Perceptions of Professional Development from Northern Illinois Secondary Public School Health Teachers and School Administrators

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Abstract

Introduction: Quality professional development (PD) is critical for health teachers to positively impact student learning. PD elements include administrator support, teacher involvement, content-specific focus, collaboration time, and program evaluation. Purpose: This study investigated (a) whether PD was supported, (b) which PD opportunities were available, accessible, and preferred, and (c) PD benefits and challenges. Methods: Twelve key informants from northern Illinois public schools (middle and high school health teachers, school administrators) participated in semi-structured interviews. Results: In-school PD was mandatory and administrators made decisions about content. Health teachers chose state conferences for outside PD that were health-specific and included applicable methods. All schools supported one to three outside PD per year and substitute teachers, but health teachers reported lack of PD access due to funding. Conclusions: Health teachers did not have a voice or choice of in-school PD, relied upon outside PD (state conferences) to remain updated in health content and applicable methods, and needed clarification about funding for outside PD. Implications for those who deliver PD for health teachers (e.g., professional organizations, universities) might be to address the challenges health teachers face accessing quality PD, involve teachers in planning, and promote alternative program delivery.

Introduction

Quality professional development (PD) can positively effect teacher performance and student learning (American Educational Research Association [AERA], 2005; Choy, Chen, & Bugarin, 2006; Joyce & Showers, 2002; Nevills, 2003; Zmuda, Kuklis, & Kline, 2004). Effective PD includes: (a) administrative support (funding, substitute teachers), (b) involving teachers in PD decisions, (c) content-specific PD with applicable methods, (d) collaboration time, and (e) regular evaluation (Chappuis, Chappuis, & Stiggins, 2009; Chung Wei, Andree, & Darling-Hammond, 2009; Coalition for Psychology in Schools and Education, 2006; Garet, Porter, Desimone, Birman, & Yoon, 2001; Nieto, 2009; United States Department of Education [USDOE], 2001; Viadero, 2007).

Health teachers must remain updated as health content frequently changes (Joint Committee on National Health

Education Standards, 2007; Vamos & Zhou, 2009). Most school districts have a PD plan and offer health-related PD (Kann, Telljohan, & Wooley, 2007). In addition, other PD opportunities are available to health teachers (e.g., conferences, Webinars) with continuing education credit (American Association for Health Education [AAHE], 2011a; American Association for Health Education [AAHE], 2011b, American School Health Association [ASHA], 2011).

In Illinois, public schools are mandated to provide PD (on or offsite). Further, teachers must complete 24 Continuing Professional Development Units (CPDUs) related to state teaching standards every five years to renew their teaching certificate (Illinois Association of School Boards [IASB], 2008; Illinois State Board of Education [ISBE], 2009a; Illinois State Board of Education [ISBE], 2009b). In northern Illinois, three major health-related conferences provide offsite PD and CPDUs for health teachers - Illinois School Health Association (ISHA), Illinois Association for Health, Physical Education, Recreation and Dance (IAHPERD), and DuPage County Health, Physical Education and Drivers Education Institute.

In the School Health Policies and Procedures Study (SHPPS), Illinois public schools reported that PD was funded for secondary health teachers in 12 health education content areas (Centers for Disease Control [CDC], 2006). SHPPS researchers stated that, "future studies should explore who is receiving PD, how accessible PD is and what is the quality of PD methods and content" (Kann et al., 2007, p. 433). Through interviews with secondary health teachers and administrators in northern Illinois, this study investigated (a) whether PD was supported for health teachers, (b) which types of PD were available, accessible, and preferred, and (c) PD benefits and challenges.

Methods

Study Design

Qualitative research was used to gain health teachers' and school administrators' perceptions of PD (Pitney & Parker, 2009). Public schools were selected because Illinois mandates PD and certification for secondary health teachers. Northern Illinois was selected because of its proximity to key informants and three major health-related conferences.

