Supplemental digital content for Kirley K, Hayer R, Khan T, Johnson E, Sanchez ES, Kosowicz L, Terry V, Henderson D, Krebsbach C, Park YS, Dekhtyar M, Williams BC. Expanding the traditional history and physical examination to address chronic diseases and social needs: A multi-site randomized control trial of four medical schools. Acad Med. 2020;95(11 Suppl).

Supplemental Digital Appendix 1
H&P 360 Template and Interview Guide

H&P 360 Template

Patient:

Age:

Subjective:

Reasons for visit:

History of present illness (Is this a new patient? If yes, complete full history. If not, document pertinent changes)

Biomedical problems/concerns:

Patient perception of health (This domain encompasses: patient understanding/insight of illness/health, patient self-assessed level of control, patient-identified strengths and barriers):

Patient priorities & goals:

Psychosocial problems/concerns (This domain encompasses: mood, thought patterns, diagnosed or undiagnosed psychiatric disorders, as well as pertinent social issues):

Social history

Behavioral (This domain encompasses: health behaviors, medication management/adherence, nutritional behaviors, physical activity habits, personality disorders, substance use):

Relationships (This domain encompasses: primary relationships, social support, caregiver availability, abuse/violence, community relationships):

Resources (This domain encompasses: food security, housing stability, financial resources, transportation):

Functional status (This domain encompasses: affect, social and occupational functioning, satisfaction with life, activities of daily living):

Past medical history:

Health maintenance (preventative care):

Past surgical history:

Family history:

Medications:

Allergies:

Review of systems:

Constitutional:

Ear, nose, mouth, & throat:

Cardiovascular:

Respiratory:

Gastrointestinal:

Genitourinary:

Musculoskeletal:

Integumentary:

Neurological:

Psychiatric:

Endocrine:

Hematologic/lymphatic:

Allergic/immunologic:

Objective:

Physical exam:

Data:

Assessment/Plan (problem-focused, with each problem receiving discussion of assessment and plan):

Problem assessment (problems can include issues that are primarily biomedical or issues that are psychosocial)

- Shared assessment of level of control
- Trajectory of condition (this includes relevant history, current condition status, condition outlook)
- Shared goal
- Psychosocial influences (including patient strengths and barriers)

Plan

- Team actions
    - Clinical (eg, specialist referrals, inter-professional team roles)
    - External (eg, community resources)
- Patient/family (eg, self-management)
- Therapy/monitoring
- Disposition/follow-up

Problem #1

Assessment:

Plan:

Problem #2

Assessment:

Plan:

Problem #3

Assessment:

Plan:

Problem #4

Assessment:

Plan:

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H&P 360 Interview Guide

Purpose

Patients with chronic diseases often become their own primary caregiver and it is imperative for providers to assess their patient's strengths and needs that may affect their ability to do so. Effective chronic disease prevention and management requires an interdisciplinary team to join together to help the patient build their capacity to self-manage their condition and address any barriers they may face. The chronic disease prevention and management history and physical tool aims to help providers perform an in-depth assessment of patient strengths and needs in order to co-create an individualized, comprehensive prevention and management plan with the patient and their interdisciplinary team.

Learning objectives

- Utilize appropriate tools (i.e., expanded social history, chronic disease history and physical) to obtain patient-centered values, goals, and socio-behavioral-economic factors that influence chronic disease screening, prevention, and management decisions
- Apply the information gathered to co-create a comprehensive chronic disease management plan with the patient.

How to use this tool

- Think of the social history as a way to get to know your patient and their individualized health and social situation and needs
- Depending on the visit type and the setting, not all questions may need to be asked

- Depending on the visit type and setting, the order of the questions may vary but we do encourage you to keep the social questions towards the beginning of the interview to allow you the opportunity to learn about the patient's individualized needs and work them into your assessment and plan
- Pertinent psychosocial issues may be considered as their own diagnosis deserving of an appropriate plan to address them
- Open-ended questions can help you to elicit more information from your patient which can help you work with them to co-create an individualized plan of care

Overview of expanded history of present illness (HPI) and social history domains

Reasons for visit This is very similar to what has traditionally been called the chief complaint. This section is intended to record the patient's key reasons for seeking care at this encounter. It could be a typical complaint, like "sore throat", or it could be other reasons such as "follow-up of high blood pressure," "health maintenance visit", or "to discuss problems with a medication." There can be more than one!

Expanded HPI

Biomedical problems and concerns In this section, we want you to ask about any biomedical problems or concerns your patient may be experiencing. The way you assess this will likely vary based on whether this is a chronic or acute issue. If it is an acute issue you can use OLDCART (onset, location, duration, characteristics, aggravating factors, relieving factors, treatment) to gather the information you need. If it is a chronic issue you may ask questions about their symptoms, how long they've had the condition, and their current and past

treatments, etc. These types of questions can help you assess the trajectory of the issue.

Patient perception of health (This domain encompasses: patient understanding/insight of illness/health, patient self-assessed level of control, patient-identified strengths and barriers). In this section, we want you to learn about your patient's perception of their health. Are there cultural beliefs or preferences they have related to their disease? How well do they think their disease is controlled? Do they understand their disease and what they need to do to manage it? What strengths and barriers do they identify as being a benefit or hindrance to their health?

Patient priorities & goals In this section, we want you to learn about what motivates your patient to try to stay as healthy as they can. What goals do they have for their life and/or their health? The priorities and goals that you document here should be revisited in your Assessment and Plan. You are encouraged to ask these questions early in your interview so you can think of how you can leverage these priorities to help the patient reach their goals and adhere to the plan you co-create.

Psychosocial problems/concerns (This domain encompasses: mood, thought patterns, diagnosed or undiagnosed psychiatric disorders, as well as pertinent social issues). In this section, we want you to identify any psychosocial barriers your patient may be encountering. For instance, do they have any undiagnosed psychiatric disorders or an impaired mood that may affect their ability to adhere to medical recommendation or self-manage their disease? Are there new pertinent

social issues that may affect their ability to adhere or self-manage such as a recent job loss or a death in the family? Note: you are encouraged to document pertinent psychosocial issues early in your HPI, but it may not be appropriate or comfortable to ask these questions early in your interview, especially if it is your first encounter with a patient. Use your judgment on how and when to ask about these issues during your interview.

Social history

Behavioral (This domain encompasses: health behaviors, medication management/adherence, nutritional behaviors, physical activity habits, personality disorders, substance use). In this section, we want you to assess your patient's health behaviors and identify if there are any improvements that need to be made. Does your patient take their medications as prescribed, do they follow a diet appropriate for their disease, how physically active are they, do they have any personality disorders that may impair their ability to appropriately manage their condition?

Relationships (This domain encompasses: primary relationships, social support, caregiver availability, abuse/violence, community relationships). In this section, we want you to assess what kind of a support system is available for your patient. Who helps them when they need help? Who encourages them to adhere to a healthy lifestyle? Are they experiencing any violence or abuse in their relationships?

Resources (This domain encompasses: food security, housing stability, financial resources, transportation). In this section, we want you to assess if there are any barriers that might be affecting your patient's ability to manage their condition well. Does your patient need to prioritize putting food on the table or ensuring they have a roof over their head overpaying for their medications? Do they have a way to get to the pharmacy or their appointments?

Functional status (This domain encompasses: affect, social and occupational functioning, satisfaction with life, activities of daily living). In this section, we want you to how well your patient is functioning in their day to day life. What is their affect? Are they effectively coping with their situation? Are they able to perform their activities of daily living independently or do they need help?

Sample questions

Some questions in the social history may be sensitive in nature and it is important to remain non-judgmental when asking them. To help with this, we have compiled a list of a few guiding questions you can use until you become more comfortable asking these types of questions.

Behavioral

- How many days per week do you get at least 30 minutes of exercise?
- What issues have you had taking your medication as prescribed?
- How many doses of medication have you missed in the past week?
- What issues have you had sticking to the healthy lifestyle recommendations given at your last visit?
- Do you ever use alcohol or drugs to deal with the stresses in life?

Relationship

- Who do you turn to when you feel the need for support?
- Are you afraid you might be hurt in your apartment building or house?
- Who do you rely on when you are unable to do something yourself?
- What community resources or programs do you use to improve or maintain your health?

