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*Article*

## **PEDIATRIC HOSPITAL SCHOOL PROGRAMMING: AN EXAMINATION OF EDUCATIONAL SERVICES FOR STUDENTS WHO ARE HOSPITALIZED**

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**Abstract:** This study aimed to define the current functions and operations of hospital school programs nationwide. A 56-item survey was disseminated to hospital teachers across the country to examine perceptions about their work, programs, and professional practice. Quantitative findings were analyzed using descriptive statistics at the individual item-level. Qualitative responses were categorized for thematic review and analyzed using an inductive approach. The final sample included 88 completed surveys. Findings were classified into three broad categories: hospital school programming, hospital school teachers, and hospital school instruction. Results revealed that great variability exists across hospitals. Differences were evident in how programs were staffed, funded, and how services are allocated to patients during hospitalizations. Findings will contribute to the establishment of best practices for hospital school programs.

**Keywords:** *survey; chronic illness; hospital school*

## **Introduction**

Estimates indicate that approximately 3.1 million children are hospitalized each year (U.S. Department of Health and Human Services, 2011). This statistic represents both planned and unplanned admissions, accounting for unexpected or acute injuries and illnesses as well as conditions described as chronic (including children with special health care needs, severe disabilities, and others). Admissions may represent single or recurrent encounters and include brief or extended lengths of stay. Children who are hospitalized frequently or for extended periods of time experience a myriad of unique stressors, including separation from parents, siblings, and peers as well as exposure to painful and numerous medical procedures. During periods of hospitalization, the child's life is interrupted, as socialization, school, and recreation are halted out of necessity. Upon discharge, the child may return home with the expectation of a resumption of normalcy; and yet, this return to normalcy can be difficult (Fox, 2016). Such challenges can result in negative affective responses including depression, anxiety, reduced ability to cope with pain, detachment, and more (Tarnowski & Brown, 2000). Though the existing research in this field is both limited and outdated, some evidence suggests that the support of parents, hospital staff, and psychological resources can provide a buffer from the deleterious short- and long-term effects of such stressors (Kazak, Segal-Andrews, & Johnson, 1995; Tarnowski & Brown, 2000).

Given the known adverse affects of hospitalization for children, pediatric healthcare professionals nationwide are increasingly acknowledging the need for hospitals to include comprehensive psychosocial care as a component of the child's medical treatment (Thompson et al., 2015; Wiener, Kazak, Noll, Patenaude, & Kupst, 2015). Many ancillary providers, including social workers, child life specialists, therapists, psychologists, teachers, and chaplains, are involved in the child's care to ensure comprehensive support that addresses the needs of the whole child.

The role of the hospital teacher and hospital school programming is particularly noteworthy, given the impact of hospitalizations on a child's participation in school. Not only does the hospitalization itself result in school absences, the child may not return to school immediately following discharge. In a study done by Borgioli and Kennedy (2003), students with multiple disabilities were absent on average for 28.9 days each time they were hospitalized. Further compounding the effect of these absences is that, of the hospitalizations studied, only 1 in 46 resulted in the creation of a transition plan providing an organized method for the child to remediate missed instruction. According to Thies (1999):

The combination of chronicity, absence, and side effects of illness and treatment are subtle, but the cumulative effect is potentially damaging. Falling behind academically leads to catching up, and catching up takes time away from keeping up. Self-confidence and achievement motivation are undermined. (p. 395)

These effects are frequently exacerbated by learning difficulties, as children with chronic medical conditions or special health care needs endure multiple short-term and long-term issues that adversely affect their ability to learn (Filce & LaVergne, 2015; Forrest, Bevans, Riley, Crespo, & Louis, 2011). According to Clay (2004), approximately 20% of children have a

chronic illness and, for at least one-third of these, the illness is significant enough to negatively impact normal educational progress. For many of these children, hospital treatments save their lives while unintentionally compromising attention, memory, fatigue, visual scanning, and spatial abilities (Thies, 1999). In one study, 45% of students experiencing chronic illness performed below their peer comparisons and many reported that they disliked school (Lynch, Lewis, & Murphy, 1992). Given that illness and frequent and/or extended hospitalizations impair a child's participation in school, educational interventions become an essential component toward supporting this student population (Kaffenberger, 2006); though, as Thies (1999) asks, "Who is responsible for managing the education of [...] children and adolescents with chronic illness?" (p. 396).

According to the American Academy of Pediatrics (AAP) Committee on School Health (2000), "For children who are unable to attend school, education should be available in an alternative setting, such as a rehabilitation center, hospital, or the home" (p. 1155). The hospital school teacher plays an instrumental role in providing hope, normalcy, and routine for children during hospitalization and hospital school programming is essential in maintaining academic continuity for children who cannot otherwise participate in traditional schooling (AAP, 2000). Consequently, there is a need for pediatric hospitals to strive toward bridging the gap between school and hospital for children through the development of such programming (Eaton, 2012).

