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Abstract

Many teachers report using behavioral management charts in their classrooms as a means of managing student behaviors, but little is known about exactly what behaviors teachers are charting, or specifically how. Misunderstanding over how real-world teachers maintain behavioral charts may cause miscommunication between the teacher and the school psychologist. This study sought to determine how teachers collect and track behavioral data. Researchers examined behavioral charts used by teachers in a Title I elementary school that reported using Positive Behavioral Intervention Supports (PBIS). Researchers evaluated charts for 10 classrooms (~150 students) and compared the type of data collected by each teacher for each child. Findings indicated that teachers either used: no system, their own systems, or a computer-based system (Class Dojo) for charting behavior. An analysis of each of these systems found that Class Dojo provided significantly more data (positive and negative notations) in general, as well as more reliable data than any other system reviewed. Discussions of these findings within a PBIS framework, as well as general concerns about the computer-based system, are provided.

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When a school psychologist wishes to help a teacher solve behavioral management issues in the classroom, it is vital that both professionals use a shared vocabulary (Sterling-Turner, Watson, & Moore, 2002). This is especially true when teachers are discussing empirically-based intervention practices. The current study specifically examines how teachers define the use of one specific behavioral management term: behavior management charts (BMCs). There is plenty of research supporting the use of BMCs (Tillery, Varjas, Meyers, & Collins, 2010), but only when they are used based on specific guidelines (Krach, McCreery, Wilcox, & Focaracci, in press). Unfortunately, there is very limited study in whether real-world teachers are actually following these guidelines. Thus, the purpose of this paper is to examine teachers' use of behavioral logs and to compare that use against empirically-based methods used as part of the decision-making process within a PBIS framework.

Positive Behavioral Intervention Supports (PBIS)

The Positive Behavioral Intervention Supports (PBIS) model establishes a method for providing social, emotional, and behavioral services to children within schools (OSEP, 2009). At its root, PBIS is a multi-tiered system of interventions. At the first tier (Tier 1), all children (100%) are provided an intervention; about 15% of children receive additional support at Tier 2, and about 5% receive even more intensive support at Tier 3 (Basham, Israel, Graden, Poth & Wintson, 2010). This model has been found to dramatically reduce school-based problem behaviors (OSEP, 2009).

According to Sugai and Horner (2006), PBIS is guided by three tenets: "prevention, theoretically sound and evidence-based practice, and systems implementation" (p. 246). To

accomplish these goals, each tier has three mandatory components: 1) data collection, 2) implementation of research-based interventions, and 3) determination of the proper services for the child (Krach & McCreery, 2016). Each of these components must be able to show the following: effectiveness (obtains desired outcomes), efficiency (benefits over cost), relevancy (fits context), and durability (sustainable practice) (Sugai & Horner, 2006).

When asked about their primary methods for supporting positive classroom behaviors at the Tier 1 level, many teachers describe the use of behavior management charts (BMCs; Tillery et al., 2010). BMCs are used both to collect and manage data, and as methods of determining rewards and punishments. Given the popularity of BMCs, it is imperative that teachers' use of these charts be empirically evaluated to determine if they meet the requirements as both effective data collection tools and / or research-based interventions so that they can be used within the PBIS framework (Basham, et al., 2010). The current paper focuses on the data collection component of PBIS and specifically evaluates the effectiveness of the specific evaluation methodology of using BMCs.

Behavioral Management Charts (BMCs)

BMCs as Data Management Tools. BMCs can be used in multiple ways, but the primary purpose is to collect and manage data (Sattler & Riddell, 2014). Data from BMCs results in a numerical count of the number times (or the duration of time) that a child exhibits either a positive or negative behavior or in a verbal description of the behavior (Tillery, Varjas, Meyers, & Collins, 2010). Numerical data can also be used to describe neutral activities as well. Numerical data from BMCs allow teachers to determine the effectiveness of an in-class

intervention (Zirpoli & Buese, 2012) as part of the PBIS framework (OSEP, 2009). Without an appropriate method of collecting data, decisions determining the level of support needed cannot be made with accuracy. In order for the data to be accurate, it is imperative that the data collected are based upon operationally defined behavior (Gresham, Gansle, & Noell, 1993). For example, it is not enough to say that a child "misbehaved;" instead, a teacher should say that the child was "out of his seat without permission." In addition to using BMCs as a data collection / data management tool, BMCs can be used as a part of a more structured intervention plan that includes rewards and punishments.