Ten interview questions (Table 1), a demographic survey, and a 10-item PD checklist were developed to solicit perceptions of PD support; availability, accessibility and preference; benefits and challenges (Khomierhan, Yetka, Kiger, & Ahmadi, 2006; Price, Akpanudo, Dake, & Telljohann, 2004; Vamos & Zhou, 2009). To examine internal validity of interview questions, a qualitative researcher

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Table 1

Professional Development (PD) Interview Questions for Health Teachers and School Administrators

1a. Icebreaker question for administrators: What does professional development mean to you?

1b. Icebreaker question for health teachers: Can you remember the last time you used something in your class that you learned from a professional development experience?

2. What type of support does your school provide for the professional development of health teachers (e.g., time in school day, professional days, funding and/or substitute)?

3. In what ways do you remain updated in health content/skills?

4. Describe PD at your school.

     b. How are PD needs of teachers assessed?

     c. When does PD occur in school?

     d. How is in-school PD evaluated?

     e. What is the focus of PD at your school (e.g., subject-specific, general education, assessment, class management, technology, school/state/national initiative)?

     f. How useful is PD at your school?

5. Describe PD opportunities outside of school.

     b. What factors do you think influence choice of PD outside of school?

     c. How useful do you think health-related conferences (e.g., ISHA, ASHA, IAHPERD, AAHPERD) are for remaining updated?

6. How do you think PD impacts student learning?

7. What factors about PD do you think might inhibit student learning?

8. What specific health content and/or skills do you think are needed to teach health effectively?

9. What factors influence access to outside PD?

10. If you were to give advice to improve PD for health teachers, what advice would you give?

at Northern Illinois University (NIU) matched research questions to the interview questions and checklist. Two pilot interviews were conducted with NIU health education faculty to assess the reliability of interview questions, checklist, and interview process. A peer debriefing followed each pilot interview to review the data collection process. Results and procedures were compared to expected outcomes and minor edits to interview questions and checklist were made.

Participants

Twelve key informants (nine secondary health teachers, three school administrators), professionally known and accessible to this researcher, were identified from 11 different public schools with enrollments between 500-4,000 in the northern Illinois region (ISBE, 2010). Four middle school and five high school health teachers were chosen because this researcher knew each was currently teaching health education, familiar with health-related PD, and a current or past member in IAHPERD and/or ISHA. Two school district assistant superintendents and one principal of a large high school district were chosen because this researcher had witnessed their role as facilitators of local school wellness meetings and/or involvement in revising health curriculum

within their district.

Trustworthiness of qualitative data requires that data be credible (Pitney & Parker, 2009). Given the observed roles of these key informants, their unique experiences provided the most direct answers to the research questions. Data gathered from these participants, therefore, were credible sources for capturing what was happening in PD for health teachers.

Data Collection

Twelve persons were identified as potential key informants. All twelve were emailed to inquire about their participation in a 45-minute face-to-face or phone interview. Each agreed to participate and were sent a second email with attached Informed Consent Form, a demographic survey, and 10-item PD checklist. In January 2010, nine telephone and three face-to-face semi-structured interviews were conducted, recorded with a digital audio recording device, and transcribed by this researcher. To establish credibility of the data gathered, interview summaries were sent to participants for review. Summaries were returned with minor edits and clarifications. A $10.00 gift card was sent to thank interviewees for their participation.

Data Analysis

Grounded Theory was used to explain PD for health teachers according to participants' perceptions (Pitney & Parker, 2009). As its name suggests, the purpose of Grounded Theory is to develop theoretical explanations of the topic under investigation. Interview data were coded, themes and theories about what was happening in public school PD were developed, and results were used to shed light on the PD that participants experienced.

To protect anonymity, participant responses were labeled with non-gender specific pseudo names. Their first names begin with an initial matching their school role (e.g., Hayden = high school, Mel = middle school, Alex = administrator). Interview notes then were compared to responses related to research questions and key words commonly expressed were coded (e.g., B = benefits, C = choices, S = PD at school, O = PD outside school).

