TECHNICAL NOTES TO ACCOMPANY THE WHITE PAPER ON AGGRESSION AMONG KINDERGARTEN CHILDREN IN GREENE COUNTY, MISSOURI

July, 2005

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INTRODUCTION:

In the early months of 2005, discussions held among the members of Every Kid Counts—later to become the Mayor's Commission for Children, Springfield, Greene County, Missouri—indicated a need to closely explore the nature of aggression among kindergarten children. As part of this exploration, a committee was formed to take the first steps in an investigation of aggression among area kindergartener children.

Two methods were used to collect this local information: face-to-face interviews with "key informants" and paper-and-pencil questionnaires completed by teachers and administrators of Springfield and Republic public schools. The interviews are heavily qualitative in nature and the questionnaires are heavily quantitative in nature.

The "White Paper" resulting from this work synthesizes the results of the interviews and questionnaires. It is written to best tell the "whole story" regarding the committee's findings. The following technical notes detail especially the administration and findings of the questionnaires. These notes are best seen as an accompaniment to the White Paper.

METHOD:

Questionnaires and interview protocols: Two questionnaires were developed to elicit teachers' and principals' experiences with aggression among kindergarten children. Each questionnaire contained both closed-ended and open-ended questions. Closed-ended questions included those concerning changes experienced in the frequency, severity and nature of aggressive acts, and the promise of focused training for kindergarten teachers and administrators. Open-ended questions included those probing the numbers of aggressive children within kindergarten classrooms and elementary school buildings, characteristics of the kindergarten contexts (e.g., size of class, amount of recess), the amount of time teachers and administrators spend dealing with aggression, and common forms of aggression. One questionnaire was constructed for use with teachers and the other for use with administrators. Copies of these instruments are found in Appendix A and Appendix B.

Two structured interview instruments were constructed for use with teachers and administrators who were considered key informants. The instruments' open-ended questions probed for information on special features of aggressive children and aggressive episodes, the management of aggressive behavior, contributions of children's contexts to their aggressive behavior, and the nature of aggressive acts. Copies of these instruments are found in Appendix C and Appendix D.

Participants: For the questionnaires, anticipated participants included all kindergarten teachers and all principles of buildings which housed kindergarten programs in Springfield and Republic school districts. Ninety-three questionnaires were distributed to Springfield kindergarten teachers, and 12 to Republic kindergarten teachers. Thirty-nine questionnaires were distributed to Springfield principals, and one to Republic principals.

For the key informant interviews, potential interviewees were recommended by Dr. Peggy Riggs, Associate Superintendent of Springfield Schools, and Dr. Karen Scott, Director of Student Support Services for Springfield Schools, and Principal Carol Lohkamp of Republic Schools. From these recommendations 16 persons were selected for interviews.

Administration: Questionnaires were distributed through the schools in March, 2005. Questionnaire respondents completed the questionnaires either individually or in group settings. Key informant interviews were conducted in a one-to-one, face-to-face fashion during April, 2005.

RESULTS OF DATA COLLECTED THROUGH QUESTIONNAIRES:

Response rate.

Of the 146 questionnaires distributed to kindergarten teachers and administrators of Springfield and Republic schools housing kindergarten programs, 140 were returned with wholly completed or partially completed responses for an overall response rate of 95.89%. From teachers, 101 of the 106 distributed questionnaires were returned with usable responses for a response rate of 95.28%. From administrators, 39 of the 40 distributed questionnaires were returned with usable responses for a response rate of 97.50%.

How is aggression manifested in the classroom?

Kindergarten teachers were asked to identify the three most common aggressive behaviors among their kindergarten children. On these three open-ended questions, the most frequent response was *hitting* (92), the second most frequent response was *shoving* (55), and the third most frequent response was *kicking* (45). Rare and unusual responses included *cursing*, *destroying property*, and *anger/bathroom issues*.

Appendix E lists the specific responses to this open ended question.

In addition, kindergarten teachers reported having observed *increases* in the incidences of biting, kicking, shoving, hitting, throwing objects with the intent to harm, profanity and name-calling. Table 1 displays the percent and numbers of teachers reporting decreases, no changes, or increases in these behaviors. For each of the behaviors noted in the table, reported increases were at statistically significant levels (one-sample t-tests [two-tailed] testing against "no change"; $p = .035$ for the question regarding biting, and ps = .000 for all others).