One of the main problems with using BMCs as assessment tools is the current dearth of research on the psychometrics of the data created. Although Gresham et al. (1993) describe the need for valid BMCs, no peer-reviewed studies have been conducted with teachers in a real-world classroom setting.

BMCs as Intervention Tools. Behavioral management charts (BMCs) have often been used as part of an intervention system. The most effective of these are structured systems, such as token economies (Kazdin, 1977), Behavioral Report Cards (Cox, 2005), and Check-in / Check-out (CICO; Todd, Campbell, Meyer, & Horner, 2008) techniques. When using a BMC for a token economy, children would receive a reward (e.g., candy, free time, etc.) at the end of a specified period of time (e.g., 1 day, 1 week, etc.) for a certain number of reported incidents of good behavior (e.g., 10 check marks in 5 days). Token economy systems can be implemented at the Tier 1 level (Filcheck, McNeil, Greco, & Bernard, 2004) as well as in Tiers 2 and 3 (Miltinberger, 2012). There is some dispute over the effectiveness of token economies for long-term use of behavior management (Doll, McLaughlin, & Barretto, 2013; Maggin, Chafouleas,

Goddard, & Johnson, 2011), and there have been concerns that token economies might actually cause behavioral problems if used incorrectly (Kazdin, 1982; Morgan, 1984).

To counter some of the apprehensions regarding token economies, teachers can use behavioral report cards instead. Similar to a token economy system, behavioral report cards provide numerical feedback (number of correct or incorrect actions) to the students, but it also provides the feedback to the parents (Cox, 2005). When using a behavioral report card, it is the parents' responsibility to administer any rewards or punishments to the child (Atkeson & Forehan, 1979; LaBel et al., 2013). However, for full effectiveness, behavioral report cards require teachers to provide very specific information to the parents about both what the child is expected to do as well as what the child actually does in the classroom (Chafouleas, Riley-Tillman, & McDougal, 2002). Behavioral report cards work well when used correctly (Crone, Horner, & Hawken, 2004); however, they are very time-consuming, and thus should be considered mostly for Tier 2 or Tier 3 approaches (LaBel et al., 2013).

Finally, Check-in / Check- out (CICO) techniques also use BMCs to provide specific feedback. CICO uses the rewards system of a token economy as well as the behavioral report card goals of parent / teacher / child interaction (Todd, Campbell, Meyer, & Horner, 2008). The main difference for CICO is that the child checks in with an adult during the morning to discuss the goals for the day and checks out at the end of the day to discuss how it went (Campbell & Anderson, 2011). As with behavioral report cards, CICO is time-consuming and should be considered as a best approach for Tier 2 or Tier 3 levels (Carter, Carter, Johnson, & Pool, 2013; Crone & Hawkin, 2010).

Effectiveness of teachers' use of BMCs. Although evidence supports the use of BMCs integrated into one of the above-mentioned reward-based intervention systems (Fairbanks, Sugai,

Guardino, & Lathrop, 2007), in actuality, it seems teachers primarily use BMCs to determine whether children received rewards or punishment (Tillery, et al., 2010). In a qualitative study, Tillery, et al. (2010) found that BMCs were mostly used on a response cost / punishment basis (e.g., a child who misbehaves loses free time or gets an office referral). When rewards were offered, they were not based on students doing the right things (e.g., child raised their hand), but were instead awarded when children did not do the wrong thing (e.g., they had no "frowny faces" on the behavior chart for the week). Other than the current study, there is little available documentation about how teachers actually use BMCs as an intervention tool in their classrooms (Rosen, et al., 1990; Tillery, et al., 2010).

In addition to the lack of data on the use of BMCs as an intervention tool, there is also a shortage of current studies on the use of BMCs as a data collection / data management system. Atkeson and Forehand (1979) conducted the most comprehensive and evaluative literature search available on the topic. Specifically, they examined the use of BMC data as part of a parent-teacher communication plan and found that, when provided information about their children's behavior, parents often implement home-based punishments and rewards accordingly. As a result of these home-based punishments / rewards, children's school behaviors improved. However, it should be noted that this communication tool only works when parents actually receive the information. Children with significant behavioral problems sometimes lose or throw away behavioral notes from school before arriving home (Schumaker, Hovell, & Sherman, 1977), so their parents may never see them, nor consequently implement a home-based intervention system.

