

RISK MANAGEMENT

Analysis of Risk Management in Adapted Physical Education Textbooks

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Abstract

Physical education teacher education (PETE) programs vary on how the topics of safe teaching and risk management are addressed. Common practices to cover such issues include requiring textbooks, lesson planning, peer teaching, videotaping, reflecting, and reading case law analyses. We used a mixed methods design to examine how risk management is addressed in APE textbooks using a validated Risk Management Inventory as a guide. We analyzed nine APE textbooks. We performed content analyses using a Risk Management Inventory to assess content pertaining to risk management and safe teaching in APE textbooks. We performed quantitative analyses by computing percentages of content covered under each category of the Risk Management Inventory for each textbook. Percentages ranged from 11.29% to 35.48%. Elements found pertaining to Instruction included updated lesson plans, curriculum guidelines, adaptations and modifications, demonstrations, safety rules, lesson objectives, skill progressions, and instructional feedback. Elements found pertaining to Emergency and Medical Procedures included incident reports, first aid kits, existing

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medical conditions of students, and emergency action plans. Elements found pertaining to Equipment and Facilities included inspection of and warnings for equipment and facilities, use of equipment, developmentally appropriate equipment, inventories of equipment and facilities, and activities conducted away from hazardous areas. Elements found pertaining to Supervision included supervision of students, off-task behavior, safety rules, and medical notes. Elements found pertaining to Administrative Behaviors included licensure of teachers and communication and posting of guidelines for emergency actions plans as well as emergency exit procedures.

In the past 2 decades, the educational system in the United States has undergone reform. For teachers to prepare students for academic excellence, accountability and responsibility have come to the forefront in terms of qualifications and expectations of teachers (No Child Left Behind Act, 2001). Inadequate teaching has been among the reasons attributed to poor performance of students (No Child Left Behind Act, 2001).

The field of physical education (PE) has not been exempt from the educational reform movement. An increase in litigation in PE due to alleged poor teaching practices has created increased concern among educators (Dougherty, 2010). PE is an area in which students are more susceptible to injury because of the inherent nature of the activities taught (Hart & Ritson, 2002). Claims of negligence often comprise concerns involving supervision, instruction, equipment and facilities, and emergency and medical procedures (Dougherty, 2010). The issue of negligence is more common in PE than in other subjects taught in classroom settings (Dougherty, 2010). Negligence has been defined as “. . . conduct that falls below the legal standard established to protect others against unreasonable risk of harm, except for conduct that is intentionally, wantonly, or willfully disregardful of others’ rights” (Garner, 2009, p. 1133).

Creating a safe environment in PE is paramount. According to Block (2007), concerns regarding safety in PE are heightened when students with disabilities participate in general PE classes. As a result of federal legislation, more students with disabilities are included in general PE. Specifically, the Individuals With Disabilities Education Act (IDEA) of 1990 continues the concept of free and appropriate

education, individualized education plan (IEP), least restrictive environment (if appropriate), and PE as a direct educational service (20 U.S.C. § 1400[d], 1401[3B], 1412[5B], 1414[d]). The reauthorization of IDEA is focused more on inclusion of students with disabilities in the general education environment (20 U.S.C. § 1414[d]). The concept of inclusion, which applies to adapted PE (APE) and general PE, comprises the concepts of least restrictive environment and continuum of placements for students with disabilities (Auxter, Pyfer, Zittel, & Roth, 2010). The Individuals With Disabilities Education Improvement Act of 2004 (IDEIA) was amended to align to the mandates of the No Child Left Behind Act of 1990 and supports inclusion and placement of students in general PE (20 U.S.C. § 6301). Given these mandates, it is critical for physical educators and adapted physical educators to be cognizant of and learn to address safety issues in the PE environment.

Accountability and responsibility practices have been promoted in physical education teacher education (PETE) programs to decrease the occurrence of negligence (Siedentop & Tannehill, 2000). Typically, novice teachers begin to learn to identify and address safety issues through assigned chapters in required textbooks for classes, lesson plan assignments, peer teaching assignments, videotapes of teaching episodes, reflections, case law analyses, and other assignments with a stated purpose of identifying and addressing safety issues. Textbooks vary on the amount and type of information included on safety and may be used to supplement class lectures and assignments. Elementary and secondary PE methods textbooks may include sections in chapters on negligence and risk management (Buck, Lund, Harrison, & Blakemore Cook, 2007; Graham, Holt/Hale, & Parker, 2013), and APE textbooks may include sections in chapters regarding health and safety concerns for students with disabilities (Dunn & Leitschuh, 2006; Sherrill, 2004).

