

Elementary Pre-service Teacher Preparation in the Area of Social, Emotional, and Behavioral Problems

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Abstract Youth social, emotional, and behavioral problems continue to be of great concern and are costly to individuals and society. Teachers are in an ideal position to recognize symptoms of these problems and to provide or obtain appropriate services. Thus, it is critical to examine the training that pre-service teachers receive. In the present study, we evaluated the curriculum requirements for certification in randomly selected college/university elementary teacher training programs. Course syllabi were examined to determine the amount and type of training future elementary teachers received related to social, emotional, and behavioral problems. Results indicated limited exposure to such information. The findings are discussed with respect to implications for college/university teacher preparation programs, student outcomes, and future research.

Keywords Emotional and behavioral disorders · School mental health · Teacher training · Pre-service teacher preparation

School age children and adolescents experience a concerning prevalence of social, emotional, and behavioral (SEB) problems (Bradley, Henderson, & Monfore, 2004). Although specific incidence rates vary, data from national surveys indicate 13–20% of youth experience such challenges (Bethell, Read, Blumberg, & Newacheck, 2008). These rates compare fairly similarly with a review of 12 methodologically sound epidemiological studies conducted

by Doll (1996), in which 18–22% of students had a diagnosable psychiatric disorder. Doll also found research studies reporting equally high numbers of students who may not meet the diagnostic criteria for a psychiatric disorder, but who are exposed to risk factors (e.g., single parent households, physical abuse, alcohol use in the home) that predispose them to developing and/or exhibiting symptoms of SEB challenges.

SEB problems appear to emerge at an early age and persist into adulthood, resulting in adverse outcomes across multiple systems including the individual, family, and society. For example, Scott, Knapp, Henderson, and Maughan (2001) found that antisocial behavior in childhood is a major predictor of a high financial cost for society as a result of antisocial behavior in adulthood. For students labeled by schools as having an emotional and/or behavioral disorder (EBD), approximately 50% drop out of school (Wagner, 1995). A larger percentage of those with EBD fails to become productive and well adult-adjusted members of society (Bradley et al., 2004), evidenced by problems such as substance abuse, antisocial and aggressive behavior, involvement with the penal system, marital and interpersonal problems, and difficulties finding and maintaining employment (Patterson, DeBaryshe, & Ramsey, 1989).

Despite the negative outcomes, roughly 80% of children with SEB problems do not receive the services they need. Specifically, the Surgeon General estimated that 6.5 million emotionally disturbed and 3.5 million severely emotionally disturbed children are not receiving the type of help needed to resolve their challenges (U.S. Public Health Service, 2000). Further, a large number of youth receive services, but they are neither appropriate nor evidence-based (U.S. Department of Health and Human Services (USDHHS), 1999).

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Collectively, the above data suggest the need for schools to assume an active role in the SEB issues of their students. In fact, there are numerous advantages of school-based SEB services, including increased accessibility for students, reduction in the stigma of soliciting and receiving services, and a higher likelihood of effective prevention (Weist, 1999). Further, recent evidence suggests that comprehensive school-based services for SEB problems have a positive impact on student academic outcomes (Jennings, Pearson, & Harris, 2000).

Within the school system, teachers play a critical role in reducing students' SEB problems through routine practices, such as creating a positive and supportive classroom environment and providing specific prompting of and feedback for appropriate behavior. In addition, teachers are in a central position to identify, and sometimes address, more significant SEB problems that their students exhibit. Indeed, teachers routinely express concern over problems of this nature, yet also indicate a need for more information and training on the topic (Walter, Gouze, & Lim, 2006). Further, teachers report limited professional development opportunities to increase their competence in the area of SEB problems (Cook, 2002; Martin, Johnson, Ireland, & Claxton, 2003; Wagner et al., 2006).

A few recent research studies have specifically examined issues related to teacher preparation in the area of SEB problems. In a study investigating teachers' beliefs about student mental health needs in urban elementary schools, Walter et al. (2006) surveyed a total of 119 elementary teachers. The teachers were asked to respond to a 57 item survey covering categories such as the most frequent mental health problems encountered in schools, major barriers when attempting to resolve mental health problems, preference for mental health topics during in-service trainings, and their preparation (i.e., education, experience, knowledge, attitudes) pertaining to mental health issues. Results indicated that teachers believed disruptive behavior to be the most frequent mental health related problem in schools. The most requested topic for in-service trainings was addressing disruptive behaviors and implementing behavior plans. Despite the majority of teachers reporting having taught students with mental health issues, they lacked confidence in their ability to manage SEB problems, reporting insufficient knowledge and skills.