Rationales for teachers' use of ineffective models. Teachers describe spending an inordinate amount of time dealing with classroom infractions instead of teaching academic skills

(Little & Akin-Little, 2008). This may be in part because the techniques they use to manage the classroom produce inconsistent results (Little & Akin-Little, 2003; Rosen, et al., 1990). These outcomes are possibly a byproduct of insufficient training in classroom management prior to entering the classroom. (Levine, 2006). Tillery, et al. (2010) found that many teachers received some basic class management instruction in college, but for most this was embedded in various classes instead of being offered as an in-depth, stand-alone course. In addition, when teachers discussed strategies for behavior management, they talked mostly about techniques to manage individual children instead of entire classrooms.

Since pre-service teachers may not receive sufficient training in classroom management, working teachers get their information from less reliable sources, including short-session in-services, trial and error, and other teachers (Evertson & Smithey, 2000; Tillery, et al., 2010). These may be insufficient because they provide incomplete or inaccurate information. For example, even if teachers receive some instruction in effective behavior management techniques using BMCs, they may not receive sufficient training to implement such a program effectively (Fairbanks, et al., 2007; Maggin et al., 2011).

Clearly, many teachers do not receive this necessary level of support for classroom management (Evertson & Smithey, 2000; Levine, 2006; Tillery, et al., 2010). Therefore, teachers may be using incomplete information or partially accurate techniques, and cobbling together an ineffective hybrid of methods that include BMCs at the heart (Tillery, et al., 2010). Teachers who use ineffective methods may see no significant change in behaviors, and therefore stop using them altogether." This is especially possible with techniques such as BMCs, which require documenting and logging children's behavior. This type of activity contributes to teachers' paperwork burden, taking time away from teaching tasks (Ingvarson, et al., 2005; Schlicte,

Yssel, & Merbler, 2005; Tusting, 2009). With only so many hours in the day, teachers may either give up the use of BMCs, or else search for some quicker, easier method of documenting behaviors. One such method is a computer-based system called Class Dojo.

Description of Class Dojo

According to their website (https://www.classdojo.com), Class Dojo is a free, positive classroom management program with more than 35 million users (teachers, parents, and students). The software's makers report that at least one teacher in about a third of American schools is using Class Dojo (Singer, 2014). In a dissertation, Barbarán (2014) found that Class Dojo was being used by about eight percent of the teachers studied. The journal Technology and Learning ranked Class Dojo among the top 100 sites and applications for 2012 (Kapuler, 2013). In response to positive feedback about the software from teachers and the press, many school districts are integrating it into their school improvement plans. For example, Bibb County School District in the State of Georgia says, "all students are expected to earn and maintain a score of 80% or better for behavior on Class Dojo" (Dwight, 2014, p. 6).

In essence, the software is a computer-based method of generating a Behavior Management Chart (BMC). Children are able to choose an avatar (e.g., a cute monster) to represent them on the screen. Teachers click the avatar to give a Dojo point for positive behaviors and take away a Dojo point for negative behaviors. Teachers can give or remove Dojo points for a single child or an entire classroom. The software is cross-platform, so a teacher may use it on a computer, a tablet, their smartphone, or an interactive white board. Parents may log in from home computers to see how their children are doing.

Although clearly it is very popular, almost no peer-reviewed studies have been conducted on Class Dojo. Several authors describe the program in their writings (Cumming, 2013;

Hammonds, Matherson, Wilson, & Wright, 2013; Reinders, 2014; Zurawski, 2015), but only one published study actually provided data on its use (MacLean-Blevins, 2013). The MacLean-Blevins (2013) study had serious methodological problems, such as small sample size (n = 23), brief subject exposure to the program (8 total days), and poor instrumentation. In addition, the study was not published in a peer-reviewed journal.

The only other publication directly addressing Class Dojo was by Singer (2014) in The New York Times. Unlike other available writings, Singer (2014) described concerns about the use of Class Dojo, not just praises. Singer's article mentions that educators and parents took issue with Class Dojo retaining a permanent record on the children; the software publisher addressed this concern by restricting the storage system to maintain data for a single year (Singer, 2014). Other parental concerns described are that the system uses "flashy" graphics to bribe children to behave. In addition, some parents object to the sounds and monster images as being non-conducive to learning. Also, they assert that Class Dojo can be used as a shame-based tool because every child's Dojo points can be displayed to the entire classroom on an interactive white board screen. Finally, another parent expressed a similar concern by stating that the number of Dojo points should only be shared with the specific child and parents, not the entire class.

