Telehealth Simulation: Primary/Mental Health (SUD)
indicate telehealth focused content
Cover Sheet for Telehealth Simulation Case

A. Cover Sheet/Overview of Case

Case Author(s):
Joyce Shea, DNSc, APRN, PMHCNS-BC
Karen Corcoran, DNP, APRN, PMHNP-BC
Fairfield University Egan School of Nursing and Health Studies

Date of case development:
11/9/2020

***Case purpose (e.g., brief description of the patient case and telehealth integration)**
This is an adult case to assist the learner in utilizing telehealth for interprofessional care delivery in a virtual Behavioral Health and/or Primary Care setting. There is a collaborative element to this case so that the learner can practice when and how to reach out inter-professionally. The PMHNP and/or FNP learner will practice history taking, physical and mental status exams, assessment, interprofessional referral and collaborative planning and care. This case can be worked as an initial telehealth visit to either behavioral health (for insomnia) or primary care (for pain) and then a handoff can be made via telehealth to the other professional for consult.

The case will illustrate telehealth care delivery tools that can be adapted for:

1) A telehealth visit using a videoconferencing platform from the learner to the standardized patient's location (home).
2) A telehealth visit using a videoconferencing platform connecting to a hub site where the standardized patient is supported during the telehealth visit by an RN or Medical Technician.

***Case Objectives (Sample objectives below. Select those that apply or create new)**

- Demonstrate an understanding of the different types of telehealth technologies and the use of telemedicine as a care delivery method.
- Demonstrate the use of clinical reasoning to make a decision for choosing the best type of care delivery method based on patient information, provider expertise, and available technological resources.
- Demonstrate proficiency in telemedicine care delivery evidenced by meeting telehealth etiquette, professionalism, communication, and therapeutic skills during a virtual patient encounter.
- Demonstrate basic proficiency in telemedicine and how to adapt to the patient situation, setting, and resources when doing a mental status exam (PMHNP) and a focused physical exam including a muscoloskeletal exam (FNP).
- Demonstrate best practices and evidence-based guideline use during a telehealth visit and use them to assess, diagnose and manage a patient with insomnia, substance use disorder and muscoloskeletal pain.
- Demonstrate ability to incorporate knowledge of symptoms associated with both physical and mental health issues.
- Demonstrate skill in interprofessional care coordination, planning and handoff.

***Learner's prerequisite knowledge and skill:**

- Telehealth videoconferencing platform use
- Telehealth etiquette and professionalism skills
- Use of psychiatric screening tools via videoconferencing
- Performing a mental status exam via videoconferencing
- Performing a focused physical and musculoskeletal exam via videoconferencing
- Ability to assess, diagnose and manage the behavioral health and/or primary care patient
- Basic knowledge of advanced history and physical assessment, pathophysiology, pharmacology, health promotion, primary prevention and screening.

***Telehealth Technology Addressed:**
Synchronous and asynchronous methods
Videoconferencing platforms

***Telehealth Technology Included in Case: (Select all that apply)**
Required
2 Computers (one for provider and one for patient or for telehealth hub)
Videoconferencing platform (Example: ZOOM or Doxy) and WIFI

Optional
Remote patient monitoring of vital signs and SaO2 (optional)
Remote peripherals for physical exam

***Scenario requirements:**

- Standardized adult patient
- RN and/or Medical Tech in telehealth hub (this is optional if patient home is originating site)
- Computers and audiovisual conferencing platform such as ZOOM for healthcare for connection between provider and patient

Case Complexity Adaption:

- Beginning student: This case can be used with students learning the role of APRN provider in an interprofessional practice environment. The scenario assumes a telehealth visit via videoconferencing to the patient's location. It can also be worked in conjunction with a hub that the patient visits where there may be an RN or Medical Technician to assist with the visit and any examination. The student could focus on how to initiate a visit and orient the patient who is using telehealth for the first time. Depending on the equipment available and site of origin of the visit, the focus in a simple scenario would be on each other's roles and orientation/education of the patient using the evaluation templates for each role and a demonstration using evaluation tools and skills checklists of telehealth etiquette, telehealth professionalism, and communication.