In addition to chapters in textbooks and assignments in classes, novice teachers learn to identify and address safety issues through observing mentor teachers and modeling behaviors observed during field experience classes and student teaching practicums. Miller and Dollard (1941) originally proposed social learning theory, suggesting that humans learn through observation and that a combination of drives, cues, responses, and rewards influence learning new behaviors. The theory was expanded in 1962 by Bandura to what is

known today as social cognitive theory (Bandura, 1986). Social cognitive theory (Bandura, 1986) posits that humans still learn through observation and modeling as originally proposed, but that the added dimensions of expected outcomes influence a person's motivation. The more positive expected outcomes are perceived to be, the more motivation the person will have (Bandura, 1986).

In applying social cognitive theory to safe teaching practices (Bandura, 1986), novice teachers in PETE programs learn through observing and modeling mentor teachers in various fieldwork placements and student teaching. Novice teachers also observe and model university teachers who they have for classes throughout their coursework. Mentor teachers and university supervisors who were once teacher candidates themselves also learned by observation and modeling in their teacher preparation programs. They used textbooks in their elementary and secondary methods classes and APE classes that may or may not have addressed safe teaching directly. Most teachers teach the way they were taught and learn through experience what practices to modify. Programs vary on how safe teaching practices are addressed according to the experience of the teacher instructing the class. If mentor teachers and university supervisors were taught safe teaching indirectly and briefly in their teacher preparation programs, they may not be modeling the practices to novice teachers to the extent they should be. Novice teachers do not necessarily have the experience to identify that teaching behaviors that could be considered best practices and could just model what is observed. Behaviors learned from supervising practitioners and college supervisors may extend into the teaching environment (Rikard & Veal, 1996). We used the social cognitive theory by Bandura (1986) as the theoretical framework in this study.

A related area to accountability and responsibility that has progressively gained attention in assisting to decrease litigation and lessen the likelihood of negligence is risk management (Appenzeller, 2012). According to Carpenter (2008), risk management "is an integrated strategy for both conducting safe programs and reducing the potential for loss arising from successful legal claims against the program, its individual employees, and administrators" (p. 71). Essential steps in effective risk management include identifying, evaluating, and managing risks (Carpenter, 2008). According to Appenzeller

(2012), risk management is an integral part of a successful program. Risk management techniques should be implemented into effective teaching practices and PE programs (Carpenter, 2008). To reduce the possible occurrence of negligence and educational malpractice, novice teachers should be given the opportunity to acquire and practice the skills of effective and responsible teaching and risk management.

Previous researchers have focused on attitudes (Block & Rizzo, 1995), attitudes and perceived competence (Hodge, Davis, Woodard, & Sherrill, 2002), inclusion (Place & Hodge, 2001), and teaching practices in APE (Everhart et al., 2013). Few if any researchers have conducted reviews pertaining to effectiveness of content contained in APE textbooks used in classes. The purpose of this study was to examine how risk management is addressed in APE textbooks using a validated Risk Management Inventory as a guide.

Method

We used a mixed methods design to examine how risk management is addressed in APE textbooks using a validated Risk Management Inventory as a guide. Nine APE textbooks were chosen for analyses. Content analyses described in the Data Analyses section were performed using the Risk Management Inventory to assess content pertaining to risk management and safe teaching in APE textbooks. Quantitative analyses were performed by converting tallies of content under each category of the Risk Management Inventory for each textbook into percentages.

Procedures

The Risk Management Inventory was developed by Murphy (2015) and is a content validated instrument that assesses risk management in the areas of equipment and facilities, supervision, instruction, emergency and medical procedures, and administrative behaviors (Murphy, 2015). The Risk Management Inventory was specifically developed for use in public school PE programs (Murphy, 2015).

The category of Equipment and Facilities addresses issues pertaining to safe use and maintenance of equipment and facilities (Dougherty, 2010; Hossler, 2010). An example of an element contained under Equipment and Facilities reads, "Equipment is regu-

larly inspected prior to use.” The category of Supervision addresses issues pertaining to physical presence as well as visual contact of all students (Dougherty, 2010). An example of an element contained under Supervision reads, “Teachers are positioned so they are able to observe the entire class.” The category of Instruction addresses issues pertaining to elements involved in effective instruction before, during, and after a teaching episode (Dougherty, 2010). An example of an element contained under Instruction reads, “Alternative rainy day lesson plans are prepared in advance for activities.” The category of Emergency and Medical Procedures addresses issues pertaining to responding to and preparing for possible injuries and emergencies (Dougherty, 2010; Hossler, 2010). An example of an element contained under Emergency and Medical Procedures reads, “A first aid kit is readily available with adequate supplies.” The category of Administrative Behaviors addresses issues pertaining to behaviors of school administrators regarding the well-being of faculty, staff, and students (Dougherty, Goldberger, & Carpenter, 2007). An example of an element contained under Administrative Behaviors reads, “Guidelines for emergency action plans are posted and communicated regarding the expected conduct of students, staff, and teachers.”

Each category in the Risk Management Inventory contains a series of statements pertaining to teaching behaviors and practices (Murphy, 2015). The physical educator using the Risk Management Inventory reads the statements under each category and places a check mark next to the statements that he or she performs or adheres to (Murphy, 2015). The statements that are not checked need to be examined closely for potential safety issues (Murphy, 2015).

