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Short Communication

Improving School-Based Health Care through a Truly Interprofessional Approach

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Abstract

Wellness in youth sets the stage for health later in life. Chronic diseases such as Type II diabetes and sports injuries such as concussion require an interprofessional approach. In schools where nurses and athletic trainers are both present, many times they act independently. Despite having a common primary care mission and complementary training, they use separate facilities, supplies and medical records. New school-based initiatives exist, but have not included athletic trainers. An Interprofessional School Based Health Care (IP-SBHW) plan is proposed where nurses and athletic trainers coordinate health care at a school using complementary roles, a common physical facility and a common medical record. Access and quality of health care could be improved by providing comprehensive on-site primary care and decreasing medical errors through improved communication. Costs could be decreased by providing more appropriate treatment, triage and referral. School nurses and athletic trainers can work interprofessionally to provide primary care at a school through the IP-SBHW plan. This may improve health outcomes by more efficiently meeting the needs of the school community.

Keywords: Interprofessional; School-Based Care; Nurse; Athletic Trainer

Introduction

Interprofessionalism in health care is not a new concept, in an address to the graduates of the University of Chicago Medical School in 1910, Dr. William Mayo, one of the founders of the Mayo Clinic stated: "The best interest of the patient is the only interest to be considered, and in order that the sick may have the benefit of advancing knowledge, union of forces is necessary"[1]. However, this union should not be merely multidisciplinary, where providers hand-off care to other health professionals, but rather it should be interprofessional in a culture where the collaboration is intentional in patient care. This culture starts in the professional preparation of the health care provider. In 2010, the World Health Organization defined Interprofessional Education (IPE) as something that "occurs when students (learners) from two or more professions learn about, from, and with each other to enable effective collaboration and improve health outcomes"[2]. It is hoped that IPE prepares health professionals to be collaboration-ready for Interprofessional Practice (IPP). The 2003 Institutes of Medicine report (IOM), ''Health Professions Education: A Bridge to Quality", recommends that "All health professionals should be educated to deliver patient centered care as members of an interprofessional team, emphasizing evidence-based practice,

quality improvement approaches, and informatics." [3].

Interprofessional initiatives can be used to improve quality, increase access and decrease costs for underserved patient populations who currently have inconsistent and poorly coordinated care [4]. Care for children in these areas is especially important because many chronic diseases start early in life and athletic participation increases risk of traumatic injuries such as concussion [5,6]. It is also proposed that addressing health care disparities in underserved populations at an early age can lead to better performance in school and improved quality of life [7].

Schools are a logical place to provide this care for young pers ons [7,8]. School based health care initiatives exist but they often do not integrate all health care providers [6,9]. Integration is essential in health care to provide the effective, high value care [4] Additionally, management of potentially life threatening issues such as traumatic brain injury, asthma or anaphylaxis requires coordinated care that responds quickly to patient needs [8,10,11].

This paper describes an Interprofessional School Based Health and Wellness (IP-SBHW) plan where nurses and athletic trainers work together at a school with an interprofessional team to provide collaborative patient-centered health care. Examples of existing models will also be presented. It is hoped that wider adoption of this model could increase the quality, access and affordability of health care for children in underserved populations.

Interprofessional Health Care

The IOM developed a framework for IPP which includes: Shared Goals, Clear Roles, Mutual Trust, Effective Communication and Measurable Outcomes (process and impact) [12]. The Interprofessional Education Collaborative (IPEC) Expert Panel developed Practice Competency Domains to help operationalize this framework. These domains are viewed as keys to measuring outcomes and each have more specific competencies: Values/Ethics for Interprofessional Practice ; Roles/Responsibilities; Interprofessional Communication ; and Teams and Teamwork .[13].

In 2008, Berwick and colleagues proposed a "Triple Aim" designed to achieve high-value health care: (1) Improving the individual experience of care, (2) Improving the health of populations and (3) Reducing the per capita cost of care to populations [4]. As a part of the Triple Aim, Berwick and colleagues recommend utilizing an "Integrator" which is a centralized entity/single organization that redesigns primary care services and structures through the development of: a Primary Care Team in a Medical Home, Long term relationships with patients/clients, shared plans of care, coordinated care with network of providers and improved communication with personalized health record [4].