Given resource limitations that often restrict the development and expansion of hospital school programming, few practitioners have the capacity to engage in activities beyond instruction and clinical responsibilities. Thus, very limited research exists relative to the field of hospital school programming. To address this deficit, the Association for the Education of Children with Medical Needs (AECMN) developed a field-worthy primary document entitled *Building Guidelines for a Hospital School Program* (AECMN, 2011). A qualitative survey-based study by Vizoso (1994) has proven to be one of the most extensive studies in the field to date. Though now outdated, results revealed that hospital schools are part of two large systems (health and education) and, as a result, are "loosely administered organizations with amorphous policy guidelines and little hierarchical structure" (p. 78). A decade later, through an in-depth study of one North Carolina hospital school program, Lemke (2004) illuminated the characteristics that distinguish hospital schools from traditional schools. Hospital school teachers work more with hospital staff than with other educators and serve as part of a multidisciplinary medical care team. Hospital instruction is provided to students in pre-K through 12th grade, often by a single teacher, which is also in great contrast to the traditional teacher, who is typically only responsible for one grade level or age group. A subsequent study by Mortenson (2008) identified six components that are essential for providing optimal instruction for children with medical needs, including collaboration, staff, facility, comprehensive services, funding, and support. While the findings represent the most current research regarding hospital schools, the data indicate a need for extensive future research. The small sample size ( $n = 14$ ) and the identification of multiple employment scenarios (i.e., school district vs. hospital employed teachers) indicate the need for deeper examination regarding the dynamics of hospital school programming.

Existing research on hospital school programs (Lemke, 2004; Mortenson, 2008; Vizoso, 1994) includes a small sample size (fewer than 25 responses), is out of date, and is not scientifically measurable. Researchers to date have reported on conclusions based on observations of small

sample sizes of hospital school programs, without testing hypotheses. Current research provides preliminary data which is suggestive that hospital schools vary greatly in construction and function. Tools and research-based guides will equip hospital teachers to improve their educational and clinical practices as they strive to meet the needs of patients who must forgo traditional schooling while undergoing medical treatment.

### **Problem Statement**

The Joint Commission (2008) recommends that “the hospital arrange for a child or youth to receive academic education based on his or her length of stay and condition in accordance with law and regulation” (p. 136). In an effort to comprehensively address the needs of pediatric patients who incur extended hospital admissions (thereby missing opportunities for traditional school participation), hospitals are increasingly recognizing the importance of hospital school programming as a core component of each child’s hospitalization. Unfortunately, as healthcare administrators attempt to develop or expand hospital school programming within their institutions, they must do so in the absence of clear guidelines or established best practice due to the lack of research evidence in this area. Hospital school programs are particularly unique because they are integrated into two of the largest service systems in our society – education and health care – yet neither system lends itself well to address the unique nuances required for such programming (Vizoso, 1994).

### **Purpose**

This study was designed to gain a working knowledge of current hospital school programming nationwide by examining the organization and structure of hospital school programs, the funding sources of hospital school programs, the qualifications of hospital school teachers, the roles of hospital school teachers, and the scope of hospital school teachers and programs. This study represents a first step toward defining the scope and practice of hospital schools and identifying areas for further research. Through this understanding, best practices may then be delineated to guide and support the hospital school student and teacher, with the intent of maximizing positive educational outcomes for students who are frequently hospitalized.

### **Methods**

#### **Study Design/Instrumentation**

This study utilized a survey design. Approval was granted from the governing Institutional Review Board of the pediatric hospital at which the research occurred. A 56-item questionnaire was developed based on a review of existing literature and feedback received via an informal, national expert panel. The survey was designed to gather information about hospital school teachers and programs across the country. The survey included questions regarding (a) the organization and structure of hospital school programs, (b) the funding sources of hospital school programs, (c) the qualifications of hospital school teachers, (d) the roles of hospital school teachers, and (e) the scope of hospital school teachers and programs. Several questions also allowed respondents to provide qualitative feedback to supplement quantitative responses. Participants had the option to complete the survey via Survey Monkey or paper/pencil.

Surveys were administered to hospital teachers and school programs with the assistance of the two primary national professional organizations dedicated to supporting hospital teachers: AECMN and the Association of Pediatric Hematology/Oncology Educational Specialists (APHOES). Members and affiliates of each organization who specifically engage in hospital teaching were invited to participate in the survey through recruitment announcements that occurred in each organization's membership newsletter, at a joint AECMN/APHOES conference, and via email using the organizations' respective listservs. Additionally, AECMN provided a list of contact information for hospital school teachers and programs; using this list, 128 hospital teachers were invited to participate via email. Mail requests were sent to non-responders after several attempts. Data collection initiated in Spring, 2014 and concluded at the end of December, 2014.

### **Data Analysis**

Quantitative findings were analyzed using descriptive statistics at the individual item-level. Survey items were also organized into categories (i.e., demographics, organization, responsibilities, teaching experience, teaching facility, students taught, contact experience, school services, hospital resources, job satisfaction, special education services, skills and training). Questions with a qualitative component (i.e., open-ended items and supplemental replies) were categorized for thematic review and analyzed using an inductive approach (Gale, Heath, Cameron, Rashid, & Redwood, 2013).