To ensure trustworthiness of data, another NIU qualitative researcher confirmed that emerging themes accurately captured responses and therefore, deemed the results credible (Pitney & Parker, 2009). This study did not aim for external validity (i.e., applying these findings to other health teachers and administrators) as the focus was on these key informants. Therefore, data were not meant to be generalized to a larger population.

Results

Health Teacher Demographics

Table 2 summarizes health teacher demographics. All

Table 2

Health Teacher Demographics

Participant pseudo name	School Enrollment[a]	City/cities population & area[b]	Current position	Education	Health major or minor	Years teaching health	Memberships[c]
Mel	800	70,000- Metro area	Middle School Health & Physical Education	MS	Major	20+	ISHA
Micah	600	43,000- Metro area	Middle School Health	MS	Minor	10-19	IAHPERD, AAHPERD
Mickey	900	18,000- Micro area	Middle School Health	MS	Minor	4-9	IAHPERD
Morgan	500	10,000- Micro area	Middle School Health & Physical Education	MS	Minor	10-19	IAHPERD
Hadley	3,000	23,000- Micro area	High School Health & Physical Education	MS	Major	10-19	ISHA, IAHPERD AAPHERD
Harper	2,600	72,000- Metro area	High School Health	MS	Major	20+	
Haven	3,900	60,000- Metro area	High School Health	MS	Major	20+	ISHA, ASHA
Hayden	1,300	11,000- Micro area	High School Health & Physical Education	MS	Minor	20+	ISHA, IAHPERD
Hollis	1,800	20,000- Micro area	High School Health	MS	Major	4-9	ISHA

[a]School enrollments were rounded to the nearest 100 (Illinois State Board of Education, 2009). [b]City populations were rounded to nearest 1,000 and classified as Metropolitan (50,000 or more) or Micropolitan (10,000 to 50,000) Areas as defined by the Office of Management and Budget (U.S. Census Bureau, 2010). [c]Memberships included Illinois School Health Association [ISHA], Illinois Association of Health, Physical Education, Recreation & Dance [IAHPERD], American Alliance for Health, Physical Education, Recreation & Dance [AAHPERD], American School Health Association [ASHA].

nine health teachers had a Masters degree, were certified to teach secondary health, and taught an average of five health classes per day. Seven had been teaching for over 10 years and four also were teaching physical education. All except Harper were current members of a state health education professional organization. Harper was a past member of IAHPERD. One high school health teacher was a Certified Health Education Specialist.

School Administrator Demographics

All three administrators held doctoral degrees. Each also had been a classroom teacher and administrator in their districts for between 4 and 20 years. One administrator previously taught health and physical education. (See Table 3.)

Results of PD Checklist

All participants marked conferences as the most preferred PD. Health teachers indicated that conferences were available in their region of the state, but not as accessible. Administrators checked individual research, trainings, and certifications as the most available PD for health teachers, but marked mentoring and workshops more accessible. Table 4 provides health teacher and administrator responses to all PD checklist items.

Results of PD Interviews

Three themes emerged from the interviews: choice, applicability, and external constraints. In-school versus outside of school PD choices, factors impacting applicability to the health classroom, and external constraints shared by health teachers and/or administrators were described. Selected participant quotes reflecting each theme also were provided.

Choice.

This theme described PD choices for health teachers that were available both at their school and outside of school. Discussion of in-school PD revealed determining factors, focus, and decisions impacting choices. Reasons for outside PD choices included policies, conferences, and personal factors.

In-school PD choices.

In-school PD choices were determined by state mandates, school focus, and school administrators. In-school PD was mandatory for all teachers as day-long or half-day district and school institutes, early dismissal or late start days that provided one to two hours of PD, or PD programs scheduled during teachers' free periods. However, Mickey said, "Monthly PD scheduled during teacher planning periods were not well-received by teachers at my school."

Further, all participants stated that PD at their school often was focused on school initiatives. For example, 10 interviewees (except Avery and Aaren), said PD centered on their School Improvement Plan (SIP), reading and writing strategies to increase school Adequate Yearly Progress (AYP) scores, and Response to Intervention (RtI) data-based methods to increase student learning. According to four participants (Mickey, Harper, Hollis, Avery), discipline-specific Professional Learning Teams (PLTs) replaced PD programs in order to implement RtI.