- Intermediate/mastery student A more advanced scenario might incorporate peripherals for the examination. The FNP student will focus on skills related to a focused physical exam including a musculoskeletal exam. The PMHNP will focus on the mental status exam and appropriate screening for substance used disorder, depression and anxiety.

B. Case Information for Learners

Case scenario brief:
*You are the nurse practitioner provider who has an appointment with a (standardized) patient who is being seen via telehealth via a HIPAA compliant videoconference platform. Patients may have the option to stay in their home as the originating site of the visit, or come to the telehealth hub which has an RN and/or Medical Technician and the ability to complete vital signs and administer psychiatric screenings. Visits may be completed using the videoconference platform by itself (connecting patient in home to provider office) or by connecting through a telehealth cart at the telehealth hub. As the provider, you will have to work within the technology and resources available.

The providers will have a planning meeting to decide how to conduct the encounter and then the patient encounter will be initiated. The goal is to complete a patient visit and address the patient's presenting problem(s). At the minimum there should be a focused history and physical or mental status exam around the patient's chief complaint and a follow up visit scheduled. The choices for the visit based on what is available are:

- Videoconferencing with patient in their home/with or without the use of a home monitoring kit,
- Videoconferencing with telehealth cart and peripheral tools at the telehealth clinic hub with RN provider and patient at clinic and APRN-NP remotely
- Hybrid model

Things the provider(s) can demonstrate are clinical judgement skills, choosing the best telehealth visit platform, implement best practices for telehealth, make a list of differential psychiatric and/or medical diagnoses; implement a plan of care based on evidenced based guidelines; complete a handoff to another professional for collaboration of care, decide what type of visit for follow-up, and decide what equipment is needed for the patient's home and how to ship it and educate the patient.

***Learner's task(s) to be completed**

- Initiate a telehealth videoconferencing with patient and address patient problem and perform a focused assessment.
- Student should perform a focused assessment, conduct a patient interview leading the way for a physical and/or mental status exam.
- Appropriated psychiatric screening tools should be used (DAST, PHQ-9, GAD-7).
- Motivational Interviewing techniques should be incorporated to evaluate need/readiness for substance use treatment.
- Student should educate patient, and discuss plan of care, management plan and possible diagnosis with patient.
- Student should collaborate inter-professionally and hand off care as appropriate.

Patient Name: Steve/Stephanie Holmes
Age: 37 year old Adult
Gender: Male or female
Setting: Telehealth visit from provider to Community Health Clinic telehealth hub, or to the patient's home.

Chief complaint: *"I'm not sleeping - I fell off of a ladder last week - my back is killing me and I'm running out of sleep and pain medication."*
HPI: 37-year-old married female/male, army veteran, who presents via telehealth with complaints of worsening back pain and insomnia since falling off of a ladder one week ago. Is requesting refills for oxycodone prescription started at time of injury at the ED and for sleep medication (Xanax) that has been used long-term and prescribed by PCP. Has never used telehealth before.
Illnesses/injuries: Sustained a closed-head injury from an IED explosion 10 years ago.
Screening/prevention: Has not had any immunizations or screening tests in last five years. Has not had any other screening tests. Does not see a doctor unless ill. Last TDaP was 10 years ago.
Medications (prescription, over the counter, supplements)

- Oxycodone 20 mg every 4-6 hours as needed for pain;
- Xanax 2-4 mg at bedtime for sleep (prescribed before recent fall).