Each category also contains a comment section at the end for the physical educator to add notes or comments pertaining to issues that may not be included in the Risk Management Inventory and/or may need further examination (Murphy, 2015). For example, a statement under the Equipment and Facilities category reads, “Equipment is used according to the manufacturer’s specifications and intended purpose.” In addition to the manufacturer’s specifications, many physical educators use equipment for additional purposes. From a risk management perspective, the issue is whether the alternative use is appropriate and safe (Murphy, 2015). For example, a Frisbee can be used for its intended purpose or as a racquet to learn striking. In

this example, the physical educator would not check the box and would write a note in the comment section to determine if the alternative use is suitable and does not pose a risk to students (Murphy, 2015).

A signature line is included at the end of the Risk Management Inventory for physical educators to track when the Risk Management Inventory was completed and who completed it (Murphy, 2015). In addition, the Risk Management Inventory can be completed as a whole or modified to complete each category separately (Murphy, 2015; see Appendix).

The lead author who served as the principal researcher of the project participated in data collection along with two graduate students (G1 and G2). Both graduate students were enrolled in a masters of Kinesiology and Rehabilitation Science with a specialization in APE. The graduate students were also working with the lead author on individual theses related to risk management in APE.

For this study, we operationally defined risk management as procedures to identify and prevent possibilities of risk. We used the Risk Management Inventory as a guide in data analyses to review APE textbooks to determine to what extent the content in textbooks aligned with the content in the Risk Management Inventory. Prior to selecting APE textbooks to analyze, we examined definitions of PE and APE to determine operational definitions to be used in the study.

Adapted Physical Education Textbooks

Public Law 108-446 specifically defines PE as development of “physical and motor fitness; fundamental motor skills and patterns; and skills in aquatics, dance, individual and group games and sports (including intramural and lifetime sports)” (Assistance to States for the Education of Children With Disabilities, 2006).

Auxter et al. (2010) defined APE as

the art and science of developing, implementing, and monitoring a carefully designed physical education instructional program for a learner with a disability, based on a comprehensive assessment, to give the learner the skills necessary for a lifetime of rich leisure, recreation, and sport experiences to enhance physical fitness and wellness. (p. 8)

Merriam-Webster defines a textbook as “one containing a presentation of the principles of a subject” (p. 1293). We operationally defined the term *textbook* as that which contains content pertaining to a specific subject area. For the purposes of this study, we operationally defined an APE textbook as containing comprehensive and specific content related to teaching physical activities and lifetime activities to students with disabilities. Inclusion criteria for APE textbooks included (a) textbooks only in print within the last 10 years and (b) textbooks focused on pedagogical content with a teaching emphasis toward teaching students with disabilities, ages 3–21, in a K–12 setting.

Once we developed and agreed upon operational definitions and inclusion criteria, we performed searches to identify textbooks that complied with all criteria. Initially, we performed searches on the following publishing company websites to identify APE textbooks: Brown, Human Kinetics, Holcomb Hathaway, McGraw-Hill, Kendall-Hunt, Pearson Benjamin Cummings, and Prentice Hall. We delimited publishing companies to major publishing websites that are the most common for PE textbooks. To be as exhaustive in the search as possible, we examined common websites that sell used books. We did this to see if there were any additional books that were not listed on the publisher websites. Searches were performed on Amazon.com, Ebay.com, Google.com, Half.com, and Pcentral.com. Key words searched on all websites included *adapted physical education textbooks*. After we performed all searches, we compared the lists and identified textbooks to be used in the study. We identified nine APE textbooks to be analyzed for this study (see Table 1).

Table 1
Adapted Physical Education Textbooks Chosen for Analyses

Authors	Textbooks
Auxter, Pyfer, Zittel, & Roth (2010)	<i>Principles and Methods of Adapted Physical Education and Recreation</i> (11th ed.)
Block (2007)	<i>A Teacher’s Guide to Including Students With Disabilities in General Physical Education</i> (3rd ed.)
Dunn & Leitschuh (2006)	<i>Special Physical Education</i> (8th ed.)

Table 1 (cont.)

Authors	Textbooks
Hodge, Leiberman, & Murata (2012)	<i>Essentials of Teaching Adapted Physical Education: Diversity, Culture, and Inclusion</i>
Horvat, Kalakian, Croce, & Dahlstrom (2010)	<i>Developmental/Adapted Physical Education: Making Ability Count</i> (5th ed.)
Lieberman & Houston-Wilson (2002)	<i>Strategies for Inclusion: A Handbook for Physical Educators</i>
Seaman, DePauw, Morton, & Omoto (2007)	<i>Making Connections From Theory to Practice in Adapted Physical Education</i> (2nd ed.)
Sherrill (2004)	<i>Adapted Physical Activity, Recreation, and Sport: Crossdisciplinary and Lifespan</i> (6th ed.)
Winnick (2011)	<i>Adapted Physical Education and Sport</i> (5th ed.)

