Department of PM&R

UMDNJ-New Jersey Medical School

OSCE
#13 and #14 (Interstation)

Knee Pain Station (#13)
and Treatment Plan (#14)

Secured Examination: Confidential

Background:

Elizabeth Chairriez is a 32-year-old aerobics instructor who presents with chief complaint of right knee pain of 3 months duration. The pain is intermittent and is worsened with prolonged sitting or step aerobics. The pain is relieved while lying in bed. There is no history of acute injury.

Do not take more history. Additional history is not pertinent to task.

Principle Tasks:

1. Perform a focused knee exam.
2. Write an appropriate physical therapy plan for the first two weeks.

Time Allotted: 15 minutes

Post Encounter Feedback: 5 minutes

Knee Station Performance Criteria

Done Correctly (A)	Attempted Done Incorrectly (B)	Not Attempted (C)	PHYSICAL EXAM – 60%
			Checked knee flexion
			Checked knee extension
			Checked strength:
			quadriceps
			knee flexors
			tibialis anterior
			hip flexors
			Evaluated patellar tracking
			Evaluated anterior cruciate ligament
			Evaluated posterior cruciate ligament
			Evaluated lateral cruciate ligament
			Evaluated medial cruciate ligament
			Palpated patella
			Palpated joint line
			Checked for effusion
			Reproduced symptomatology
			Evaluated both knees
			Evaluated gait

Overall Evaluation Objectives:

Physical Examination: (Knee Focus)

P1 Demonstrates appropriate directed physical exam or required technique

P2 Recognizes pertinent (characteristic) physical findings

P7 Adapts examination methods to meet specific physical needs.

P8 Observes clearly indicated signs

Performance Criteria (Physical Exam):

1. Checked knee flexion:
   a) With patient prone the ankle is flexed towards the buttocks.
   b) With patient supine the ankle is flexed towards the buttocks.
   c) Knee flexion range was not assessed.

2. Checked knee extension:
   a) With patient supine or sitting, the knee is extended.
   b) With patient prone the knee is extended.
   c) Knee extension range is not assessed.

3. Checked strength of quadriceps:
   a) Knee is slightly bent and leg is straightened against resistance.
   b) Knee is fully extended and examiner attempts to flex knee against patient resistance.
   c) Quadriceps strength was not assessed.

4. Checked strength of knee flexors:
   a) Patient is prone or sitting and attempts to flex knee against examiners resistance.
   b) Patient is supine and attempts to flex knee against examiners resistance.
   c) Knee flexion strength was not assessed.

5. Checked strength of tibialis anterior:
   a) Patient is seated or supine and attempts to resist flexion of ankle towards the head or upwards against the examiner or is able to walk on heels easily.
   b) Patient is seated or supine and attempts to resist flexion of ankle towards the head or upwards with foot everted/inverted.
   c) Tibialis anterior strength was not assessed.

6. Checked strength of hip flexors:
   a) Patient is seated and attempts to flex hip upwards against resistance.
   b) Patient is supine and attempts to flex hip upwards against resistance.
   c) Hip flexor strength was not assessed.

7. Evaluated patellar tracking:
   a) With patient seated, he/she is instructed to repetitively flex and extend the knee actively while examiner monitors patellar motion.
   b) With patient supine, he/she is instructed to repetitively flex and extend the knee actively while examiner monitors patellar motion.
   c) Patellar tracking was not assessed.

8. Evaluated anterior cruciate ligament:
   a) 1. Patient is supine; examiner flexes patient's knee 20º while pushing down on thigh, lower leg is pulled anteriorly.
      2. Patient is supine; examiner flexes knee between 75-90º and while sitting on foot, pulls lower leg forward.

b) 1. Patient is supine; knee is flexed less than 20º or more than 40º while pushing down on thigh, lower leg is pulled anteriorly.
2. Patient is supine/seated while examiner flexes knee less than 75º and while sitting on foot, pulls lower leg forward.
c) Anterior cruciate ligament was not assessed.

9. Evaluated posterior cruciate ligament:
a) 1. Patient is supine; the knee and hip are flexed to 90º while examiner monitors for "drop back" of tibial tubercle.
2. Patient is supine; the legs are fully extension while examiner picks up heels and monitors for dimpling below the knee cap.
3. Patient is supine; knee is flexed to 90º while examiner sits on foot and lower leg is pushed backwards.
b) 1. Patient is supine; knee and hip are flexed less than 90º.
2. Patient is supine; knees are not fully extended while the examiner picks up heels and monitors for dimpling below knee cap.
3. Patient is supine; knee is flexed to less than 90º or the knee is pulled anteriorly then pushed posteriorly.
c) Posterior cruciate ligament was not assessed.

