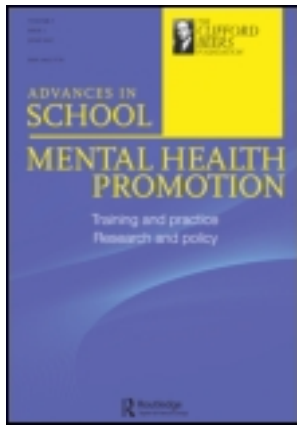


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Academic outcomes of an elementary school-based family support programme

Michael D. Pullmann^a, Ericka S. Weathers^a, Spencer Hensley^a & Eric J. Bruns^a

^a Division of Public Behavioral Health and Justice Policy, Psychiatry and Behavioral Sciences, University of Washington School of Medicine, Seattle, WA, USA

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Academic outcomes of an elementary school-based family support programme

Michael D. Pullmann*, Ericka S. Weathers, Spencer Hensley and Eric J. Bruns

*Division of Public Behavioral Health and Justice Policy, Psychiatry and Behavioral Sciences,
University of Washington School of Medicine, Seattle, WA, USA*

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School-based family support programmes (FSPs) work within schools to build partnerships with families, promote family engagement, address family needs, provide mentorship to students and increase access to community resources. Very few programme evaluation studies of FSPs have been conducted. We report on findings from a participatory evaluation of an FSP operating in 28 elementary schools, with emphasis on whether the programme had an impact on student-level and school-level academic outcomes. Analyses approaching, but not reaching, statistical significance indicated that the FSP may have been related to the increased availability of external community resources in schools and reductions in mobility. However, in the absence of a randomly assigned control group, there were no indications that the programme was related to improvements in student attendance, disciplinary actions or standardized test scores. Implications for practice and research are described.

Keywords: family support programme; academic outcomes; standardized test scores; elementary school; poverty

Introduction

Students from low-income backgrounds may encounter a wide variety of external barriers to learning that can directly or indirectly result in poor academic performance, lack of participation in school activities, disruptive school behaviour, school absences and school dropout (Adelman & Taylor, 2000, 2010). Risk factors that may create barriers to learning and school performance are multisystemic and include individual, family and social conditions such as poverty, unsafe neighbourhoods and schools, lack of parental and peer support for education, negative peer influences, diminished opportunities for positive recreational activities, negative attitudes, low level of community involvement and problems accessing public transportation (Bronfenbrenner & Evans, 2000; Eccles & Harold, 1996; Wigfield & Eccles, 2002). These risk factors disproportionately occur in high-poverty neighbourhoods and may lead to educational disparities for youth of colour, who represent a large proportion of the residents in these neighbourhoods (Massey, Gross, & Eggers, 1991; Massey, Gross, & Shibuya, 1994).

Although instructional quality and other related factors have an impact on student performance, many students face barriers to success due to socio-economic disadvantage that likely undermine instructionally based efforts to improve educational outcomes (Greene & Anyon, 2010). As a result, some schools have engaged in efforts to address socio-economic and family-based barriers to supplement existing efforts to improve the quality of instruction or school leadership. The primary characteristics of such auxiliary support programmes are

*Corresponding author. Email: pullmann@uw.edu

that they provide direct non-academic support to children or families and link community resources to schools (Adelman & Taylor, 2000). These support programmes are often initially established in school systems to provide non-academic supports to students and families in need. However, the establishment of initiatives such as No Child Left Behind, which emphasizes testing of progress towards student proficiency (Smith, 2005), has resulted in the expectation that these programmes also demonstrably promote academic progress.

Figure 1 presents the logic of family support programmes (FSPs), which are based on the premise that a multicomponent approach most effectively addresses the complex and multi-determined barriers to student success. This multicomponent approach consists of building collaborative partnerships with families and community resources, promoting family engagement, identifying and removing barriers to academic success, and addressing family needs by providing resources and skill-building. Through these efforts, a school-based FSP aims to increase access to resources, family involvement in education, family self-efficacy and empowerment. These changes are expected to lead to improved academic performance for students, as well as an altered life trajectory in favour of greater life success.

Although there has been research on the impact of certain school-based activities on student outcomes, research on the effectiveness of multicomponent school-based FSPs is extremely limited. For instance, there has been extensive research on family engagement in education, which is a common component of FSPs. This research consistently indicates that there is a positive association between family engagement and student outcomes and academic achievement, that parents from diverse backgrounds and experiences can be motivated to participate in their child's school, and that parent participation is influenced by their motivation, invitations to participate and their life context (Christenson, Rounds, & Gorney, 1992; Henderson & Mapp, 2002; Institute of Education Sciences, 2007; Kratochwill, McDonald, Levin, Scalia, & Coover, 2009; Sheldon, 2003; Sheldon & Epstein, 2004). However, FSPs focus on other components in addition to engagement, such as providing clothing, food and glasses, helping homeless families locate housing, identifying transportation issues, linking families to community resources, coaching