Table 3

School Administrator Demographics

Participant pseudo name	District/school enrollment[a]	City/cities population & area[b]	Current position	Education	Years teaching	Years as an administrator
Aaren	School 4,100	57,000 - Metro area	Principal, High School	PhD	10-19	4-9
Alex	District 3,900	18,000 - Micro area	Assistant Superintendent for Curriculum & Instruction	PhD	20+	4-9
Avery	District 5,900	106,000 - Metro area	Assistant Superintendent for Curriculum, Instruction & Assessment	PhD	4-9[c]	10-19

[a]School enrollments were rounded to the nearest 100 (Illinois State Board of Education, 2009). [b]City populations were rounded to nearest 1,000 and classified as Metropolitan (50,000 or more) or Micropolitan (10,000 to 50,000) Areas as defined by the Office of Management and Budget (U.S. Census Bureau, 2010). [c]Taught health and physical education.

Table 4

Professional Development (PD) Checklist Results

Types of PD (check all that apply)	Health teachers ($N = 9$)			School administrators ($N = 3$)		
	Available	Accessible	Preferred	Available	Accessible	Preferred
1. Conferences (local, state and/or national)	9	4	4	2	2	3
2. Individual or collaborative research	6	2	1	3	1	1
3. Mentoring, peer observations, peer coaching	7	4	2	2	3	2
4. Professional learning communities or teams	6	3	1	2	1	2
5. Teacher networks (outside agency or Internet)	4	3	2	1	1	0
6. Trainings, certifications	6	2	2	3	1	1
7. University courses	6	3	1	2	2	1
8. Visit other schools	7	4	2	2	2	1
9. Workshops	8	4	4	2	3	2
10. Other types of PD. The following other types of PD were written in by participants. Health Teachers: State Health Education Blue Ribbon evaluation team, Gift of Hope, American Red Cross. Administrators: Volunteer for health-related committees and agencies outside of school.	3	3	1	0	1	0

According to participants, in-school PD topics related to technology, literacy, and classroom management. For example, Morgan said, "Our teachers can choose among PD sessions on RtI, technology, and literacy. The focus of these sessions changes with a new administration." Administrators Alex and Aaren offered PD on improving instruction: social, emotional and physical wellness of students and staff; cognition skills; and class management. Avery's school focused predominantly upon RtI.

All participants indicated that in-school PD content was chosen by administrators. Seven interviewees (two middle school, three high school, two administrators) confirmed that their school administrators surveyed teachers' PD needs. All reported that their school's administrators collected feedback from teachers after in-school PD. Only five participants (two middle school, two high school, one administrator) reported discipline-specific PD in the form of department curriculum work, CPR recertification, or health-related topic presented to all staff (e.g., Internet safety, bullying) at their schools.

Outside school PD choices.

Choices of outside PD were dependent upon school policy, available conferences, and other professional and personal factors. All participants reported that their school policy allotted teachers one to three PD opportunities per year. All health teachers (except Harper) chose state conferences but were split between attending IAHPERD and ISHA. Four health teachers (two middle school, two high school) also chose the county health, physical education, and drivers' education institute and American Red Cross trainings. The four health teachers who taught physical education chose outside PD with both health and physical education content. Only Hadley reported annual attendance to both national and state health-related conferences.

Health teachers chose outside PD that were health-specific, met their needs, were applicable to their classroom and curriculum, and included collaboration time. According to Mickey, "Collegiality and camaraderie is a very important

aspect of going to PDs outside of school. We all have the same issues, battles, and need someone to lean on." Administrators agreed and added that encouragement by teacher-leaders influenced other teachers' attendance to outside PD.