Resources

- In the last 3 months, did you ever eat less than you felt you should because there wasn't enough money for food?
- Do you have trouble affording foods that are part of a balanced diet?
- Are you worries that in the next 3 months you may not have stable housing?
- In the last month, have you slept outside, in a shelter, or in a place not meant for sleeping?
- How often in the past 12 months would you say you were worried or stressed about having enough money to pay your rent/mortgage?
- In the last 3 months has your utility company shut off your service for not being able to pay the bills?
- In the last 3 months, have you needed to see a doctor but could not because of cost?
- In the last 3 months have you ever had to go without medication or health care because you did not have a way to get to the pharmacy or doctor's office?
- Are you concerned that you may lose your insurance coverage in the near future?
- Are you regularly able to get a friend or relative to take you to the pharmacy or to your doctor's appointments?

Functional status

- Do you consistently feel overwhelmed by life's stresses?
- How satisfied are you with your life?
- How often have you needed to ask for help doing daily activities (i.e. cooking, bathing, etc.)? Who do you ask for help when you need it?
- How would you rate your interactions with others?
    - Do you have close relationships?
    - Do you have difficult or complicated relationships?
- Are you working or in school?
    - In the past 12 months, how many times were you absent from school or work?
- How would you rate your ability to deal with life's stresses?

Supplemental Digital Appendix 2
Cases for Objective Structured Clinical Examination

Diabetes Case for H&P 360 Study

CASE NAME: H&P 360 Field Test Case 2 – Bruce/Betty Clark: Type 2 Diabetes (worsening)

CASE CHIEF COMPLAINT(S): Type 2 Diabetes follow up, increased frequency of urination, fatigue, foot pain (tingling sensation getting stronger, more uncomfortable), mild nausea, mild SOB, swollen gums, some blurred vision

FINAL CLINICAL SUMMARY:

- Psychiatric: no evidence major disorder.
- Behavioral: Precontemplator with respect to managing diabetes. Medication adherence is not clear. Best approach would be to focus on goal-setting and management steps for controlling the *symptoms,* while exploring patient's health motivators and successes, to allow future work in moving to action phase.
- Biomedical: Type II Diabetes. Present many years (at least 5-10, based on peripheral neuropathy). Worsening glycemia,at risk for renal impairment (proteinuria, impaired function), HTN, fatty liver, and macrovascular (coronary artery, cerebrovascular, peripheral vascular) disease. Clinical issues at this visit:

  Foreground: Other potential causes for increased hyperglycemia recently. Best method to acutely control BS's? Mid-ground: Current symptoms of macrovascular disease?

  Long-term: Goals / values; self-management capacity; readiness for change; barriers

to self-management skills related to diabetes (medication management, glucose monitoring, weight loss, and nutrition.)

Medications: Metformin XR 1000 mg daily.

- Social Support / Relationships: Not married, no current romantic relationship. No close friends but several friends. Sees family about once per year.
- Living Environment / Resources: Other than lack of retirement savings, no red flags. Could be managed with a couple of screening questions in the interview.
- Function: No red flags, but generally under-performs at work.

SUMMARY OF THE CASE:

Adult, 50 years old, out-patient clinical visit w/ primary care physician

Pt experiencing:

- Bilateral foot pain – burning/tingling which disrupts sleep
- Some thirst and dry mouth: pt drinks 3-5 large glasses of water during the day; at least 3 cups of coffee; several cans of diet cola and/or energy drinks
- Frequent urination (at least hourly while awake and at least 3x during the night, interrupting normal sleep)
- Unusual fatigue, tiredness: pt attributes to lack of sleep due to having to urinate during the night
- Overall feeling of muscle weakness
- Some blurring of vision: pt has not had regular eye exams

- Some shakiness, feelings of confusion, forgetfulness
- Red and swollen gums

FOCUS OF THE CASE:

- parent discipline: endocrinology
- focus of the case: CD risk appraisal; poorly managed Type 2 Diabetes
- other key words that characterize the case: escalating physical symptoms, psychosocial factors, behavioral concerns
- assessment challenge: pt perceptions of health, pt priorities/goals

DIFFERENTIAL DIAGNOSIS: worsening condition due to inconsistent/insufficient CD management (e.g., regular and appropriate level of exercise; balanced diet; controlled level of stress)

ACTUAL DIAGNOSIS: worsening/escalating Type 2 Diabetes

DESIGNED FOR: MS 3; MS 4

ACTIVITIES, DOCUMENTATION & TIME REQUIRED:

- 25-minute pt encounter; student completes either H&P 360 or traditional H&P
- 10-minute post-encounter documents, completed concurrently:
    - Student: post-encounter SOAP-type note plus brief evaluation/feedback on overall SP encounter experience
    - SP-as-observer: rubric/checklist (evaluation of student performance)

OBJECTIVES:

By the end of the H&P 360 field test encounter, medical students should be able to:

- Gather X% more pertinent and expanded clinical, behavioral, social, economic, cultural and other relevant information during a standardized patient (SP) encounter involving CDPM than with a traditional H&P encounter structure and format, as evidenced by post-encounter documents;
- Generate a more detailed, comprehensive and individual-centric assessment and management plan than from a traditional H&P interview for CDPM, as evidenced by post-encounter documents;
- Co-develop management strategies with the SP that address key barriers to patient health and promote interprofessional care, where possible, as evidenced by post-encounter documents; and,
- Demonstrate more extensive individual/patient-focused interpersonal communication skills than in a traditional H&P encounter, emphasizing more transactional (co-created) use and interpretation of verbal and non-verbal strategies and techniques, as evidenced by post-encounter documents

ASPECT OF PERFORMANCE TO BE ATTENDED TO & METHOD FOR OBSERVING PERFORMANCE:

- Student encounter w/ SP

  -H&P 360 form (students in “intervention group”); may use interview guide provided

  -Traditional H&P form (students in “control group”)
- SP will double as observer, will use rubric/checklist to assess/provide feedback on

student performance

- Student post-encounter notes and feedback

  -SOAP-style note format plus evaluation/feedback survey on overall SP encounter experience

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PATIENT DOOR CHART

Patient's Name: Clark

Gender: Male

Age: 50

Chief Complaint(s): Follow-up for type 2 diabetes; increased frequency of urination; foot pain (tingling sensation getting stronger, more uncomfortable); feeling tired all the time; some nausea; swollen gums; some blurred vision

Setting: Outpatient Clinic

Vital Signs: BP: Sitting up: 135/82

Pulse: Sitting up: 80

Resp: 12

Temp: 98.6

Your role in this encounter:

- You are the health care provider for this encounter.
- You must make all the decisions regarding this patient's care.
- You may not defer anything to another health care provider (i.e., the attending or chief resident).
- **Please introduce yourself as "Student Doctor" followed by your first or last name.**

PARTICIPANT TASKS: **You have 25 minutes**

1] **Perform a COMPLETE history based upon the chief complaint using the H & P tool provided.**

2] You **SHOULD NOT** complete a physical exam. Review the physical exam findings on the following sheet before entering the room.

3] You **SHOULD** discuss an assessment and plan with the patient.

4] Reference additional instructions/expectations provided during orientation briefing session.

Knock on the exam room door when you are ready to begin.

PATIENT DOOR CHART

Physical Exam and Laboratory Findings

Vital Signs:

BP: Sitting up: 135/82

Pulse: Sitting up: 80

Resp: 12

Temp: 98.6

General: Well-groomed, well-developed, somewhat overweight, in no acute distress.

HEENT:

Head: Normocephalic, atraumatic.

Eyes: Pupils equal and responsive to light. Extraoccular movements intact. Gross visual fields full to confrontation. Conjunctiva clear. Sclera non-icteric. Normal non-dilated fundoscopic exam.

Ears: Hearing grossly normal. Canals and tympanic membranes normal.

Nose: Non-deviated septum. Normal turbinates.

Mouth: Mucosa moist. Normal dentition. Normal tonsils. No erythema of oropharynx. Uvula midline.

Neck: No masses or adenopathy. Supple, normal range of motion.