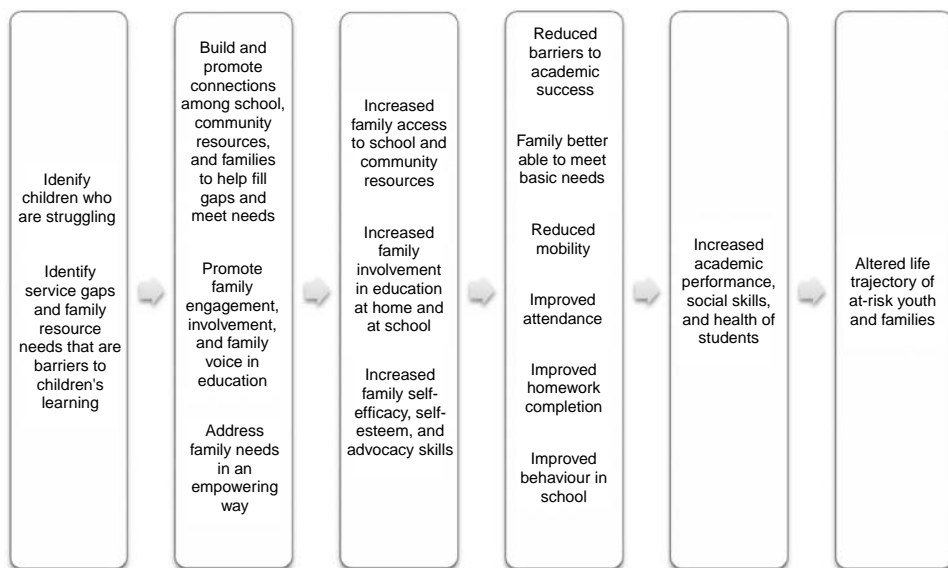


Figure 1. Connecting family support to student success. *Source:* Adapted from Kalafat (2004).

parents on behaviour management techniques, deescalating conflicts between parents and schools and acting as a mentor and cheerleader for families. In addition, multicomponent FSPs may focus on the families in most need of help, such as those in poverty or who are homeless, who make up a unique subgroup in the population of parents participating in the family engagement and involvement studies described above. Therefore, while the research on family engagement is compelling, the results may not generalize to FSPs.

We found two studies that are specifically relevant to FSPs. The first study (Kalafat, 2004; Kalafat, Illback, & Sanders, 2007) explored family resource centres in Kentucky, which appear similar to FSPs in activities but not in structure. This study described an evaluative process of rating each centre's fidelity or degree of implementation on multiple programme domains, and examined correlations between these scores and student outcomes. Findings revealed positive relationships between better family resource centre implementation and teacher ratings of child behaviour, peer relations, attendance and academic proficiency (Kalafat et al., 2007). Another study, conducted on Minnesota's 360 Communities school support programme, found small or modest improvements in parent reports of their engagement in and involvement with their child's education, but impacts on youth academic achievement were more ambiguous (Kundin, 2011). For instance, only half of the programme students met standards for progress on a test of reading, and teachers rated observed improvements in reading for only 42% of programme students. However, it is important to note that this study lacked a comparison group, and therefore these findings must be interpreted with caution.

The lack of rigorous research on FSPs in schools may be due to several methodological challenges. For example, the flexibility at the heart of these programmes often results in unstandardized, unplanned and responsive activities, with programme parameters and boundaries that are difficult to define. In addition, identifying an appropriate comparison group is often troublesome, because programme effects are likely not isolated to the students and families who are directly served. Next, the specific eligibility criteria and reasons for student participation may be unclear or undocumented, which limits the means to statistically control for selection effects. School-wide implementations also present particular challenges because it can be difficult to engage enough schools to reach a sample size large enough to detect differences (Bloom, 2005). Researchers may also face significant political and resource roadblocks to randomizing at the school level, which further confounds comparisons. Finally, a school district that is willing to engage in school-level random assignment may be so anomalous that generalizability of the study could be questioned. Hence, despite a plethora of publications calling for coordinated, supportive, comprehensive school-based resource provision (one website lists over 60 such publications, <http://smhp.psych.ucla.edu/materials/selectedjournal.htm>), no rigorously controlled studies have investigated the effectiveness of school-based FSPs. As such, there is a compelling need for studies that describe the characteristics of students served by FSPs, the services that FSPs provide and the impact of FSPs on student outcomes.

In the spirit of the current special issue, this paper specifically examined whether student participation in the Seattle Public Schools' FSP was associated with academic outcomes, including attendance, disciplinary actions, grades, standardized test scores and mobility. Our research questions were as follows: (1) What are the characteristics of the youth served by the FSP? (2) What types of activities are engaged in by the FSP? (3) Is the FSP related to changes in students' academic outcomes (attendance, school behaviour, standardized test scores and mobility)? and (4) Is the FSP related to school-wide academic outcomes? The findings in this paper represent a portion of a more comprehensive

evaluation of the FSP, described elsewhere in evaluation reports (Pullmann, Weathers, Hensley, & Bruns, 2012; Pullmann, Wiggins, & Bruns, 2011; Pullmann, Wiggins, Hensley, & Bruns, 2012a, 2012b).