Other factors influencing choice of outside PD were family and job commitments (e.g., coaching responsibilities). Morgan and Hayden said chose outside PD based upon renowned featured speakers and location. Each health teacher, however, pointed to time away from their classes and funding (e.g., substitute teachers, travel, registration) as important in their choice of outside PD.

Applicability.

The second theme described how PD met health teachers' needs and the usefulness of in-school and outside PD to their health classroom. All participants agreed that health teachers need PD to update content knowledge and teaching skills to reach today's students. As Avery reiterated, "Health is ever-changing, impacting the PD that health teachers need." Further, Hollis thought that, "PD should re-introduce theories - get back to theories like the Health Belief Model and Stages of Change Theory to refresh how we should talk to students about susceptibility (to smoking, alcohol)."

Beyond content, three middle school health teachers said discussion skills were essential to provide students with a forum for conversation, while Micah saw effective use of technology as an important skill. Alex recommended that, "Physical educators who teach health needed more instructional strategies to make the transition from the gym to the health classroom."

To reach today's students, Haven suggested, "Health teachers should think like a sophomore" (i.e., understand a 16-year old). Further, all interviewees agreed that health teachers should be energetic and enthusiastic. Because health is a required course in Illinois, Aaren summarized how, "Health teachers need to be incredibly interesting."

In-school PD applicability.

All respondents thought in-school PD was most applicable to their classrooms when topics were pertinent to health, planned by health teachers, and/or focused on health alone. Aaren thought, "PD that focused on topics teachers really face, like depression and diversity, were very useful." Health teacher remarks about current in-school PD ranged from "pretty useful" (Hollis) to a "waste of time" (Morgan).

All health teachers portrayed school site PD as mostly focused on core subjects (e.g., reading, math, science). Core subjects were highlighted because of state and school initiatives. Hayden described school PD this way:

> In-school PD is more about math, science and core courses. Sometimes they forget that it might not work in health, especially PE, but I make it work. Some, however, are like beating a dead horse. I have voiced

my opinion that we need to try something new.

As Morgan concluded, "It's just not what we (health and physical education) do."

Administrators and health teachers agreed that some school PD was not applicable. This was especially true if a speaker did not understand their school or teachers' needs. Hollis explained an experience this way:

> There was an RtI (Response to Intervention) speaker who talked to the whole district for five hours. The teachers had not been told what RtI was before the speaker presented. The speaker said that RtI applied more to elementary level. As a result, RtI was met with negativity by other grade level teachers because it (RtI) was not clear – even among the RtI committee.

Similarly, administrators expressed concern about inviting guest speakers from outside the district. Avery recommended, "Those who plan in-school PD should be careful of inviting people (at least 30 miles away). Do your homework; find out what is needed and what might work in a similar district."

Outside school PD applicability.

All participants said outside PD was more applicable to their health classrooms. As Morgan summarized, "When I go to ISHA for one to two days, it balances out what was lost in the one to two days being gone (from my health classes) because I bring back so much. If the PD is good, then it's worth the time away." All health teachers said they used something learned at a conference in their class. Hadley described how, "I learned a new way to teach the food pyramid at a state conference nutrition session and adjusted it for high school." Further, Hayden explained that, "Information I learned from a diabetes session at the state conference was shared with my colleagues."

Health teachers also agreed, that outside PD might not always meet their needs. Some health teachers said they were not able to apply what they saw at a conference to their health class. As Morgan remarked:

> Health education sessions offered at state conferences often are geared toward high school, rather than middle school. Some of the methods would be over the heads of my middle school students, could not be implemented, and did not provide resources.

In order to make PD more applicable to their classroom, all health teachers felt that teachers should be involved in PD planning. Although this suggestion was aimed at those who deliver PD on and offsite, several comments were directed to offsite PD planners. As Haven stated, "National and state conference planners might plan sessions with and for teacher-practitioners."

External Constraints

Several constraints impeding health teachers' access to outside PD were noted by those interviewed. Health teachers saw a lack of PD funding as a major constraint. Being unaware of other PD beyond state conferences and PD structure were constraints mentioned by all participants. Interestingly, providing substitute teachers to attend outside PD was not a constraint.

