IMPLEMENTATION OF AN ELECTRONIC MEDICAL RECORD SYSTEM FOR LAFENE HEALTH CENTER’S ATHLETIC TRAINERS

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Part 1: Background

Part 2: Applied Practice Experience

Part 3: Project Description

Part 4: Competencies
PART 1: BACKGROUND
An EMR typically comprises of a patient’s previous medical history, report of how they were injured, clinician findings, musculoskeletal test results, assessment of injury, and plan for patient, as well as any additional important information.

The documentation system software utilized in my APE was Point and Click Solutions, Inc.
Athletic trainers are:
- Multi-skilled health care professions
- Collaborate with physicians

Provide services such as:
- Emergency care
- Clinical diagnoses
- Therapeutic intervention
- Rehabilitation
Kantor et al. (2015)
Findings: EMR has the potential to increase communication within a healthcare facility
EMR allows this information to be accessed by appropriate medical staff in order to further treat the patient

Nottingham et al. (2017)
Findings: Found the 3 main reasons that athletic trainers document: communication, monitoring patient care, and legal implications
Quality documentation by health care professions is important for both clinicians and patients
Clinicians stressed importance of knowing previous pain levels, rehabilitation progress, and treatment plans

Todaro et al (2017)
Findings: “Communication and trust were keys for positive working relationships.”
When clinicians collaborate and communicate effectively, there is enhanced patient care
PART 2: APPLIED PRACTICE EXPERIENCE
LAFENE HEALTH CENTER

Professionally accredited outpatient healthcare facility located in Manhattan KS

Provides healthcare services to Kansas State University students

Sports Medicine Clinic and Rehabilitation Services
ADDRESSING THE PROBLEM

The Problem:

- Communication gap between Lafene athletic trainers and physicians
- Athletic trainer responsible for:
  - Recreation athletes typically injured during intramural sports
    - Who also suffer from chronic conditions
- Important to document these conditions

Why I chose to address it:

- Personal experience
- Encounters with physicians at Lafene as well as athletic trainers
- Knowledge of current gaps
- MPH experience to dictate process
| **Assess** | Create a needs assessment for Lafene Health Center to address gaps of the communication system between athletic trainers and physicians. Learn how this gap affects both clinicians and patients. |
| **Implement** | Implement a new tool in order to bridge the communication gap. |
| **Learn** | Learn about the different sectors and employees at this public health institution and who is involved with policy and procedure process. |
| **Work** | Work alongside these employees in order to create tool. |
| **Examine** | Examine how this implementation has affected Lafene Health Center and its’ patients. |
PART 3: PROJECT DESCRIPTION
PROPOSAL & ASSESSMENT

- EMR System
- Identified gaps within Lafene’s Health Center’s communication system such as:
  - Dated documentation system
  - Delayed transition of medical information
  - Dated privacy guidelines
  - Inadequate information for physician examination
  - Need to increase patient follow-up care

EMR System

Goal: To implement an Electronic Medical Record System (EMR) for documenting injuries sustained by recreational athletes at the Chester E. Peters Recreation Complex (REC)

Projected Outcomes
- Allows athletic trainers to document the injuries of REC athletes who sustain injuries while utilizing the facility.
- Provides a secure and private medical interface for athletic trainers to document injuries and incidents.
- Includes an online referral system between Lafene staff physicians, physical therapists, and Via Christi Hospital staff.
- Grants Lafene physicians access to a patient’s REC injury history before Lafene visit.
  - i.e.: Concussion return to activity protocol, basic rehabilitation exercises, and proper stretching techniques.

Supplies Needed to Implement EMR
- Tablet
- Access to Point and Click system
  - Possible encryption for system

Advisory Board
- Head Advisor: Dr. Mailey
- Dr. McIlroy
- Dr. Besenyi
- Dr. Campbell

Involved Staff
- Director of Lafene Health Center: Jim Parker
- Rec Complex Director: Steve Martin
- Rec Complex Associate Director: John Wondra

Reasons to Implement EMR
- Will improve communication between Lafene staff and REC athletic trainers.
- Will enhance the current REC documentation system, which does not currently allow appropriate SOAP note documentation of certain injuries.
- Will allow REC student athletes to utilize athletic trainers for rehabilitation.
- Will strengthen patient confidentiality in REC records.
IMPLEMENTATION PROCESS

Details

- Assigned duties to multiple staff members
- Gained needed materials
- Contacted appropriate staff
- Created templates
- Created training module
- Trial and error
- Gained feedback from all involved