Method

Description of the FSP

The current study evaluated the Seattle Public Schools' FSP. This FSP was designed to address barriers to learning, particularly for students who are struggling academically, who are in poverty and who face other non-academic barriers. The FSP aims to promote academic success by advocating for increased family involvement in education, facilitating student and family access to supplementary academic resources and providing support to help students and families overcome social, emotional and physical barriers that may hinder student academic progress. The FSP is intended to improve teacher and school administration perceptions and understanding of students and families, serve as a liaison to connect teachers with parents and improve the overall climate of the school. Through these family and school pathways, as well as through direct support, the FSP is intended to promote better attendance, school readiness, school behaviour, grades and academic performance, and homework completion.

The core of the programme is the involvement of Family Support Workers (FSWs) in the district's elementary schools. FSWs interact closely with at-risk students, their families and the schools. These professionals act as a liaison between these parties and provide information about policies and services. Individuals in this role provide a wide range of services: mentoring, academic assistance, home visits, transportation, organization of events, resource provision and other supportive services as needs arise. FSWs work with community organizations, schools and others to perform a variety of tasks to assist parents, students and families. For example, FSWs assist in securing donated clothing, eyeglasses and food; making connections to mental health and substance use services; connecting families to recreational opportunities; identifying safe transportation options and securing stable housing.

At the beginning of each academic year, 'focus students' (students who are intended to be the primary recipients of programme services) are chosen to receive services from an FSW based on a variety of factors that include low-standardized assessment scores, low school attendance, behavioural concerns, low parental involvement in the school, and free or reduced lunch status. In addition to these factors, FSWs in the programme may solicit teacher input, and also usually consider information about family and parent needs and resources when making a determination of inclusion for services. The programme has a particular emphasis on Hispanic, African American and African students due to the large disparities in academic outcomes for these groups. Although not the main sample described in this paper, it is notable that the FSWs also spend a large portion of their time with 'non-focus' students. These students come to the attention of FSWs throughout the year based on emergent behavioural issues and crises such as homelessness. These students still receive support from the programme, but these supports tend to be more limited in duration. The differences in these two groups are analogous to FSWs having a regular 'caseload' of focus students (though this terminology is not used by the programme), as opposed to addressing emergent issues from drop-in visits and crisis care for non-focus students. Another difference is that FSWs develop service plans and measure progress over time for focus students but not for non-focus students.

Parents are not formally 'enrolled' or required to participate in the FSP in order for their children to receive support; however, extensive outreach and resource provision to families lead to nearly all focus families having some contact with the programme. FSWs also work to ensure that parents are familiar with the programme and then provide regular phone calls and in-person visits in order to ensure continued connection with the school.

At the time of this study, there were 38 FSWs who each had a caseload of ~30 focus students. Nearly one-third of FSWs had attended some college or had an Associate's degree (29%), half had earned a Bachelor's degree and 21% had obtained a Master's degree. FSWs in the programme receive initial training and mentorship under the supervision of programme leadership. In addition, FSWs are required to attend 40h of professional development training each year, including a multi-day training at the beginning and end of each school year. These trainings focus on a variety of topics that include responding to requests by the FSWs and satisfying the interests of the leadership in programme direction. Trainings during our evaluation year addressed topics such as homelessness, services available through child welfare, mental health issues, gang involvement, safety during home visits and father engagement. Trainings during the evaluation year did not focus on addressing academic achievement.

FSWs are assigned to elementary schools based on the level of need as assessed by rates of students under the poverty level, racial demographics scores on standardized tests of academic achievement. Higher need schools have one or two FSWs placed at the school, while lower need schools can request FSW support for individual students and families. Therefore, the school district had 28 schools with a committed FSW (i.e. 'FSP schools') and 37 schools without a committed FSW (see Table 1). Schools with a committed FSW had significantly higher percentages of students who were in special education, qualified for free or reduced price lunch, did not meet academic standards on the Measures of Academic Progress test and had changed schools. FSP schools did not significantly differ in size or percentage of teachers with at least a Master's degree when compared to all other schools in the district.

Student participants

Data were examined for the 2009–2010 and 2010–2011 school years. In 2010–2011, FSWs were assigned 985 students in Kindergarten through 5th grade and 96 students in 6th through 8th grade, for a total of 1081 focus students. In 2010–2011, there were an additional 1545 non-focus supported students/families that were documented as receiving assistance from the FSP. For the purposes of this paper, we do not describe the non-focus students.

Table 1 depicts the demographic characteristics of focus students who received services from the FSP during the 2010–2011 school year for grades K-5 compared to all other students in the school district in grades K-5. This table and all other analyses exclude focus students in grades 6–8 because they represent a small percentage of served students. Family support students were more likely to be African American, Hispanic or Native American, and less likely to be white or Asian. These students were significantly more likely to be eligible for free or reduced price lunch than the overall student population. The family support students had higher rates of students in special education, lower rates of English proficiency, were less likely to be living with two parents and were more likely to be living with their mother only as compared to students who did not receive services.