CV: Normal jugular venous pressure. Regular rate and rhythm, normal S1 and S2, no murmurs, rubs, or gallops. 2+ pulses throughout.

Chest: Lungs clear to auscultation bilaterally. No wheezes, rales, or rhonchi. No dullness to percussion.

Abdomen: Normoactive bowel sounds. Soft, non-tender, non-distended. No masses. No hepatosplenomegaly. Abdominal aorta not palpable.

Extremities: Strength 5/5 throughout all extremities. No clubbing, or cyanosis. Trace pedal edema.

Neurological: Alert and oriented. Cranial nerves II-XII intact. Strength 5/5 throughout. Reflexes 2+ throughout. Bilaterally lower extremities with decreased sensation to pinprick and light touch in stocking distribution. Monofilament testing 4/10 (R) and 3/10 (L). Normal gait. No cerebellar signs.

Skin: Warm, dry, intact. Some loss of hair and thinning of skin on ankles and feet. No visible rashes.

Point of Care Urinalysis: Appearance: yellow, clear; Spec Gravity: <1.005; pH: normal; Protein: trace; Leucocytes: negative; Nitrite: negative; Blood: negative; Ketones: 1+; Bilirubin: negative; Urobilinogen: negative; Glucose: 100mg/dL

Fingerstick Non-Fasting Blood Glucose: 210 mg/dL

H&P 360 Field Test Case – B Clark/Type 2 Diabetes

STANDARDIZED PATIENT RECRUITMENT REQUIREMENTS:

If any category is NOT APPLICABLE, please type NA next to it.

GENDER: male or female

AGE RANGE: 45-50

RACE: n/a

HEIGHT: n/a

WEIGHT: appx. 20 lbs over recommended weight for height, if possible

INCOMPATIBLE PATIENT CHARACTERISTICS: n/a

Patient behavior, affect, mannerisms:

- Shows some fatigue; takes deep breaths (sighs) more frequently than usual
- Rubs ankle/foot occasionally
- Rubs stomach occasionally, indicating potentially discomfort (mildly nausea)
- Rub eyes, as if to clear them, also to indicate lack of sleep
- Licks lips more frequently than usual/presses lips together
- Occasionally (2-3x) asks medical student to repeat questions/information, signaling loss of concentration, focus

Patient Appearance: neatly dressed in street clothes, seated in chair

- Clothing a bit baggy, as when someone has recently loss enough weight to change fit of clothing

BIOMEDICAL SYMPTOMS

NOTE to SPs: If asked, most recent meal was 2 hours ago; drive thru McDonald's, you were in a rush

Quick Case Summary - Patient Experience: Adult, 50 years old, in-patient clinical visit w/ primary care physician

Type 2 Diabetes – Increase urination:

- **Last PC visit was 1 year ago – PCP is on vacation for this patient visit**
- **5 years ago, you were diagnosed with diabetes, told to manage with diet/exercise and follow up in 3 months. (Patient does not remember details or lab values for that visit. Did not follow up as instructed).**
- **1 year ago (4 years later) Pt returns w/ flu-like symptoms, PC checked glucose level (180mg/dL) – prescribed Metformin XR 1000 mg/daily, return in 3 months for follow up. Did not follow up.**
- Present day: For past 2 months, increased thirst and increase urination: Pt drinks 3-5 large glasses of water during the day; at least 3 cups of sweetened coffee per day; several cans of Coke or energy drinks,
- Frequent urination (at least hourly while awake and at least 3x during the night, interrupting normal sleep)
- Unusual fatigue, tiredness: pt attributes to lack of sleep due to having to urinate during the night
- Does not test blood sugar – PCP mentioned it but never bothered/followed up
- Admits to "stretching" medication over the year and only takes it when they feel they need it – has "a few pills" left

Bilateral Foot pain:

- For past 2 months – burning/tingling in both feet which disrupts sleep, 3/10, relatively constant,
- No alleviating/aggravating factors.
- OTC pain medications help somewhat.
- No back pain. No weakness in feet. No recent injury.

Other complaints:

- Some blurring of vision: pt has not had regular eye exams
- Overall feeling of muscle weakness/fatigue
- Feelings of confusion, forgetfulness, lack of concentration
- Red and swollen gums
- Occasional nausea (1-2 x per month

NOTE TO SPS: In the body of this case, BLUE text indicates the patient's response to participant questions. You may paraphrase as long as answers contain the core content.

Checklist Item # 1 - Reason for Visit / Rewarding Open-ended Questions:

If learner begins encounter by asking an open-ended question, such as:

"What brings you into the clinic today?" OR "Tell me about what's been going on with you?"

SP Opening Statement:

"Well, I'm here to have my diabetes checked for one and I'm just so tired of this burning in my feet and having to go to the bathroom all the time! I can't even sleep at night."

Checklist Item # 2 – Rewarding Open-ended Follow up Questions:

If learner then asks an open-ended follow-up question, such as:

"Tell me more about the diabetes." OR "Is there anything else you can tell me about that?"

NEW: "Well, I know I was diagnosed with diabetes about 5 years ago. About a year ago she put me on a medication but I only take it when I feel like I need it. I really don't like coming to see the doctor.

OR "I see on your chart you've been experiencing an increase in urination and foot pain. Can you tell me more about this?"

"It's been going on for the last couple of months. Both of my feet hurt so bad I can't really exercise which I know I need to do to keep the diabetes under control. And I'm peeing all the time but I'm always thirsty and I drink a lot of fluids but my mouth still feels dry and sometimes my gums bleed."

If the open-ended follow-up question comes a little later into the encounter, and, the learner has not yet elicited this particular information, you can deliver this statement at that time. **Give full credit for Item # 2 on the SP checklist as long as the learner allows you to finish the statement.**

If learner asks ANOTHER open-ended follow-up question, such as: "Can you tell me anything else?"
"Oh and I guess now I need to get my eyes checked. It's been awhile and I'm not seeing that well; things are a little blurry sometimes It kind of scared me. All of this is why I went ahead and came in today."

What to do when learner asks Direct/Focused questions:

It is important to note that learners may also gather all history information by asking very direct/focused questions.

If learner begins encounter by asking a direct question instead of an open-ended question OR asks direct follow-up questions based on your original opening statement:

- SP should then only answer each question as it is asked. **<u>Do not</u> volunteer any information beyond the answer for each question.**

<u>What to do if a learner interrupts you during a statement/answer:</u>

- Do not finish your statement/answer.
- If learner realizes he/she has interrupted you, and says something such as - **"I'm sorry, you were still saying something, please continue,"** continue with your statement/ answer. Learner should receive credit for the checklist item.

<u>History of the Present Illness (HPI) – Type 2 Diabetes</u>

- **Diabetes: diagnosed 5 years ago**

New Symptoms: you have started to experience symptoms of **increase frequency of urination** and **bilateral foot pain**.

ONSET

- **Foot pain: 2 months ago**
- **Increased Urination: 2 months ago**

LOCATION

- **Can you tell me or show me where the pain is located? Both feet all over, tops and bottoms.**

RADIATION

- **Does the pain stay in the same location the entire time or does it ever more anywhere else? No**

CHARACTER

- **Can you describe the pain? (e.g., dull, sharp, stabbing, throbbing, etc.) My feet always feel like they are burning and tingling. Only offer "numbness" if directly asked: "I guess so, yeah!"**
- No change in the characterization for 2 months

PAIN SCALE of 0-10 and/or SEVERITY

- **On a scale of 0-10, how severe is the pain? 3/10 and constant "burning and tingling". OR They hurt enough I can't really exercise.**
- Describe the severity of the pain (does not ask you to rate on the scale): **It's really uncomfortable and it never seems to go away..**

FREQUENCY - Urination

- **How often do you urinate? At least every hour and at least 3 times during the night. I can't get any sleep!**

PROGRESSION OVER TIME

- **Has the foot pain changed over time (i.e., gotten worse or better)? It's just always there and the tingling seems to be getting worse.**

ALLEVIATING FACTORS

- **Does anything seem to alleviate the pain or make it feel better? Getting rest and taking Tylenol helps a bit.**
- You have tried Tylenol (2 tablets every 8-12 hours)) per the directions on the bottle, it seems to help some.