Staff Involved

- Michael Campbell, MD - Assistant Medical Director
- Jim Parker, MBA - Director
- Shecky Davis - Associate Director
- Jeff Kreuser, ATC - Director of Rehabilitation Services
- Robin Millington - IT Support Specialist
- Susan Shankweiler, RN - Software Liaison
ELECTRONIC MEDICAL RECORD SYSTEM FOR ATHLETIC TRAINERS

RS Exam- Cervical Spine
RS Exam- Elbow
RS Exam- Foot-Ankle
RS Exam- Gait
RS Exam- Hip-Pelvis
RS Exam- Knee
RS Exam- Lumbar Spine
RS Exam- Shoulder
RS Exam- Wrist-Hand
ZZTEST, WILLIE A  Pt #: 989661234  DOB: 1/1/1991  Age: 28 yrs  Sex: Female
3/23/2019 8:30 PM  with REC, AT for AT ATHLETIC TRAINING
Encounter #: A282883-45  Appointment Reason: Head Injury

ATHLETIC TRAINING NOTE
Patient Contact with REC Center

Date/time:  [ ] walk-in  [ ] radio call from supervisor  [ ] observed  [ ] other

SUBJECTIVE

Chief Complaint:

Type of Participation:  [ ]
Activity:

Location Injury Occurred:

Assisting Student Trainer:
[ ] INJURY/PAIN  [ ] PREVENTATIVE SERVICE  [ ] HEAD INJURY  [ ] CUT/LACERATION  [ ] ILLNESS  [ ] OTHER
OTHER FEATURES OF EMR SYSTEM

- Direct communication features to send information to medical professionals at Lafene such as physicians and athletic trainers
- Follow-up patient phone call protocol for appointment scheduling, symptom follow-up, and injury education
- Online accessible injury education and rehabilitation handouts
- Tailored information that correlates to the Recreation Complex
QUALITATIVE OUTCOMES REPORTED BY PHYSICIAN & ATHLETIC TRAINER

Clinician Outcomes

- Faster overall communication
- More efficient evaluation process
- Physician have a more clear picture of mechanism of injury
- Physician evaluations are faster
- Physician and athletic trainer able to educate patient

Patient Outcomes

- Increased autonomous motivation
- Increased injury education
- Increased sense of urgency
- Increased patient privacy
Light purple represents # of patients documented at the Rec
- Dark purple represents # of patients who followed-up at Lafene
- Each year represents the data from January and February
- No change between 2018 and 2019
- These results can be interpreted in many ways
  - Implementation did not increase # of injuries
  - Patient is gaining more education via handouts
  - Small snapshot of injury and follow-up rates
LONG-TERM PROJECTIONS FOR EMR SYSTEM

- Increased injury tracking
- Potential to create injury prevention
- More reliable
- Sustainable means of communication for athletic trainers and physicians
- Better organization means for all involved
- Increased patient privacy
Training Module

- Created in order to highlight the importance of this communication system
- More efficient for Lafene staff to distribute online
- Created by an athletic trainer for athletic trainers
By implementing this EMR system for athletic trainers, there was a reported increase in communication and efficiency.

- Clinicians discuss the improvements for their evaluations & for overall patient care and organization.
- Created a more cohesive system of communication that improved both patient and clinician outcomes.
PART 4: COMPETENCIES
MPH FOUNDATIONAL COMPETENCIES

- 7- Assess population needs, assets, and capacities that affect communities’ health
- 9- Design a population-based policy program, project, or intervention
- 12- Discuss multiple dimensions of the policy-making process, including the roles of ethics and evidence
- 18- Select communication strategies for different audiences and sectors
- 21- Performs effectively on interprofessional teams
COMPETENCY 7:
ASSESS POPULATION NEEDS, ASSETS, AND CAPACITIES THAT AFFECT COMMUNITIES’ HEALTH

□ Two populations were assessed
  □ Clinicians
    □ How does the communication system affect evaluation skills, communication skills, quality of care
  □ Patients
    □ Examine patient education, efficiency of care, and privacy of information
COMPETENCY 9:
DESIGN A POPULATION-BASED POLICY
PROGRAM, PROJECT, OR INTERVENTION

- Clinicians
  - Gain information for what they need in order to make evaluation process more effective
  - Create a direct connection between athletic trainer and physician
  - Create template specifically for athletic trainers
  - Create training module specifically for athletic trainer

- Patients
  - Create more opportunity for patient education
  - Created enhanced patient care
  - Create sense of autonomy
COMPETENCY 12:
DISCUSS MULTIPLE DIMENSIONS OF THE POLICY-MAKING PROCESS, INCLUDING ROLES OF ETHICS AND EVIDENCE