Table 1. Characteristics of FSP focus students and schools.

	FSP schools (<i>N</i> = 28)		All other schools (<i>N</i> = 37)	
	Mean	SD	Mean	SD
Total enrolment mean	391.3	78.0	404.1	149.5
Special education* (%)	15.2	5.1	12.4	4.0
Free/reduced lunch** (%)	70.3	18.1	23.1	16.4
Teachers with at least Master's degree (%)	62.4	8.2	63.1	11.5
Students meeting academic standards** (%)	53.1	12.4	80.5	9.3
Mobility rate**	16.1	7.7	9.1	6.6
	FSP focus students K-5 (<i>N</i> = 985)		All other students K-5 (<i>N</i> = 24,450)	
	<i>N</i>	%	<i>N</i>	%
<i>Race/ethnicity**</i>				
White	35	3.6	11,320	46.3
Hispanic	232	23.6	3046	12.5
Asian	116	11.8	4180	17.1
Native American	30	3	232	0.9
Black	529	53.7	4000	16.4
Multiracial	34	3.5	1546	6.3
Native Hawaiian/Pacific Islander	9	0.9	126	0.5
<i>Age</i>				
4–6	202	20.5	5217	21.3
7–9	492	49.9	12,307	50.3
10–13	291	29.5	6926	28.3
<i>Grade</i>				
Kindergarten	161	16.3	4539	18.6
First	182	18.5	4292	17.6
Second	174	17.7	4179	17.1
Third	168	17.1	3913	16.0
Fourth	156	15.8	3793	15.5
Fifth	144	14.6	3734	15.3
<i>Free lunch eligibility**</i>				
Not eligible for free or reduced price lunch	69	7.0	14,703	60.1
Prepaid lunch tickets at full price	13	1.3	321	1.3
Eligible for reduced price lunch	66	6.7	1696	6.9
Eligible for free lunch	837	85.0	7730	31.6
<i>Gender</i>				
Male	528	53.6	12,380	50.6
Female	457	46.4	12,070	49.4
<i>Special education**</i>	206	20.9	2982	12.2
<i>Bilingual fluency**</i>				
Knows only English	591	60.0	19,427	80.0
Understands/speaks no English	101	10.3	1174	4.8
Understands first language more	170	17.3	2143	8.8
Knows English equally to first language	114	11.6	1429	5.8
Knows more English than first language	9	0.9	185	0.6
<i>Residential status**</i>				
	Missing = 6		Missing = 131	
Both parents	384	39.0	17,808	72.8
Father only	35	3.6	642	2.6
Mother only	498	50.6	5381	22.0

(Continued)

Table 1 – (continued)

	FSP focus students K-5 (<i>N</i> = 985)		All other students K-5 (<i>N</i> = 24,450)	
	<i>N</i>	%	<i>N</i>	%
Guardian(s)	20	2.0	136	<1
Agency/social services	0	0	41	0.2
Spouse/partner	0	0	6	<1
Foster parent(s)	5	<1	53	<1
Grandparent(s)	29	2.9	206	<1
Other relatives	8	<1	45	<1

Note: **p* < 0.05; ***p* < 0.001.

Services provided

The FSP provided activity reports from FSWs containing monthly tallies of number and types of services that were delivered to each focus student. These reports aggregated a diverse array of activities into nine categories such as parent contact and home visits, providing direct advocacy or intervention and facilitating family involvement in the schools. Each service was not mutually exclusive; for instance, during a home visit, the FSW may have provided direct advocacy and intervention.

The FSWs documented a total of 20,406 activities with focus students during the 2010–2011 school year. The most common services provided, across all families, were as follows: parent contact (e.g. home visits, phone calls, meetings at the school; 42% of total services), direct service (e.g. advocacy, intervention, tutoring and observing students; 25%), activities to encourage family involvement in school and children's education (14%) and meeting basic needs (e.g. food or clothing; 10%). Other activities such as attending individual education planning and other student planning meetings, parent–teacher conferences, providing social services, providing physical health services and crisis assistance each comprised 1–3% of activities. Ninety-five per cent of focus families received at least one parent contact from the programme (mean = 8.8 contacts throughout the year; range = 1–68). Nearly all (91%) focus families also received direct service or other advocacy services (mean = 5.6). The majority of parents received one or more services designed to encourage family involvement (64%) and basic needs services (63%). FSWs also sat in on an Individualized Education Plan meeting or other planning meetings at least once (25%) and participated in parent–teacher conferences (20%). FSWs also reported providing a social service (15%), physical health services (15%) and crisis assistance (11%). The number of activities was relatively normally distributed; the 10% of focus families who received the most activities accounted for 25% of the total number of services recorded by FSWs.