Data Analyses

To ensure that all APE textbooks were analyzed thoroughly and similarly, we discussed and agreed upon the procedures to follow, prior to data collection. First, we reviewed the Risk Management Inventory, became familiar with the elements contained under each category, and reviewed the Risk Management Inventory with the lead author for clarification.

Second, we reviewed the table of contents in each textbook to identify chapters with titles or content related to the content in the Risk Management Inventory. For example, we reviewed chapters specifically related to risk management and chapters including elements pertaining to the five categories of equipment and facilities, supervision, instruction, emergency and medical procedures, and administrative behaviors.

Third, we then reviewed chapters using the Risk Management Inventory as a guide. We identified key words related to the element under the category. For example, an element under Instruction reads, "Adaptations and modifications of instructional activities are made when necessary to meet the needs of all students." In this example, we searched for content related to specific examples of alternative

activities and modifications to activities taught that would be used to ensure success of students with disabilities. We placed a tally mark under the element to indicate that content of the element was present in the chapter. In addition, we recorded notes and page numbers under the specific element on the Risk Management Inventory.

Fourth, to be as exhaustive as possible, we then thoroughly examined the index at the back of each book to identify key words related to elements contained under each category. For example, an element under Instructions reads, “Knowledge, understanding, and appreciation of dangers is communicated clearly and learned by students prior to participation in activities.” In this example, we examined the index and read for key words, such as *negligence*, *liability*, *risks*, *risk management*, *safety*, and *contraindicated activities*.

We were assigned one APE textbook at a time and were given a specific amount of time to analyze content in the APE textbook using the Risk Management Inventory. Once analyses were completed, we met to discuss areas that we felt needed clarification in a particular APE textbook. We continued discussion on the issue in question until an agreement was met.

Interobserver agreement (IOA). After we decided upon all procedures, and prior to beginning data collection, we established interobserver agreement (IOA) using the IOA formula (Thomas, Nelson, & Silverman, 2015). We did this to ensure that all of us were including the same material in each category of the Risk Management Inventory. The formula estimates reliability by dividing “the number of agreements in behavior coding by the sum of the agreements and disagreements” (Thomas et al., 2015, p. 213).

We chose a chapter entitled “Making Inclusive Physical Education Safe” written by Block and Horton (2007) contained in Block (2007) to use to calculate IOA. We chose this specific chapter because it was the only APE textbook out of the nine selected for analyses that contained a specific chapter pertaining to safety. We reviewed the chapter using the procedures agreed upon and outlined above.

We were given a specific amount of time to review the chapter and met and reviewed each element under each category to determine the number of agreements and disagreements among us for all elements in the Risk Management Inventory. The IOA between us was as follows: US and G1 $r = 93.55\%$; US and G2 $r = 91.94\%$; G1 and G2 $r = 90.32\%$. We reached a high agreement.

Results

The purpose of this study was to examine how risk management is addressed in APE textbooks using a validated Risk Management Inventory as a guide. We used the procedures outlined in the Data Analyses section to analyze each APE textbook. We chose nine APE textbooks for analyses.

The five categories of the Risk Management Inventory include Equipment and Facilities, Supervision, Instruction, Emergency and Medical Procedures, and Administrative Behaviors. The number of elements in each category varies and includes Equipment and Facilities, 17 elements; Supervision, 12 elements; Instruction, 13 elements; Emergency and Medical Procedures, six elements; and Administrative Behaviors, 14 elements. The number of elements in the Risk Management Inventory is 62.

We calculated percentages by dividing the total number of tallies in each category by the total number of elements in the Risk Management Inventory. Total tallies were the number of times the content contained in that particular element was referenced in the textbook. Each time content in an element was referenced, we placed a tally mark under the element. For each APE textbook, we totaled tallies for each category. Percentages of content included in each category of the Risk Management Inventory and covered by each APE textbook ranged from 11.29% to 35.48% (see Table 2). Results are organized according to the categories of the Risk Management Inventory.

Table 2

Percentages of Risk Management Inventory Content Included in Textbooks

Textbook authors	%
Auxter, Pyfer, Zittel, & Roth (2010)	11.29
Block (2007)	35.48
Dunn & Leitschuh (2006)	22.58
Hodge, Lieberman, & Murata (2012)	17.74
Horvat, Kalakian, Croce, & Dahlstrom (2010)	32.26
Lieberman & Houston-Wilson (2002)	27.42
Seaman, DePauw, Morton, & Omoto (2007)	19.35

Table 2 (cont.)