ASSOCIATED SYMPTOMS and/or Pertinent Negatives

- **Have you experienced any other symptoms? Every once and awhile my vision gets blurry. Maybe 1 or 2 times a month. I guess I need to get my eyes checked. Some nausea.**

Elicited patient's ideas about the condition – What do you think is going on?

I really don't know. I've always felt pretty good, generally! I guess the Diabetes could have something to do with it.

Patient's worries/fears about the condition – Is there anything that you are concerned about?

I'm worried that my feet are never going to get better. I don't want to deal with tingly feet the rest of my life.

How this is affecting the patient's daily life?

"I haven't been sleeping as well lately because I have to pee so many times. And, I've just been so busy at work, training some new people in my department. I know I'm stressed. I've missed work a little more than usual. But, there's so much going on there, I have to go. And, it's frustrating, because I can't seem to make it through the day without losing my concentration and focus!"

Relevant Past Medical History

GENERAL STATE OF HEALTH – Other than your current problem, how have you been feeling lately?

Overall, I guess I have felt fine, just tired and frustrated.

CURRENT MEDICAL DISEASES/CONDITIONS - Do you have any medical problems that you are currently being treated for? (e.g., high blood pressure/ hypertension, diabetes, high cholesterol, etc.)

5 years ago my doctor told me I had diabetes but I guess it's been fine.

CURRENT PRESCRIBED MEDICATIONS – Are you currently taking any <u>prescribed</u> medications? I take Metformin XR 1000 mg/dL when I feel like I need it. I'm almost out; I guess I should probably get more from you, huh?

- If learner simply asks, "Do you take any medications?" **I take Tylenol for my feet and Metformin whenever I feel like I need it and a multivitamin.**

CURRENT NON-PRESCRIPTION MEDICATIONS – Do you take any over- the-counter medications? (e.g., pain relievers, vitamins, herbal supplements)

I take a multivitamin every day and Tylenol for my feet every once and a while.

NOTE ON MEDICATION: Patient was given a 3 month prescription for Metformin a year ago and because they take it so infrequently, the patient still has 2-3 pills remaining.

ALLERGIES: (Seasonal or Medications)– Do you have any allergies? I'm not allergic to anything.

<u>SOCIAL HISTORY</u>

- If asked if you have been to this clinic before**:** **Has been a year since last visit – PCP is on vacation**
- Takes a multivitamin daily
- **NEW: Initially followed instructions to take Metformin daily for the first week, but then**

decided to only take it "when I felt like I needed it" (approximately 6-7 pills/month – patient doesn't keep track and doesn't know this number)

Male SP: It's been a few years since I've seen my regular doctor because I don't like going to the doctor. I'm pretty healthy.

Female SP: I haven't seen a regular doctor in a few years, but I do see my gynecologist for my annual PAP and mammogram. My last visit was 6 months ago. Post-menopausal = 1 year

LIFESTYLE:

Age: 50 years old (and birthdate ___/___/___ (date and year = 50 years old)

Occupation: Has been at current job for 7 years but has not advanced/been promoted (marketing/sales, non-management)

"I'm also missing work a little more than usual. But, there's so much going on there, I have to go. And, it's frustrating, because I can't seem to make it through the day without losing my concentration and focus!"

- Has habit of arriving late to work (at least 2x/wk, is frequently late to scheduled meetings and often unprepared
- Typically does not work over the weekend except when there is a major crisis, "which there seems to be more of recently"
- Compensates for unprofessional, irresponsible tendencies with humor, self-deprecation, ingratiating behavior
- Uses maximum sick leave/personal time each year at work, accomplishes minimum requirements in

job performance

- Does wonder if not taken as seriously as a professional since not married, has no children, does not own home and has some history of job transience, but has stayed in most recent job for 7 years

Marital Status: Single, has never had serious plans to marry

- Has a history of casual heterosexual relationships, with both single and married individuals
- (10-12 sexual partners they can recall)

Children: No children; ambivalent about having children

Patient rents apartment - rents apartment in complex marketed to singles –"VIP apartments"

Social Activities/Hobbies:

- No one "best friend" but a wide circle of friends
- Participates in occasional community/volunteer activities, if organized by co-workers or boss
- Does not attend church
- Takes some vacation time but not all at one time, usually spends time off at home
- Had a dog until about a year ago; dog died of advanced age; had owned dog since it was a puppy
- Uses a lot of electronic media (e.g., watches TV, streams movies, plays computer games, shops online, text chats w/ friends, work colleagues, keeps Facebook page updated but wonders if "getting too old to use so much social media")

BEHAVIORAL RISKS

Sleep Habits:

- Sleeps on average 9 hrs/night, except recently, when often interrupted to have to urinate
- Tends to sleep later, longer on weekends

Diet/Nutritional Habits: I know I need to eat a healthy, balanced diet to keep my diabetes in check. But, lately, it's just been easier to swing through McDonald's or order pizza delivery. I don't have the energy to cook a decent meal or to exercise very much.

- Does not check blood glucose at home; has not been asked to check by PCP
- Eats whenever hungry and eats a wide variety of foods
- Since diabetes diagnosis, has tried to eat "healthier" but notices that this tends to be "more expensive, more time-consuming" to do consistently
- Drinks several sugar-sweetened beverages per day – Coke or energy drinks
- 3 cups of sweetened coffee/day

Tobacco/Smoking: Occasional smoker (approx. 1 pack/week – for 25 years)

Alcohol: Social drinker (approx. 1-2 glasses of wine/week night; 2-3 glasses of wine/weekend night)

Illegal Drugs: Has history of some recreational drug use (smoked marijuana "once or twice" a week "when in college")

Sexual History:

- Practices safe sex with opposite sex partners but has no history of involvement lasting more than 6 months
- (10-12 sexual partners they can recall)

<u>FAMILY HISTORY</u>:

- Both parents are living, married to each other and enjoying active, independent retired life, financially secure
- Two siblings, one older brother, one younger sister; both in first-time marriages; both have children
- Does not see parents or siblings regularly, maybe 1x/yr but not necessarily at family gatherings
- Father and siblings are all healthy; mother had stroke around age 60 but made nearly full recovery
- Sees parents as active, siblings as "doing their own thing, living their own lives"

Patient perception of health

- Has basic understanding of need for healthy behaviors but has allowed distractions of busy work life to interfere, take priority
- Has always relied on overall generally good health and not yet come to terms with having to manage diabetes
- Has never had to worry about being overweight, "never been sick a day in my life," had no major lifestyle or any other change that might cause negative effects to health since being diagnosed with Type 2 diabetes

Patient priorities/goals

- Wants to be able to live life without worrying about "fad health issues that other older people do"
- Wants to focus on success at work and making transition to early retirement sooner rather than later
- Not particularly concerned with longer range goals
- More interested in shorter-term goals, such as work promotion and planning for this year's vacation

Psychosocial problems/concerns

- Popular with co-workers, subordinates; gets along well with boss

- Satisfied with social relationships, dates regularly but has no serious involvements
- Practices safe sex with opposite sex partners but has no history of involvement lasting more than 6 mos
- Does wonder if not taken as seriously as a professional since not married, has no children, does not own home and has some history of job transience, but has stayed in most recent job for 7 years

Resources

- Has college degree
- Rents apartment in complex marketed to singles
- Annual income = $95,000
- Some debt (car loan; credit card)
- Health insurance through employer

Functional status

- Has been at current job for 7 years but has not advanced/been promoted (office-based, non-management)
- Has habit of arriving late to work (at least 2x/wk, is frequently late to scheduled meetings and often unprepared
- Compensates for unprofessional, irresponsible tendencies with humor, self-deprecation, ingratiating behavior
- Uses maximum sick leave/personal time each year at work, accomplishes minimum requirements in job performance
- Has considered going back to school for advanced degree but has taken no specific action to pursue this path
- Employs housekeeper who also does shopping

- Employs CPA once/year to do taxes
- Does own financial planning
- Gets regular haircuts, facials and massages
- Maintains basic dental health
- Has not had a regular eye exam in past 5 yrs

PATIENT ATTITUDE TOWARD PLAN/NEXT STEPS

- Patient should remain open to discussion and willing to hear proposed steps regarding care.
- Would be willing to agree to more tests to gather more information
- Is hesitant to agree to taking new medications, **"I really don't like taking medications. I need to think about it and I'll get back to you."**

Hypertension Case for H&P 360 Study

CASE NAME: H&P 360 Field Test Case 1 – Carl/Carla Addison: HTN

CASE CHIEF COMPLAINT(S): Headaches, Fatigue, Some difficulty concentrating, Pounding in ears, "feels pulse" in ears, Knee pain

FINAL CLINICAL SUMMARY:

1. Psych: Possible depression.
2. Biomedical: Hypertension with probable recent HTNive urgencies – possible need to r/o intracranial aneurysm but not emergently. Urgent issues at the visit would be to review for symptoms of angina, CHF, TIA/CVA. Also has torn meniscus in right knee which is untreated and limiting mobility.
3. Behavioral health: A pre-contemplator masquerading (to her/him/themselves and others) as Planner / Action. Internal feedback is subjective, not objective (i.e., a long way from ability to develop SMART

goals). Some mild depressive symptoms, at-risk for worsening depression.