TABLE 1
Teachers' Responses to the Question, "If you have taught Kindergarten 3 years or more, have you noticed a change in the following?" for Questions Regarding Aggressive Displays. (Data are displayed as percentages; numbers of respondents appear in parentheses.)

	Significant decrease	**Moderate decrease**	**No change**	**Moderate increase**	**Significant increase**
Biting	3.8 % (3)	10.0 % (8)	53.8 % (43)	27.5 % (22)	5.0 % (4)
Kicking	1.3 (1)	3.8 (3)	27.5 (22)	43.8 (35)	23.8 (19)
Shoving	1.3 (1)	3.8 (3)	21.3 (17)	33.8 (27)	40.0 (32)
Hitting	1.3 (1)	2.5 (2)	21.3 (17)	36.3 (29)	38.8 (31)
Throwing objects with intent to harm	2.5 (2)	7.5 (6)	37.5 (30)	42.5 (34)	10.0 (8)
Profanity	3.8 (3)	2.5 (2)	31.3 (25)	45.0 (36)	17.5 (14)
Name-calling	0.0 (0)	2.6 (2)	25.6 (20)	38.5 (30)	33.3 (26)

As with teachers, administrators reported having observed *increases* in the incidences of biting, kicking, shoving, hitting, throwing objects with the intent to harm, profanity and name-calling. Table 2 displays the percent and numbers of administrators reporting decreases, no changes, or increases in these behaviors. For each of the behaviors noted in the table, reported increases were at statistically significant levels (one-sample t-tests [two-tailed] testing against "no change"; *p*s = .000).

TABLE 2
Administrators' Responses to the Question, "If you have worked with Kindergarten students 3 years or more, have you noticed a change in the following?" for Questions Regarding Aggressive Displays. (Data are displayed as percentages; numbers of respondents appear in parentheses.)

	Significant decrease	**Moderate decrease**	**No change**	**Moderate increase**	**Significant increase**
Biting	0.0 % (0)	5.6 % (2)	44.4 % (16)	44.4 % (16)	5.6 % (2)
Kicking	0.0 (0)	0.0 (0)	38.9 (14)	50.0 (18)	11.1 (4)
Shoving	0.0 (0)	0.0 (0)	30.6 (11)	41.7 (15)	27.8 (10)
Hitting	0.0 (0)	0.0 (0)	16.7 (6)	58.3 (21)	25.0 (9)
Throwing objects with intent to harm	0.0 (0)	2.8 (1)	47.2 (17)	33.3 (12)	16.7 (6)
Profanity	0.0 (0)	5.6 (2)	30.6 (11)	38.9 (14)	25.0 (9)
Name-calling	0.0 (0)	2.9 (1)	40.0 (14)	42.9 (15)	14.3 (5)

Impulse control among kindergarten children.

In addition, information was sought information on whether teachers and administrators had observed changes in children's impulsive behavior over the years, as impulsivity is often considered to be one of the underlying factors associated with aggressive behaviors. Commonly, persons' inability to resist temptation and inability to delay gratification are considered important contributors to impulsivity. The two questions found in Table 3 sought teachers' observations regarding changes in kindergarteners' ability to resist

temptation and delay gratification. Changes reflect statistically significant increases in the inability to resist temptation and the inability to delay gratification (one-sample t-tests [two-tailed] testing against "no change"; *p*s = .000).

TABLE 3
Teachers' Responses to the Question, "If you have taught Kindergarten 3 years or more, have you noticed a change in the following?" for Questions Regarding Resistance to Temptation and Delay of Gratification. (Data are displayed as percentages; numbers of respondents appear in parentheses.)

	Significant decrease	**Moderate decrease**	**No change**	**Moderate increase**	**Significant increase**
Unable to resist temptation	0.0 % (0)	5.0 % (4)	18.8 % (15)	50.0 % (40)	26.3 % (21)
Unable to delay gratification	0.0 (0)	2.5 (2)	17.5 (14)	43.8 (35)	36.3 (29)

As with teachers, administrators reported statistically significant increases in the inability to resist temptation and the inability to delay gratification (one-sample t-tests [two-tailed] testing against "no change"; *p*s = .000). Table 4 displays the specific findings.

TABLE 4
Administrators' Responses to the Question, "If you have worked with Kindergarten students 3 years or more, have you noticed a change in the following?" for Questions Regarding Resistance to Temptation and Delay of Gratification. (Data are displayed as percentages; numbers of respondents appear in parentheses.)