Textbook authors	%
Sherrill (2004)	17.74
Winnick (2011)	29.03

Instruction

Content in the category of Instruction was included in all nine APE textbooks, specifically, Auxter et al. (2010), 38.46%; Block (2007), 38.46%; Dunn and Leitschuh (2006), 76.92%; Hodge, Lieberman, and Murata (2012), 69.23%; Horvat, Kalakian, Croce, and Dahlstrom (2010), 92.31%; Lieberman and Houston-Wilson (2002), 69.23%; Seaman, DePauw, Morton, and Omoto (2007), 38.46%; Sherrill (2004), 61.54%; and Winnick (2011), 69.23%. Elements pertaining to this category contained in textbooks included updated lesson plans, curriculum guidelines, adaptations and modifications, demonstrations, safety rules, lesson objectives, skill progressions, and instructional feedback.

Preplanning was viewed as an important avenue to ensure safe lessons and also updated lessons. Block (2007) wrote, “Many unsafe practices can be avoided with careful planning that allows for the foreseeability of accidents (Gray, 1995; Gross, 1990; Pangrazi, 2007)” (p. 201). In reference to updated lesson plans, Hodge et al. (2012) wrote, “. . . Your lesson plans should also encompass the wide array of skills you might see at a specific grade level, as not all students of the same age perform the same way” (p. 80). Keeping updated lesson plans that encompass this type of information is critical for effective teaching.

Curriculum guidelines overlapped with adaptations and modifications and safety. For example, Block (2007) wrote in reference to adaptations and modifications and curriculum guidelines,

Actually all students should be presented with physical activities that are individualized to meet their unique needs. In some cases these needs can be met by following the general curriculum with simple modifications, in other cases an alternative curriculum will need to be followed. (p. 201)

Auxter et al. (2010) reiterated by writing, “Modification of teaching approach should occur when there is no demonstrated progress toward the short-term objectives” (p. 171). Sherrill (2004) repeated by writing, “A warm positive learning climate is also enhanced by teacher flexibility in assessing and implementing adaptations that might help individual students be more successful” (p. 195).

In addition to curriculum guidelines, Block (2007) addressed safety by writing, “Therefore it is important to determine if the content you present is appropriate for the student’s abilities and, if not appropriate, determine what adjustments (or alternatives) will be needed to ensure safe participation in physical education” (p. 201).

In reference to instructional feedback and lesson objectives, Sherrill (2004) wrote that teaching behaviors should include “demonstrating and explaining activities related to instructional strategies; conducting closure activities related to objectives” (p. 197) and “specific feedback (related to the task) is preferred over general feedback like global phrases, ‘Good!’ or ‘Great.’” (p. 197).

Dunn and Leitschuh (2006) referred to the importance of proper skill progressions by writing, “Failure to prepare the student with proper lead-up skills prior to performance of a complex skill is evidence of negligence” (p. 142). In this example, they also referred to the importance of planning for lessons in advance to ensure safety.

Emergency and Medical Procedures

Seven textbooks included content covered in the category of Emergency and Medical Procedures. Specifically, Block (2007) included 66.67%; Dunn and Leitschuh (2006), Horvat et al. (2010), Lieberman and Houston-Wilson (2002), Sherrill (2004), and Winnick (2011) all included 16.67%; and Seaman et al. (2007) covered 33.33%. Elements pertaining to this category contained in textbooks included incident reports, first aid kits, existing medical conditions of students, and emergency action plans.

In adapted PE, it is imperative for physical educators to be aware of existing medical conditions to be able to plan properly and write appropriate lessons and objectives. It is viewed as critical in terms of planning developmentally appropriate activities and avoiding teaching contraindicated activities. Dunn and Leitschuh (2006) wrote,

... The physical education teacher must consider the medical problems that are related to specific types of disabilities. Weakened muscles must not be strained by overwork; the muscles of the set antagonistic to the weaker ones must be protected from overdevelopment, which would produce muscular imbalance... (p. 274)

Emergency action plans are critical to have and practice, especially when dealing with students with disabilities. Block (2007) explained, "You will need to establish special emergency plans for some children with health problems or disabilities such as a plan for removing children who are in wheelchairs from the gymnasium in the event of a fire or other emergency" (p. 202).

Block (2007) further explained that teachers should then notify school administration and complete appropriate accident reports if a student is injured. In a case scenario at the beginning of the chapter, Block (2007) included having a first aid kit with adequate supplies; he was the only author to do this.

Equipment and Facilities

Six textbooks covered the content included in the category of Equipment and Facilities, specifically, Block (2007), 35.29%; Dunn and Leitschuch (2006), 17.65%; Lieberman & Houston-Wilson (2002), 23.53%; Seaman et al. (2007), 29.41%; Sherrill (2004), 11.76%; and Winnick (2011), 29.41%. Elements pertaining to this category contained in textbooks included inspection of and warnings for equipment and facilities, use of equipment, developmentally appropriate equipment, inventories of equipment and facilities, and activities conducted away from hazardous areas.

Inspection of equipment and facilities is critical. Seaman et al. (2007) wrote, "The physical educator should establish a regular schedule of checking and identifying equipment and apparatus that need care, maintenance or repairs" (p. 316).