## **Results**

The final sample included 88 completed surveys, representing 61 hospitals from 31 different states across the U.S. Table 1 presents general demographic information of survey respondents showing that a majority of hospital teachers are highly educated females. Table 2 presents descriptive information about the hospitals represented in the study, illustrating that hospitals of all sizes were represented in the research. Of particular note, follow-up communication occurred with survey respondents to obtain post-hoc data not previously captured in the survey regarding additional demographics about each hospital school program. While comprehensive data could not be achieved due to low response-rate to this communication, useful information correlating hospital size and number of teachers employed was captured. The researchers concluded that there is no direct correlation between hospital size and number of teachers employed (see Table 3).

The primary aim of this survey was to gain a working knowledge of current hospital school programming nationwide and, specifically, to understand the organization, funding, and structure of hospital school programs, as well as the credentials, experience, and role of hospital school teachers. Results were classified into three broad categories: hospital school programming, hospital school teachers, and hospital instruction.

### **Hospital School Programming**

**Organization.** Programs are staffed by hospital-employed teachers (60%) and/or teachers provided by the local public school district (34.5%). Hospital teachers report to a manager at the

hospital, or, in cases in which a teacher is employed by the local school district, to both a school-based and hospital-based manager. Hospital school teachers often do not have their own education department within the hospital but instead are overseen by a variety of departments including child life, psychology, social work, or other family support divisions (though some report that they are managed by chief operating officers or Vice Presidents of nursing).

Table 1. *Respondent Demographics*<sup>a</sup>

Demographic Variable	Frequency	Percentage
<b>Gender</b>		
Female	72	83%
Male	15	17%
<b>Age</b>		
20-30 years	6	7%
31-40 years	23	26%
41-50 years	22	25%
51-60 years	22	25%
61+ years	12	14%
<b>Highest Level of Education</b>		
Associate's	0	0%
BA/BS	14	19%
Master's	50	69%
Doctorate	5	7%

<sup>a</sup> Of those who provided responses to each demographic item

Table 2. *Hospital Demographics (N = 78)*

Hospital Size	Response Percent	Response Count
1-99 pediatric beds	38.5%	30
100-199 pediatric beds	15.4%	12
200-299 pediatric beds	24.4%	19
300-399 pediatric beds	6.4%	5
400 or more pediatric beds	15.4%	12

**Structure.** Thematic qualitative findings suggested that a key characteristic of successful hospital school programming is the need for highly motivated, caring, competent hospital teachers who can overcome most obstacles to effectively provide education for the students they teach daily. Qualitative responses included the following:

*“I think that having a competent staff is the most important component. Without good teachers, hospital school is not effective.”*

*“The teacher makes the difference for students. It’s not so much how many teachers, but the quality of the teachers that makes a program successful.”*

*“We are very flexible and extremely approachable. We provide normalcy in a not so normal situation.”*

*“Experienced, qualified teachers [are] most important-must be flexible and able to work with all grades and levels.”*

**Funding.** Funding also comes from a variety of sources; the majority of teacher salaries are either funded by the hospital, the school district, or both. Approximately 73% of respondents reported they had access to a dedicated budget. Supplies are often funded by donations, hospital budgets, and the local school district (when staff is also provided). As is often the case for teachers in the traditional classroom setting, hospital teachers also depend on grants or their own personal purchases to secure adequate resources and supplies. Respondents reported that without enough funding for staff and supplies, programs are significantly challenged to meet the educational needs of their students. One of the respondents shared that the *“hospital prides itself on having a school teacher, but they do not do anything to truly support the program.”* Another teacher

Table 3. Average Number of Certified Teachers Employed Per Hospital<sup>a</sup>

Hospital Size	<i>M</i>
1-99 pediatric beds	1.86
100-199 pediatric beds	4.57
200-299 pediatric beds	2.40
300-399 pediatric beds	4.58
400 or more pediatric beds	4.88

<sup>a</sup> Of particular note, follow-up communication occurred with survey respondents to obtain post-hoc data not previously captured in the survey regarding additional demographics about each hospital school program.

shared that the most difficult part of the job is the “*lack of support at the hospital level*” and another felt being a hospital teacher was difficult due to “*not being recognized by hospital, [and] feeling used by hospital to fundraise but not being given materials requested.*”

### Hospital School Teachers

**Credentials and experience.** Figure 1 illustrates the years of total experience (hospital and non-hospital experience) held by teachers who fulfill this role, with 80.6% having at least 11 years of experience. The expertise of these teachers is further illustrated in Figure 2; a proportionately high number of respondents (76.3%) reported having a master’s degree or higher, which surpasses the national average (U.S. Department of Education, 2015).