In another study, Koller, Osterlind, Paris, and Weston (2004) assessed two groups of teachers: 35 experienced teachers and 20 first-year teachers. The teachers were administered a survey on which they asked to rate how prepared they felt to identify and manage specific mental health concerns in their classroom. Both the experienced and first-year teachers reported that they did not receive adequate training in this area during their undergraduate programs. Specifically, none of the items pertaining to

preparedness to identify and manage mental health concerns in the classroom received an average rating of "well-prepared" or "prepared for the most part" by either teacher group.

These findings are further supported by a national teacher needs survey conducted by the Coalition for Psychology in Schools and Education (2006). Respondents were 2334 educators representing 49 States and Washington D.C. When teachers were asked to rank their professional development needs, 25% ranked classroom management first. Further, classroom management received the highest percentage of second rankings (along with instructional skills). Importantly, when the data were parceled out by years of teaching, more than twice as many first year teachers (52%) ranked classroom management as their top choice for professional development. Thus, it appears that pre-service training programs under-prepare teachers regarding this important topic.

Overall, the research clearly indicates that teachers self-report struggling to address the SEB issues of students in their classrooms and indicate a lack of training in this area. Given the increase in youth problems, coupled with the paucity of services currently provided in schools, additional research is needed to further identify ways in which teacher training might be improved. The purpose of this preliminary study was to examine the amount and type of theoretical content pertaining to student SEB problems provided by elementary teacher training programs throughout the United States.

To date, research on the adequacy of pre-service teacher preparation experiences comes exclusively in the form of teacher self-report post-employment. Although important, in order to improve teacher preparation programs, it also is imperative to further understand of the nature of pre-service training that teachers receive using more direct evaluative strategies. The current study extended the existing literature base by using course syllabi to evaluate content because they are likely to be a more direct estimate of the theoretical training that pre-service teachers receive than other methods (e.g., reports to state agencies of competencies covered in class). We examined type of content related to SEB, including class topics, course objectives, and course assignments/activities.

In addition, we were interested in examining accrediting agency training recommendations in comparison with content taught in colleges. The National Council for Accreditation of Teacher Education (NCATE) is the largest agency for accreditation of education units providing baccalaureate and graduate degree programs for the preparation of teachers for elementary and secondary schools and it is endorsed by the United States Department of Education. NCATE has established Professional Standards for the Accreditation of Teacher Preparation Institutions. The

standards, ratified in 2007 and implemented in 2008, are applicable for approximately 13 years and describe basic knowledge that future teachers should master. Although the standards pertain primarily to academic content, there are some that apply specifically to children's social, emotional, and behavioral needs. We examined the extent to which those particular standards were aligned with the content of elementary teacher training determined through our syllabi analysis.

Method

College/University Inclusion Criteria and Selection Procedures

To be included for review in the current study, colleges/universities had to offer state certification in elementary education. We focused on training in elementary education programs to examine a homogeneous group of trainees and because secondary training programs are heavily focused on content (e.g., mathematics, English). In addition, because information about certification requirements was obtained through a review of course syllabi, courses had to use syllabi to organize and describe course content to be included in the study.

The Barron's Profiles of American Colleges, 2004 Edition, was used to generate a list of all colleges/universities in the United States offering elementary education degrees. The accompanying CD, entitled Profiles of American Colleges, was searched using the criteria "colleges and universities offering elementary education undergraduate degrees". "No preference" was listed for other options (e.g., type of school, location, student population, tuition, selectivity level, etc.). A list of 940 colleges/universities resulted from this search. Subsequently, a list of 940 numbers, in random order, was generated by Microsoft Excel. From this, a total pool of 50 colleges/universities was selected. In order to obtain a sample of colleges/universities with and without accreditation from the National Council for Accreditation of Teacher Education (NCATE), the first 25 with NCATE accreditation and the first 25 without NCATE on the random numbers list were selected. This allowed a comparison to determine whether accreditation aligned with specified standards resulted in an increase in SEB content.

Following subsequent review, seven schools did not meet eligibility criteria because they did not offer an elementary education degree (i.e., offered a degree in early childhood or middle childhood, but not elementary education). One additional college was excluded because it was an experiential education program and did not have traditional syllabi. Another college was excluded because it

was a 2 year college whose students transferred to a different affiliated university to finish their degree. Consequently, a total of 41 colleges/universities remained in the pool. Syllabi were collected during two academic years (2005–2006, 2006–2007).

Data Collection Procedures

To evaluate the amount and type of training in the area of student social, emotional, or behavioral (SEB) problems provided by pre-service certification programs, course syllabi were reviewed and coded. To obtain course syllabi, the following procedures were used. First, the website of each randomly selected college/university was searched for a list of required courses for elementary education certification and their description. All required courses were reviewed (electives were excluded from review), regardless of the area of discipline (e.g., special education, health). If required courses or course descriptions could not be found on the website, the college/university was contacted via email or phone to request a course catalog.

