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# Music Education Program Linked to Social-Emotional Advantage for Students Facing Economic Hardship

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## Purpose

Across the start of the 21st century, a combination of budget shortfalls and increased pressure to produce high student test scores in reading and math, has led to decreased access to music and arts education in public schools (Parsad & Spiegelman, 2012). The decrease in music and arts education in schools for children from low-income families is troubling, particularly as these are perhaps the children who most could benefit. Not only are these children less likely to have access to out-of-school music and arts programs, but additionally certain risks posed by poverty and racism are ones that potentially could be mitigated by high quality arts education.

Stress and trauma related to poverty and racism are associated with risk for child social-emotional difficulties. Recent research highlights the potential for music education to counter these risks, for example, by promoting teambuilding and inclusion, and offering opportunities for creative expression, success, and the development of emotion regulation skills (Brown & Sax, 2013; Lobo & Winsler, 2006). This study examines the impact of an afterschool music education program, Music Education Pathways, on social-emotional functioning for elementary school children facing economic hardship.

## Research Design

Settlement Music School's Music Education Pathways Program (MEP) was made available on a first-come, first-serve basis to students whose families completed and returned enrollment packets, and was free of charge to families. MEP offered band, orchestra, and choral programs, and participating students enrolled in just one type of MEP program. Each program was delivered afterschool for approximately two hours per week by Settlement Music School's credentialed music educators.

Using a quasi-experimental design, students in MEP were compared at pre- and post-intervention time points to their peers who had expressed interest in participating in MEP but were not enrolled because they were already participating in other afterschool programs

## Method

Ethical standards were followed, and all procedures were approved by the appropriate institutional review boards. The study included 430 students, with 284 in MEP (mean age = 9.73 years ( $SD = 1.26$ )) and 146 comparison students (mean age = 9.60 years ( $SD = 1.13$ )). All faced economic hardship, with family income-to-needs ratios  $< 2X$  the poverty threshold.

Parents completed a demographic interview. Students completed the Brief™ Problem Monitor to measure social-emotional problems (Achenbach, McConaughy, Ivanova, et al., 2011). The Brief™ is a shortened form of the well validated and widely used Achenbach Child Behavior Checklist (CBCL) and provides subscale scores for internalizing problems, attention problems, and externalizing problems, as well as a total problem score. Items that load on the internalizing problems subscale include "Too fearful or anxious," and "Sad or depressed." Items on the externalizing problems subscale include, "Argues a lot," and "Temper tantrums or hot temper." Items on the attention problems subscale include "Can't concentrate, can't pay attention for long," and "Inattentive or easily distracted."

## Results & Discussion

T-tests showed statistically significant differences in social-emotional functioning at the start of the year, with students in MEP versus the comparison group showing higher levels of difficulties in the fall. There were no significant differences in levels of social-emotional difficulties at the end-of-year time point.

Repeated measures multivariate analyses of covariance (MANCOVAs) examined the impact of time and MEP program participation on student social-emotional problems. Student age, sex (1 = male), family poverty status (1 = impoverished), and GPA were entered into the model as covariates.

Multivariate tests ( $df = 4, 421$ ) revealed a significant main effect of MEP, with students in MEP showing higher internalizing problems ( $F = 46.37, p = .00, \eta p2 = .099, power = 1.00$ ), externalizing problems ( $F = 30.05, p = .00, \eta p2 = .066, power = 1.00$ ), and total problem scores ( $F = 5.38, p = .021, \eta p2 = .013, power = .639$ ). There was also, however, a significant interaction effect of MEP and time, with students in MEP showing greater improvement across the year (Wilks' Lambda = .894,  $F = 12.53, p = .000, \eta p2 = .106, power = 1.00$ ).

Univariate tests ( $df = 1, 263$ ) indicated a significant interaction of time and MEP participation for the following indicators of social-emotional functioning: internalizing problems ( $F = 46.66, p = .00, \eta p2 = .099, power = 1.00$ ), externalizing problem ( $F = 28.77, p = .00, \eta p2 = .064, power = 1.00$ ), and total problem scores ( $F = 9.59, p = .002, \eta p2 = .022, power = .871$ ).

Results suggest that participation in MEP was associated with students' improvement in internalizing problem behavior, externalizing problem behavior, and overall problem behavior. The existence of preexisting differences on this set of variables raises questions about whether students with greater start-of-year problems were more likely to show improvement for reasons beyond MEP participation. However, the robust measurement of demographic variables in the present study rules out many possible confounds. It is possible that families whose children were struggling more at the start of year were more inclined to pursue participation in this after school music education program and that the program had a therapeutic impact for these children. The study highlights opportunities for using music to promote social-emotional wellbeing for children facing economic hardship.