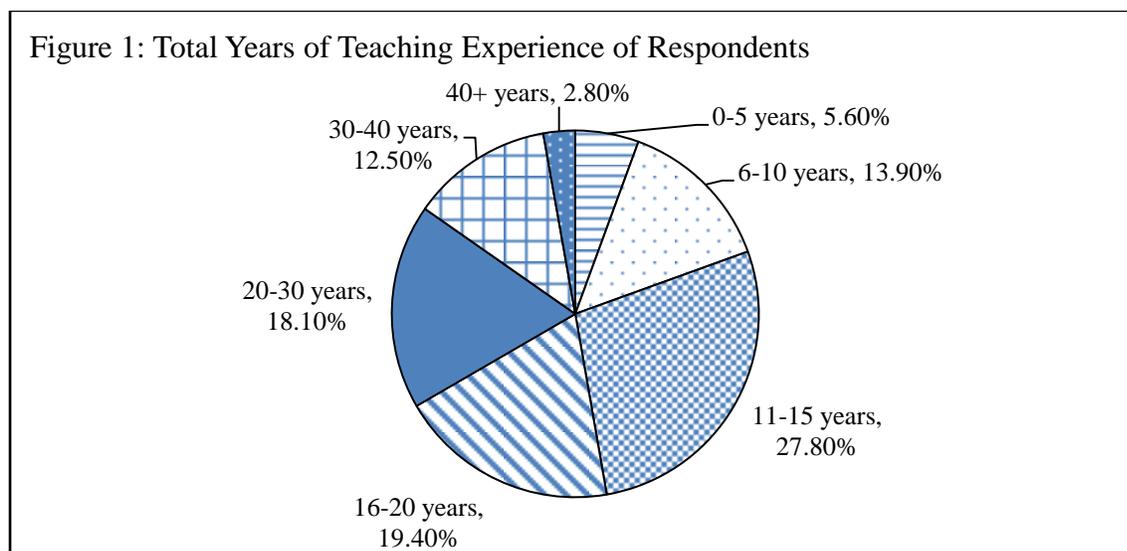
As illustrated in Figure 3, all respondents were certified educators; many (67.1 %) were licensed to teach kindergarten through twelfth (K-12) grade. Many (69.6%) also reported that they were certified in the area of special education. It is not surprising that, given the broad range of teaching responsibilities of a hospital-school teacher, when programs seek to hire new teachers, they often aim to hire special education teachers (31.3%), as these certifications often cover the K-12 grade range. Though responding hospital teachers were all certified and represented many years of classroom experience, a large number reported teaching subjects (58.1%) or ages (32.3%) beyond the scope of their teaching license.

Despite many challenges associated with hospital teaching, an overwhelming percentage of respondents expressed very high job satisfaction. Teachers shared the following:

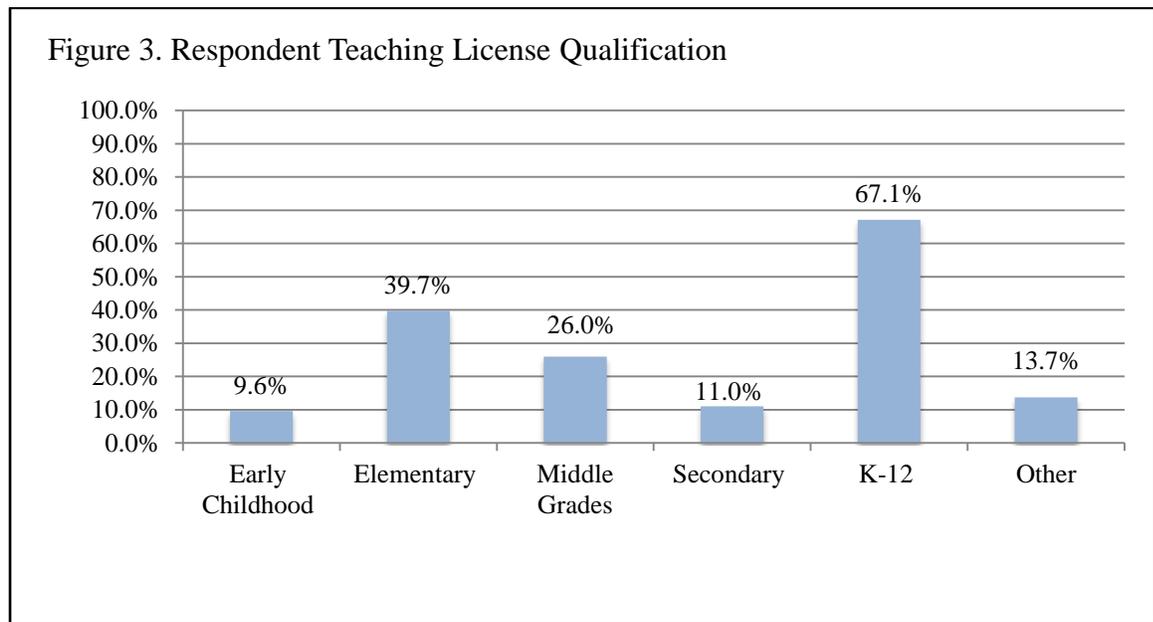
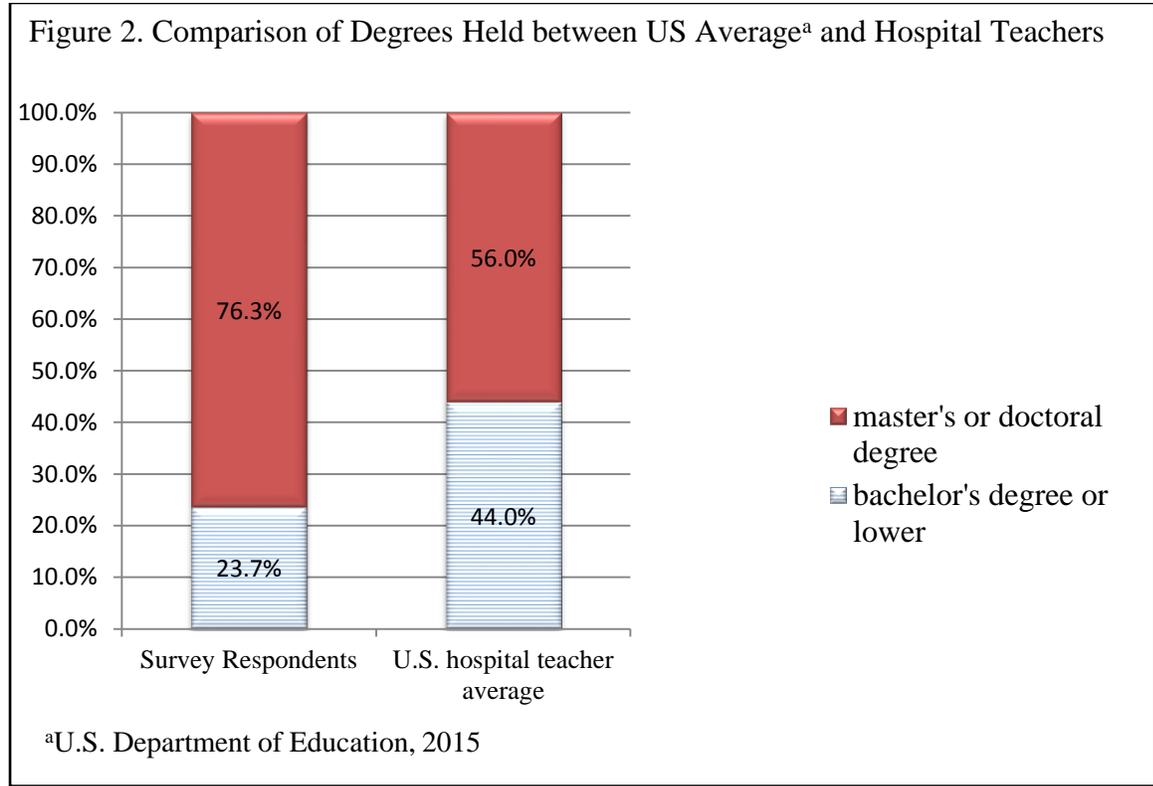
*“Best teaching job ever!”*

