

Perceived Stress Outcomes

Final Data Report

(March 2021-June 2024)

Partnership for Strong Families' Family Resource Centers

The Partnership for Strong Families operates four Family Resource Centers that are the focus of this report. These include the SWAG Family Resource Center, Library Partnership Resource Center, Cone Park Library Resource Center (all in Gainesville), and the NorthStar Family Resource Center (in Lake City). As part of a broader evaluation study, a sub-group of consenting patrons agreed to complete baseline and follow-up (every 6 months) measures of the Perceived Stress Scale (PSS-10)¹.

All resource center patrons are given the opportunity to participate in the evaluation. Data collection efforts are ongoing and will continue through June 2024. Findings are considered preliminary and non-conclusive. The Perceived Stress Scale (PSS-10) is a 10 item self-report measure that appraises the level of stress in one's life (i.e., believe their life has been unpredictable, uncontrollable, and overloaded) over the previous month. It has well established reliability and validity with a variety of populations/contexts. The scale is administered to adult household members, including those that are parents/caregivers. Individual scores on the PSS-10 range from 0 through 40 where higher scores indicate higher levels of perceived stress. Comparisons of scores should be done within individual samples. The PSS-10 is not meant to be a diagnostic tool, there are no established score thresholds, although select studies/practices have identified scores ranging from 0-13, 14-26, and 27-40 as indicators of low, moderate, and high perceived stress respectively.

¹ This project is IRB approved (Advarra IRB: Children's Bureau, Protocol Number PSF-2021-CB). For more detailed information regarding the evaluation protocol, study methodology, and a summary of the metrics (with supporting references) of the PSS-10, please see Perry, R. (2021). *Family Resource Center Model Evaluation*, Protocol Number PSF-2021-CB. Tallahassee: Institute for Child and Family Services Research. For more detailed information regarding the PSS-10, please see: <https://www.cmu.edu/dietrich/psychology/stress-immunity-disease-lab/scales/index.html>

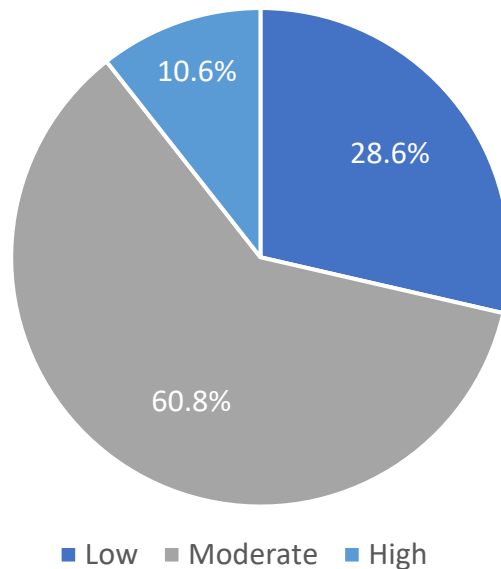
PSS-10 Data

The general nature of the items on the Perceived Stress Scale (PSS-10) ensure that responses are non-stigmatizing and of value for the target population of RC service recipients. Perception of stress as such relates to select life events can vary for each individual. Given such, any analysis of change in perceived stress with a study sample should include panels of patrons (matched/paired scores over time).

There were 245 patrons (across all the RCs) that are consenting participants in the study, all of whom provided a baseline measure of the PSS-10. A total of 245 patrons provided a baseline measure of the PSS-10. Follow-up measures (scheduled at 6 months) of the PSS-10 exist for 157 patrons, with 95 completing a second follow-up measure after one year, 57 at a year and a half, 25 at two years, and 4 patrons after two and a half years. Since the PSS-10 gauges stress within the previous month of the date of scale completion, comparisons of scores with a panel of patrons will use baseline and the most recent scores completed for this report.

When baseline data is considered, the average PSS-10 score (n=245) is 17.59 (S.D.=7.26) with the distribution of scores across levels suggesting 10.6%, 60.8%, and 28.6% had perceived high, moderate, and low levels of stress.