10. Evaluated lateral collateral ligament:
a) Knee is flexed 20º to 30º while varus stress is applies to knee.
b) Knee is fully extended or flexed greater than 30º while varus stress applied to knee.
c) Lateral collateral ligament was not assessed.

11. Evaluated medial collateral ligament:
a) Knee is flexed 20º to 30º while valgus stress is applied to knee.
b) Knee is fully extended or flexed greater than 30º while valgus stress is applied to knee.
c) Medial collateral ligament was not assessed.

12. Palpated patella:
a) Patella is palpated at medial, lateral, superior and inferior borders.
b) Patella is not palpated on all borders.
c) Patella is not palpated.

13. Palpated joint line:
a) Both medial/lateral joint lines are palpated anteriorly and posteriorly.
b) Joint line is not palpated on all borders.
c) Patella is not palpated.

14. Checked for effusion:
    a) Tissue about the kneecap (while knee is extended) is compressed about the kneecap while the examiner pushes down on the patella.
    b) Tissue about the kneecap (with knee flexed) is compressed about kneecap while the examiner pushes down on the patella.
    c) Joint effusion was not assessed.

15. Reproduced symptomatology:
    a) Kneecap is palpated along inner aspect reproducing pain.
    b)
    c) Symptomatology was not reproduced.

16. Evaluated both knees:
    a) Examiner evaluated both knees.
    b)
    c) Examiner did not evaluate both knees.

17. Evaluated gait:
    a) Examiner evaluated gait.
    b)
    c) Examiner did not evaluate gait.

Done Correctly (A)	Attempted Done Incorrectly(B)	Not attempted (C)	**Therapeutic Exercise Prescription – 40%**
			Stretching lower extremities
			Quadriceps strengthening (Squats)
			Straight leg rasing
			McConnell taping or bracing
			Patellar mobilization
			Precautions

Overall Evaluation Objectives (Therapeutic Plan):

TP2 Recognizes pertinent (characteristic) physical findings

TP5 Interprets pertinent physical findings

TP10 Prescribes appropriate stretching, strengthening exercises

Performance Criteria (Therapeutic Exercise Prescription):

1. Stretching of lower extremities:
    a) Prescribed stretching of lower extremities.
    b)
    c) Lower extremity stretching was not prescribed

2. Quadriceps strengthening:
   a) Prescribed quadriceps strengthening via patient straight leg raising of a ssquat program (1/4 – ½).
   b) Prescribed quadriceps strengthening via knee extension or full squats.
   c) Quadriceps strengthening was not prescribed.

3. Straight leg raising:
   a) Prescribed straight leg raising exercises.
   b)
   c) Did not prescribe straight leg raising exercises.

4. McConnell taping or bracing:
   a) Prescribed McConnell taping or bracing for the knee.
   b)
   c) McConnell taping or bracing was not prescribed.

5. Patella mobilization:
   a) Prescribed patellar mobilization
   b)
   c) Patellar mobilization was not prescribed.

6. Precautions:
   a) Precautions were included on prescription.
   b)
   c) Precautions were not included on prescription.

Competencies Addressed:	**Needs Improvement**	**Adequate**	**Excellent**
1. Patient Care: able to correctly perform physical exam maneuvers.			
2. Interpersonal & Communication skills: explained exam and encouraged interaction.			
3. Professionalism: demonstrated respect, compassion, and sensitivity.			

Knee Pain Station
SP Training Script

Patient Demographics:

Age:	25-32
Sex:	Female
Race:	White/Black
Height:	5'2 - 5'8
Weight:	110-130 lbs.

Introduction:

You are Elizabeth a 32-year-old who presents with a chief complaint of right knee pain. This is the first time that you are seeing a physician for this problem. You are married with no children and live in a townhouse.

You have been an aerobics instructor for the past ten years. Exercise is a way of life for you, as you teach two classes of high impact aerobics five days per week.

The onset of your knee pain was unrelated to a specific event; however, the pain has progressively worsened over the past three months. The pain is worse while doing step aerobics, walking up and won stairs and sitting for prolong periods of time. The pain is relieved while lying in bed. You have not had any previous injuries to the knee and have not noticed any prior swelling.