*“I love my job!”*

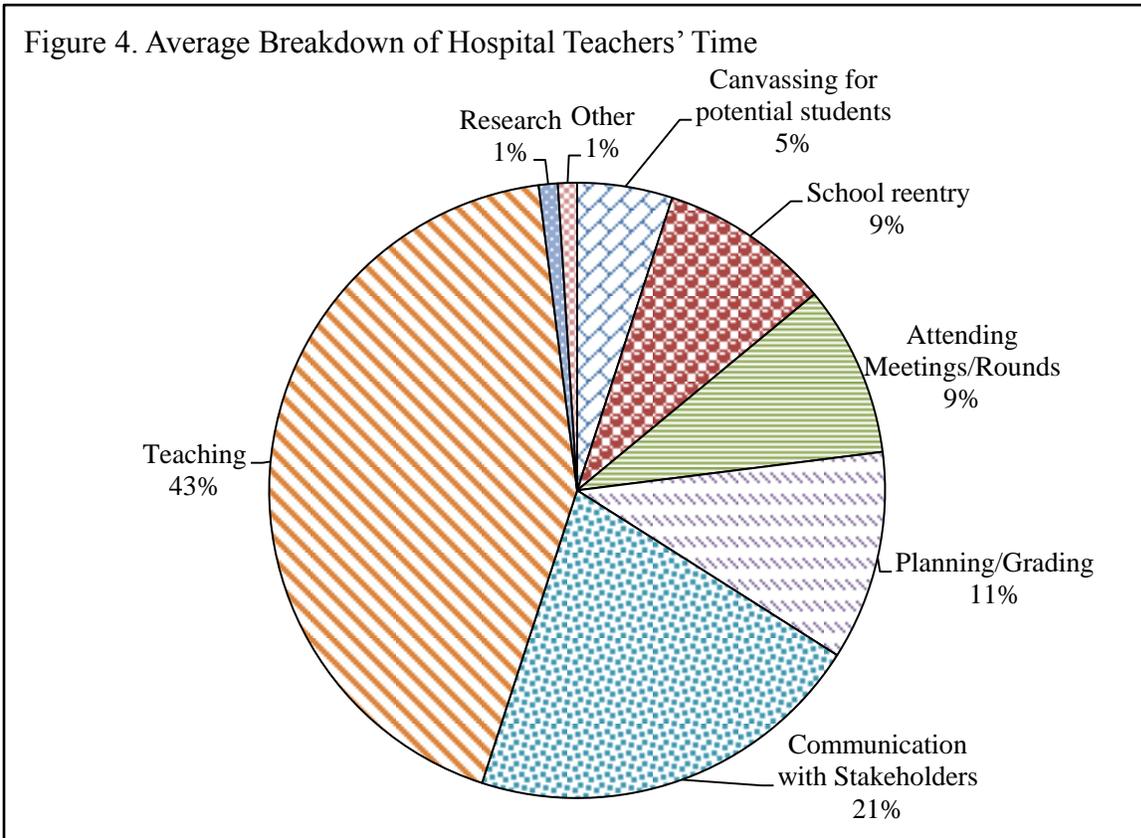
*“Teaching is a great deal more satisfying when the environment is centered on what is good for the child rather than what is best for the school district!”*