	Significant decrease	**Moderate decrease**	**No change**	**Moderate increase**	**Significant increase**
Unable to resist temptation	0.0 % (0)	2.9 % (1)	31.4 % (11)	54.3 % (19)	11.4 % (4)
Unable to delay gratification	0.0 (0)	0.0 (0)	22.2 (8)	58.3 (21)	19.4 (7)

How is aggressive behavior handled?

Aggression in the classroom presents several challenges for teachers and administrators who are responsible for all of the children in their care. Mild or infrequent aggression is often dealt with nothing more than mild admonition on the part of teachers, and often this response is sufficient for handling the aggression. However, more severe aggression and more frequent aggression may result in measures that can range from parent notification to suspension.

Teachers and administrators were asked if they had experienced changes over the years in regard to their specific responses to aggressive behavior. Table 5 displays the findings for teachers. Statistically significant increases were found for each of the following (one-sample t-tests [two-tailed] testing against "no change"; *p*s = .000).

TABLE 5
Teachers' Responses to the Question, "If you have taught Kindergarten 3 years or more, have you noticed a change in the following?" for Questions Regarding Management of Aggressive Episodes among Children. (Data are displayed as percentages; numbers of respondents appear in parentheses.)

	Significant decrease	**Moderate decrease**	**No change**	**Moderate increase**	**Significant increase**
Restraint required for children who are a physical threat to themselves and others	5.0 % (4)	5.0 % (4)	33.8 % (27)	38.8 % (31)	17.5 % (14)
Number of K students who are sent outside the classroom for aggressive behavior	3.8 (3)	2.5 (2)	22.5 (18)	31.3 (25)	40.0 (32)
Consultation with parents regarding accessing outside services	2.5 (2)	5.1 (4)	25.3 (20)	41.8 (33)	25.3 (20)
Referrals to counselor for K student aggression	1.3 (1)	6.4 (5)	19.2 (15)	44.9 (35)	28.2 (22)
Bus rider privileges rescinded because of aggressive K behavior	4.4 (3)	0.0 (0)	50.0 (34)	30.9 (21)	14.7 (10)
Number of ISS and OSS incidents for Kindergarteners	5.1 (4)	1.3 (1)	38.0 (30)	31.6 (25)	24.1 (19)

As with teachers, administrators reported statistically significant increases in specific responses to aggression among kindergartners (one-sample t-tests [two-tailed] testing against "no change"; *p*s = .000, except for the variable "bus rider privileges" in which *p* = .009). Table 6 displays these findings.

TABLE 6

Administrators' Responses to the Question, "If you have worked with Kindergarten students 3 years or more, have you noticed a change in the following?" for Questions Regarding Management of Aggressive Episodes among Children. (Data are displayed as percentages; numbers of respondents appear in parentheses.)

	Significant decrease	**Moderate decrease**	**No change**	**Moderate increase**	**Significant increase**
Restraint required for children who are a physical threat to themselves and others	0.0 % (0)	8.3 % (3)	38.9 % (14)	22.2 % (8)	30.6 % (11)
Number of K students who are sent outside the classroom for aggressive behavior	0.0 (0)	2.8 (1)	22.2 (8)	44.4 (16)	30.6 (11)
Consultation with parents regarding accessing outside services	0.0 (0)	5.7 (2)	17.1 (6)	42.9 (15)	34.3 (12)
Referrals to counselor for K student aggression	0.0 (0)	2.9 (1)	17.6 (6)	47.1 (16)	32.4 (11)
Bus rider privileges rescinded because of aggressive K behavior	0.0 (0)	0.0 (0)	68.2 (15)	22.7 (5)	9.1 (2)
Number of ISS and OSS incidents for Kindergarteners	0.0 (0)	2.9 (1)	37.1 (13)	31.4 (11)	28.6 (10)

In addition, teachers were asked if there were some aggressive kindergarten children whose behavior was unmanageable within the limits of the classroom. Of the 96 teachers who responded to this question, 72.9% reported "yes" and 27.1% responded "no." When asked of those who responded "yes" how many of these kindergarten children are encountered per year, teachers often reported a range of numbers (e.g., "1 – 2"). The findings revealed that, on the lower end, teachers most frequently reported that one child fit this description. On the higher end, teachers most frequently reported that two children fit the description. Individually, teachers reported numbers ranging from zero to 10 children.