Procedures

We used a multi-method, multi-level approach to enquiry, using qualitative and quantitative methods. Analysis of individual-level student academic records and school-level staff and parent surveys and student outcomes were most applicable to this paper and are described in detail below. Notably, this evaluation was informed by other activities, described in more detail in our evaluation reports (Pullmann, Weathers, et al., 2012;

Pullmann et al., 2012b), but only briefly mentioned here due to space considerations. We took a participatory approach to the evaluation, with members of stakeholder groups involved in evaluation leadership and advisory committees providing input to help guide the enquiry and interpret findings. These groups had monthly meetings, along with frequent informal communication. We developed a programme logic model in collaboration with key stakeholders (Figure 1 provides a rough outline, but the programme logic model was much more detailed and relevant). The logic model helped to steer our evaluation questions, determine the outcomes of interest and compare the programme design and operation to other similar models of family support. Members of the evaluation team engaged in site visits at four schools and conducted a naturalistic observation of the work of the FSP. These were unstructured observation visits that enabled the evaluation team to gain a better understanding of the real-world practices and impact of the programme. Finally, we conducted seven focus groups with school staff, principals, FSWs, parents and officials from the local Office for Education.

Data sources and analysis

Student academic records

Data on academic outcomes for individual youth was provided by the city Office for Education. For this analysis, we investigated students from the most recent school year available, 2010–2011. Academic data, including disciplinary actions, attendance, standardized test scores and mobility, were originally collected by the school district. *Attendance* was measured by the percentage of school days attended. *Standardized test scores* came from the Washington Assessment of Student Learning (WASL) reading and math test scores. *Disciplinary actions* were measured by whether youth had a short-term suspension. *Mobility* was measured by the number of moves from one school to another, or out of the district.

School surveys

Many stakeholders believed that the activities of the FSP were likely to impact entire schools. To explore this possibility, we conducted school-level analyses exploring differences between FSP schools and non-FSP schools. School-level data were obtained from the school district's website and included (1) staff ratings of the school's professional culture, (2) staff ratings of school leadership, (3) parent ratings of family engagement and (4) parent ratings of family satisfaction. These surveys are conducted annually by the school district as part of a broad quality improvement and school assessment process. They do not have published psychometric data, but we used Cronbach's α coefficients to estimate internal consistency. *Professional culture* ($\alpha = 0.895$) indicated the average percentage of positive responses to nine questions about school staff's perceptions of the interactions among staff and their work on instructional-related topics (e.g. 'Continuous professional learning is highly valued by staff at this school'). *School leadership* ($\alpha = 0.968$) indicated the average percentage of positive responses to seven questions about staff's perceptions of principal behaviours and effectiveness (e.g. 'The principal is an effective manager of school operations'). *Family engagement* ($\alpha = 0.753$) indicated the school's average percentage of positive responses to six questions about parents' perceptions of opportunities for involvement, engagement and support for families (e.g. 'I feel welcome whenever I visit the school'). *Parent satisfaction* ($\alpha = 0.671$) indicated the average percentage of positive responses to six questions about the parents' levels of

satisfaction across a variety of school characteristics such as quality of instruction and leadership (e.g. 'Adults at school care a lot about my child's academic success and personal well-being'). We also examined the amount of *supplementary support* available in schools. We obtained data provided by a local non-profit organization, the Seattle Alliance for Education, regarding the number of external organizations that provided supplementary support, such as tutoring, clothing and mentors. For each school in the system, we summed the total number of organizations providing services and then standardized this indicator by calculating the number of organizations per 1000 youth. Our school-level measure of *Academic Achievement* was average percentage of youth who met standards according to the Measurement of Student Progress (MSP), which was administered more broadly than the WASL during this time.

Results

Attendance

For programme-enrolled students with complete data from both the 2009–2010 and 2010–2011 school years ($n = 818$), a paired sample t -test was run to examine changes in the average per cent of school days attended. Non-FSP students ($n = 26,015$) were used as a benchmark to detect any historical or maturational changes to be considered in interpretation. Both groups remained at exactly their level of attendance from the prior year, with findings indicating 93.4% average attendance for programme-enrolled students ($t = 0.01$, $p = 0.99$) and 95.1% average attendance for non-programme students ($t = 1.27$, $p = 0.21$).

Standardized tests

We examined a subset of students ($n = 356$) who had scores on the Washington Assessment of Student Learning (WASL) math and reading tests for both the 2009–2010 school year and the 2010–2011 school year. We analysed change in the proportion who improved (did not meet standards in 2009–2010 and met standards in 2010–2011), deteriorated (met standards in 2009–2010 and did not meet standards in 2010–2011), remained positively stable (met standards both years) or remained negatively stable (did not meet standards either year). Results for the focus students on the math test indicated that 8.4% improved, 14.6% remained positively stable, 7.3% deteriorated and 69.7% remained negatively stable. These changes were not statistically significant (McNemar Chi-square $p = 0.69$). For the reading test, 10.4% of the focus students improved, 19.9% remained positively stable, 10.7% deteriorated and 59.0% remained negatively stable. These changes were not statistically significant (McNemar Chi-square $p = 0.99$). When compared to non-programme students, focus students were less likely to meet standards in both years and were more likely to be in all three of the remaining cells: remaining negatively stable, improving and deteriorating.

