0.8609
	5-8 vs 9-12	0.160 (0.167)	0.957 (88)	0.6057
Dental Care	K-4 vs 5-8	0.08 (0.132)	0.606 (100)	0.8171
	K-4 vs 9-12	0.03 (0.156)	0.193 (100)	0.9797
	5-8 vs 9-12	-0.05 (0.167)	-0.300 (100)	0.9517
Reading Level	K-4 vs 5-8	0.050 (0.150)	0.333 (109)	0.9408
	K-4 vs 9-12	0.346 (0.166)	2.090 (109)	0.0966
	5-8 vs 9-12	0.297 (0.180)	1.647 (109)	0.2304
Knows Parents	K-4 vs 5-8	0.207 (0.141)	1.463 (107)	0.3127
	K-4 vs 9-12	0.219 (0.165)	1.328 (107)	0.3831

	5-8 vs 9-12	0.012 (0.177)	0.066 (107)	0.9976
Parent Communication	K-4 vs 5-8	0.142 (0.180)	0.788 (99)	0.7114
	K-4 vs 9-12	0.183 (0.214)	0.853 (99)	0.6710
	5-8 vs 9-12	0.041 (0.231)	0.178 (99)	0.9827
Homework	K-4 vs 5-8	-0.152 (0.221)	-0.689 (72)	0.7708
	K-4 vs 9-12	0.327 (0.231)	1.412 (72)	0.3402
	5-8 vs 9-12	0.479 (0.233)	2.053 (72)	0.1071
Academic Perform	K-4 vs 5-8	-0.022 (0.155)	-0.139 (108)	0.9894
	K-4 vs 9-12	0.056 (0.171)	0.329 (108)	0.9420
	5-8 vs 9-12	0.078 (0.185)	0.421 (108)	0.9072
Making Friends	K-4 vs 5-8	0.052 (0.170)	0.305 (111)	0.9501
	K-4 vs 9-12	-0.228 (0.190)	-1.203 (111)	0.4541
	5-8 vs 9-12	-0.280 (0.205)	-1.364 (111)	0.3635
By Themselves	K-4 vs 5-8	0.026 (0.206)	0.127 (110)	0.9911
	K-4 vs 9-12	-0.104 (0.227)	-0.459 (110)	0.8903
	5-8 vs 9-12	-0.131 (0.248)	-0.527 (110)	0.8581
Behavioral Problems	K-4 vs 5-8	0.227 (0.172)	1.322 (110)	0.3859
	K-4 vs 9-12	0.130 (0.191)	0.679 (110)	0.7763
	5-8 vs 9-12	-0.097 (0.206)	-0.471 (110)	0.8852

Overall	K-4 vs 5-8	0.047 (0.057)	0.824 (112)	0.6889
	K-4 vs 9-12	0.178 (0.064)	2.786 (112)	0.0171
	5-8 vs 9-12	0.131 (0.069)	1.908 (112)	0.1412

Figure 4: Assumption Checking for Grade-Level Differences

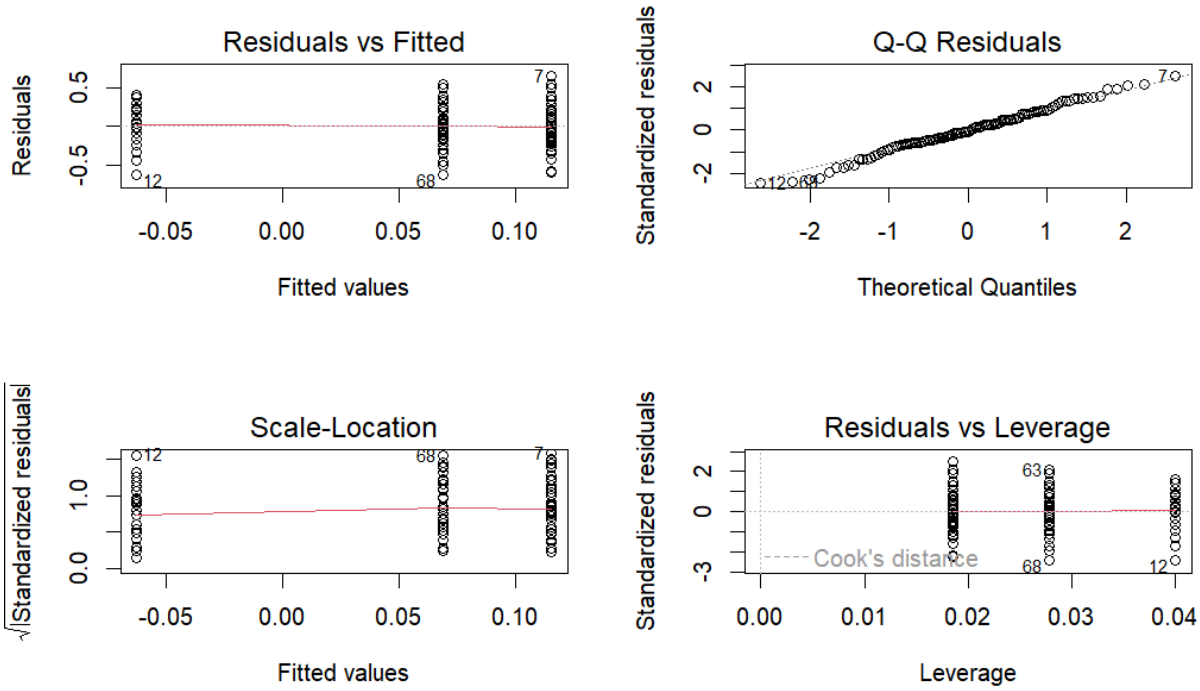

Table 4: Average Pre-Survey Scores by Response Group (Paired vs. Unpaired)