Purpose of the Current Study

As has been described, there is a significant shortage of literature on the real-world use of BMCs. Specific data are needed on how teachers define BMCs as well as the nature of the data collected by real-world teachers. Information on how teachers describe a BMC is needed, because all individuals working with children should use a shared vocabulary so that PBIS can be effective (Sterling-Turner, Watson, & Moore, 2002; Krach & McCreery, 2016). Without a

shared vocabulary, it is impossible for those working with students to know exactly what types of data that teachers are tracking and reporting.

Given that the use of BMCs has expanded beyond paper-and-pencil to internet-based software programs (e.g., Class Dojo), it is imperative that differences between the two methods also be described. The current study not only sought to explore the types of data reported by Class Dojo as compared to traditional, paper-and-pencil BMCs, but also evaluated the reliability of the data produced by each method.

Methods

Participants

Participants were recruited from an urban, Title 1, elementary school in the Southeastern United States. It should be noted that the school was participating in a different study on the efficacy of a social-skills training program where classes had already been randomly assigned to either a control or experimental group. Only data from the control group were included in the current study.

The school had a population of 517 children at the time of the study. Out of these 517 children, 88 were removed because they did not have a written consent from the parent to use their data. Out of the remaining 429 students, 260 were disqualified because of participation in the other study; this left a sample of 169 students across ten classrooms. The sample breakdown across grades included: 30 kindergarteners, 37 first graders, 27 second graders, 23 third graders, 36 fourth graders, and 16 fifth graders. All of the students were identified as African-American. A roughly even number of male (n = 81) and female (n = 75) students were included in the sample.

Of the ten classrooms that were eligible for the current study, all ten teachers consented to be involved in the data collection. Of these classrooms, two were kindergarten classes, two first grade, two second grade, one third grade, two fourth grade, and one fifth grade. All teachers were African-American women. Given that the current study examined the use of BMCs within a PBIS model, it is important to note that the school self-identified as a PBIS school. In addition to information about PBIS provided in the school's materials, there were also posters hanging in each hallway supporting this claim.

In the interest of obtaining an authentic sample of BMC, the researchers did not train the teachers to use a specific system. During pre-planning, the principal requested that teachers use a school-approved system, called a "Discipline Log," that offered columns for date, offense, action taken, and the student's initials (where the student marked that they were cognizant of their offense). Although the school describes itself as a "PBIS school," the school-approved log did not include any options to denote positive behaviors.

The researchers requested that the teachers at the beginning of the year to keep a copy of any behavioral logs, materials, papers, or notes home that they felt were representative of their students' BMCs. They were also asked to provide any logged data on the "school approved forms." At the end of the data collection period, these logs were provided to the researchers and scanned into a computer for coding.

As a reminder, all data for the current study came from the control group for a different study. Only the charts from a 10-week period (from October 15th to January 156h) were included in the study as the control group transitions to an intervention group after January.

Instruments

The materials provided to the researchers revealed that teachers used different types of BMCs, including both paper-and-pencil as well as computer-based (e.g., Class Dojo) techniques. The teachers that used Class Dojo (N = 3) adopted this technology without input from the researchers. Teacher-made systems (N = 3) included tally marks, behavior journals, and check marks. Some teachers (N = 2) used no behavioral tracking system at all. One of the teachers used more than one teacher-made tracking system (combining multiple methods, such as letters home and noting behaviors in a log). This teacher did not use Class Dojo as one of her methods. Finally, one of the teachers included in this study used the "Discipline Log" (which as the school-approved form).

Data Analysis

Given that the purpose of this study was to provide an overview of the different BMCs used by teachers, it was important to note information about the type of chart used as well as any specific type of data collected from this chart technique. To this end, each chart was coded into one of five categories: no log, Class Dojo, school approved form, teacher-made systems, or multiple types (teacher-made with letters home). Notations were made for each of these categories (1 notation = 1 count).

The data from each of these BMC types was then coded for specific behavioral notation types: positive, negative, or neutral. Positive notations indicated correct behavior, and negative notations indicated misbehavior. Neutral notations might be class-related reminders or instructions, e.g., "Don't forget your permission slips." Notations were made for each of the subtypes (1 notation = 1 count).