Disciplinary actions

Typically, more students are suspended in Spring semester than are suspended in Fall semester. Therefore, our analyses compared the changing percentage of students with a suspension in Fall 2009 to Fall 2010, and Spring 2010 to Spring 2011. The sample was split into four groups: improved (suspended in one semester of 2009–2010, and not suspended in the respective semester of 2010–2011), deteriorated (not suspended and then

Table 2. Percentage of students whose suspension status changed or remained stable by study group.

	Fall 2009 and Fall 2010			Spring 2010 and Spring 2011		
	FSP focus students (<i>n</i> = 825)	All other students (<i>n</i> = 26,034)	Change ratio	FSP focus students (<i>n</i> = 825)	All other students (<i>n</i> = 26,036)	Change ratio
Improved	4.4%	1.5%	2.9	3.8%	1.9%	2.0
Deteriorated	6.2%	1.9%	3.2	9.1%	3.0%	3.0
Positive stability	88.6%	96.1%	0.9	85.0%	94.2%	0.9
Negative stability	0.8%	0.6%	1.3	2.2%	0.9%	2.4

Notes: FSP, family support programme. All χ^2 test significant at $p < 0.05$.

suspended), positive stability (not suspended in either year) and negative stability (suspended in both years). See Table 2 for a display of the results. All χ^2 tests comparing groups were significant at $p < 0.05$. The 'Change Ratio' illustrates the ratio of the change in focus students as compared to all other students (focus %/other student %). For the Fall semesters, focus students were 2.9 times more likely than other students to evidence improvement, but they were also 3.2 times more likely to evidence deterioration. In the Spring semesters, focus students were 2.0 times more likely to show improvement, but 3.0 times more likely to deteriorate and 2.4 times more likely to have negative stability.

Mobility

There were no statistically significant differences in the number of moves for focus students when compared with all other students. In the 2010–2011 school year, approximately the same percentage of focus students had no moves as compared to all other students (67% vs. 68%, respectively), one move (31% vs. 30%) or two or more moves (2.6% vs. 2.6%). The reasons for moves were not different between the two groups. The most common reason was a confirmed transfer to another school (27%), transfer to a school outside of the district (4%) and year-end withdrawal without re-enrolment (1%).

School-level analyses

We ran several analyses to examine whether there were relationships among school context and academic achievement at the school level (see Table 3). This table reveals strong multicollinearity among academic achievement and socio-economic characteristics of the student body, but weaker or non-significant relationships between academic achievement and characteristics of the school such as survey scores on family engagement, family satisfaction, professional culture and school leadership. Poverty, race and English language proficiency were very highly related to academic achievement.

Academic achievement

There was a nearly perfect correlation between rates of academic achievement and the per cent of youth eligible for free and reduced lunch, $r = -0.926$, $p < 0.001$. Therefore, we ran a series of analysis of covariance (ANCOVAs), controlling for the percentage of youth who qualified for free or reduced lunch. After controlling for poverty, there were no statistically significant relationships between having an FSW and school-wide MSP

Table 3. Pearson bivariate correlations among school context, academic achievement and family engagement scores.

	Mean percentage meeting MSP ^a standards	Family engagement mean percentage positive	Suspensions (%)	Attendance (%)	Mobility (%)
<i>Outcomes</i>					
Mean meeting MSP (%)	–				
Family engagement	0.292*	–			
Suspensions (%)	–0.617**	–0.368**	–		
Attendance (%)	0.735**	–0.053	–0.445**	–	
Mobility (%)	–0.760**	–0.194	0.354**	–0.713**	–
<i>School climate survey</i>					
Family satisfaction	0.130	0.387**	–0.242	0.127	–0.128
Professional culture	0.198	0.349**	–0.359**	0.119	–0.063
School leadership	0.059	0.259*	–0.169	–0.028	0.054
<i>School demographics</i>					
# Enrollment	0.189	0.041	0.091	0.401**	–0.379**
American Indian or Alaska Native (%)	–0.586**	–0.044	0.313**	–0.563**	0.604**
Asian (%)	–0.373**	–0.162	0.127	0.004	0.079
Pacific Islander (%)	–0.571**	–0.184	0.365**	–0.198	0.420**
Asian/Pacific Islander (%)	–0.399**	–0.170	0.145	–0.007	0.101
African American (%)	–0.808**	–0.389**	0.675**	–0.504**	0.508**
Hispanic (%)	–0.540**	–0.270*	0.222	–0.229	0.435**
White (%)	0.854**	0.379**	–0.550**	0.412**	–0.514**
Male (%)	–0.033	0.070	–0.111	–0.070	0.086
Transitional bilingual (%)	–0.761**	–0.226	0.247*	–0.275*	0.526**
Special education (%)	–0.399**	0.028	0.217	–0.430**	0.352**
Free/reduced lunch (%)	–0.926**	–0.384**	0.579**	–0.526**	0.630**
Section 504 (%)	0.402**	0.081	–0.056	0.166	–0.335**
Average years teacher experience	–0.030	0.042	–0.139	–0.003	0.084
Teachers with at least a Master's degree (%)	–0.007	0.128	0.013	–0.099	0.003