Funding for outside PD.

A common concern expressed by the health teachers was availability of funds for PD, especially given current economic constraints experienced by school districts. Hayden warned, "The educational crisis in the state will have a huge effect on PD." At Mickey's school, "We trade off going to IAHPERD each year with our colleagues." Only Harper, Hadley, and Aaren said their schools paid for registration, travel, and meals for approved PD. Haven summarized funding constraints this way:

> We do get help with substitutes but only occasional funding (e.g., to go to one PD in the area). This is frustrating when the county PD is so close and we can't go. Overall, I am fortunate to get a sub and attend a conference, even if I have to pay to go.

To reduce PD costs, Hadley suggested, "PD might be offered through the Regional Offices of Education that could provide local resources designed to meet specific content needs."

All three administrators, however, said they supported and encouraged health teachers to attend outside PD. Alex explained, "For the past few years, PD funding has been provided by the state if a school did not make Adequate Yearly Progress (AYP). The administrator could manage those PD funds." Further, administrators felt that leader teachers played a key role in encouraging new teachers to attend PD. According to Avery:

> Teacher leaders can help a teacher see the importance of PD. The only barriers are within the individual teacher. Being an average teacher is no longer acceptable. Tenured teachers may lack motivation but still need the teacher leader to emphasize the importance of PD.

Some health teachers did not blame their school for lack of PD opportunities. In fact, Morgan said, "Some colleagues don't want to take advantage of PD and are not motivated to pursue resources. They view their role as a job from 7:30am to 3:00pm."

Unaware of other outside PD.

Two high school health teachers (Hayden and Harper) and all three administrators said they were unaware of health-related outside PD beyond their state conferences. Harper remarked, "I've been looking for content-specific PD for my students and curriculum." Alex reiterated that, "I would like to know about more health-related PD opportunities myself."

PD structure.

The last external constraint was PD structure (e.g., format, collaboration time). Micah recommended to, "Keep PD simple (i.e., one idea or strategy) and short (i.e., break it up one-half day vs. full day)." Morgan suggested, "We need stuff to be simple and ideas that are not going to take a crazy amount of materials and equipment. Just provide simple concepts and ideas that are applicable, practical, and useful."

All participants remarked that PD should be more hands-on, engaging rather than listening to a lecture. Hayden said, "I like activity with little lecture. I am a visual learner, so I like to see how things are done." Further, all administrators commented that successful PD gave teachers time to talk with one another and collaborate on instructional strategies and curriculum matters. As a PD participant, Aaren said:

> I like going as a team or department. Even if it's with only one person, that's the best. There are moments when you turn to your partner and talk. This is where you can really do some work.

Discussion

The following discussion connected choice, applicability, and external constraints with current literature about PD for health teachers. Results of PD choices at school and offsite were compared to current research. Participant feelings about applicability were differentiated from recent PD guidelines regarding content. External constraints noted by participants were examined alongside best PD practices. The discussion concluded with two theories developed about PD, based upon these results.

Choice

All participants reported mandatory and regularly evaluated in-school PD as described in the state code (IASB, 2008). Further, all agreed with the literature that conferences (i.e., state health and physical education) were the most preferred PD (Choy et al., 2006; Coalition for Psychology in Schools and Education, 2006). Health teachers indicated that although offsite PD was preferred and available, it was not always accessible as noted in several national studies (CDC, 2006; Garet et al., 2001; Nevills, 2003; St Leger, 2000; Viadero, 2007). Perhaps if more in-school PD was health-related, health teachers may not have to rely on offsite PD to remain updated.

Health teachers said they had no choices regarding PD at their schools, which was in opposition to state school code and national organizations (Coalition for Psychology

in Schools and Education. 2006; IASB, 2008; ISBE, 2009a, 2009b; Kann et al., 2007; USDOE, 2001). One contributing factor may have been a reported lack of teacher involvement in PD decisions. When administrators surveyed health teachers about their PD interests it was unclear if or how feedback was used. This also was in contrast to previous studies suggesting teachers be involved in PD decision-making (Choy et al., 2006; Coalition for Psychology in Schools and Education. 2006; USDOE, 2001).