When asked about the most rewarding part of the job, the respondents most frequently cited the opportunity to work one-on-one or in small groups with the students, which reportedly provided an opportunity for tailored instruction that met each student at the appropriate level of need.



Teachers also described several other factors that provided a sense of job satisfaction, including the opportunity to support parents and families (especially in a time of crisis), helping students make academic progress during periods of hospitalization, being a pivotal part of the healing process, and providing a sense of normalcy. One teacher shared the value felt in “*providing*



*normalcy for children who are otherwise adrift during a stressful point of their lives.*” Another said, “*I feel empowered daily by my colleagues and by the students I work with because what we are doing does make a difference in a very real way day-to-day with these families. Maintaining normalcy in such an atypical setting for these children is a powerful goal we meet each and every day as hospital teachers.*”

The teachers were asked about the most difficult part of the job. Thematic analysis of the qualitative responses revealed a majority struggled with watching patients pass away or cope with their daily suffering. Other results revealed that hospital teachers also struggle with time constraints, hospital politics, lack of recognition and support, and lack of appropriate educational resources.

### Hospital School Instruction

Figure 4 illustrates the tasks in which a hospital teacher engages. Unlike a traditional teacher, the results show that hospital teachers spend less than half of their time teaching. A large portion of a

hospital teacher's day (21%) is also spent in communication with stakeholders. Teachers completing the survey shared the following statements that show the value of collaboration:

*"Transition services are most essential at my hospital. Patients need to be provided with services/documentation to make a smooth transition back to school."*

*"Our priority is to provide a specific plan and smooth transition for our patients whether it will be back to school or homebound instruction. I collaborate with our PT, OT, Speech Therapist, Neuropsychologist, Social Worker, Child Life Specialist and Discharge planner to assist parents and patients when they are discharged."*

Instruction is provided most often in a one-to-one or small group setting as opposed to a large, traditional classroom. Hospital school teachers report use of a range of instructional materials and curriculum to support their students. Most (84.5%) use (and prefer to use) the books and work from the child's school of record. While some have access to online programming for their hospitalized students, qualitative responses thematically suggested that virtual programming is often avoided due to the highly individualized nature of hospital teaching, which is tailored to each student's needs for a very specific period of hospitalization. Of note, most hospital teachers reported that their program did not have a single adopted curriculum; rather, instructional materials (and funding for these materials) came from a variety of sources.

## Discussion

While the results of this study revealed significant variability among hospital school programs, there is much to learn from the similarities and themes that emerged. Given the representative sample, both geographically and with size and scope of the hospital demographics, data can be viewed as the beginning of a consensus in the desire to establish minimum standards relative to the foundation for hospital school programming, teacher characteristics and instructional strategies.

### Hospital School Programming

It is widely known by hospital school teachers who are practicing in the field that hospital school programs vary significantly from one program to another. Results of the current study affirm this perception. No standardization exists relative to structure, organization, or funding.

**Organization.** Results related to the "optimal program structure" do not necessarily indicate a preference for hiring or employing hospital teachers over public school teachers. Job satisfaction was high for participants hired by both the hospital and the public school district, suggesting that either model may yield a successful program. A hospital should carefully consider the implications of each option before selecting a model. While the local school district may provide funding for teachers at a hospital, and thus resolve some funding-specific barriers, the hospital must also consider that the governing teacher's relationship with the school district will thereby dictate how the teacher is able to function in some cases, which may conflict with the needs or goals of the hospital. For instance, many patients in the hospital have educational needs all year

long, but the public school teacher is provided only during the school year. Regardless of structure, hospital teachers should report to a manager who understands their unique role and who is familiar with the complexities of the education field. Ideally, this would be an on-site manager with a background in education.

**Funding.** Ensuring funding for appropriate staffing, supplies, and space is the essential first step in creating a successful hospital school program. Teachers should have a designated space in the hospital for office-related tasks (including privacy for phone calls about patient-related information) and instruction. This may include a designated classroom, as well as space for storage and supplies. Those who identified insufficient staffing as a barrier described, through qualitative findings, exactly how crippling the lack of funds and support is relative to meeting the needs of their students. One teacher and her colleague reportedly served 2,706 students in a single school year by themselves; another shared *“that adequate funding and staff [are the] biggest issues for hospital school programs, and if you don’t have that, the rest doesn’t happen.”* Mortenson’s (2008) research revealed that hospital teachers identified adequate facilities as essential to successful hospital school success, including the provision of appropriate resources such as technology.