Notes: * $p < .05$, ** $p < .01$.^aMeasures of student progress.

scores, percentage of school-wide suspensions or average percentage of attendance. However, an ANCOVA predicting school mobility indicated a trend towards a main effect (approaching statistical significance) for FSP such that, when controlling for poverty, schools that had an FSW had lower mobility than would be expected ($F_{(1,63)} = 2.0$, $p = 0.15$). Though not significant, this trend is consistent with the individual-level findings above, which indicated no statistically significant differences in mobility rates between youth in the FSP and youth not in the FSP.

Supplementary supports

Finally, we examined whether there was a relationship between the FSP and the number of supplementary support organizations provided within the school. After controlling for school poverty, an ANCOVA indicated a trend towards statistical significance that FSP status was related to increased availability of resources in the school ($F_{(1,61)} = 2.5$, $p = 0.11$).

Discussion

This study was conducted to test the premise that an FSP tasked with addressing non-academic barriers and risk factors would have an impact on school behaviour, attendance, academic performance and mobility. Our findings indicate consistency between the general logic model provided in Figure 1 and the activities and some of the short-term family outcomes of the FSP identified in the logic model. We did not find strong evidence that the FSP had an impact on academic outcomes. Analyses of the characteristics of focus students indicated that the children served by the FSP were more likely to be struggling academically and to present with risk factors that are associated with poorer academic outcomes. Activity logs, our shadowing visits and focus groups indicated that the FSWs are engaged in a large number of activities designed to promote connections between families and schools, to promote family engagement and voice in education and to address family needs in an empowering way.

The findings also suggested that the FSP successfully achieved several instrumental outcomes hypothesized to be mediators of academic achievement. For example, there was evidence that, when controlling for poverty rates in the school, the FSP was related to the increased availability of external community resources in schools. In addition, for several years prior to our in-depth programme evaluation, the FSP had a small ongoing evaluation component consisting of parent and teacher surveys throughout the school year. This work indicated that the FSP was related to small or modest increases in parent ratings of their involvement in their child's education, their efforts to connect their children to people who could help them with homework and their participation in events at the school (Bolan, 2012a). Additional findings from the Bolan (2012a) evaluation revealed that nearly half of the parents reported that they increased the number of activities they engaged in to support their child's education outside of the school setting, such as going to museums, connecting their child with after-school programmes and tutoring. Over the course of a school year, teachers rated focus students as being more prepared for school and more often turning in homework, and also rated focus students as having worsening behaviour (Bolan, 2012b).

In the current study, we did not have data that could determine whether families' self-esteem or advocacy skills were related to the FSP. However, focus group data, though it may not have been representative, revealed that parents and school staff believed that the

FSP was related to reduced barriers to academic success and improvements in families being able to meet their basic needs (Pullmann, Weathers, et al., 2012). The current analyses of administrative data indicated, with borderline significance, that the FSP might be related to reductions in mobility.

We did not find evidence that the FSP was related to improvements in the ultimate student-level academic outcomes identified in the logic model, including attendance, disciplinary actions or standardized test scores. Our ability to evaluate these outcomes was hindered by the lack of a randomized control group or adequate comparison group. Although we attempted to construct a propensity-score matched comparison group of similar non-participants, we ultimately concluded this would not be possible because of a lack of statistical fit on our matching variables, which was likely due to the fact that the specific reasons for student referral and participation (or non-participation) were not available. Two other considerations also precluded propensity-score matching. First, there was a general belief that the programme impacted all youth in schools, not just participants. Second, schools were selected for the programme based on school context characteristics that were difficult to systematically identify and statistically control. Thus, in the absence of an adequate counterfactual, it is difficult to gauge the impact of the programme on these outcomes.

Without the programme, it is possible that these students may have experienced much poorer outcomes, and that the stability demonstrated here could be construed as a positive outcome. On the one hand, qualitative data from focus groups indicated that many individuals, including teachers, principals, school staff, FSWs and families, believed that the FSP had a positive impact on academic functioning. However, our comparison tests did not find the kind of overwhelmingly positive evidence that would provide strong support for this claim. In general, and on average, youth did not improve from their prior school year, and they did not demonstrate different rates of change when compared to youth who were not in the FSP. For disciplinary actions, youth in the FSP actually demonstrated a sharper deterioration (more disciplinary actions) than youth not receiving services from the FSP.

Our findings are consistent with those from another programme, Minnesota's 360 Communities, which is similar in structure to the FSP, though appears to be more explicitly focused on children's academic needs (Kundin, 2011). That programme also found small or modest improvements in parent reports of their engagement in and involvement with their child's education, and improvements on a few other important moderating variables. However, as in this study, impacts on youth academic achievement were equivocal because they were not overwhelmingly positive (only half of programme participants met academic progress standards), and without an adequate comparison group, difficult to interpret.