Although online PD was available through health education organizations (e.g., AAHE, 2011a, 2011b; ASHA, 2011), health teachers chose state conferences. This differed from the national Schools and Staffing Survey (SASS) study, where 25% of teachers reported using Internet teacher networks or online university courses to remain updated (Choy et al., 2006). One explanation for choosing conferences over online PD may have been the expressed importance of collaboration among participants.

Applicability

Participant responses were confirmed in the literature that PD needed to be applicable as health content frequently changes (Association for Supervision and Curriculum Development [ASCD], 2000); Joint Committee on National Health Standards, 2007). Equally, this study found both in-school and offsite PD can be inadequate as noted in the national survey, "What Makes Professional Development Effective" (Garet et al., 2001). Participants agreed that PD was more applicable if it focused on specific content and ways students learn that content, which was consistent with state standards for health teachers and teacher's previous knowledge (Garet et al., 2001; ISBE, 2009a, 2009b).

According to these health teachers, in-school PD often was not applicable to health education classrooms in contrast to guidelines for effective PD that recommended in-depth, content-specific PD. Health-specific PD was reported as CPR training, department curriculum work, or school wide health program rather than health content and skill development as recommended (AERA, 2005; Choy et al., 2006; Garet et al., 2001; IASB, 2008; Joyce & Showers, 2002; Kann et al., 2007; USDOE, 2001; Viadero, 2007). Based upon negative comments about in-school PD by these health teachers, it was not surprising that they felt in-school PD was not applicable to their health classrooms. Perhaps administrators might consider dedicating one in-school PD per year as content-specific for each subject (e.g., health education, English, math). Content-specific PD could be planned by content area teachers (e.g., health teachers, English teachers, math teachers).

Another unique aspect of PD applicability expressed by participants was providing methods to reach today's students. Although the literature recommended PD renew teaching skills (Vamos & Zhou, 2009), it did not address how engaging a health teacher must be to reach students in a required health class. Given these circumstances, health teachers and administrators alike noted health teachers need to teach in exciting ways.

External Constraints

Constraints identified by both health teachers and administrators were a lack of awareness of PD beyond state conferences and PD structure (e.g., length, hands-on PD with collaboration time). A major constraint mentioned by the health teachers was inaccessibility to outside PD due to lack of funding. Lack of funding was related to conference fees and mileage, not substitute teachers. Obtaining a substitute teacher was not a constraint among all participants.

Inability to access outside PD was equally disputed and affirmed in the literature. In practice, most health teachers identified problems accessing outside PD even though their school allowed 1-3 per year. The health teachers interviewed talked about taking turns to attend a conference and not being able to attend a local county conference. SHPPS (2006) results, however, reported that less than half of health teachers nationwide wanted PD on health topics or teaching methods (CDC, 2006). Likewise, Marie mentioned that some colleagues did not take advantage of PD opportunities. Perhaps a larger sample of health teachers would indicate whether outside PD opportunities are utilized. Health teachers, who pay for membership in state health organizations, may feel particularly constrained if they cannot attend conferences sponsored by those same organizations.

Another constraint identified by health teachers was a lack of funding to access outside PD. This perspective was affirmed in the national SASS study indicating less than half of teachers received funding for travel and daily expenditures to workshops/conferences outside of school (Choy et al., 2006). In the SHPPS study (2006), however, Illinois reported funding PD for middle and high schools in 12 of 14 health education content areas and 4 of 8 teaching methods (CDC, 2006). According to the SHPPS methods, Illinois data about funding PD for health were reported by, "State-level person responsible for or most knowledgeable about the component." (Kann et al., 2007, p. 401). Perhaps the Illinois respondent did not have data from all schools to determine if health teachers received PD funding.