**Structure.** As a direct result of the findings that highlighted collaboration with key stakeholders as a major component of the role of a hospital teacher, managers and upper leadership should also aim to elevate the role of teachers within the hospital by including these critical staff members in decision-making and strategic planning. Hospital teachers should be included as collaborators with the other care providers at the hospital, and should be included in medical and psychosocial care rounds when possible and appropriate. A collaborative hospital teacher is able to more effectively function in a complex dynamic environment, which results in more significant educational impact for the patient (Mortenson, 2008).

### **Hospital School Teachers**

The results of this study showed that experienced, certified teachers most often occupy the roles of hospital teachers. Even in the absence of standards and clear requirements for the role, hospitals from around the country have opted to employ experienced and certified teachers.

**Credentials and experience.** Some of the most noteworthy findings of this survey relate to the quality of hospital teachers. This discovery is particularly important, as hospital teachers are often charged with educating students at all grade levels. Many students who incur frequent hospitalizations experience school difficulties and thus benefit from specialized instruction tailored to their unique needs. Respondents to Mortenson (2008) indicated that staffing qualified educators with diverse or comprehensive experience is a key component of successful hospital school programming. The expertise of a special education teacher (69.9% of respondents had special education expertise) certainly has value in the hospital-school setting, particularly as special education teachers frequently have experience in teaching across content areas.

It is also important to consider how content-specific teachers have significant value in the hospital-school setting. For example, hospitalized high-school age students studying Advanced Placement (AP) calculus would be more likely to succeed with the help of a teacher with mastery

of mathematics content. Some respondents also noted a growing international patient population, justifying the need for teachers with English as a Second Language (ESL) certification. Existing research correlates teacher experience with student achievement (Harris & Sass, 2011); furthermore, Irwin and Elam (2011) indicated that one of the main violations of best practice in providing equitable education to children with medical needs in the hospital setting is overlooking recommendations relative to employing high quality teachers. It may be perceived that hiring teachers who are highly qualified in a specific content area or for a specific age group is a luxury that most programs cannot afford given staff limitations, as the results of this survey show that only 14.9% of hospital programs hire using this type of criterion.

Given the impracticality of a hospital having certified teachers for all content areas and ages, those seeking to staff these programs must aim to hire educators with a broad range of both experience and expertise (e.g., an expert in elementary education and an expert in secondary education vs. two teachers with the same credentials) or leverage the use of technology to collaborate with other certified professionals. Consequently, it is incumbent upon each program to meet the higher level curriculum needs for older students (e.g., hire part-time content experts, identify volunteers with a higher level skill set, and utilize virtual programming). Ideally, a specialized hospital teacher credential may be developed in the future by states or teacher preparation programs.

**Characteristics.** Hospital teaching is a unique profession. While some respondents in this study reported facing adversity (supporting patients who are gravely ill, sometimes with very limited resources), they also reported reaping great reward (providing normalcy and hope for children experiencing great difficulty). One teacher shared, “*Our favorite saying is ‘You got to do what you got to do!’ That says it all!*” This quote highlights the dedication, creativity, and perseverance of hospital teachers, as it illustrates the fact that while hospital teachers are frequently the sole teacher, or one of a few teachers, working in silos with limited opportunities for collaboration, they are able to find resources and make a difference for their students. Hospital teachers continuously exhibited their compassion through their survey responses, thus proving that it is ideal to hire a professional that has a strong desire to make a difference in a crisis setting with potentially little support.

**Challenges.** A close analysis of the qualitative findings revealed that the most common challenge for hospital school teachers was dealing with the death of students. Lemke (2004) also outlined dealing with the loss and death of patients as a challenge for hospital teachers to overcome. Hospital school programs need to plan for staff support surrounding grief and bereavement, and leadership must promote self-care to ensure that these staff members are able to adequately cope with this unique variable. Lemke (2004) also found that hospital teachers often expressed fluctuations in enrollment and difficulty engaging students during short admissions as challenges to overcome.

### **Hospital School Instruction**

The roles, responsibilities, and daily schedule of a hospital teacher vary greatly from those of a teacher in a traditional classroom. The results of this survey show that a hospital teacher spends less than half of an average day teaching. Communication with key stakeholders accounts for

21% and school reentry another 9% of the work day. In order for hospital teachers to be effective, communication with medical and psychosocial staff at the hospital is an essential component to the daily schedule. Coordinating efforts and keeping the school outside the hospital up to date is also important.

There is truly no limit to the interventions a teacher may employ to help hospitalized children. Teachers are well equipped to communicate with other teachers, school personnel, and school districts. They are more likely to speak the same language than hospital staff operating from a medical model. (Eaton, 2012, p. 274)

As Eaton (2012) emphasizes, amidst the many roles and responsibilities of a hospital teacher, second to instruction is the need to coordinate and communicate with the student's school of record. Coordinating with the child's school of record to obtain work and curriculum can be challenging and time-consuming, yet also helps to minimize educational losses (Borgioli & Kennedy, 2003). This collaboration is a worthwhile and necessary investment, as educational care may be the only link to school and normalcy for the child during hospitalization.