There are several possible explanations for our findings. First, the theory could be incorrect. It might be that the best way to improve academics is to have an explicit focus on academic instruction and tutoring, and that attempting to address possible non-academic barriers to school success is too far removed from academic outcomes. Findings from the focus groups support the possibility that the logic chain from non-academic barriers to academic functioning might be too long. Many FSWs felt that their job was to work on barriers, resources, and family support and engagement. Though they believed their work would be related to important outcomes, particularly attendance, disciplinary actions, mobility and parent involvement, they felt that the responsibility for improving academic performance should be in the hands of teachers.

This leads to a second possible explanation for our findings. It could be that family support can affect academic outcomes, but that the FSW's activities were not adequately connected to academic outcomes. In other words, the activities of the programme may

have been too diffuse or too diverse to impact academic outcomes. We witnessed and heard about a wide range of supportive and charitable activities, such as sourcing turkeys for Thanksgiving or obtaining clothing donations, but these activities are not as directly tied to academic functioning as other activities of the programme, such as obtaining glasses for students struggling to see clearly, or developing a feasible plan for getting the child to school on time. This premise is consistent with information we heard during focus groups, when some FSWs expressed that they had not been trained on how to identify and engage in activities that would be tied to academic outcomes.

In addition, the data management systems that the programme used were not capable of providing timely feedback to FSWs on the academic progress of students they served. Thus, aside from checking in with teachers and other staff about student progress, many of the FSWs were not able to monitor academic needs and progress. This could be a particular shortcoming of the FSP practice model, as progress monitoring and feedback has been found to uniquely promote positive outcomes for a range of social and health services for both adults (Lambert et al., 2003) and youth (Bickman, Kelly, Breda, & Andrade, 2011). At the same time, it is worth noting that, despite being more structured in terms of identifying and focusing on academic needs, the Minnesota programme mentioned above (Kundin, 2011) found similar results to those of the current study.

It is also possible that the impact of this FSP, particularly with its diverse and diffuse activities, is simply not strong enough to counteract the major barriers associated with poverty, racism, low expectations and underserved communities. In conducting our school-level analyses, we found an almost perfect negative correlation ($r = -0.926$) between school-level rates of poverty and school-level performance on standardized measures of functioning. This finding is extremely disheartening. It may be that the corrosive force of poverty on academic performance was too robust for a programme of this intensity and type of approach to impact. It should be noted that these findings generalized to other indicators usually believed to be important contributors to school quality. Our findings on the intercorrelations of school-level variables provided no support for any relationship between measures of academic functioning and staff and parent ratings of school leadership, school climate, teacher experience, teacher education and parental satisfaction. Parent engagement was the only variable significantly related to school-level academic achievement, consistent with the well-established findings described above.

One final possibility is that the programme theory is correct, but that the length of time for follow-up was not sufficient to observe change. We heard from many focus group participants that they believed that the strongest impact of the FSP would not be felt until years into the future.

Implications

Despite a plethora of programmes that provide some form of family support in schools, research is nascent. We were somewhat astonished to only find a few previous studies that attempted to test the theory presented in Figure 1 for a programme similar to the FSP. This is particularly surprising given the mounting pressures for school-related programmes to make efforts to demonstrate their impact on academic functioning, created by No Child Left Behind and other federal and state initiatives, and the plethora of theory-based literature in this area. FSPs will likely continue to serve many public school systems and continue to promote positive perceptions and positive social and family engagement outcomes. Until the research base on these programmes expands, this study should not serve as incontrovertible evidence that FSPs cannot influence academic outcomes.

To address this gap in what we know, future research should take a two-pronged approach to designing and studying FSPs. First, programmes that are truly committed (or mandated) to improving academic functioning should focus on activities that are directly linked to impacting academic outcomes. This could be accomplished through technology and data-based systems that track progress and focus programmes on academic indicators of success. Workers could be trained on evidence-based activities such as motivational interviewing and academic mentoring. These programmes would likely benefit from incorporating elements from evidence-based school interventions, such as Check and Connect (Anderson, Christenson, Sinclair, & Lehr, 2004), which monitor student academic functioning ('Check') and link the student to appropriate interventions based on those issues ('Connect').

Second, the field may need to take a more basic approach to studying school-based FSPs. This could begin with operationalizing their structure and activities and, if indicated, developing a taxonomy of programme types. Once described, researchers could explore the active ingredients of support programmes, and, through meta-analysis or original research that manipulates intervention variables, their association with change in academic success. Finally, for those most promising programmes, research could focus on site-randomized trials of their effectiveness, a research design that has yet to be attempted for school-based family support.

The urgency of this work is high. As we learned, FSPs are logical, popular with schools and families and have seemingly high promise for promoting positive outcomes. However, there is still much more to be learned.

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