4. Social support / relationships: Role of spouse as support / promoter of pt's health is unclear, may be poor. The tennis buddy may become important.
5. Living environment / resources: Other than lack of retirement savings, no red flags. Could be managed with a couple of screening questions in the interview.
6. Function: Overall stable, no red flags. Limited social contacts and precarious marital situation are risk factors for worsening depression and work function.

SUMMARY OF THE CASE:

Adult, 40 years old, out-patient clinical visit w/ primary care physician

Pt experiencing:

- Headache, occasionally mild exertional headache. (Intense/sharp on one occasion 6 weeks ago while playing tennis)
- Injured right knee immediately after headache incident; has since curtailed tennis. Saw an orthopedic surgeon who diagnosed a small meniscal tear and advised/referred to physical therapy, but patient never scheduled an appointment with a physical therapist or followed up with the orthopedist.
- Intermittent sensation of pounding in ears, like a drum beat, while playing tennis; has occurred twice over past 3 months
- Somewhat tired, less energy/desire to do normal/regular routine
- Occasional blurring of vision: pt attributes to fatigue
- Some forgetfulness, lack of concentration: pt attributes to fatigue
- Some irritability, unusual lack of patience with family, friends, co-workers
- Pt suffered meniscus tear approx. 3 months ago (interrupted regular tennis play for about 6 wks)

FOCUS OF THE CASE:

- CD risk appraisal
- Other key words that characterize the case: psychosocial factors, behavioral concerns
- Assessment challenge: patient perceptions of health, patient priorities/goals

DIFFERENTIAL DIAGNOSIS: chronic disease due to inconsistent/insufficient preventive measures (e.g., regular and appropriate level of exercise; balanced diet; stress management)

ACTUAL DIAGNOSIS: HTN, Torn right meniscus

DESIGNED FOR: MS 3; MS 4

ACTIVITIES, DOCUMENTATION & TIME REQUIRED:

- 20-minute pt encounter; student completes either H&P 360 or traditional H&P
- 10-minute post-encounter documents, completed concurrently:
    - Student: post-encounter SOAP-type note plus brief evaluation/feedback on overall SP encounter experience
    - SP-as-observer: rubric/checklist (evaluation of student performance)

OBJECTIVES:

By the end of the H&P 360 field test encounter, medical students should be able to:

- Gather X% more pertinent and expanded clinical, behavioral, social, economic, cultural and other relevant information during a standardized patient (SP) encounter involving CDPM than with a traditional H&P encounter structure and format, as evidenced by post-encounter documents;
- Generate a more detailed, comprehensive and individual-centric assessment and management plan than from a traditional H&P interview for CDPM, as evidenced by post-encounter documents;

- Co-develop management strategies with the SP that address key barriers to patient health and promote interprofessional care, where possible, as evidenced by post-encounter documents; and,
- Demonstrate more extensive individual/patient-focused interpersonal communication skills than in a traditional H&P encounter, emphasizing more transactional (co-created) use and interpretation of verbal and non-verbal strategies and techniques, as evidenced by post-encounter documents

ASPECT OF PERFORMANCE TO BE ATTENDED TO & METHOD FOR OBSERVING PERFORMANCE:

- Student encounter w/ SP

  -H&P 360 form (students in "intervention group"); may use interview guide provided

  -Traditional H&P form (students in "control group")
- SP will double as observer, will use rubric/checklist to assess/provide feedback on student performance
- Student post-encounter notes and feedback

  -SOAP-style note format plus evaluation/feedback survey on overall SP encounter experience

---

PATIENT DOOR CHART

Patient's Name: **Addison**

Gender: Female

Age: 40

Chief Complaint: headaches; fatigue; some difficulty concentrating; pounding in ears, "feels pulse" in ears; right knee pain

Setting: Outpatient Clinic

Vital Signs: BP: Supine: 160/90 Sitting up: 155/92

Pulse: Supine: 80 Sitting up: 85

Resp: 12

Temp: 98.6

Your role in this encounter:

- You are the health care provider for this encounter.
- You must make all the decisions regarding this patient's care.
- You may not defer anything to another health care provider (i.e., the attending or chief resident).
- **Please introduce yourself as "Student Doctor" followed by your first or last name.**

PARTICIPANT TASKS: **You have 25 minutes**

1] **Perform a COMPLETE history based upon the chief complaint using the H & P tool provided.**

2] You **SHOULD NOT** complete a physical exam. Review the physical exam findings on the following sheet before entering the room.

3] You **SHOULD** discuss an assessment and plan with the patient.

4] Reference additional instructions/expectations provided during orientation briefing session.

Knock on the exam room door when you are ready to begin.

Supplemental digital content for Kirley K, Hayer R, Khan T, Johnson E, Sanchez ES, Kosowicz L, Terry V, Henderson D, Krebsbach C, Park YS, Dekhtyar M, Williams BC. Expanding the traditional history and physical examination to address chronic diseases and social needs: A multi-site randomized control trial of four medical schools. Acad Med. 2020;95(11 Suppl).

PATIENT DOOR CHART

Physical Exam Findings

Vital Signs:

BP: Supine: 160/90 Sitting up: 155/92

Pulse: Supine: 80 Sitting up: 85

Resp: 12

Temp: 98.6

General: Well-groomed, well-developed, and somewhat overweight, in no acute distress.

HEENT:

Head: Normocephalic, atraumatic.

Eyes: Pupils equal and responsive to light. Extraoccular movements intact. Gross visual fields full to confrontation. Conjunctiva clear. Sclera non-icteric. Normal non-dilated fundoscopic exam.

Ears: Hearing grossly normal. Canals and tympanic membranes normal.

Nose: Non-deviated septum. Normal turbinates.

Mouth: Mucosa moist. Normal dentition. Normal tonsils. No erythema of oropharynx. Uvula midline.

Neck: No masses or adenopathy. Supple, normal range of motion.

CV: Normal jugular venous pressure. Regular rate and rhythm, normal S1 and S2, no murmurs, rubs, or gallops. 2+ pulses throughout.

Chest: Lungs clear to auscultation bilaterally. No wheezes, rales, or rhonchi. No dullness to

percussion.

Abdomen: Normoactive bowel sounds. Soft, non-tender, non-distended. No masses. No hepatosplenomegaly. Abdominal aorta not palpable.

Extremities: Right knee without gross deformity, with small effusion and medial joint line tenderness, limited active and passive flexion, positive McMurray test, other provocative tests normal. Strength 5/5 throughout all extremities. No edema, clubbing, or cyanosis.

Neurological: Alert and oriented. Cranial nerves II-XII intact. Strength 5/5 throughout. Reflexes 2+ throughout. Normal sensation to pinprick and light touch. Gait antalgic. No cerebellar signs.

Skin: Warm, dry, intact. No visible rashes.

H&P 360 Field Test Case – C Addison/HTN

STANDARDIZED PATIENT RECRUITMENT REQUIREMENTS:

If any category is NOT APPLICABLE, please type NA next to it.