As this was an exploratory study, descriptive statistics are provided for each of the BMC types (Class Dojo, school-approved discipline log, teacher-made, or multiple types) and type of

notation. Statistical significance testing was done to examine the differences between each type of BMC (i.e., no log, Class Dojo, letters home, school approved, teacher-made, multiple types) and the number of notations provided. Significance testing was conducted through the use of the Wilks' λ in MANOVA with post-hoc testing examining between-subjects effects and further t-tests with Bonferroni correction using SPSS software version 22.0.0.0. Finally, test-retest reliability was run on each of the types of data collection methods.

Results

Of the 169 students included in the study, 37 had teachers who used no type of log, 31 had teachers who used Class Dojo, seven had a teacher who used the school-approved log, 62 of them had teachers with their own log systems, nine had teachers send home notes, and two had a teacher who used multiple systems during the time period of study. Table 1 provides the average number of positive, negative, and neutral notations per child by type. Note that the standard deviations are large, indicating that some children received many notations while other children received none. Table 2 provides the average number of positive, negative, and neutral behavioral notations per child across both grade level and gender.

There was a statistically significant difference in the number of log entries made by the type of log used, $F (3, 140) = 56.04$, $p < 0.001$, partial $\eta^2 = .546$. Follow-up tests of between-subject effects found statistically significant differences between type of log and positive behavioral notations, $F (5, 142) = 38.03$, sig < 0.001, partial $\eta^2 = 0.572$; type of log and negative behavioral notations $F (5, 142) = 2.97$, sig $= 0.014$, partial $\eta^2 = 0.10$; and type of log and neutral behavioral notations $F (5, 142) = 47.01$, sig < 0.001, partial $\eta^2 = .623$.

Post-hoc t-tests using Bonferroni correction found a statistically significant difference between Class Dojo and the other techniques ($p < 0.001$ – all comparisons) for both positive and

total behavioral notations. Alternatively, no statistical significance was found between BMCs when negative behavioral notations were examined. Further, although there were statistically significant differences on the neutral logs, because of the low number of neutral logs, these should not be considered. Table 1 provides specific information on the number made for each type of log across positive, negative, and neutral notations.

Table 3 provides test-retest, Pearson correlation coefficients for each log type across each notation type. The initial test data was derived from a composite of 11 days' worth of teacher notations; approximately two months later, the re-test data were derived from a composite of 11 additional days' worth of teacher notations. All test-retest notations were completed by the same teacher. Both 11 day spans started on a Monday morning. Findings indicate that Class Dojo demonstrated statistically significant correlation coefficients for positive ($p < .001$), negative ($p < .001$), and total ($p = .02$) notation types. Teacher-made systems found statistically significant correlation coefficients for negative ($p = .01$), neutral ($p < .001$), and total ($p = .02$), notation types. Karras (1997) state that statistically significant correlations indicate score reliability, but correlation coefficients of .80 are most desirable when determining data to be reliable. In addition, Wrobel and Armstrong (2008) state that good reliability correlation coefficient estimates are above .75; whereas, moderate estimates fall within the 0.5-0.75 range, and poor are below 0.5. Using these estimates, teacher-made systems provided reliable data only for neutral notations. Class Dojo provided moderately reliable data for positive notations, and near-moderately reliable data for negative notations as well. No other BMC methods provided data that could be considered reliable for any other notation types.

Discussion

The purposes of this study were to 1) gather information on what real-world teachers consider to be Behavioral Management Charts (BMCs) and 2) explore the quantity and reliability of the information obtained by teachers using these different BMC methods (including digital and paper-and-pencil).

It was discovered that teachers describe "BMCs" in variety of ways. Some consider BMCs to be structured techniques, such as Class Dojo or check marks, while others think of BMCs as being less structured, such as behavioral journals or frowny / smiley faces. Some teachers identified BMCs as notes home, and still others used no method at all of assessing the behavior of their students in the classroom.

In answer to the second purpose, teachers most often used paper-and-pencil BMCs to track negative behavior, and very infrequently tracked positive behavior. This is consistent with findings from Tillery and colleagues (2010). In addition to tracking mostly negative behaviors, teachers using paper-and-pencil BMCs did not consistently provide ratings for all children. For example, by looking at the standard deviation of negative ratings (see Table 1), it is clear that some children receive no notations, while others may receive 25 or more notations. Finally, reliability data for paper-and-pencil versions show some reliability of these BMCs as methods of tracking neutral data, but not as methods of tracking positive or negative data types.