Lieberman and Houston-Wilson (2002) wrote, "It is important to remember that equipment should be age-appropriate" (p. 58). Winnick (2011) agreed by writing, "Appropriate equipment and supplies are even more important for classes serving people with disabilities than for the general population" (p. 489).

In reference to conducting activities away from hazardous areas, Block (2007) wrote, “The teaching environment should have boundaries that separate activity and hazardous areas” (p. 196). Lieberman and Houston-Wilson (2002) presented rubrics for adaptations and modifications that included a list of equipment.

Supervision

Six textbooks covered the content in the category of Supervision, specifically, Auxter et al. (2010), 16.67%; Block (2007), 33.33%; Hodge et al. (2012), 8.33%; Horvat et al. (2010), 58.33%; Lieberman and Houston-Wilson (2002), 16.67%; and Winnick (2011), 16.67%. Elements pertaining to this category contained in textbooks included supervision of students, off-task behavior, safety rules, and medical notes.

In terms of off-task behavior and safety rules, Auxter et al. (2010) wrote that teachers must be able to establish rules and effective discipline to manage off-task behaviors. They stated that teachers should be “consistent, establish clear and concise rules and expectations, and have clear and concise consequences tied to the behavior” (Auxter et al., 2010, p. 26).

It is important for teachers to be physically present and supervise students at all times. Horvat et al. (2011) wrote, “Stand at doorway, and monitor general activity inside and outside as they first enter the room or the activity area” (p. 46). Block (2007) further explained the importance of being able to observe the entire class at all times by writing, “Observing the entire class involves establishing a position such as the ‘back to wall’ technique and scanning, which allows you to see all students at all times (Graham, Holt-Hale, & Parker, 2003)” (p. 200).

To be able to maintain a safe environment, teachers need to be aware of medical conditions of all students regardless of ability. Block (2007) wrote, “Having students’ medical and health information is imperative” (p. 196). He further explained, “A physical educator who is not aware of these and other conditions could put a child into dangerous situations” (Block, 2007, p. 196).

Administrative Behaviors

Content covered in the category of Administrative Behaviors was included in four textbooks. Specifically, Block (2007) includ-

ed 21.43%; Hodge et al. (2012), Lieberman and Houston-Wilson (2002), and Winnick (2011) all included 7.14%. Elements pertaining to this category contained in textbooks included licensure of teachers and communication and posting of guidelines for emergency action plans as well as emergency exit procedures.

In terms of licensure, Hodge et al. (2012) discussed the highly qualified teacher as one who has appropriate licensure in the field. It is an administrative responsibility to ensure that teachers who are hired hold current licensure.

It is important to not only post guidelines for emergency action plans and emergency exit procedures, but also to communicate the procedures to staff, faculty, and students. Block (2007) wrote, “Make sure you have an emergency plan in place and that all staff are familiar with and have practiced this plan in the unlikely event of an injury (Clements, 2000; Halsey, 2005)” (p. 202). Administrative behaviors are not covered as much in textbooks because the target audience is current and future educators.

Discussion

The purpose of this study was to examine how risk management was addressed in APE textbooks using a validated Risk Management Inventory as a guide. Nine APE textbooks were chosen for analyses. Discussion has been organized according to the categories of the Risk Management Inventory.

Instruction

The category of Instruction was included in all APE textbooks, with high percentages of elements contained in the Risk Management Inventory included in all APE textbooks. Program analysis involves looking at three factors: preparedness of students for activities, preparedness of the instructor, and preparedness of the environment (Dougherty, 2010). Preparedness of students for activities involves whether students have prerequisite skills to engage in activities, whether they are aware of all safety concerns involved in participating, whether they understand the inherent risks involved, and how well teachers have communicated this information to them (Mitchell & Feigley, 2010). These elements should be included as part of effective instruction.

In terms of preparedness of the instructor, pedagogical content knowledge is examined, which is defined as overall knowledge of content, including how to properly teach and overall general knowledge of students (Buck et al., 2007). When an injury occurs, courts typically examine whether the activity was developmentally appropriate in addition to whether students were instructed properly (Dougherty, 2010). According to Dougherty (2010), the majority of activities are not inherently unsafe, but rather the instruction received needs to be examined. Mitchell and Feigley (2010) agree, stating that most injuries are a result of a combination of social, environmental, and behavioral factors that has not been structured or monitored properly.

Risk management is the most effective way to recognize where injuries could occur and involves implementing a series of steps to minimize the chances of injuries (Carpenter, 2008; Dougherty, 2010; Eichhoff-Shemek, Herbert, & Connaughton, 2009). Steps can be taken to minimize and help prevent injuries from occurring (Carpenter, 2008). Dougherty (2010) outlined guidelines for properly selecting and instructing activities that included selecting developmentally appropriate activities, performing pre- and postassessments, preparing lesson plans according to curriculum guidelines, preparing alternative lessons, preparing modifications and adaptations for activities, aligning activities to objectives, adhering to medical excuses, using safety gear, allowing students to perform to their ability level, reviewing safety protocols, providing feedback, tailoring the activity to the level of the student, and avoiding mismatching students while grouping students. The extent to which teacher candidates enrolled in PETE receive training in these areas varies tremendously. This may depend on the interest and background of program faculty teaching the courses. Preparing PETE teacher candidates more in depth in these elements of instruction would contribute to a decrease in accidental injuries (Dougherty, 2010; Mitchell & Feigley, 2010).