Each required course description was reviewed to determine whether it potentially contained any content (e.g., theory, knowledge, practice) related to student SEB problems. Specifically, course descriptions containing any of the following terms were identified for further review: behavior, behavior problems, behavior intervention, behavior management, challenging behavior, classroom management, emotional problems, health, inclusion, mental health, psychological/psychiatric problems (including specific psychiatric diagnoses), or social skills. Courses were excluded if they pertained to academic intervention and/or instruction (e.g., description contained mention only of academics, academic instruction, learning principles, instructional strategies, etc.). In addition, student teaching was not reviewed as this course typically did not use a structured syllabus containing learning content.

After identifying courses that potentially included content related to SEB problems, the instructors of the identified courses were then contacted, via email, requesting a copy of the class syllabus. Two subsequent e-mails were sent at 1 week intervals if the instructor did not respond to the initial email or if the syllabus was not received. If these e-mail messages did not yield responses, then a phone call was made to the instructor and/or department secretary requesting the course syllabus. If the instructor or secretary did not answer, a message was left. A second phone call (message left if no answer) was made 1 week later if the course syllabus still was not received. Also, after syllabi were received, if information about the number and duration of classes was not included in the syllabus, the college/university registrar's office or department secretary was contacted to obtain the information. If no reply was

obtained after this sequence of attempted contacts, the course was dropped from the review list.

NCATE Standards

The NCATE Professional Standards for the Accreditation of Teacher Preparation Institutions are based on research evidence. The Professional Standards include six unit standards that outline broad knowledge, skills and professional behavior expected of educators as well as organizational structures, policies, and procedures. In addition, specific standards for elementary educators are more thoroughly described in the Elementary Education Standards of the Association for Childhood Education International (ACEI). The ACEI Standards and Supporting Explanation were reviewed to identify content pertaining to SEB.

Syllabi Coding Categories

Class Topics

Syllabi were reviewed for specific class content. Most syllabi included a list of topics covered in each class. In the unusual case that a syllabus did not provide a description of the class topics, “*Not described*” was coded. Each class topic was placed into one of the following categories (if more than one topic was covered in a single class, each topic was coded along with a notation that the topic was covered in only part of the class). *Philosophy/Theory* was coded when content addressed the theoretical and/or philosophical bases for understanding emotional or behavioral problems (e.g., Skinner’s behavioral theory). *Characteristics/Identification* included class topics related to the identification or characteristics of children with emotional/behavioral disorders, psychiatric diagnoses/mental health problems (e.g., Attention Deficit Hyperactivity Disorder, depression, at risk for mental health problems). The *Social/Emotional Development* category included class topics on development of social skills, child emotional development, or age norms regarding appropriate behaviors. Class topics were coded as *Assessment* if they included methods and/or tools for determining social, emotional, behavioral, and/or mental health needs (e.g., screening for mental health problems; description of the Social Skills Rating System (Gresham & Elliot, 1990)). The *Intervention* category included class topics teaching specific intervention strategies for SEB problems, including any type of mental health services (e.g., behavioral incentive systems, social skills instruction). Class topics pertaining to the influence of home and family issues on a student’s behavior/mental health (home/family risk factors, parent–child interactions) were coded as *Home/Family Issues*. Topics that were related to behavior/mental health,

but did not correspond to one of the above categories were placed in an *Other* category.

Course Objectives

Course objectives and assignments were coded as either *related* or *not related* to SEB issues. An objective was considered related if it addressed SEB content in any of the areas of class topics described above (i.e., philosophy/theory, characteristics/identification, social/emotional development, assessment, intervention, home/family issues, other related).

Course Assignments/Activities

Assignments/activities listed on syllabi as course requirements were examined for SEB content. These were coded as *directly related*, *possibly related*, or *unrelated*. Directly related assignments specifically addressed the aforementioned class topics (philosophy/theory, characteristics/identification, etc.). An example was an assignment to observe in a special education classroom for students with emotional/behavioral needs. Assignments coded as possibly related were those with a broad scope in which topics related to SEB problems may or may not have been a part of the assignment. For example, an assignment where college students were given a choice of observing in a learning disability, EBD, or life skills classroom was coded as possibly related. Finally, assignments/activities with no SEB related content were coded unrelated (e.g., complete a paper on a healthy diet).

Assignments were further coded by type of content. *Content knowledge* included activities that evaluated college student understanding of content related to student SEB problems (e.g., tests, quizzes, papers on characteristics of SEB problems). *Indirect application/practice* pertained to activities designed to provide college students with hands on information about SEB problems in an indirect manner (e.g., observation of student with EBD or an EBD classroom, practice developing interventions with a hypothetical case, writing a classwide behavior management plan). *Experiential* assignments provided college students with hands on experience with SEB problems in a direct manner (e.g., conducting an assessment with a student with SEB problems, directly working with a student with EBD). Finally, *Other* was coded in cases where an assignment did not meet the criteria of the other categories (e.g., class participation or attendance).