Caring For the Student Athlete

Through their unique role and specific professional preparation for this role, athletic trainers (ATs) have been working interprofessionally for decades. The most common employment setting has one or more ATs working with consulting physician to provide primary care to a school based or professional sports organization. The traditional athletic training facility functions as a patient-centered medical home for the athlete. In this setting, the AT is the point of first contact in the health care of the athlete where a triage decision may include: something as simple as managing the condition on-site with standing orders, referral off-site to a consulting health professional, or activation of the emergency medical system to manage a life-threatening condition. However, Pryor and colleagues reported in 2015 that, even though 70% of high schools report having access to some athletic training services, only 48% have daily access to an athletic trainer and 37% have a full-time athletic trainer at the school [14].

In a 1998 Policy on Athletic Medicine, the American Medical Association (AMA) recommended that school based sport programs should be encouraged to have an adequate Athletic Medicine Unit. "The Athletic Medicine Unit should be composed of an allopathic or osteopathic physician director with unlimited license to practice medicine, an athletic health coordinator (preferably a BOC certified athletic trainer), and other necessary personnel " [9].

In 2012, a Secondary School Athlete's "Bill of Rights" was developed by the Youth Sports Safety Alliance, created by the National Athletic Trainers' Association; the Alliance comprises more than 100 organizations committed to keeping young athletes safe. Several of these rights include address medical care: (1) "Student Athletes have the right to be coached by individuals who are well trained in sport-specific safety and to be monitored by athletic health care team members"; (2) Student Athletes have the right to quality, regular pre-participation examinations and each athlete has the right to participate under a comprehensive concussion management plan"; (3) "Student Athletes have the right to privacy of health information and proper referral for medical, psychosocial and nutritional counseling"; and (4) "Student Athletes have the right to immediate, on-site injury assessments with decisions made by qualified sports medicine professionals" [15].

School-Based Health Care

Schools can be an effective conduit for human services because they: make contact with a large segment of the population,

have a physical facility in every neighborhood; have a stable source of funding; and are committed to standards and professionalism. School nurses provide a vital role in these schools promoting health and caring for the student body [16].

School-Based Health Care has been identified as a means to address disparities with regard to quality, cost and access in underserved or vulnerable populations. The 2014 report "For the Sake of All" recommended that communities "Invest in coordinated school health programs for all students". This is because poor health can be a serious barrier to educational success. It stated that health activities in schools need to be better integrated and coordinated and bringing the main parts of school health together through an organized approach can help schools improve service delivery, build partnerships, and develop healthy behaviors in students and staff [7].

The School-Based Health Alliance (SBHA) was founded in 1995, primarily through pediatric physicians, nursing groups and other health professionals, to serve as a national voice in the US for school-based health centers (SBHCs). The core values of the School-Based Health Alliance include: "Children and adolescents need high quality, accessible, culturally competent, comprehensive health care"; and "The school setting is a sensible and appropriate place to deliver health care because that is where the students are" [6].

Unfortunately, the SBHA does not involve athletic trainers and SBHCs do not occur widely across the US. Some states do not yet have the infrastructure in place to develop them. If they have any care, most schools rely on some combination of a school nurse and/or athletic trainer providing care, functioning independently, often in separate spaces and without a common medical record.

Emerging Issues in School Based Health Care

In the absence of adequate primary care at the school, many traumatic athletic injuries are referred to emergency departments (EDs). A 2014 study found that patients with these injuries can be assessed and diagnosed relatively easily are treated efficiently in the school-based AT facility where only injuries that require extensive diagnostic or treatment procedures are treated in EDs. In schools that have coordinated school-based primary care, many injuries that can be efficiently treated at the school instead of less efficient and more expensive settings [5].

Academic accommodations and cognitive rest are viewed as keys to "Return to Learn" in the management of sport related concussion in a student-athlete. 1073 school nurses surveyed by Weber and colleagues in 2014 and found that the school nurses responding "Strongly Agree" that: (1) concussions can affect school performance (73.9%); and (2) school nurses (51.4%) and athletic trainers (26.9%) have the ability to assist with a student-athlete's return to the classroom following a sport-related concussion. Interprofessional collaboration is essential in the management of sports-related concussion in the school environment.8

Administration of medications in students and school aged athletes are also a concern. The "School Access to Emergency Epinephrine Act" was passed in 2013 for emergency treatment of anaphylaxis. It permits trained personnel to administer epinephrine at school, permits school to maintain a supply of epinephrine at school for this purpose and requires a plan for access to facility and personnel at school for this purpose [10]. Asthma Inhaler access laws vary across the US for emergency treatment of an acute asthmatic emergency. These laws allow for school personnel to assist in the administration of a rescue inhaler in asthmatic emergency, but storage and access rules vary from state to state[11]. Many of these emergencies happen after school hours in athletic venues, coordinated care between the school nurse and athletic trainer is crucial to provision of these medications to deal with medical emergencies at the school.