Allergies (e.g. environmental, food, medication and reaction)

- NKA, NKDA

Psychiatric: No known psychiatric history, but insomnia is long-term issue.
Social History

- Has Medicaid Insurance
- Substance use (past and present): Daily alcohol use – "a few beers every night." Daily cannabis use. Past history of cocaine.
- Tobacco use, smoked 1 pack per day for 10 years but quit when children born.
- Army veteran; served two tours in Iraq and one in Afghanistan; survived an IED attack 10 years ago. Married with 2 young children; spouse works as a cook at the local diner. Recent contact with police over a domestic dispute; scheduled for a court date in 2 weeks. No formal exercise.
- Occupation: Works at delicatessen counter
- Relationship status: Married
- Leisure activities: None noted
- Diet: No special diet; eats 3 meals per day
- Exercise: No formal exercise

Family Medical History

- Mother: Deceased, Alzheimer's Disease
- Father: CVD; COPD; Alcohol Use Disorder

Physical Exam:
Decide technology to use and provide instructions to patient on how exam will proceed. At minimum complete a focused exam for chief complaint(s). If possible, take a complete set of vital signs and listen to heart and lung sounds including bruits as appropriate. Choose which systems to examine doing at least 2-3 and including a musculoskeletal examination (For example, heart, lung, and peripheral vascular inspection, palpation, percussion, and auscultation techniques using peripherals or home kit). If a videoconference call only, you will need to do an exam with no special equipment available. If a telehealth cart available, the exam should take place in the telehealth hub with the patient and RN in the hub and the provider in the remote location. ***This template and case should be adapted to the equipment and origin of the patient encounter.***

Mental Status Exam and Psychiatric Screening:

The PMHNP student should be prepared to complete a history and conduct an appropriate ROS including musculoskeletal and gait. The PMHNP student should perform a complete mental status exam including an assessment for suicidal ideation. The PMHNP student should be prepared to conduct and interpret psychiatric screening using tools such as the DAST, GAD-7, PHQ-9. These may be administered by the support staff in the remote hub or by the student during the time of the visit. The PMHNP student should be prepared to assess and screen for PTSD, substance use, and domestic safety/violence. The interview should incorporate Motivational Interviewing techniques to evaluate need/readiness for substance use treatment.

Labs and Diagnostic Tests: will be ordered or asked for depending on how the case unfolds.

C. Content for Standardized Patients

Case summary/presenting information: (include age, gender, summary statement, background info related to health care issue)

- *Visit format choices
  - Videoconferencing with/without home equipment
  - Videoconferencing with telehealth cart and peripheral tools at the telehealth clinic hub with RN and/or Medical Tech at clinic and APRN-NP remotely
  - Hybrid model

- Opening Statement:
  - "I need some medicine for sleep and for pain. I can't sleep at night. My back has been killing me since I fell off of the ladder last week. I'm running out of both medications – for sleep and for pain."
  - "My usual primary care doc is out of town for the next 2 weeks. I can't wait to see him then to get something so I can sleep and to ease this pain I'm having."
  - "I've had a hard time keeping a job recently. If I can't get some sleep and get this pain under control, I won't be able to get back to work, and then we'll lose our apartment."

- Things Patient may say during visit:
  - *"The Xanax only works for a few hours and then I wake up and take some more."*
  - *"Don't give me that Advil or Tylenol crap for pain. I know what works for me!"*

- Challenge Question and Answer (question patient is to ask the student during the experience + answer to the question):
  - *Q: Can you give me something today for this pain and the sleep? I have to go to work later today.*
  - *A: Student will explain need to take a look at what is happening with back before prescribing or discussing safe treatment plan.*

- Possible Questions and Answers During the Experience:
  - Q: How often and how much Xanax are you using now?
  - *A: I take about 4 mg every night and then I wake up a few hours later and take another 2 mg. I'm almost out of Xanax. I've also been taking the oxy every 4 hours – I can't make it to six hours.*
  - Q: Tell me about any other unprescribed medications or substances you are using such as alcohol or cannabis.

- *A: I smoke a little weed most days – it helps with the pain and my anxiety – usually I have a few drinks after work – only beer, but I haven't been since I hurt my back. I know I shouldn't drink with the pain meds.*

- Q: Has there been any violence or physical threat in your home? Do you feel you and your children are safe at home?