GENDER: male or female

AGE RANGE: 39-45

RACE: n/a

HEIGHT: n/a

WEIGHT: appx. 20 lbs over recommended weight for height, if possible

INCOMPATIBLE PATIENT CHARACTERISTICS: n/a

Patient behavior, affect, mannerisms:

- Fidgety, bites nails (to signal potential need for cigarette)
- Avoids eye contact, slumps a little, soft spoken, lacks self-confidence, insecure
- Apologize when not able or willing to answer questions/provide detail
- Use halting pace, frequent non-fluencies (e.g., "um") to "buy time," as if trying to come up with "right answers"
- Seems anxious for the medical student to like him/her during encounter, to be appealing in action and appearance
- Occasionally (2-3x) asks medical student to repeat questions/information, signaling loss of concentration, focus

Patient Appearance: neatly dressed in street clothes, well groomed

- ACE bandage on right knee and limp, to signal knee injury/recovering from knee injury, to see how medical student will address, incorporate into the encounter

- Start out sitting in chair, slumping posture, a bit "down in the dumps"

BIOMEDICAL SYMPTOMS

Quick Case Summary - Patient Experience: Adult, 40 years old, in-patient clinical visit w/ primary care physician

Headaches:

- This is your first time coming to this clinic.

- For about 2 years you've been experiencing mild headaches every 6 months – there is no radiation of the pain

- You would describe the pain as "pounding at my temples" When they are at their worst, it feels like "a band squeezing my head".

- Pain scale at their worst = 8/10. When not as severe = 4/10

- At first you only got them once every six months, but you've noticed they are happening more frequently. You've had 2 bad headaches in the past 3 months.

- 6 weeks ago (most recent episode) you had a very intense/sharp (8/10) headache while playing tennis.

- Both times you noticed a pounding (throbbing) in your ears like a drum beat while playing tennis, "Like I can feel my pulse in my ears

- They can last anywhere from 30 minutes to 2 hours.

- The headaches mostly occur when playing tennis but occasionally occur at rest.

- Exertion (playing tennis) definitely seems to make the headache worse. You get relief with Tylenol and rest.

- You noticed you had some blurry vision, twice during those 2 headache episodes, "I was probably just tired."

- You don't think you can continue to function if you keep getting these severe headaches so often.

Right Knee Pain:

- 6 weeks ago when playing tennis (same time you had the last headache) you stumbled and twisted your knee causing a small meniscal tear.

- It was an instant sharp 9/10 pain at the time of the injury. Now the pain is a mild ache at rest, about a 4/10 with walking and worse with climbing stairs. Running is too painful. Sometimes it feels like the knee is going to give out.

- Tylenol provides some pain relief but only temporarily.

- 5 weeks ago you saw an orthopedic surgeon **(Dr. Stevenson) who performed an exam and X-ray.** Diagnosed a small meniscal tear and advised/referred you to physical therapy. You never scheduled an appointment with the physical therapist or followed up with the orthopedist. (Patient has PPO insurance and chose Ortho surgeon directly.)

- You have not played tennis since the headache and knee incident 6 weeks ago. You are disappointed you can't play and worried you won't be able to play tennis like you used to.

Other complaints:

- You notice you've become more forgetful and lack concentration: pt attributes to fatigue

- You've recently felt more irritable, unusual lack of patience with family, friends, co-workers
- You've been feeling tired, less energy/desire to do normal/regular routine

NOTE TO SPS: In the body of this case, BLUE text indicates the patient's response to participant questions. You may paraphrase as long as answers contain the core content.

Checklist Item # 1 - Reason for Visit / Rewarding Open-ended Questions:

If learner begins encounter by asking an open-ended question, such as:

"What brings you into the clinic today?" OR "Tell me about the headache you've been having."

SP Opening Statement:

"I mean other than my headaches and knee problems; I guess I'm doing okay. I try to eat right and exercise. But, I'm just so tired lately, and kind of discouraged. My dentist told me my blood pressure was running high, but I never had it checked after that. I don't really like going to the doctor but I want to get back to my regular life."

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Supplemental Digital Appendix 3
SP Observation Checklist

Observation Checklist for Diabetes Case

Medical Student ID Code: _____ Exam Date: _____

SP's real first name: _____ Exam Room: _____

1	**<u>REASON FOR VISIT / SP OPENING STATEMENT</u>:** Student began the encounter by asking an open-ended question which allowed SP to say the following FULL Opening Statement: - **B Clark: "Well, I'm here to have my diabetes checked for one and I'm just so tired of this burning in my feet and having to go to the bathroom all the time! I can't even sleep at night."** O **YES** – Student started with an open-ended question which allowed SP to say FULL Opening Statement. O **NO** – Student **<u>did not</u>** begin encounter with an open-ended question, therefore, SP was not able to say FULL Opening Statement. O **Partial** – Student interrupted during SP Opening Statement, therefore, SP was not able to complete FULL Opening Statement. **<u>REASON FOR VISIT / SP FOLLOW-UP STATEMENT</u>:** Student facilitated progress in the encounter by asking an open-ended follow-up question which allowed SP to say the following FULL Follow-Up Statement:

	- **B Clark: "Well, I know I was diagnosed with diabetes about 5 years ago. About a year ago she put me on a medication but I only take it when I feel like I need it. I really don't like coming to see the doctor.** **OR** - **B Clark: "It's been going on for the last couple of months. Both of my feet hurt so bad I can't really exercise which I know I need to do to keep the diabetes under control. And I'm peeing all the time but I'm always thirsty and I drink a lot of fluids but my mouth still feels dry and sometimes my gums bleed."** - O **YES** – Student used an open-ended follow-up question which allowed SP to say FULL Follow-Up Statement. O **NO** – Student **did not** use an open-ended follow-up question, therefore, SP was not able to say FULL Follow-Up Statement. O **Partial** – Student interrupted during SP Follow-Up Statement, therefore, SP was not able to complete FULL Follow-Up Statement.
2	**Student gathered relevant biomedical information (e.g., HPI; ROS):** O **YES – Detailed**: Student inquired about multiple aspects of symptoms and/or disease (eg, thoroughly addressed foot pain with location, severity, quality, alleviating/aggravating factors) O **Yes – Partial:** Student inquired about roughly 1-3 details about symptoms and/or disease, but left several details unaddressed (eg, addressed pain location and quality, but not severity, or other factors) O **OMITTED/NOT DONE** – Item not addressed

3	**Student gathered information about <u>Patient's Perception of Health</u>, as follows:**
a	**<u>Understanding/insight of illness/health:</u>** O **YES -** I was able to provide at least basic information (eg, pt has always relied on overall generally good health and not yet come to terms with having to manage diabetes) O **OMITTED/NOT DONE** – Item not addressed
b	**<u>Self-assessed level of control:</u>** O **YES** - I was able to provide at least basic information. (eg, pt does not have clear understanding of severity of diabetes, prefers to believe it is not significant) O **OMITTED/NOT DONE** – Item not addressed
c	**<u>Self-identified strengths and barriers:</u>** O **YES** - I was able to provide at least basic information about a self-identified strength and/or barrier (eg, organizational skills, coping skills, motivation level, too busy/available time). O **OMITTED/NOT DONE** – Item not addressed.
4	**Student gathered information about <u>pt's priorities and goals</u>** (e.g., short-term versus long-term; professional versus personal; health-related versus non-health related)**:** O **YES** - I was able to provide at least basic information O **OMITTED/NOT DONE** – Item not addressed
5	**Student gathered information about <u>pt's psychosocial problems/concerns</u>, as follows:**
a	**<u>Mood:</u>**

	O **YES -** I was able to provide at least basic information O **OMITTED/NOT DONE** – Item not addressed
b	**Thought patterns or content:** O **YES** - I was able to provide at least basic information (eg, thoughts of harming self or others, intrusive or persistent thoughts, racing thoughts). O **OMITTED/NOT DONE** – Item not addressed
c	**Diagnosed or undiagnosed psychiatric disorders:** O **YES** - I was able to provide at least basic information (eg, previously diagnosed or treated depression, anxiety). O **OMITTED/NOT DONE** – Item not addressed.
6	**Student gathered information about pt's behavioral history, as follows:**
a	**Medication management/adherence:** O **YES -** I was able to provide at least basic information O **OMITTED/NOT DONE** – Item not addressed
b	**Nutritional behaviors:** O **YES -** I was able to provide at least basic information. O **OMITTED/NOT DONE** – Item not addressed.
c	**Physical activity and other habits:** O **YES -** I was able to provide at least basic information.