Existing Models

Collaborative school-based health care models exist in the St. Louis area. These all evolved organically and in varied ways.

Alton High School, a Public Suburban High School, hired a School Nurse first and then transitioned AT services from a contracted position to full-time through external grant. The school has a large vocational training program which occurs in close proximity to athletics facilities at the high school. Most of the school-day injuries happen in these programs. The location of the school based health facility allows for medical care in close proximity to those programs.

John Burroughs School, a Private College-Preparatory School, hired the Athletic Trainer first, and then added a School Nurse. The School Nurse and AT share physical facility where they coordinate care for the entire student population. They recognize each other's strengths allowing for shared expertise and shared medical documentation.

Roosevelt High School is located in South St. Louis City and is one of two comprehensive high schools, in St. Louis Public Schools (SLPS). In 2009, the Community Alliance to Reinvigorate Education (CARE) was founded, dedicated to improving the educational outcomes at Roosevelt High School. Open during school hours, five days a week, Mercy Clinic at Roosevelt offers care for Roosevelt community and a proposal is in place to put an AT in the clinic at Roosevelt.

Conclusion

Efforts need to be made to develop an Interprofessional School

Based Health and Wellness (IP-SBHW) plan where nurses and athletic trainers serve as "integrators" to coordinate health care and provide wellness services at a school using: complementary collaborative roles, common physical facility and shared medical documentation. Access and quality of health care could be improved by the IP-SBHW plan that provides comprehensive on-site primary care and decreases medical errors through improved communication. Costs can be decreased by providing more appropriate wellness services, treatment and referral. School nurses and athletic trainers can collaborate interprofessionally to provide primary care and wellness services at schools through the IP-SBHW plan. This may improve health outcomes by efficiently meeting the needs of the school community.

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References

1. Mayo Foundation for Medical Education and Research. The Best Interest of the Patient. 1910.

2. World Health Organization (WHO). Framework for Action on Interprofessional Education and Collaborative Practice. Geneva: World Health Organization; 2010.

3. Institute of Medicine (IOM). Health Professions Education: A Bridge to Quality. Washington, DC: The National Academies Press; 2003.

4. Berwick DM, Nolan TW, Whittington J. The triple aim: care, health, and cost. Health Aff. (Millwood). 2008, 27(3): 759-769.

5. Fletcher EN, McKenzie LB, Comstock RD. Epidemiologic Comparison of Injured High School Basketball Athletes Reporting to Emergency Departments and the Athletic Training Setting. J. Athl. Train. 2014, 49(3): 381-388.

6. School Based Health Alliance. About the School-Based Health Alliance. 2009.

7. For the Sake of All. A report on the health and well-being of African Americans in St. Louis and why it matters for everyone. 2014.

8. Weber ML, Welch CE, Parsons JT, McLeod TC. School nurses' familiarity and perceptions of academic accommodations for student-athletes following sport-related concussion. J. Sch. Nurs. 2015, 31(2): 146-154.

9. Lyznicki JM, Riggs JA, Champion HC. Certified athletic trainers in secondary schools: report of the council on scientific affairs, american medical association. J. Athl. Train. 1999, 34(3): 272-276.

10. School Access to Emergency Epinephrine Act. In: Congress tUS, ed. H.R. 2094. Washington, DC2013.

11. Jones SE, Wheeler L. Asthma Inhalers in Schools: Rights of Students with Asthma to a Free Appropriate Education. Am. J. Public Health. 2004, 94(7): 1102-1108.

12. Institutes of Medicine (IOM). Workshop Summary: Interprofessional Education for Collaboration: Learning How to Improve Health. Washington DC: The National Academies Press; 2013.

13. Interprofessional Education Collaborative Expert Panel (IPEC). Core competencies for interprofessional collaborative practice: Report of an expert panel. Washington DC: Interprofessional Education Collaborative; 2011.

14. Pryor RR, Casa DJ, Vandermark LW, et al. Athletic Training Services in Public Secondary Schools: A Benchmark Study. J. Athl. Train. 2015, 50(2): 156-162.

15. Youth Sports Safety Alliance. Secondary School Student Athletes' Bill of Rights. 2012.

16. American Academy of Pediatrics Council on School Health, Magalnick H, Mazyck D. Role of the school nurse in providing school health services. Pediatrics. 2008, 121(5): 1052-1056.