Coding Procedures and Interrater Agreement

Syllabi were coded by three graduate students in special education and school psychology. A sample coding form is

available from first author upon request. Prior to coding, all coders reviewed the category definitions and practiced independently coding five syllabi that were not used for the study. Comparisons were made after each syllabus coding on an item by item basis and discrepancies were discussed, revising definitions as needed. After coding the fifth syllabus, the criteria of at least 90% coding accuracy was achieved across all coders.

Interrater agreement (IRA) was calculated by having two independent coders score 30% of randomly selected syllabi. IRA was calculated for Topics, Assignments, and Objectives by comparing coding agreements and disagreements on an item-by-item basis within each category (e.g., type of topic during each class session). Agreement was calculated by dividing the number of agreements by the number of agreements plus disagreements and multiplying by 100%. With respect to Objectives, mean IRA was 95% (range, 67–100%). Mean IRA for Assignments was 91% (range, 60–100%), while mean IRA for Topics was 98% (range, 80–100%). Total mean agreement across syllabi was 94% (range, 80–100%).

Data Analysis Procedures

Descriptive analyses, such as percentages, means, and ranges were used to interpret the data. To determine the type of course content, the number of courses with content in each class topic category was counted. In addition, to determine how class topics were allocated across courses with SEB related content, a percentage was calculated by dividing the number of courses with each type of content by the total number of courses with SEB related content. This reflects the percentage of courses with content in each topic category. In addition, for each syllabus, the percentage of classes devoted to each topic category was calculated. This allowed a calculation of mean percentage (and range) of classes allocated to each topic category across the syllabi (courses). Subsequently, to provide a more meaningful metric, the mean number and range of minutes spent on each topic category across the courses was estimated (as noted above, information about the duration of each class was obtained for the syllabi reviewed). The number of class minutes was multiplied by the total number of classes to obtain the total number of class minutes for each course. The total number of class minutes was then multiplied by the percentage of time allocated to each class topic. From this, the mean number of minutes (and range) was calculated across the courses. Given that classes may not have lasted the entire duration, and class breaks may have been provided, this yielded a maximum amount of class time allocated to a topic. In addition, the amount of time spent on related class topics across each college/university was calculated by summing minutes of related content across

syllabi for each college/university. The mean and range was then calculated across the colleges/universities. This provided an index of how many minutes of instruction related to specific SEB topics the average college student received.

The number of courses with SEB related activities/assignments of each type (content/knowledge, analog/indirect application, experiential, other) was counted. Activities/assignments were differentiated depending on whether they were directly related or possibly related.

Finally, the number of courses with at least one related objective was counted. To determine the mean number of SEB related objectives, the percentage of SEB related objectives was divided by the total number of objectives for each course. A mean (and range) was then derived across the courses.

Results

General

Because we were interested in the total amount of content related to social, emotional, and/or behavioral problems required by each certification program, only those colleges/universities that provided syllabi for *all* courses identified as having potentially relevant content were included in the analysis. For example, if a college required three courses that met our criteria for potentially including content on emotional/behavioral problems, but syllabi from only two courses were received, the college was excluded from further analysis. Fifteen colleges were excluded because syllabi for all identified courses could not be acquired from the instructors (i.e., instructors either declined to share their syllabi or syllabi were not received following the sequence of e-mails or phone calls). After these exclusions, 26 colleges remained (63% of randomly selected sample meeting inclusion criteria). Of the 26 colleges, 18 were accredited and 8 were not accredited by NCATE.

Because of the increased odds of not receiving all syllabi from colleges/universities with greater numbers of courses that potentially included SEB content, we conducted a comparison between the 15 universities that were not included in the study and the 26 that were included. Because not all courses that appeared to potentially have SEB content based on the course description actually contained SEB content, we compared the number of potential courses prior to reviewing the syllabi across the colleges/universities that were included and those that were not included. The mean number of courses with potential SEB content in included colleges/universities was 3.3 (range, 1–6) compared with a mean number of 4.3 (range, 2–8) in the colleges/universities that were not included.

Thus, although the results provide a description of the content of 26 colleges/universities, the outcomes presented below, with respect to number of courses and amount of content, are most likely a slight underestimate.

Table 1 presents general information regarding the colleges/universities with and without NCATE accreditation included in the analysis. All non-NCATE accredited institutions were private institutions. With respect to institution type, more NCATE accredited institutions were public while more non-NCATE accredited institutions were religiously affiliated. Table 2 presents information on the size of the institutions included in the study. Generally NCATE accredited institutions were larger, while non-NCATE accredited institutions had, at most, 10,000 students.