	O **OMITTED/NOT DONE** – Item not addressed.
e	**Substance use/abuse:** O **YES -** I was able to provide at least basic information. O **OMITTED/NOT DONE – Item not addressed.**
7	**Student gathered information about pt's relationship history, as follows:**
a	**Primary relationships (Spouse, children, family):** O **YES -** I was able to provide at least basic information. O **OMITTED/NOT DONE** – Item not addressed
b	**Secondary relationships (Friends, coworkers):** O **YES -** I was able to provide at least basic information. O **OMITTED/NOT DONE** – Item not addressed.
c	**Social support:** O **YES -** I was able to provide at least basic information. O **OMITTED/NOT DONE** – Item not addressed.
d	**Experience with violence/abuse:** O **YES:** I was able to provide at least basic information. O **OMITTED/NOT DONE** – Item not addressed.
e	. **Level of involvement (e.g., community, family, workplace):**

	O **YES:** I was able to provide at least basic information. O **OMITTED/NOT DONE** – Item not addressed.
8	**Student gathered information about <u>pt's resources</u> (past, current or future), as follows:**
a	**<u>Food security:</u>** O **YES -** I was able to provide at least basic information O **OMITTED/NOT DONE** – Item not addressed
b	**<u>Housing stability:</u>** O **YES -** I was able to provide at least basic information O **OMITTED/NOT DONE** – Item not addressed
c	**<u>Financial status:</u>** O **YES -** I was able to provide at least basic information O **OMITTED/NOT DONE** – Item not addressed
d	**<u>Transportation and other infrastructure access, including health care:</u>** O **YES -** I was able to provide at least basic information O **OMITTED/NOT DONE** – Item not addressed
9	**Student gathered information about <u>pt's functional status</u> (past, current or future), as follows:**
	<u>Social and occupational functioning</u> (e.g., overall satisfaction with daily life, work, recreational and other activities, relationships)**:**

	O **YES -** I was able to provide at least basic information O **OMITTED/NOT DONE** – Item not addressed.
10	**For any of the following categories, did the student conduct an especially detailed or thorough inquiry? (eg, asked multiple follow-up questions, or covered all of the details on the topic provided in the case)**(check all that apply - in Qualtrics, we can program to only show the list of items for which the SP checked "Yes" above) ☐ Patient's perception of health ☐ Patients goals and priorities ☐ Psychosocial problems/concerns (mood, thought patterns, psychiatric disorders) ☐ Behavioral health (medication adherence, nutrition, physical activity, substance use ☐ Relationships ☐ Resources (food, housing, finances, transportation) ☐ Functional status
11	**<u>SUMMARY: Student provided problem-focused assessment</u>** (e.g., shared assessment of level of control; trajectory of condition; shared goal; psychosocial influences): O **YES -** Student shared their assessment of one or more problems O **OMITTED/NOT DONE** – Item not addressed
12	**<u>PLAN / NEXT STEPS: Student discussed a plan</u>** (e.g., care team actions, clinical and external; pt/family, including self-management, therapy/monitoring, disposition follow-up): O **YES:** Student discussed a plan for one or more problems O **OMITTED/NOT DONE** – Item not addressed

13	**<u>TIME MANAGEMENT:</u> Student managed time effectively** O **YES –** Student obtained all relevant information in the appropriate level of detail; summarized visit, asked additional questions, presented and discussed assessment and plan of action. O **NO –** Student **<u>ran out of time</u>**, was not able to complete ____ (please specify): O **NO –** Student **<u>ended encounter early</u>**, did not address ____ (please specify):
14	**<u>PROFESSIONALISM:</u> Student acted professionally** O **YES –** Student treated pt with respect, acknowledged pt input and feedback, was supportive and non-judgmental. O **SOMEWHAT** – Student lacked consistency throughout the encounter. O **NO –** Student exhibited signs of impatience, did not acknowledge pt input and feedback, was not supportive and gave impression of being biased, judgmental.

COMMUNICATION CHECKLIST

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1 - Interview Structure and Sequence - Check all that apply

- ☐ Greeted pt by FIRST AND LAST NAME printed on the chart upon entering the room
- ☐ Asked how pt prefers to be addressed
- ☐ Introduced self by FIRST AND LAST NAME (FIRST NAME only is optional.)
- ☐ Identified role
- ☐ Identified level of education (e.g., 3rd-year medical student)
- ☐ Confirmed reason for visit
- ☐ Elicited pt's full set of concerns
- ☐ Set a clear agenda for the encounter (e.g., "I'm going to take your history and perform a physical exam. After that, we'll discuss next steps regarding your care.")
- ☐ Organized the encounter effectively, prioritizing pt concerns w/ pt input
- ☐ Closed the encounter effectively (e.g., summarized the information obtained; explained what the next steps would be, such as reporting back to the attending, scheduling a follow-up visit, ordering tests)
- ☐ Other (please list):

2 - Questioning and Listening Skills – Check all that apply

- ☐ Used open-ended questions to elicit information
- ☐ Used direct/follow-up questions to clarify/confirm information
- ☐ Listened actively using VERBAL techniques (e.g., echoing pt's concerns, summarizing/paraphrasing pt

information for accuracy, praising pt for proper health care technique, recommending change supportively, diplomatically regarding unhealthy habits, did not repeat questions unless needed for clarification)

☐ Listened actively using NON-VERBAL techniques (e.g., eye contact, open body language facing pt, nodding to indicate understanding)

☐ Encouraged pt participation/feedback throughout the encounter, using appropriate transitional words, phrases (e.g., "So, now that we've discussed your work, let's move on to your relationships.")

☐ Allowed pt to finish statements/did not interrupt or "cut off" pt while speaking

☐ Used common, pt-friendly language instead of medical jargon (if medical jargon used, was able to explain meaning in lay terms for clarification)

☐ Other (please list):

3 - Patient Centeredness, Education and Partnership – Check all that apply

☐ Explored pt's beliefs AND/OR concerns about the problem(s)

☐ Delivered information interactively, conversationally versus in lecture-type format

☐ Provided appropriate opportunity for pt to ask questions

☐ Was honest and direct with information AND/OR with answers to pt's question/concerns

☐ Demonstrated genuine caring/empathy for pt's problem(s) AND/OR situation (e.g., NURS-name, understand, respect, support)

☐ Created a safe environment for pt to discuss concerns/issues through verbal positive reinforcement (e.g.,

"That sounds really upsetting."), tone of voice, affirming vocal expression or sound (e.g., "Uh-huh.")

☐ Created a safe environment for pt to discuss concerns/issues through non-verbal positive reinforcement (e.g., an appropriate touch of the hand or shoulder, appropriate facial expression, reorientation of physical space toward or away from pt)

☐ Attended to pt reaction(s) (e.g., asked if pt needed a break)

☐ Discussed goals and treatment options with pt, collaborating with pt on next steps, as appropriate

☐ Worked to assure pt understanding by reiterating information delivered AND/OR by asking pt to repeat back information delivered (e.g., teach-back)

☐ Other (please list):

4 - English Proficiency/Speech Pattern – Check all that apply

☐ Student articulated and pronounced words in a way that could be clearly understood

☐ Student used correct and/or comprehensible English vocabulary and grammar

☐ If language/speech pattern was a potential barrier, student took steps to confirm pt understanding

☐ If language/speech pattern was a potential barrier, student seemed unaware and/or DID NOT take steps to confirm pt understanding

☐ Other (please list):

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Observation Checklist for Hypertension Case

Medical Student ID Code: _____ Exam Date: _____

SP's real first name: _____ Exam Room: _____

1 **a**	**<u>REASON FOR VISIT / SP OPENING STATEMENT</u>:** Student began the encounter by asking an open-ended question which allowed SP to say the following FULL Opening Statement: - **C Addison: "I mean other than my headaches and knee problems; I guess I'm doing okay. I try to eat right and exercise. But, I'm just so tired lately, and kind of discouraged. My dentist told me my blood pressure was running high, but I never had it checked after that. I don't really like going to the doctor."** O **YES** – Student started with an open-ended question which allowed SP to say FULL Opening Statement. O **NO** – Student **<u>did not</u>** begin encounter with an open-ended question, therefore, SP was not able to say FULL Opening Statement.
b	O **Partial** – Student interrupted during SP Opening Statement, therefore, SP was not able to complete FULL Opening Statement.