Distribution of Baseline PSS-10 Scores by Level (n=245)

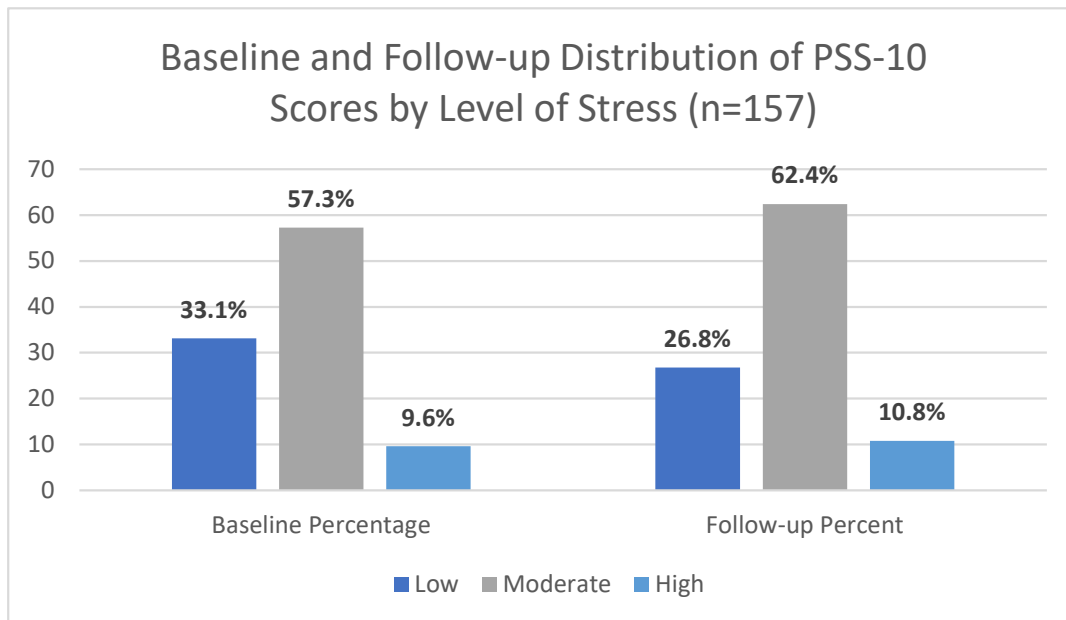


When the panel (sub-sample) of all patrons for which follow-up data exists (n=157) is examined, there is no statistically significant change in the average PSS-10 score from baseline (Mean=16.98) to the most recent follow-up (Mean=17.43) using a paired samples t-test ($t = -0.91$, $df=156$, two-sided $p=.363$). When the average baseline and follow-up PSS-10 scores are examined for patrons within each resource center, the observed differences are not statistically significant (using paired samples t-tests) for all resource centers.

**Mean Baseline and Follow-up PSS-10 Scores
(Total and Across Resource Centers)**

Resource Center	Mean PSS-10 Score (Baseline Follow-up)
SWAG (n=64)	16.58 17.39
Library Partnership (n=22)	17.50 18.09
Cone Park (n=28)	16.75 17.32
NorthStar (n=43)	17.47 17.21
Total (All RCs, n=157)	16.98 17.43

The distribution of aggregate stress scores by level (low, moderate, and high) shows an increase in the percentage of patrons with high scores (9.6% to 10.8%) as well as moderate scores (57.3% to 62.4%), with a decrease in those with low level scores (33.1% to 26.8%). These observed changes in the distribution of scores are statistically significant (with both Pearson's and Likelihood Ratio Chi-Square tests, asymptotic 2-sided $p<.001$).



The specific movement across stress levels for individual patrons can also be envisioned with more detail in the table below.

Crosstabulation of Baseline and Latest Stress Level Measured by Perceived Stress Scale (N=157)*

		Stress Classification at Latest Measurement			Total
		Low	Moderate	High	
Stress Classification at Baseline	Low	29	21	2	52
	Moderate	13	68	9	90
	High	0	9	6	15
	Total	42	98	17	157

* Observed change statistically significant using Pearson Chi-Square (46.21, df=4, p<.001) and Likelihood Ratio Chi-Square (43.57, df=4, p<.001)

Similar trends exist for individual RCs, with some exceptions; however, significant observed changes (across all FRCs denoted above), appear to be accounted for by changes at SWAG FRC, Library Partnership RC and Cone Park Library Resource Center. There were no observed (or statistically significant) changes in the overall distribution of patrons with different levels of stress (although changes did exist for select individuals) at NorthStar FRC.