- *A: My spouse and I had a kind of loud argument and the neighbor called the police. But we've never hit each other and we'd never hurt our children.*

- General appearance: Disheveled, agitated at times, sits uncomfortably
- Dress: Casually Dressed
- Presentation and resulting behaviors: Tense, and irritable at times angry
- Mood and emotions: Irritable at times angry
- Dealing with open ended questions and guidelines for disclosures: Answer naturally to open ended questions

History of Present Illness (Please answer these questions, only if asked.)

- Onset: One week history of inability to sleep and worsening back pain after falling off of a ladder. Also describe a long history of back injuries that started in the service. Pain is currently a 9/10; only responds to Oxycodone 20 mg doses every 4 hours. Using more Xanax than prescribed to address sleep – not sleeping through the night.
- Location: Back
- Duration: Continuous over a week
- Characteristics/quality: radiating, worsening
- Intensity: Severe – unable to sleep 9/10
- Alleviating factors (what makes it better): Oxycodone 20 MG helps with pain
- Aggravating factors (what makes it feel worse): lifting, movement
- Precipitating factors (what seems to bring it on): work at delicatessen counter
- Radiation: entire lumbar and lower back region
- Treatments: Oxycodone 20 MG every 4 hours
- Significance (impact on patient's life): Significant, "If I can't get the pain under control and get some sleep, I won't be able to get back to work, and then we'll lose our apartment."
- Associated/other symptoms: Unable to sleep due to pain
- Pertinent negatives (if on SP checklist or other evaluation instrument) If asked:
    - Are you eating well? Yes
    - Any unusual bruising? No
    - Any headache? No
    - Any memory loss? No
    - Any temperature, coughing, chest tightness, trouble breathing, racing heart or heart palpitations? No

Review of Systems (e.g., pertinent positives and negatives)
General: Denies fever and shortness of breath
HEENT: Denies ear pain, pharyngitis; or discharge
Cardiac: Denies cyanosis, palpitations, swelling in feet

Pulmonary: Denies shortness of breath at rest or with walking upstairs; Denies wheezing or coughing; Denies sputum, Last TB was 5 years ago and was negative.
Abdomen: Denies diarrhea/vomiting/blood or tarry stool
Genitourinary: Denies frequency/urgency/painful urination
MS: describes severe muscle pain in mid to lower back; limited movement observed
Psychiatric: denies depression or SI/HI, no known psychiatric history
Sleep: Difficulty sleeping long-term and exacerbated by recent fall

Past Medical History
Illnesses/injuries: Sustained a closed-head injury from an IED explosion 10 years ago.
Hospitalizations: hospitalized s/p head injury 10 years ago
Surgical history: none
Screening/prevention: No screening tests in last five years. Had influenza vaccination in 2019 at health fair; Had childhood and boosters in high school but no other immunizations in last 5 years
Medications (prescription, over the counter, supplements):

- Oxycodone 20 mg every 4-6 hours as needed for pain;
- Xanax 2-4 mg at bedtime for sleep (prescribed before recent fall by PCP).
- Advil

Allergies: (e.g. environmental, food, medication and reaction): None
Gynecologic: **(**if Female case) has had 2 pregnancies and has two living children – uncomplicated vaginal deliveries
Psychiatric: No known psychiatric history, but insomnia is long-term issue.

Family History: Family tree (e.g., health status, age, cause of death)
Mother died at age 75; Alzheimer's
Father living, CVD; COPD; Alcohol Use Disorder

Social History:

- Has Medicaid Insurance
- Substance use (past and present): Daily alcohol use – "a few beers every night." Daily cannabis use. Past history of cocaine.
- Tobacco use, smoked 1 pack per day for 10 years but quit when children born.
- Army veteran; served two tours in Iraq and one in Afghanistan; survived an IED attack 10 years ago. Married with 2 young children; spouse works as a cook at the local diner. Recent contact with police over a domestic dispute; scheduled for a court date in 2 weeks. No formal exercise.
- Occupation: Works at delicatessen counter
- Relationship status: Married
- Leisure activities: None noted
- Diet: No special diet; eats 3 meals per day
- Exercise: No formal exercise