Among the 26 colleges/universities, syllabi were received for 80 courses identified as potentially having SEB related content. For five courses, two syllabi were received because two sections were offered that were taught by different instructors. In these cases, one syllabus was randomly chosen for use in this study. All syllabi were reviewed in three areas: class topics, objectives, and activities/assignments. In spite of the course description suggesting SEB content, 42 syllabi made no mention of any related class topics, objectives, or assignments. Thus, 38 syllabi contained SEB related content and were further evaluated.

Table 3 describes the number of required courses including at least some content related to SEB problems in NCATE and non-NCATE accredited institutions. Most of

Table 1 Participating college/university information

Institution type	NCATE <i>n</i> = 18	Non-NCATE <i>n</i> = 8
Public	10	0
Private	8	8
University	9	3
Liberal arts	9	5
Nonsectarian	12	3
Religious affiliated	6	5

Table 2 Size of institution

Number of students	NCATE (<i>M</i> = 9,310)	non-NCATE (<i>M</i> = 3,255)
<1000	0	1
1,000–5,000	7	5
5,000–10,000	3	2
10,000–15,000	3	0
15,000–20,000	3	0
<20,000	2	0

Table 3 Number of required courses with related content

Number of courses	NCATE	Non-NCATE
0	1	3
1	10	2
2	3	2
3	3	1
4	1	0

the NCATE accredited colleges/universities had a minimum of one course with SEB related content. Three had two courses with SEB related content, three had three courses with SEB related content, and one had four courses with SEB related content. There were three non-NCATE accredited institutions with no courses with related content, two with one course with SEB related content, two with two courses with SEB related content, and one with three courses with SEB related content.

Across all 26 colleges/universities, the largest percentage (46%) required one course that contained SEB related content. This was followed by 5 of the 26 (19%) requiring two courses with SEB related content. Four of the 26 (15%) required three courses with SEB related content while four did not require any courses with SEB related content. One institution (4% of sample) required four courses with related content.

Class Topics

Table 4 presents information about class topics among the 38 syllabi with related content across NCATE and non-NCATE institutions. Descriptive findings are reported on the specific type and amount of class content related to SEB issues. The first column describes content type. For example, out of the 38 courses that had related content, there were 17 courses (44.73%) that addressed content classified as Intervention. Courses generally covered multiple topics; thus, the total number of topics exceeds the number of courses (38).

The specific topics covered in courses varied greatly. Many courses listed class topics that could not be readily classified, primarily because they lacked descriptive detail; hence, the highest number of courses (29; 76.31%) fell in the Other (OR) category. For example, topics were listed “At risk and child abuse”, “EBD”, or “Mental health”. Seventeen courses (44.73%) had related content that fell under the Intervention category. Examples include “Positive behavior management”, “Positive expectations”, or “Behavioral contracting”. A total of eight courses (21.06%) had content within the Class-Wide Management (CWM) category (e.g., Classroom structure, Strategies of classroom management). Seven courses (18.42%) included

Table 4 Type and amount of SEB related class content across NCATE and non-NCATE institutions

Content type	Number and percentage of courses with category content ($n = 38$)	Mean percentage (range) of class topics related to each category ($n = 38$)	Mean number (range) of course minutes spent on related class topics ($n = 38$)	Mean number (range) of course minutes spent on class topic across colleges/universities ($n = 26$)
OR	29 (76.31)	8.62 (0–43.47)	186 (0–678)	272 (0–1,288)
INT	17 (44.73)	5.75 (0–42.85)	115 (0–754)	168 (0–754)
CWM	8 (21.05)	2 (0–20)	39 (0–330)	57 (0–330)
P/T	7 (18.42)	1.77 (0–28.94)	35 (0–637)	51 (0–637)
C/I	6 (15.78)	0.64 (0–7.59)	11 (0–100)	16 (0–100)
ASM	5 (13.15)	0.53 (0–7.14)	10 (0–126)	15 (0–126)
H/FI	2 (5.26)	0.26 (0–7.40)	5 (0–139)	7 (0–139)
S/ED	2 (5.26)	0.23 (0–5.26)	5 (0–105)	7 (0–105)

OR other, INT intervention, CWM class wide management, P/T philosophy/theory, C/I characteristics/identification, ASM assessment, H/FI home/family issues, S/ED social/emotional development

content within the Philosophy/Theory (P/T) category (e.g., Theories of classroom management) and six (15.78%) included class topics on Characteristics/Identification (C/I) (e.g., Characteristics of EBD). Five courses (13.15%) included topics in the Assessment (ASM) category (e.g.: Assessment of behavior disorders, Functional behavioral assessment). Only two courses (5.26%) had content in the Home/Family issues (H/FI) category (e.g., Divorce, Parenting issues) and two courses (5.26%) in the Social/Emotional Development (S/ED) category (e.g., Social development of aggression, Social context and social-emotional development).