The findings were significantly different for the computer-based method of using Class Dojo. Not only did teachers significantly increase their positive per-child notation, they provided almost double the number of positive notations over negative ones. However, even with Class Dojo, based on the standard deviations (see Table 1), it seems that some children received a disproportionate number of both positive and negative notations compared to other children. It

is clear from the current findings that Class Dojo is superior to other BMCs used by real-world teachers as data-management systems. Specifically, Class Dojo resulted in 17 times more data points than the school-approved method, four times more than the teacher-made methods, and 18 times more than multiple methods combined by a single teacher. Finally, teachers using Class Dojo provided more than 50 times more data points than teachers who used no log at all. Given the data-driven nature of PBIS (OSEP, 2009), these numbers are important. It is clear that Class Dojo provides more data for teachers to use in making decisions about children's needs and determining the level of services students need in the multi-tiered PBIS decision-making process (Krach & McCreery, 2016). In addition, the data were more reliable for positive notations and potentially negative ones as well.

However, there are some problems with the Class Dojo system. First, in a low socio-economic school such as the one in this study, it is unlikely that parents will have easy access to their children's data, because they may not have a computer with Internet access (Warschauer, Knobel, & Stone, 2004). Therefore, Class Dojo may be a more available home-school communication tool for children in a higher socioeconomic strata (Atkeson & Forehand, 1979; Leach & Tan 1996) than for students from a lower one.

However, Class Dojo may have a more significant problem than simple inequality of data access: namely, potential legal problems associated with data privacy and confidentiality. In a New York Times article, Singer (2014) reported parental concerns about the entire classroom being able to see how many Dojo points each child has. Singer added that parents believe this may be a "shaming" approach to behavior management. Although not mentioned in the article, it should be noted that this shaming concern is not a superficial issue; by posting public data about a child's progress, teachers are violating the children's (and their family's) rights to privacy and

records protection under the Family Educational Rights Privacy Act (FERPA, 1974). This is almost certainly an issue when Class Dojo is used on an electronic whiteboard. FERPA issues for Class Dojo may be solvable by having teachers simply use a handheld device to track Dojo points (e.g., on a tablet or smartphone), or by using a password-protected computer.

Finally, although Class Dojo provides a solid argument for being the most accurate and consistent BMC, this should not be equated with being psychometrically sound. Rather, although positive and negative behavioral notations demonstrated statistically significant correlation coefficients, none of the reliability findings for any of the notation types were found to exhibit "good" reliability. In addition, the current study did not examine the validity of the notations documented within Class Dojo. Thus, additional psychometric study is needed across all BMC types.

Given the extreme popularity of Class Dojo (more than 35 million users) and the scarcity of other studies to support its use, the current work is only an introduction into future Class Dojo studies. Though the current study supports Class Dojo as a data collection / data management tool, future studies should investigate concerns brought up by Singer (2014) about confidentiality and using shame as a behavior management tool. Given that FERPA (1974) violations exist as well, further research may be necessary before the technique can be recommended as a BMC. Hopefully, this study may provide a starting point.

Note that there are some limitations to the current study. First, the data were collected at a single school. Second, the school served only a younger, Title I population, and may not be reflective of the actions of teachers in upper grades or at schools with different populations. Finally, the study only examined BMCs as a data management technique. Additional study is needed to look at the efficacy of teachers' use BMCs as an intervention tool.

One other concern is about the nature of the Positive Behavioral Interventions and Support (PBIS) framework within the school. For example, although the school self-described as a PBIS school, the official BMC did not provide any options for positive notations of behavior. In addition, the teacher-made BMCs provided very few positive comments to either the children or the parents. Therefore, it is clear that the positive part of PBIS is not being emphasized by the school administration or teachers. Further research is needed on other schools described as PBIS schools to see what types of BMCs that those schools are using.

Implications for Practice

Findings from the current study indicate that teachers are using several different types of charting systems. Unfortunately, many of these BMCs failed to meet the guidelines needed to be empirically-supported (Krach et al., in press) or the requirements of Positive Behavioral Supports (PBIS; Sugai & Horner, 2006). Thus school psychologists need to consult with teachers about their use of behavior management charts (BMC). And, when teachers are not using BMCs correctly, school psychologists need to provide guidance to ensure that teachers know what needs changing.