Physical Exam Findings:

Vital Signs: Use these or will be done in exam
Blood pressure 140/88
Temperature 98.6
Respiratory rate 16
Heart rate 80

Ht 5’ 10”
Wt 190 lbs.
BMI 27

Exam assisted by RN at telehealth hub or by patient at home with guidance from provider via telehealth. A family member or friend may be able to assist with the telehealth exam. The physical exam can be performed in a t-shirt and shorts.

These findings below are a guide and the standard patient findings are what will be documented. The exam should be done on a minimum of three systems chosen by the learner and the learner will explain the exam and guide the patient about what to do.

General: Through the camera, there is a healthy appearing patient who has good color. The patient is tense and appears uncomfortable when sitting.
Skin: Warm, moist, no rashes or suspicious moles, normal turgor.
Head: Normocephalic with equal distribution of hair. Hair color is brown.
Eyes: On inspection pupils are equal, round, and with penlight applied by the patient or RN provider at telehealth hub, the pupils are reactive to light and accommodation (patient or provider to shine penlight in eyes). No nystagmus. Sclera is white, conjunctiva light pink. EOMs intact.
Nose: On inspection there is no nasal flaring, the nose is normal color and blends with rest of skin tone; no drainage or swelling or bumps or bruising. Rest of exam deferred.
Ears: Auricles symmetrical, no lesions or tophi; Rest of exam deferred.
Mouth/Throat: Lips pink, moist mucous membrane, tongue protrudes in midline.
Neck: On inspection no swelling in neck. No supraclavicular retractions. On palpation no tenderness in neck in location of occipital, posterior, anterior and lateral lymph nodes. On palpation, no tenderness or lumps in thyroid region of neck. Able to swallow without difficulty. No hoarseness with talking.
Cardiac: On inspection of anterior thorax there are no visible pulsations except in the PMI which is smooth and regular. On palpation by patient or telehealth hub RN there is a regular rate and rhythm pulsations and the PMI is less than 2 cm. On auscultation with digital stethoscope there is clear and distinct S1 and S2 and no murmurs, skips or gallops, no S3 or S4 auscultated. (If patient in home, instruct patient to apply a home stethoscope to listen to heart sounds and patient can palpate own pulse for rate and regularity) (If patient is seen in telehealth hub the RN will use the cart tools and digital stethoscope to transmit sounds to APRN provider). (If videoconference call, provider will decide what to do using clinical judgement).
Pulmonary: On inspection there is a respiratory rate of 18, rhythm and depth of respirations is normal and full. The skin tone is normal color for rest of the body and no bruising or lesions. On palpation there are no areas of pain or tenderness or lumps. (If patient in home, instruct patient to apply stethoscope from home kit to listen to lung sounds). (If patient in telehealth hub the RN will use the cart tools and digital stethoscope to transmit sounds to APRN provider) (If videoconference only then use clinical judgment to instruct patient). On auscultation the lungs are clear with vesicular sounds, with no wheezing, rales, or rhonchi.
Abdomen: On inspection there are no visible pulsations. On palpation (by patient or telehealth hub RN) there is no pain or tenderness or bruit palpable in any of the four quadrants. On auscultation there are normoactive bowel sounds in all four quadrants. (Adapt for use of cart tools and digital stethoscope or home kit).
GU: Palpation of bladder within normal limits. Rest of exam deferred.
Musculoskeletal: Mandible moves in midline TMJ palpation without clicks or tenderness. Neck and cervical spine have no noted deformities or signs of inflammation. Curvature of cervical, thoracic and