The third column on Table 4 shows the mean percentage and range of class topics in each category area, calculated across the 38 syllabi. This provides information about the allocation of class topics across courses. Across the 29 courses with content in the Other category, an average of 8.6% (range, 0–43.47%) of the class topics pertained to Other SEB related information. Among the 17 courses that had content related to Intervention, an average of 5.75% (range, 0–42.85%) of the class topics pertained to Intervention. Very few classes were allocated to any other topic area.

To obtain a more practical metric of time spent on a particular class topic, the number of minutes devoted to each topic across courses was calculated. These data are reported on Table 4, column 4. For courses that provided content in the area of Intervention, an average of 115 class min, or just under 2 h, was spent on the topic. The number of minutes spent discussing Intervention in a given course ranged from 42 min to a maximum of 754 min (approximately 12½ h). As Table 4 indicates, this represents the greatest amount of class time allocated to any of the coded topics. An average of 186 min (range, 0–678 min), or a little over 3 h, was spent on topics in the Other category. A mean of 39 min (range, 0–330 min) was spent discussing Classwide Management while a mean of 35 min (range, 0–637 min) was allocated to Philosophy/Theory. An

average of only 11 min (range, 0–100 min) was spent in courses discussing characteristics or identification of students with social, emotional, or behavioral problems, including psychiatric disorders. A mean of 10 min or less was spent on Assessment, Home/Family Issues, and Social/Emotional Development.

The total amount of pre-service training in each type of content area that a given teacher received in his/her certification program also was estimated. Table 4, last column, reports the mean number of minutes and range across colleges/universities. As indicated in Table 4, the greatest average amount of class time (272 min) was allocated to topics included in the Other category. The number of minutes spent discussing Other topics in a given college ranged from 0 min to a maximum of 1,288 min (approximately 21½ h). A mean of 168 min (range, 0–754 min) was spent discussing Intervention while a mean of 57 min (range, 0–330 min) was allocated to Classwide management topics. Philosophy/Theory was discussed on average for 51 min (range, 0–637 min). An average of only 16 min (range, 0–100 min) was spent in courses discussing characteristics or identification of students with social, emotional, or behavioral problems, including psychiatric disorders. A mean of 15 min (range, 0–126 min) was spent on Assessment, while Home/Family Issues and Social/Emotional Development were discussed on average for 7 min (range, 0–139 min; respectively, 0–105 min). When calculating total content across all categories for each college/university, on average, a future elementary teacher received a total of 410 min (range, 0–1,331 min), or 6 h, 50 min of instruction in content related to SEB problems. This is the equivalent of a little over 2 class periods lasting 3 h each.

Course Objectives

The course objectives related to SEB issues for each course also were analyzed. Specifically, the number and

percentage of courses that had related objectives were examined along with the mean percentage and the range of related objectives per course. Twenty-five courses had objectives related to SEB problems. From these 25 courses with SEB related objectives, 18 were from NCATE accredited colleges/universities and seven were from non-NCATE accredited colleges/universities. Thus, the relative percentage with related objectives was almost identical to the population proportion. Among these 25 courses, there was a mean percentage of 35.18 (range, 5.26–100%) SEB related objectives per course.

Course Assignments/Activities

The course assignments related to SEB issues for each course also were analyzed. Thirty-five courses had SEB related course assignments/activities. Table 5 presents descriptive results concerning the number of courses with assignments related to SEB issues within the identified courses. Additionally, the number of directly related and possibly related assignments is described. Analyzing syllabi from NCATE accredited institutions, a total of 10 courses had assignments directly related (DR) to SEB issues and 27 courses had assignments that were only possibly SEB related (PR). There were 4 courses that had directly related SEB assignments and 21 courses that had possibly related SEB assignments in the non-NCATE accredited institutions. When comparing the number of directly and possibly SEB related assignments per category, results indicated that the majority of assignments fell in the content/knowledge category. The fewest number of assignments were experiential.

NCATE Standards

The following standards and supporting explanations pertain to SEB (ACEI, 2007).

Standard 1.0. Development, Learning, and Motivation (supporting explanation). Candidates should ...“consider, accommodate, and integrate the

physical, social, emotional, cognitive, and linguistic developmental characteristics of children and young adolescents” and “recognize when an individual student’s development differs from typical developmental patterns and collaborate with specialists to plan and implement appropriate learning experiences that address individual needs” (page 4).

Standard 2.6. Health Education (supporting explanation). Candidates should be...“alert to major health issues concerning children and the social forces that affect them, and of the need to impart information on these issues sensitively” (page 13).

Standard 3.4. Active Engagement in Learning (supporting explanation). “Teacher candidates understand principles of effective classroom management as well as human motivation and behavior from the foundational sciences of psychology, anthropology, and sociology. They use a range of strategies and can collaborate with specialists to promote positive relationships, cooperation, conflict resolution, and purposeful learning in the classroom” (page 18).