Patient's personal presentation and emotional tone:

a) Physical appearance:
   Pleasant, energetic female, dressed casually in no apparent discomfort

b) Personal presentation:
   Neat, well kept, with athletic appearance

c) Interaction style:
   Patient speaks somewhat rapidly, with difficulty stopping, somewhat tangential

d) Emotional tone:
   She appears to be in no apparent distress, though very focused on her exercise program, working out, etc.

History of present illness:

a) The chief complaint at the time of the visit:
Right knee pain

b) The symptoms in detail:
You describe right knee pain precipitated by sitting, squatting, walking up stairs, etc. Pain is described as achy and dull "inside your knee." When asked why you came to the clinic, you state "The pain is annoying and really keeping me from doing what I love to do. I can't understand why it has become so bad; I really haven't done anything wrong to injure my knee."

c) History of present illness:
You describe an insidious onset of right knee pain over the past 3 months. You deny precipitating event, though you state pain became worse after you added increased height to your step aerobics. You have noticed an increase in your symptoms over the past month, now becoming more painful with walking up and down stairs and after sitting for prolonged periods of time. You claim that lying down decreases the pain and Advil will moderately improve the knee pain when severe. Rating of pain on a scale of 1-10, you state a definite 10 except when you lie down. Relief is also obtained from Advil to a certain degree.

d) Any other medical conditions that may impinge upon the current complaint.
None.

e) Any "problem beyond the problem":
None.

f) Any special challenge to the interviewer:
You are intense and have tried advice from other aerobics instructors, self help books, etc. You will question the physician's advice because you feel that nothing will work for your knee pain as you have tried everything.

Past medical history:

a) Relevant past medical history:
None. No past history of right knee injury, previous swelling, locking or giving way of the knee.

b) Relevant family history:
Mother, father and brother are in good health.

c) Information needed to answer "all" medical questions likely to be asked by interviewers:
You are a healthy appearing aerobics instructor who has had three months of right knee pain without any precipitant injury. You deny any swelling, locking or giving way.

Psychosocial/Personal history:

a) Personal family history:
You live with your husband in a townhouse with two steps to enter and 12 steps to the second floor. You share household duties with your husband. The nearest supermarket is 20 minutes away and she does all shopping.

b) Educational background and occupational history:
You have a high school education. You had been a secretary for several years but turned your attention towards aerobics for the past 10 years. You teach two classes per day, five days per week.

Expected sequence of events:

You speak rapidly and you are somewhat distrusting. You answer questions freely; however, you may become tangential with answers. You seem entirely focused on your job and exercise. During the physical exam, you will perform all activities rapidly and will need to be properly instructed.

Thing the patient would not say or do:

None.

Physical examination:

Reflexes are normal. Sensation is altered in the tip of the thumb and index finger on the right as compared to the little finger and opposite hand. Sensation is normal in both palms. Numbness is reproduced upon tapping at the wrist or flexing both hands together down towards the floor. Strength is normal, as well as all other tests.

You are to walk normally if asked. You are able to walk on your heels and on your toes if asked. The strength in the knee muscles (flexors, extensors, rotators) is

normal, and is the same as your other leg. The same is true of your hip flexors. Muscle tone is normal.

The knee ligaments are normal. There is no pain with testing.

Range of motion at the knee is normal, although you have some generalized discomfort with complete knee flexion. This is located diffusely across the front of the knee.

Palpation— There is no tenderness on touching the medial or lateral sides of the knee joint line. There is a lot of tenderness on the inside of the "knee cap." This pain can be reproduced with compression maneuvers of the "knee cap."

PRESCRIPTION FORM

Patient's Name:_____

Date:_____

Rx:

_____ **M.D./D.O.**

M.D./D.O. (PRINT): _____

Patient Satisfaction Rating Scale for Physical Exam Stations

How is the doctor at:	1 Poor	2 Fair	3 Good	4 Excellent	5 Cannot Evaluate
Item 1					
Explaining to you what he/she is going to do before or during the physical examination?					
Item 2					
Maintaining your comfort level during physical exam?					
Item 3					
Maintaining your modesty?					
Item 4					
Was organized and systematic in the examination					
Item 5	**YES**			**NO**	
Would you return to this physician for your care?					
Please explain, if NO:					