Baseline and Follow-up PSS-10 Scores by Stress Level (Total and Across Resource Centers)			
Resource Center	% Low Level PSS-10 Scores (Baseline Follow-up)	% Moderate Level PSS-10 Scores (Baseline Follow-up)	% High Level PSS-10 Scores (Baseline Follow-up)
SWAG (n=64)*	35.9% 29.7%	56.3% 59.4%	7.8% 10.3%
Library Partnership (n=22)	31.8% 22.7%	54.5% 68.2%	13.6% 9.1%
Cone Park (n=28)*	32.1% 17.9%	60.7% 71.4%	7.4% 10.7%
NorthStar (n=43)	30.2% 30.2%	58.1% 58.1%	11.6% 11.6%
Total (All RCs, n=157)*	33.1% 26.8%	57.3% 62.4%	9.6% 10.8%
* Observed change in distribution statistically significant using Likelihood Ratio and Pearson's Chi-Square tests			

Gauging Representativeness of Existing Study Sample

The number of study participants (n=245) is very low in contrast with the total number of non-duplicate (verified) count of total patrons (2.0% of N=12,343) that received services across all FRCs between 2021 and 2023. Participation was voluntary. The response rate was low despite developed efforts to engage with (including the use of incentives) and inform all patrons seeking services of evaluation efforts, including participation in the collection of outcome data involving survey activities. Limited participation was influenced by a number of factors, including (but not limited to): the impact of COVID upon service delivery and in-person dissemination and engagement efforts, the fact that 48.5% (n=5,991) of total (identified) patrons sought services only once during the three year period, and general resistance/inherent concern of patrons within the communities served (corroborated through qualitative means/interviews) to participate in research/evaluation studies and/or disclosure of personal information to any third party.

Regardless, equivalency tests were conducted to aid in understanding how the study sample differs from the total population on select variables. The percentage of females represented in the study (79.8%) was significantly higher from those patrons that were not in the study (67.5%), with the percentage of males in the study (20.2%) being significantly lower than the proportion of males not in the study (31.9%). Among the three most represented race/ethnic groups, the percentage of patrons in the study versus not in the study that self-identified as Black or African American (non-Hispanic origin) (75.6% and 65.3% respectively) and White (non-Hispanic) patrons (14.0% and 21.7% respectively) were significantly different with an overrepresentation of Black patrons and underrepresentation of White patrons in the study. The observed differences in representation of Hispanic, Latino, or Spanish origin in versus excluded from the study (6.2% and 7.3% respectively) did not differ significantly².

Further, a series of independent samples t-tests (both equal and non-equal variances assumed) found a significant difference in the average age of patrons, where those in the study were (on average) older (Mean=47.13 years) than those not in the study (Mean=39.81 years). Finally, those in the study (see table below) also had a significantly greater average number of service requests at resource centers between 2021 and 2023 for services associated with Concrete Supports, Parental Resilience, Knowledge of Parenting and Child Development, Social Connections, and all Protective Factor categories combined. For example, on average, study participants requested 27.24 Concrete Supports and 35.58 total services between 2021 and 2023 in contrast to 3.35 and 5.11 (respectively) from non-study patrons. Study participants had accessed services and supports on an exponentially greater scale than non-participants suggesting a higher level of expressed need and greater contact and familiarity with FRC operations.

Gauging Representativeness of Existing Study Sample

Table 1: Average Number of Service Request Comparisons Between Patrons Enrolled in Outcome Evaluation and Other Patrons (2021-2023)

Protective Factor Service Categories	In Study Group	Mean / Average	Std. Deviation	Std. Error Mean	T-Test Statistic (Unequal Variance Assumption)	p-value (two-sided)
Concrete Support in Times of Need	No (N=12,097)	3.35	7.132	0.065	-11.32	<.001
	Yes (N=245)	27.24	32.988	2.108		
Parental Resilience	No (N=12,097)	0.23	0.768	0.007	-7.67	<.001
	Yes (N=245)	2.47	4.552	0.29		
Knowledge of Parenting and Child Development	No (N=12,097)	0.07	0.599	0.005	-4.3	<.001
	Yes (N=245)	0.53	1.688	0.108		
Social and Emotional Competence of Children	No (N=12,097)	1.16	12.417	0.113	1.04	0.297
	Yes (N=245)	0.9	3.359	0.215		
Social Connections	No (N=12,097)	0.3	4.992	0.045	-2.58	0.01
	Yes (N=245)	4.45	25.127	1.608		
All Categories of Services Combined	No (N=12,097)	5.11	15.831	0.144	-10.07	<.001
	Yes (N=245)	35.58	47.294	3.022		

² Z-score calculations for two independent proportions were used. For Black and African American population proportion comparisons $z = -3.34$, $p = .00084$. The result is significant at $p < .05$. For White population proportion comparisons $z = 2.8713$, $p = .0041$. The result is significant at $p < .05$. For Test for Hispanic, Latino, or Spanish origin population proportion comparisons $z = 0.676$, $p = .4965$. The result is not significant at $p < .05$.



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