Standard 4. Assessment. Candidates should...“know, understand, and use formal and informal assessment strategies to plan, evaluate and strengthen instruction that will promote continuous intellectual, social, emotional, and physical development of each elementary student” (page 2).

Standard 5.2. Collaboration with families, colleagues, and community agencies. “Candidates know the importance of establishing and maintaining a positive collaborative relationship with families, school colleagues, and agencies in the larger community to promote the intellectual, social, emotional, physical growth and well-being of children” (page 21).

The standards/explanations fell into the following areas. Standard 1.0-Social Emotional Development; Standard 2.6, Characteristics/Identification; Standard 3.4-Classwide Management, Philosophy/Theory; Standard 4.0-Assessment;

Table 5 Type and number of courses with assignments related to social, emotional, or behavioral issues

Assignment type	NCATE colleges/universities				non-NCATE colleges/universities			
	Courses		Assignments		Courses		Assignments	
	DR	PR	DR	PR	DR	PR	DR	PR
Content/knowledge	6	15	6	30	0	11	1	20
Analog/indirect application	3	6	4	9	1	6	1	6
Experiential	1	3	1	4	2	3	3	3
Other	0	3	0	9	1	1	0	2

DR directly related, *PR* possibly related

Standard 5.2, Home/Family Issues. Thus, the standards were aligned with the content covered across the course syllabi in all areas except Intervention. As Table 4 reflects, however, colleges did not cover the standards in a comprehensive manner. That is, although it is not possible to determine what content fell under the “Other” category, there is no evidence that all of the NCATE standards are being taught at any of the colleges reviewed.

Discussion

The purpose of this investigation was to directly and quantitatively examine the preparation future teachers receive during their teacher training programs. Among the 41 colleges/universities randomly selected to participate who met inclusion criteria, all SEB related course syllabi were collected from 26 colleges/universities. Across the 80 syllabi identified as potentially including SEB issues, our analyses indicated they contained limited content, objectives, or assignments related to the topic. Perhaps most concerning is that 4 colleges, or 14% of our sample, had no SEB topics represented in the syllabi of any required course.

Overall, most of the NCATE accredited institutions had a minimum of one SEB related course, with some institutions having two, three, and four related courses. There were three non-NCATE institutions with no related courses, and none with four related courses. Otherwise, there was little difference between accredited and non-accredited institutions with respect to content type, objectives, or assignments.

In general, our analysis indicates that pre-service teachers receive very little training in the area of SEB problems. These findings are consistent with teacher self-reports of inadequate training and competence related to SEB (Cook, 2002; Martin et al., 2003; Walter et al. 2006; Wagner et al., 2006). Across colleges/universities, the total amount of time a pre-service teacher would receive in the area of SEB ranged from no time at all (4 colleges/universities) to a maximum of 22 h, 11 min. The specific type of training was difficult to ascertain because syllabi were not specific. For example, a course topic listed as Mental Health did not allow for specific classification. Nonetheless, only 17 of the 38 courses with SEB related content allocated class time to the topic of Intervention while only 8 of the 38 courses covered Classwide Management. Further, among courses covering Intervention for SEB problems, an average of approximately 115 min (less than two hours) was spent on the topic. Likewise, an average of only 39 min was spent on Classwide Management. Perhaps a more relevant metric, across the colleges/universities participating in the study, an average of 168 min (less than

three hours) was allocated to Intervention while an average of 57 min was spent on classwide management. This is unfortunate, given that teachers report managing student behavior a top challenge (Walter et al. 2006).

The pre-service training data also suggest that teachers do not receive instruction that would prepare them to identify students with emotional/behavioral disabilities or psychiatric disorders, having spent an average of 16 min in their training program on this topic. At most, 1 h, 40 min was allocated to this topic in a given course. In fact, when evaluating content across colleges/universities, this was the maximum amount of training any student received on this topic. In the absence of teachers with the skills needed to identify students with SEB problems, it is unlikely that students will receive support to resolve their problems. Thus, although training programs must devote more attention to this topic, it is equally critical that schools engage in widespread screening efforts (i.e., schoolwide) until it is clear that all teachers are adept at identifying symptoms of SEB problems.

The lack of SEB related content also is reflected in the limited number of courses with SEB related objectives and the small number of assignments. Particularly concerning is that only 9 courses had assignments (11 in total) requiring experiential activities. The majority of assignments fell in the content/knowledge category, indicating that students have limited opportunities to directly apply the little content knowledge they receive during their training programs.