lumbar spine within normal limits. Bony features of shoulders and hips are of equal height bilaterally and non-tender. Posture is slumped and gait is smooth but guarded. Palpation of spinous processes of C7-L5 are palpable, midline, and tender to moderate palpation right below L5. Discomfort noted with lying on flat surface. Patient experiences discomfort when attempts to bend to touch toes. Unable to reach 90 degrees flexion. Although patient can actively perform such maneuvers as bending his knees to his chest while lying flat, flex, extend, and rotate the spine there is limited range and moderate discomfort and pain noted throughout the maneuvers.
Extremities/Pulses: No edema, erythema or cyanosis to upper or lower extremities. Pulses 2/4 to bilateral femoral, popliteal, posterior tibial, and dorsalis pedis pulses.
Neurologic: AA O X3. Slumped posture while sitting and walking. Gait slowed but steady and intact. Sensation intact to light, deep, and sharp touch. gait and balance intact. CN II- XII intact. Memory and cognition intact for present and past medical history.
Psychiatric: Denies depression or suicidal/homicidal ideation. No known psychiatric history. Long-term insomnia. DAST score is 12.

Diagnoses should include:

- Lumbar Sprain/Muscle Strain
- Substance Use Disorder (May specify Opioid, Benzodiazepine, or Cannabis Use Disorder)
- Insomnia
- Post-Traumatic Stress Disorder

Plan:

With a PMHNP Student: Conduct a patient interview with elements of the psychiatric exam including evaluation for suicide and SUD. Incorporate Motivational Interviewing techniques for substance use. Discuss sleep hygiene. Psychoeduction on risks associated with combined use of opioids and benzodiazepines, and on abrupt discontinuation of benzodiazepines. Discuss the possible diagnoses with SP. Handoff to FNP for evaluation of back pain.

With a FNP Student: Perform a Physical Exam as much as possible on camera. Perform a thorough pain assessment. Education on risks associated with the combined use of opioids and benzodiazepines, and on abrupt discontinuation of benzodiazepines. Discuss the possible diagnoses with SP. Order X-ray of back. Handoff to PMHNP for more detailed evaluation of SUD and insomnia.

D. Post-Encounter Activities/Evaluation with focus on Telehealth*

1. Tools adapted for the evaluation of the student:
   - ***Telehealth Simulation Checklist***
     - Faculty Evaluation of Student
     - Standardized Patient Evaluation of Student
     - Student Self-Evaluation
   - Faculty Evaluation of Oral Report to Preceptor of Student
   - Evaluation of clinical SOAP note including documentation of billing and coding data using a written note rubric
   - Student Self-evaluation and Reflection for Improvement incorporating the following questions:
     - Reflect on and describe your comfort level with the learning activities in this telehealth activity and the overall telehealth simulation experience.
     - Describe how your participation during the telehealth simulation experience could potentially affect your future practice as a nurse practitioner.
     - Describe strategies you used to establish your provider relationship with the patient and family member during this telehealth experience.
     - Discuss how these strategies are similar or different to those you have used to establish your provider relationship with the patient during face-to-face clinical encounters.

2. Two-faculty debriefing in groups of students (6 students is ideal).
   - One faculty member could be a simulation expert and address content addressing the actual simulation experience using best practiced described in International Nursing Association for Clinical Simulation and Learning (INACSL) Standards of Best Practice: SimulationSM Debriefing (INACSL Standards Committee, 2016).
   - Second faculty member with experience in pediatrics may be useful in facilitating discussion related to the atypical presentation of abdominal pain in children and considerations related to clinical management of children with telehealth.

3. Discussion questions/topics for Debrief:
   - Comfort with equipment
   - Comparisons, and contrasts between live and telehealth visits with regard to establishing rapport, gathering a history, performing a physical examination, diagnostic work-up, establishment a diagnosis, and probable treatment plan
   - Relationship building in the virtual environment, positive and negative experiences.
   - Role of simulation staff in creating separate virtual rooms to facilitate small group prebrief and debrief activities and rooms for the actual encounters.

Revised from Association of Standardized Patient Educators Case Development Template, version 2018