Although all of the paper-based systems examined in the current study failed to meet the requirements needed for BMCs, the one computer-based method (Class Dojo) came closest. However, just meeting these guidelines is not enough to endorse the use of Class Dojo. There are other problems that must be addressed as well. Specifically, Class Dojo allows for procedures that violate legal requirements (FERPA, 1974). Thus, it is important that school psychologists work with teachers to ensure that they are not using Class Dojo to "shame" students. Teachers should not be putting "Dojo Points" up on a public screen or allowing students to see data on other children. An additional concern is that Class Dojo may not allow

equal access for parents across different socioeconomic groups. If parents do not have internet access, they may be missing out on valuable information about their child's classroom behaviors. To equalize access, school psychologists can work with teachers to find ways to allow parents without internet access to Class Dojo data. For example, teachers can print off Class Dojo reports for children, or schools can allow parents to use computers there to access the Class Dojo records for their child. Regardless of the type of BMC teachers use (paper or digital), it is clear that school psychologists have a role in helping guide how the tool is used and how the data can be used.

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Table 1

Average Notation (Per Student) Across Type of Behavior Management Chart (BMC)

	Type of Behavior Management Chart (BMC)														
Notation Type	Class Dojo			Letters Home			School Approved			Teacher-Made System			Multiple Types*		
	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD
Positive	42	35.5	22.46	1	0.10	0.32	0	0.00	0.00	10	0.94	2.42	0	0.00	0.00
Negative	25	16.36	21.89	1	0.10	0.32	3	3.14	5.67	32	11.67	24.27	2	1.50	0.17
Neutral	0	0.00	0.00	0	2.22	0.83	0	0.00	0.00	5	0.19	0.67	2	3.00	0.00
Total	31	46.5	33.82	9	2.44	0.88	7	3.14	5.67	62	12.98	25.69	2	4.50	0.71

*Note. Multiple Types includes when a teacher changed types during the observation period from one type to another.

Table 2

Average Notation (Per Student) Across Demographic Variables

	Demographic Data											
Notation Type	Positive			Negative			Neutral			Total		
Grade	N	M	SD	N	M	SD	N	M	SD	N	M	SD
Kinder	30	7.83	11.47	30	0.13	0.73	28	0.00	0.00	28	8.54	11.96
First	37	0.03	0.16	37	0.95	1.68	36	1.06	1.29	36	2.06	1.98
Second	27	0.00	0.00	27	0.81	3.06	27	0.00	0.00	27	0.81	3.06
Third	23	0.00	0.00	23	0.57	0.79	23	0.00	0.00	23	0.57	0.79
Fourth	34	40.38	22.34	28	24.39	22.93	19	0.00	0.00	19	63.42	32.71
Fifth	15	3.87	3.68	16	43.19	31.74	16	0.00	0.00	15	49.93	30.60
Gender	Positive			Negative			Neutral			Total		
Female	74	12.36	22.55	73	5.95	12.58	67	0.27	0.79	67	13.16	24.52
Male	79	9.08	16.72	76	13.34	25.49	72	0.24	0.74	71	19.96	32.31

*Note. Male / female data does not include the children whose gender is unknown.

Table 3

Test-Retest Reliability Coefficients Across Type of Behavior Management Chart (BMC)

	Type of Behavior Management Chart (BMC)														
Notation Type	Class Dojo			Letters Home			School Approved			Teacher-Made System			Multiple Types*		
	N	r	Sig	N	r	Sig	N	r	Sig	N	r	Sig	N	r	Sig
Positive	49	.56	.00	10	--	--	7	--	--	62	--	--	2	--	--
Negative	44	.49	.00	10	--	--	7	--	--	63	.33	.01	2	--	--
Neutral	31	--	--	10	--	--	7	--	--	63	.75	.00	2	--	--
Total	31	.41	.02	10	--	--	7	--	--	62	.29	.02	2	-1.0	.01

Note. First test data is a composite for dates ranging 10/14-10/25; the retest data was a composite for 12/2-12/13.

Note. *Multiple Types includes when a teacher changed types during the observation period from one type to another. As the sample was so small, this data should not be considered accurate.

Note. -- data could not be computed because at least one variable was a constant.