Administrators were asked a slightly different question: Were there some aggressive kindergarten children whose behavior was unmanageable within the limits of the *school* [emphasis added here]. Of the 38 administrators who responded to this question, 57.9% reported "yes" and 42.1% reported "no." When asked of those who responded "yes" how many of these kindergarten children are encountered per year, administrators tended to report either one or two, with numbers ranging from as few as one to as many as five.

How does aggression affect the classroom?

Teachers and administrators were also asked how much of their time is spent dealing with aggressive behavior by their kindergarten students. Of the 92 teachers who responded to this question, the median percentage reported was 15.0% with ranges from 0% through 80%. About two-thirds of these teachers (67.4%) reported percentages between 3% and 30% of their time spent dealing with aggressive behavior, and about half (54.3%) reported spending more than 10% of their time dealing with aggressive behavior. It must be noted that "dealing with aggressive behavior" involves both comforting victims and confronting aggressors. When asked how many children would be considered aggressive in their classrooms, teachers reported a median number of 2.5 children per classroom with numbers ranging from 0 to 16 (with the vast number of teachers [81.2%] reporting values between one and five children).

Finally, teachers were asked if there were observed changes in the frequency and severity of aggressive behavior in the kindergarten classroom. Table 7 displays the number of respondents and the percent of teachers reporting decreases, no changes or increases in the frequency and severity of aggression in kindergarteners. Changes reflect statistically significant increases for both frequency and severity (one-sample t-tests [two-tailed] testing against "no change"; *p*s = .000).

TABLE 7
Teachers' Responses to the Question, "If you have taught Kindergarten 3 years or more, have you noticed a change in the following?" for Questions Regarding Frequency and Severity of Aggression. (Data are displayed as percentages; and numbers of respondents appear in parentheses.)

	Significant decrease	**Moderate decrease**	**No change**	**Moderate increase**	**Significant increase**
The frequency of aggression	2.5 % (2)	2.5 % (2)	21.3 % (17)	26.3 % (21)	47.5 % (38)
The severity of aggression	2.5 (2)	3.8 (3)	27.5 (22)	30.0 (24)	36.3 (29)

Administrators too were asked if there were observed changes in the frequency and severity of aggressive behavior in the kindergarten classroom. Table 8 displays the number of respondents and the percent of administrators reporting decreases, no changes or increases in the frequency and severity of aggression in kindergarteners. Changes reflect statistically significant increases for both frequency and severity (one-sample t-tests [two-tailed] testing against "no change"; *p*s = .000).

TABLE 8

Administrators' Responses to the Question, "If you have worked with Kindergarten students 3 years or more, have you noticed a change in the following?" for Questions Regarding Frequency and Severity of Aggression. (Data are displayed as percentages; numbers of respondents appear in parentheses.)

	Significant decrease	**Moderate decrease**	**No change**	**Moderate increase**	**Significant increase**
The frequency of aggression	0.0 % (0)	2.8 % (1)	19.4 % (7)	41.7 % (15)	36.1 % (13)
The severity of aggression	0.0 (0)	8.3 (3)	25.0 (9)	33.3 (12)	33.3 (12)

Characteristics of the kindergarten setting: Some questions of teachers involved characteristics of the kindergarten setting. Teachers reported having a median number of 21 children in their classrooms with a range of 12 to 34. Teachers reported their children received a median number of 30 minutes of recess time per day with a range of "5 to 10" minutes to 60 minutes. Finally, when asked about their years of experience working with kindergarten children, 21.2% of teachers reported one to two years, 16.2% reported three to five years and 62.6% reported six or more years.

Corresponding questions of administrators yielded the following responses: Administrators reported having a median of 45 children in their buildings with a range of 19 to 300 (with 300 being the case in Republic). Administrators reported their children received a median of 30 minutes of recess with a range of 20 minutes to 60 minutes per day. When asked about their years of experience working with kindergarten children, 5.3% reported one to two years, 23.7% reported three to five years and 71.1% reported six or more years.

Teachers' and administrators' valuing of focused training on how to effectively handle aggressive behavior.

Teachers overwhelmingly reported that they would benefit from effective training in how to deal with aggressive behavior, with 83.5% of 97 respondents checking that training would be "somewhat beneficial" (36.1%) or "very beneficial" (47.4%).

Administrators also reported that they would benefit from effective training in dealing with aggressive behavior, with 86.5% of the 37 respondents noting that training would be "somewhat beneficial" (43.2%) or "very beneficial" (43.2%).

Comments

Additional comments were solicited. Those responses are listed in Appendix F, along with comments on other noted questions.