Equipment and Facilities

Elements contained under the category of Equipment and Facilities in the Risk Management Inventory were included in a majority of APE textbooks. In terms of preparedness of the environment, the focus was on maintaining safe facilities and use of safe equipment (Dougherty, 2010). Dougherty (2010) outlined guide-

lines for minimizing injuries pertaining to equipment and facilities including inspecting equipment and facilities daily, teaching PETE students to inspect equipment, discontinuing use of broken equipment, marking off and communicating hazardous areas, ensuring equipment and facilities meet recommended specifications, checking surfaces on which activities are conducted, and using safety equipment. PETE program faculty should be reviewing and teaching PETE teacher candidates to be cognizant of issues pertaining to malfunctioning equipment and facilities. Equipment should not be used if broken, and facilities should be marked off as out of bounds and clearly communicated to students to not use. A teaching strategy that we suggest to learn the skills of identification in these areas is for PETE faculty to take PETE teacher candidates into equipment rooms and facilities and ask them to identify possible risks and to name the risk management techniques that could be used to address the risks.

Supervision

Elements contained under the category of Supervision in the Risk Management Inventory were included in a majority of APE textbooks. Dougherty (2010) outlined guidelines for minimizing injuries pertaining to supervision including understanding content thoroughly, preplanning lessons, establishing safety rules, not leaving class unattended, maintaining vision of all students at all times, locking and securing equipment and facilities when not in use, maintaining current first aid and CPR certification, establishing emergency protocols, and maintaining control of class. Inadequate supervision is a common claim of negligence. Supervision is closely tied to standard of care (Carpenter, 2008). When a special relationship is formed, which in school is the teacher–student relationship, a higher duty is owed (Carpenter, 2008). According to Carpenter (2008), “The standard of care sets a minimum level at which a legal obligation may be met” (p. 51). The obligation varies according to certain variables; age, maturity, and skill level are among the variables considered (Carpenter, 2008). When students are younger, less mature, and less skilled, supervision should increase (Carpenter, 2008). The type of supervision (general, specific, transitional) changes throughout the teaching episode (Carpenter, 2008). PETE teacher candidates

should be taught to ensure that adequate supervision is maintained at all times and coverage should be sought when the teacher needs to leave the classroom.

Emergency and Medical Procedures

Elements contained under the category of Emergency and Medical Procedures in the Risk Management Inventory were included in a majority of APE textbooks. Given that risks are inherent in activities and accidents and that injuries occur in PE (Carpenter, 2008; Dougherty, 2010), it is expected that emergency and medical procedures would be covered in PETE programs. Hart and Ritson (2002) outlined guidelines for emergency and medical procedures including having familiarity with common injuries, avoiding diagnosing any injuries, establishing first aid procedures for head injuries, maintaining an adequately equipped first aid kit, maintaining files accident records and medical notes, seeking medical attention when needed, avoiding delegating first aid to students, requiring doctor's notes for readmission to activities, maintaining emergency contact cards, maintaining medical treatment authorization cards, and maintaining policies for blood-borne pathogens and body fluids. Many of the elements contained in this category overlap with elements in the Administrative Behaviors category. Emergency and medical procedures should be developed and practiced. Program faculty in PETE programs should be teaching PETE teacher candidates how to develop effective strategies if programs in which they are teaching do not have any. Administrators should communicate protocols developed to faculty, staff, and students.

Administrative Behaviors

Elements contained under the category of Administrative Behaviors were covered the least amount in APE textbooks, and we expected this. PETE programs may not cover expected functions of administrators. This would again be determined by the background of the instructor. If the instructor of the course has an administrative background, he or she may be more likely to review issues pertaining to roles of administrators in public schools. The most common interaction teachers have with administrators involves evaluating job performance. Many states have adopted required evaluation systems

of teachers. PETE programs are beginning to introduce evaluation processes into programs to educate PETE teacher candidates on what to expect prior to employment.

PETE teacher candidates tend to model behaviors they observed in their classes as well as in their field experience or student teaching experience (Bandura, 1986). If they observe the outcome of the behaviors to be positive, they will be more likely to model them (Bandura, 1986). Information not contained in textbooks should be supplemented for PETE teacher candidates to learn how to be thorough.

Conclusion

The extent to which issues pertaining to safety and risk management are covered in PETE programs has a direct effect on how teachers address the issues when they are teaching in schools. It is important to examine safety in depth, beyond instruction-related safety issues. Program faculty in PETE programs should be cognizant of and supplement elements related to negligence that are not covered in APE textbooks. The number of students with disabilities participating in general PE is increasing because of mandates in federal legislation. As a result, concerns of safety regarding students with disabilities participating are heightened (Block, 2007). It is important for practitioners to keep current of safety issues and to expand and grow knowledge in negligence and risk management to ensure safe environments for students.