Summary Table of Mean Score (Parents Paired Pre & Unpaired Pre Data)		
Category	Unmatched (N = 291) Mean (SD)	Matched (N = 79) Mean (SD)
Clothing & Shoes	3.39 (1.62)	3.92 (1.06)
Confidence	3.66 (1.26)	3.47 (1.16)
Employment Services	1 (1.66)	2 (2.12)
Food	2.83 (1.67)	3.44 (1.52)
Holiday Assistance	4.47 (1.07)	4.16 (1.32)
Housing	1.43 (2)	1.91 (1.99)
Hygiene Household	3.3 (1.67)	4.16 (1.13)
Medical Care	1.43 (1.99)	2.15 (2.29)
Mental Health	0.94 (1.61)	1.41 (1.87)
Monetary Assistance	2.71 (2.04)	3.61 (1.68)
Staff Communication	1.45 (1.72)	NaN (NA)
Support Conferences	1.38 (1.83)	1.57 (1.97)

Table 5: Parents' Mean Need Levels (Pre Survey vs. Post Survey)

Summary Table of Mean Score (Parents Paired Pre & Post Data)		
Category	Pre (N = 79) Mean (SD)	Post (N = 79) Mean (SD)
Clothing & Shoes	3.92 (1.06)	3.87 (1.15)
Confidence	3.47 (1.16)	3.58 (1.29)
Employment Services	2 (2.12)	1.65 (1.94)
Food	3.44 (1.52)	3.37 (1.61)
Holiday Assistance	4.16 (1.32)	3.95 (1.46)
Housing	1.91 (1.99)	2.62 (2.31)
Hygiene Household	4.16 (1.13)	3.96 (1.22)
Medical Care	2.15 (2.29)	2.52 (2.36)
Mental Health	1.41 (1.87)	1.48 (1.93)
Monetary Assistance	3.61 (1.68)	3.67 (1.5)
Staff Communication	1.78 (1.86)	1.73 (2.02)
Support Conferences	1.57 (1.97)	1.62 (1.98)

Table 6: Independent T-Test for Pre-survey responses, (Matched vs Unmatched)

T-Test Results by Category (Parents Paired Pre & Unmatched Pre)					
Matched Mean	Unmatched Mean	t	df	p-value	
2.8	2.33	4.15	118.09	1e-04	***

Table 7: Paired T-Test Pre vs Post Survey Responses

T-Test Results by Category (Parents Pre & Post Samples)						
Category	Pre Mean (SD)	Post Mean (SD)	t	df	p-value	
Food	3.44 (1.52)	3.37 (1.61)	0.50	78	0.6152	
Clothing & Shoes	3.92 (1.06)	3.87 (1.15)	0.44	78	0.6615	
Hygiene Household	4.16 (1.13)	3.96 (1.22)	1.63	78	0.1065	
Holiday Assistance	4.16 (1.32)	3.95 (1.46)	0.86	78	0.3921	
Housing	1.91 (1.99)	2.62 (2.31)	-2.70	78	0.0085	**
Monetary Assistance	3.61 (1.68)	3.67 (1.5)	-0.34	78	0.7355	
Employment Services	2.00 (2.12)	1.65 (1.94)	1.21	78	0.2305	
Medical Care	2.15 (2.29)	2.52 (2.36)	-1.37	78	0.1756	
Mental Health	1.41 (1.87)	1.48 (1.93)	-0.41	78	0.6858	
Support Conferences	1.57 (1.97)	1.62 (1.98)	-0.26	78	0.7947	
Staff Communication	1.78 (1.86)	1.73 (2.02)	0.27	78	0.7855	
Confidence	3.47 (1.16)	3.58 (1.29)	-0.67	78	0.5046	
Overall	2.80	2.84	-0.38	78	0.7034	

Table 8: Paired T-Test Post-Minus Pre Score Difference by Language

T-Test Results by Language (Parents Pre & Post Samples)						
Category	English Mean	Spanish Mean	t	df	p-value	
Food	-0.19	0.64	-2.21	15.06	0.0432	*
Clothing & Shoes	-0.03	-0.18	0.85	39.33	0.4024	
Hygiene Household	-0.22	-0.09	-0.31	12.32	0.7589	
Holiday Assistance	-0.19	-0.36	0.21	12.51	0.8350	
Housing	0.60	1.36	-1.00	13.43	0.3338	
Monetary Assistance	-0.01	0.55	-0.77	11.42	0.4581	
Employment Services	-0.44	0.18	-0.84	15.06	0.4165	
Medical Care	0.38	0.27	0.32	75.93	0.7493	
Mental Health	-0.09	1.09	-1.98	12.43	0.0701	
Support Conferences	0.00	0.36	-1.10	30.27	0.2787	
Staff Communication	-0.10	0.27	-1.02	21.05	0.3208	
Confidence	0.04	0.55	-1.22	15.81	0.2408	
Overall	0.03	0.07	-2.59	190.34	0.0103	*