- MPH720 adapted policy making process:
  - Issue raising
  - Policy design
  - Public support building
  - Legislative decision making & building
  - Legislative decision making & implementation
COMPETENCY 18:
SELECT COMMUNICATION STRATEGIES FOR DIFFERENT AUDIENCES AND SECTORS

- During my time at Lafene I evaluated and enhanced their communication system between athletic trainers and other medical providers
- I created an online training module which assisted Lafene in their training process
- Online injury pamphlets for athletes are an accessible education device
- Phone calls made by clinic athletic trainer enhanced clinic to patient communication
COMPETENCY 21:
PERFORMS EFFECTIVELY ON INTERPROFESSIONAL TEAMS

- Worked alongside:
  - Physicians
  - Nurses
  - IT personnel
  - Directors
  - Associate directors
  - Athletic Trainers
MPH EMPHASIS AREA
COMPETENCIES

- 1 - Population Health
- 2 - Social, behavioral and environmental influences
- 3 - Theory application
- 4 - Developing and evaluating physical activity
- 5 - Support evidence-based practice
COMPETENCY 1: POPULATION HEALTH

EXAMINE AND EVALUATE EVIDENCE-BASED KNOWLEDGE OF THE RELATIONSHIP BETWEEN PHYSICAL ACTIVITY AND POPULATION HEALTH

- Classes:
  - KIN 610- Program Planning and Evaluation
  - KIN 612-Policy, Built Environment and Physical Activity
  - KIN 805- Physical Activity and Human Behavior

- APE Application:
  - Incorporating core concepts such as:
    - Individual level control
    - Influences
    - PA guidelines
    - Population needs
COMPETENCY 2:
SOCIAL, BEHAVIORAL AND ENVIRONMENTAL INFLUENCES
INVESTIGATE SOCIAL, BEHAVIORAL AND ENVIRONMENTAL FACTORS THAT CONTRIBUTE TO PARTICIPATION IN PHYSICAL ACTIVITY

- APE Application
  - Social-Ecological Model
  - Levels of social influence and support
    - via telephone calls
  - Self-regulation
    - via handouts
  - Strategic communication community
    - via EMR

- Classes:
  - MPH 818- Social and Behavioral Basis of Public Health
  - KIN 610- Program Planning and Evaluation
  - KIN 612- Policy, Built Environment and Physical Activity
  - KIN 805- Physical Activity and Human Behavior
COMPETENCY 3:
THEORY APPLICATION
EXAM AND SELECT SOCIAL AND BEHAVIORAL THEORIES AND FRAMEWORKS FOR PHYSICAL ACTIVITY PROGRAMS IN COMMUNITY SETTINGS

- APE Application:
  - Utilized Self-Determination Theory
    - Via autonomous motivation from clinicians
    - More time for education
    - Patient will have increased perceived competence

- Classes:
  - MPH 818- Social and Behavioral Basis of Public Health
  - KIN 805- Physical activity and human behavior
COMPETENCY 4: DEVELOPING AND EVALUATING PHYSICAL ACTIVITY
DEVELOP AND EVALUATE PHYSICAL ACTIVITY INTERVENTION IN DIVERSE COMMUNITY SETTINGS

- Classes:
  - KIN 805 - Physical Activity and Human Behavior
  - KIN 612 - Policy, Built Environment and Physical Activity
  - KIN 610 - Program Planning and Evaluation

- APE Application:
  - Patient population importance
  - Social-Ecological Model
COMPETENCY 5: SUPPORT EVIDENCE-BASED PRACTICE
SUPPORT PUBLIC HEALTH OFFICIALS AND OTHER COMMUNITY PARTNERS IN THE PROMOTION OF PHYSICIAN ACTIVITY WITH EVIDENCE-BASED PRACTICES

- Classes:
  - KIN 805: Physical Activity and Human Behavior

- APE Application:
  - Evidence strengthened argument
  - Self-Determination Theory
    - Education = Confidence
    - EMR will become evidence
Both the MPH program and my time at Lafene Health Center have equipped me to become a proficient public health official.

I will utilize the skills that I have acquired through the MPH program as a clinical athletic trainer

- Skills such as:
  - Theory utilization
  - Population assessment
  - Epidemiology
  - Policy Implementation
  - & More
THANK YOU

Graduate Committee
- Dr. Emily Mailey
- Dr. Gina Besenyi
- Dr. Mary McElroy

Lafene Staff
- Michael Campbell, MD.
- Jeff Kreuser

MPH Program:
- Dr. Ellyn Mulcahy
- Barta Stevenson