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Appendix

Risk Management Inventory¹

Instructions:

- Place a check mark in the boxes next to items that either are performed by you or are in place.
- Write *N/A* next to the boxes of items that are not applicable.
- Use the comment section at the end of each category to write notes or add items that are not included in the category and need to be addressed.
- Sign, print name, and date the form.

Equipment and Facilities

- Warnings are placed for hazardous areas in gymnasium, around outside teaching areas, and school-owned property
- Activities are conducted away from hazardous areas in both gymnasium and outside teaching areas
- Equipment is developmentally appropriate for activity
- Equipment is developmentally appropriate for age level
- Equipment does meet safety standards
- Outside teaching areas are checked prior to use
- Equipment does work according to manufacturer's guidelines
- Equipment is used according to manufacturer's specifications and intended purpose
- Equipment is stored properly and maintained within manufacturer's specifications
- Equipment is regularly inspected prior to use
- Written notification is sent to administrator(s) of known dangers
- Equipment use is discontinued after notification to administrators of dangers
- Facility use is discontinued after notification to administrators of dangers
- Written inventory of conditions of equipment is maintained
- Written inventory of conditions of outside teaching areas is maintained
- Equipment used does fit students properly
- Equipment used is in good condition

Comments: _____

¹From "Assessing Risk Management: How Effective Is Your Program?" by K. L. Murphy, 2015, *Journal of Physical Education, Recreation and Dance*, 86.

Supervision

- Appropriate number of licensed teachers are assigned to the class (student–teacher ratio)
- Teacher(s) are physically present in the classroom during the entire lesson
- Coverage is sought by another teacher if teacher(s) leaves the classroom
- Instructions are given to students by teacher(s) if teacher(s) leaves the room
- Teacher(s) are positioned so they are able to observe entire class
- Teacher(s) are able to see and manage off-task behavior
- Teacher(s) are able to see and manage discipline problems
- Supervision is provided in locker rooms
- Supervision is provided to and from outside teaching areas
- Supervision plan is written in advance for coverage of all activities and areas
- Teachers do adhere to medical notes written by doctors or parents
- Safety practices are implemented, reviewed, and reinforced by teacher(s) throughout the lesson/unit

Comments: _____

Instruction

- Updated lesson plans/unit plans are prepared with objectives appropriate for age and ability level
- Alternative rainy day lesson plans are prepared in advance of activities
- Adaptations or modifications of instructional activities are made when necessary, to meet the needs of all students
- Demonstrations are clear and appropriate, given for each activity, and are able to be viewed by all students
- Instructions, warnings, and safety rules are clear and given to students prior to participation in activities
- Knowledge, understanding, and appreciation of dangers and risks is communicated clearly and learned by students prior to activities
- Objectives of lesson and activities are clearly identified to students

- Activity is instructed in a manner which is appropriate for age level
- Curriculum guidelines are followed by teacher(s)
- Proper skill progressions are taught by teacher(s)
- Instructional feedback given to students is clear and accurate
- Understanding and comprehension of students is checked by teacher(s) throughout the lesson
- Sufficient time is given for activities and transitions

Comments: _____

Emergency and Medical Procedures

- Emergency action plans for all types of emergencies that could occur (injuries in the class, intruders on campus, environmental emergencies, etc.) are posted and visible for everyone to see
- Emergency exit procedures are posted for all facilities and visible for everyone to see
- First aid kit is readily available with adequate supplies
- Incident reports are completed by the end of the day and turned in to an administrator, when appropriate
- Allergies and existing medical conditions of students are known by teacher(s)
- Means of communication is available (cellular phones, 2-way radios) for activities in and away from gymnasium

Comments: _____

Administrative Behaviors

- Repair records are kept of equipment and outside teaching areas
- Maintenance records are kept of equipment and outside teaching areas
- Teachers are licensed in the field
- Arrangements are made for licensed teacher(s) to instruct class during teacher(s) absence

- School policies and procedures are written down and communicated to students, staff, and teachers
- Guidelines for emergency action plans are posted and communicated regarding expected conduct of students, staff, and teachers
- Guidelines for emergency exit procedures are posted and communicated regarding expected conduct of students, staff, and teachers
- Emergency action plans for all types of emergencies that could occur (injuries in class, intruders on campus, environmental emergencies, etc.) are kept
- Emergency action plans are practiced on a regular basis
- Emergency exit procedures are practiced on a regular basis
- Registration for vehicles used for field trips is current
- Maintenance for vehicles used for field trips is performed on a regular basis
- Maintenance records are kept for vehicles used for field trips
- Persons with appropriate licensure are hired to drive the vehicles for field trips

Comments: _____

Signature of Person Completing Inventory

Printed Name

Date