There also seemed to be a disconnect between PD funding policy and practice among health teachers and administrators in this study. Administrators did not mention funding as a constraint but rather supported and encouraged health teachers to attend outside PD as noted in the literature (Conklin, Hook, Kelbaugh, & Nieto, 2002; Joyce & Showers, 2002). These administrators also thought leader teachers should reinforce the importance of PD to new teachers. Health teachers agreed that PD was important for new teachers, but wondered whether funding would be available. Administrators might consider reviewing PD policies with their health teachers; especially funding for outside PD.

All participants agreed that PD should be engaging, hands-on, and offer more collaboration time as stated

extensively in the literature (Choy et. al, 2006; Darling-Hammond & Richardson, 2009; Garet et. al. 2001; Joyce & Showers, 2002; Nevills, 2003; Viadero, 2007). Those who deliver in-school PD might include more health teachers in planning to improve content and format. However, it may be difficult to collaborate at offsite PD if some health teachers report taking turns to attend conferences.

One factor not expressed as a constraint by interviewees was obtaining a substitute teacher while attending PD. This was consistent with the SASS (1999-2000) national study (Chung Wei et al., 2009; Joyce & Showers, 2002). Perhaps a future study could examine whether funding sources for substitute teachers also could be used to support one to three PD opportunities per year to access outside PD.

Grounded Theories

Grounded Theory was used in data analysis to explain what PD was received by health teachers in these secondary public schools (Pitney & Parker, 2009). Based upon experiences of participants, two theories developed. First, because public schools have to spend in-school PD time to comply with state mandates (e.g., AYP, RtI), health teachers may not receive health-specific PD. Secondly, if school policy states that one to three PD opportunities per year are available to health teachers, then administrators may hold the key to accessibility.

Limitations

This study specifically chose key informants as a first step in identifying issues related to PD for health teachers. Participants did not represent urban school districts or other regions of the state or country, therefore, results cannot be generalized to a larger population of health teachers and administrators. Further, all health teachers were familiar with in-school and offsite PD because of their teaching experience and had attended state health-related conferences. In addition, all administrators were involved with their health education curriculum and/or local school wellness policy which may have influenced their perceptions.

Conclusions

Some effective PD elements were found in this study (e.g., evaluated PD, administration supplying substitute teachers). Others, however, were not evident in practice (e.g., teacher involvement in PD decisions, in-depth health-related PD at school, collaboration time). Elements confirmed by administrators, but not health teachers, were administrative support for funding one to three PD opportunities per year.

In 2006, SHPPS researchers challenged that, "future studies should explore who is receiving PD, how accessible PD is and what is the quality of PD methods and content" (Kann et al., 2007, p. 433). Findings from this study suggested health teachers had no choice regarding in-school PD and

relied upon outside PD (mostly, state conferences) to remain updated in health content, and applicable methods. This confirmed the first theory that because public schools use PD time to comply with state mandates, health teachers need access to outside, health-specific PD. Although school PD policy provided health teachers with one to three outside PD opportunities per year, health teachers and administrators differed in their perceptions about accessibility and funding. These circumstances supported the second theory explaining how administrators could ensure that PD policies lead to accessibility in practice.

There are several implications for those who deliver health education PD (e.g., school administrators, professional health education organizations, and university health education departments). These groups might revisit how to involve practicing health teachers in planning PD programs, address challenges health teachers face accessing quality PD, and promote alternative program delivery. At the school level, administrators might designate one health-related in-school PD per year with time for collaboration.

Future studies might use these results to explore PD issues within larger populations of health teachers and administrators. For example, a survey of health teachers (both members and non-members of professional health education organizations) may reveal other methods of remaining updated, benefits, and challenges to accessing PD. An additional study with school administrators alone may answer questions about PD decision-making, how PD feedback is used, and how PD policies are communicated and implemented.

Quality PD is critical for health teachers in public schools to remain updated in content, skills, and methods. Schools that understand the importance of specific health-related PD will include their health teachers in a conversation about what PD is preferred and most applicable to their students. Further, by addressing challenges to accessing quality PD, those who support and deliver can have a positive impact on health education.

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