Although the amount of SEB training was limited, the content areas identified in the syllabi aligned with ACEI Standards recommended by NCATE and covered all areas except Intervention. It may be that NCATE views specific interventions for SEB to require a team-based approach, not necessarily under the purview of general education teachers. The inclusion of classwide management supports the idea that general education teachers would be more likely to need training directed at the classwide level. Unfortunately, the ACEI NCATE Standards include only content areas, and not recommended hours or type of training. Thus, our analysis was limited to examining content consistency. Future research should determine the minimal hours and type of training needed for most prospective teachers to be fluent with SEB content so that they are able to adequately address the SEB issues they will regularly encounter in schools.

Several limitations in the study should be noted. First, the overall sample was small and the findings may not be generalizable to all teacher certification programs. Unfortunately, obtaining course syllabi was very time consuming, rendering the collection of syllabi from additional colleges unfeasible. Thus, while the current study provides insight into the teacher training practices of a random

selection of schools nationwide, the data herein should be considered pilot. In addition, the small sample did not allow for an adequate comparison between NCATE and non-NCATE programs.

Second, not all of the randomly selected colleges meeting inclusion criteria provided syllabi for review. The participation rate of 63%, however, is not dissimilar to survey response rates in published research. Nonetheless, the descriptive findings pertain to the colleges included and should not be generalized to all colleges. In addition, as noted above, because the mean number of SEB potentially related courses in the nonparticipating sample of colleges/universities exceeded the number in the participating sample, data such as the number of courses with related topics and the number of minutes of SEB related training should be considered underestimates of what pre-service teachers actually receive. Nonetheless, given the limited amount of training from the current analysis, SEB related content in one additional course is still unlikely to be sufficient.

Third, data pertaining to time are estimates. Given variables such as class breaks, distractions, off-task discussion, late starts and early endings, and so forth, data most likely overestimate the actual time. Fourth, readings and textbooks used in courses were not considered for analysis due to feasibility constraints. Thus, although course readings are generally aligned with course content, it is possible that students acquired alternative SEB content through readings. Similarly, we did not evaluate student teaching, which may have included applied activities related to SEB (e.g., implementing an individualized behavior plan). Such an evaluation is a task that needs to be undertaken separately due to the different nature of the material and research methods needed. Nonetheless, considering the self-reported lack of skills by in-service teachers in the area of SEB, it is difficult to imagine that teachers receive adequate additional training during their student teaching experience. Fifth, it was not possible to verify whether assignments and class activities proceeded as described in the syllabi. Consequently, our analysis reflects intended content as reflected in course syllabi.

The study findings have implications for researchers as well as college/university personnel involved with teacher preparation programs. Future research should attempt to acquire a larger number of syllabi from a larger sample of teacher preparation programs to allow for generalization, in addition to more complex analyses. Although the current data cannot be generalized with confidence, we believe they provide a snapshot into the practices of training programs with respect to SEB issues raising important concerns regarding deficiencies. Further, the findings are consistent with teacher self-report data indicating the lack of preparation to address SEB problems that their students experience, yet perhaps provide more objective data.

In addition, the present study targeted traditional certification programs. In recent years, alternative teacher certification programs have expanded, primarily to attract potential teachers who do not meet traditional licensing standards (United States Department of Labor, 2010–11). Future studies might examine alternative certification programs to ascertain the SEB content they offer and to provide a more comprehensive overview of teacher training.

Those involved in the design of teacher preparation programs must realize that a significant portion of the student body in educational settings is in need of teachers trained in the area of social, emotional and behavioral issues. In order to ensure that student emotional and behavioral needs are recognized and addressed, it is critical that the training provided by teacher preparation programs be reanalyzed and restructured. Although it is unclear exactly how much and what type of training is optimal, it is evident that teachers could not be expected to have sufficient skills in the SEB issues in general, nor any specific topic area, given the meager time allocated to training.

With respect to type of training, perhaps most critical is the need to prepare teachers to organize their classrooms to prevent problems. For instance, very little time was allocated to classwide behavior management, an important strategy that can prevent behavior problems. In addition, it also is important that teachers recognize signs of SEB problems so that they can implement interventions and/or refer students to appropriate therapeutic resources. This will reduce the typical negative sequelae of problems that generally occurs. Further, it is likely that adequate training of general education teachers will reduce unnecessary referrals to special education.

Considering the growing number of children and youth who experience SEB problems, the poor outcomes they experience during their school years and post-graduation, and relationship between emotional/behavioral problems and academic achievement (Fantuzzo et al., 2007), schools can no longer afford to be ill-prepared to support these students. There have been calls in the literature suggesting solutions such as systems change (Koller & Svoboda, 2002) or preventive approaches where all school personnel share responsibility for students' social, emotional, and behavioral health (Doll, 1996, Sugai & Horner, 2002). We concur with this critical need, which is further supported by the data in the current study. There are models and evidence-based interventions to effectively prevent and reduce SEB problems, and preservice training in this area must be a part of the curriculum for general education teachers.

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