A significant body of literature exists which emphasizes the need to properly transition children with health conditions back to school (Irwin, Elam, & Merianos, 2015; Kaffenberger, 2004; Thompson et al., 2015). Because reentry and coordination with the child's school of record are essential, yet also time consuming, those developing or expanding programs must determine if hospital teaching and school reentry responsibilities will be managed by a single staff role (i.e., hospital teacher) or if separate liaisons will be employed to conduct reentry work. Both models exist across the country, with relatively high success in each; regardless of which model is selected, sufficient staffing should account for both aspects of the work.

Qualitative responses to the survey further revealed that hospital teachers also spend a significant amount of time canvassing for potential students (e.g., reviewing hospital census for school-age patients, rescheduling patients due to procedures or severity of illness), creating individual lesson plans for students, and communicating with the child's family, and interdisciplinary team members at the hospital. Lemke's (2004) research similarly emphasized that only about a quarter of a hospital teacher's time is spent delivering instruction to students. Consistent with the medical model, these teachers also attend medical and psychosocial meetings, engage in research more often than traditional teachers, and assist in coordination of care between hospital and school environments. When planning for adequate staffing, the non-traditional demands on a hospital teacher's time must be considered.

Hospital teachers use a variety of methods for planning and implementing curriculum. A list of 8 possible sources for curriculum was provided and respondents indicated significant use of every option including obtaining work from the patient's school, worksheets, manipulative activities, and technology. The results from this survey affirmed general best practice guidelines, such as those from the AAP (2000) that suggested, "non-school-based instruction should attempt, at a minimum, to mirror the progress the child would make in the classroom" (p. 1154-55). Online options are also becoming increasingly popular (Watson, 2008). Despite the growth in virtual learning, hospitals seeking to develop or expand their school programming should consider the

use of online products as a supplement, rather than a replacement, for hiring well-qualified teachers. Not only do online programs require students to be self-motivated and highly independent, but they also often require completion of more chapters, tests, and quizzes than traditional schooling and are not easily modified to address unique learner needs. A student with limited strength or stamina related to hospitalization is therefore often likely to be less successful. Furthermore, virtual programming further restricts the child from much-needed social interactions, as one-to-one instruction (inclusive of praise and positive reinforcement) from a hospital teacher may be one of the few human encounters experienced by a patient in isolation during hospital admissions.

Distance learning resources and the ability to complete coursework online is a trend that will help many children missing school due to medical treatment. Even children who are motivated, organized, and alert enough to engage, however, may need assistance to find the appropriate people and resources, and to connect. For other children, who may be struggling physically and are not as alert, motivated, or organized, the hospital teacher may be the bridge that helps them to get started and stay connected. The chances of success over time will be improved with the assistance of a teacher. (Eaton, 2012, p.275)

Per one respondent, “*we use online classes as a LAST resort or if a parent insists.*” Online options should be paired with the tailored instruction of a qualified teacher.

### **Limitations and Implications**

While the results of this survey conducted with hospital-based teachers effectively captured the dynamic of variability across and within hospital school programs, the self-report nature of the survey captured the individual experience of each teacher rather than providing a broader examination of hospital school programming through the lens of other stakeholders. For example, data were not gathered from hospital administrators to understand how and why they prioritize such programming. Future studies should thus examine hospital educational services from a wider perspective and from the perspective of other stakeholders, including patients, families, and educators from patients’ schools of record. Additionally, survey respondents were primarily employed in existing hospital teaching programs; therefore, hospitals that do not have school programs warrant future study. A closer look at demands on a hospital teacher’s time is also warranted to help determine appropriate student to teacher ratios and other staffing demands for hospital school programs. Such a study would need to consider variables such as one-on-one, bedside instruction versus hospital classroom instruction and whether a teacher is responsible for managing the re-entry to school or if those responsibilities are designated to a school re-entry coordinator. Future studies must also examine the impact of hospital instruction on a child’s academic progress. While instruction is an essential component of care in the pediatric hospital setting, due to variability in participation resulting from the inherent implications of hospitalization, it should not be a replacement for a comprehensive educational program from the child’s school of record.

According to Bessell (2001), despite the attempts by adults to communicate to students that they should not worry about school during hospitalizations, most children remain concerned about

their school progress and participation, and may even misinterpret the message as a sign that their parents and teachers do not have hope in their eventual recovery. Providing school services sends a message of hope to the child. Given the increasing emphasis on quality of life for those living with a medical condition (Thompson et al., 2015) and the growing pressure for healthcare providers to provide interventions to address adverse effects of disease and treatments (Wiener et al., 2015), hospitals should consider providing basic educational supports to complement inpatient admissions for the pediatric population. At minimum, this must include sufficient staffing of appropriately certified hospital teachers and provision of adequate educational resources to supplement instruction.

As one respondent shared, “*The teacher makes the difference for students. It’s not so much how many teachers, but the quality of the teachers that makes a program successful.*” This sentiment underscores a priority recommendation for hospitals to employ high-quality, caring teachers in order to develop and expand hospital school programming. These highly-experienced, certified teachers can then meet a wide range of learner needs and build a strong foundation for future hospital school programming.

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