	REASON FOR VISIT / SP FOLLOW-UP STATEMENT: Student facilitated progress in the encounter by asking an open-ended follow-up question which allowed SP to say the following FULL Follow-Up Statement: - **C Addison: "Every so often over the past couple of years, I get a headache when I play tennis. Then 6 weeks ago, when I hurt my knee, my head hurt so bad I couldn't even think straight. A couple of times, my ear drums felt like they were going to pound right out of my head! I felt really discouraged when I hurt my knee."** O **YES** – Student used an open-ended follow-up question which allowed SP to say FULL Follow-Up Statement. O **NO** – Student **did not** use an open-ended follow-up question, therefore, SP was not able to say FULL Follow-Up Statement. O **Partial** – Student interrupted during SP Follow-Up Statement, therefore, SP was not able to complete FULL Follow-Up Statement.
2	**Student gathered relevant biomedical information (e.g., HPI; ROS):** O **YES – Detailed**: Student inquired about multiple aspects of symptoms and/or disease (eg, thoroughly addressed headache or knee pain with location, severity, quality, alleviating/aggravating factors) O **Yes – Partial:** Student inquired about roughly 1-3 details about symptoms and/or disease, but left several details unaddressed (eg, addressed pain location and quality, but not severity, or other factors) O **OMITTED/NOT DONE** – Item not addressed
3	**Student gathered information about Patient's Perception of Health, as follows:**

a	**Understanding/insight of illness/health:** O **YES -** I was able to provide at least basic information (eg, pt has always relied on overall generally good health and has avoided the doctor to, not really come to terms with having hypertension) O **OMITTED/NOT DONE** – Item not addressed
b	**Self-assessed level of control:** O **YES** - I was able to provide at least basic information. (eg, pt does not have clear understanding of severity of high blood pressure, prefers to believe it is not significant) O **OMITTED/NOT DONE** – Item not addressed
c	**Self-identified strengths and barriers:** O **YES** - I was able to provide at least basic information about a self-identified strength and/or barrier (eg, organizational skills, coping skills, motivation level, too busy/available time). O **OMITTED/NOT DONE** – Item not addressed.
4	**Student gathered information about pt's priorities and goals** (e.g., short-term versus long-term; professional versus personal; health-related versus non-health related)**:** O **YES** - I was able to provide at least basic information O **OMITTED/NOT DONE** – Item not addressed
5	**Student gathered information about pt's psychosocial problems/concerns, as follows:**
a	**Mood:** O **YES** - I was able to provide at least basic information

	O **OMITTED/NOT DONE** – Item not addressed
b	**<u>Thought patterns or content:</u>** O **YES** - I was able to provide at least basic information (eg, thoughts of harming self or others, intrusive or persistent thoughts, racing thoughts). O **OMITTED/NOT DONE** – Item not addressed
c	**<u>Diagnosed or undiagnosed psychiatric disorders:</u>** O **YES** - I was able to provide at least basic information (eg, previously diagnosed or treated depression, anxiety). O **OMITTED/NOT DONE** – Item not addressed.
6	**Student gathered information about <u>pt's behavioral history</u>, as follows:**
a	**<u>Medication management/adherence:</u>** O **YES -** I was able to provide at least basic information O **OMITTED/NOT DONE** – Item not addressed
b	**<u>Nutritional behaviors:</u>** O **YES -** I was able to provide at least basic information. O **OMITTED/NOT DONE** – Item not addressed.
c	**<u>Physical activity and other habits:</u>** O **YES -** I was able to provide at least basic information. O **OMITTED/NOT DONE** – Item not addressed.
d	

	Substance use/abuse: O **YES -** I was able to provide at least basic information. O **OMITTED/NOT DONE – Item not addressed.**
7	**Student gathered information about pt's relationship history, as follows:**
a	**Primary relationships (Spouse, children, family):** O **YES -** I was able to provide at least basic information. O **OMITTED/NOT DONE** – Item not addressed
b	**Secondary relationships (Friends, coworkers):** O **YES -** I was able to provide at least basic information. O **OMITTED/NOT DONE** – Item not addressed.
c	**Social support:** O **YES -** I was able to provide at least basic information. O **OMITTED/NOT DONE** – Item not addressed.
d	**Experience with violence/abuse:** O **YES:** I was able to provide at least basic information. O **OMITTED/NOT DONE** – Item not addressed.
e	. **Level of involvement (e.g., community, family, workplace):** O **YES:** I was able to provide at least basic information. O **OMITTED/NOT DONE** – Item not addressed.
8	**Student gathered information about pt's resources (past, current or future), as follows:**

a	**Food security:** O **YES -** I was able to provide at least basic information O **OMITTED/NOT DONE** – Item not addressed
b	**Housing stability:** O **YES -** I was able to provide at least basic information O **OMITTED/NOT DONE** – Item not addressed
c	**Financial status:** O **YES -** I was able to provide at least basic information O **OMITTED/NOT DONE** – Item not addressed
d	**Transportation and other infrastructure access, including health care:** O **YES -** I was able to provide at least basic information O **OMITTED/NOT DONE** – Item not addressed
9	**Student gathered information about pt's functional status (past, current or future), as follows:**
	Social and occupational functioning (e.g., overall satisfaction with daily life, work, recreational and other activities, relationships)**:** O **YES -** I was able to provide at least basic information O **OMITTED/NOT DONE** – Item not addressed.
10	**For any of the following categories, did the student conduct an especially detailed or thorough inquiry? (eg, asked multiple follow-up questions, or covered all of the details on the topic provided in**

	the case)(check all that apply - in Qualtrics, we can program to only show the list of items for which the SP checked "Yes" above) ☐ Patient's perception of health ☐ Patients goals and priorities ☐ Psychosocial problems/concerns (mood, thought patterns, psychiatric disorders) ☐ Behavioral health (medication adherence, nutrition, physical activity, substance use ☐ Relationships ☐ Resources (food, housing, finances, transportation) ☐ Functional status
11	**SUMMARY: Student provided problem-focused assessment** (e.g., shared assessment of level of control; trajectory of condition; shared goal; psychosocial influences): O **YES -** Student shared their assessment of one or more problems O **OMITTED/NOT DONE** – Item not addressed
12	**PLAN / NEXT STEPS: Student discussed a plan** (e.g., care team actions, clinical and external; pt/family, including self-management, therapy/monitoring, disposition follow-up): O **YES:** Student discussed a plan for one or more problems O **OMITTED/NOT DONE** – Item not addressed
13	**TIME MANAGEMENT: Student managed time effectively**

	O **YES –** Student obtained all relevant information in the appropriate level of detail; summarized visit, asked additional questions, presented and discussed assessment and plan of action. O **NO –** Student **ran out of time**, was not able to complete ____ (please specify): O **NO –** Student **ended encounter early**, did not address ____ (please specify):
1 4	**PROFESSIONALISM: Student acted professionally** O **YES –** Student treated pt with respect, acknowledged pt input and feedback, was supportive and non-judgmental. O **SOMEWHAT** – Student lacked consistency throughout the encounter. O **NO –** Student exhibited signs of impatience, did not acknowledge pt input and feedback, was not supportive and gave impression of being biased, judgmental.

COMMUNICATION CHECKLIST
1 - Interview Structure and Sequence - Check all that apply

☐ Greeted pt by FIRST AND LAST NAME printed on the chart upon entering the room

☐ Asked how pt prefers to be addressed

☐ Introduced self by FIRST AND LAST NAME (FIRST NAME only is optional.)

☐ Identified role

☐ Identified level of education (e.g., 3rd-year medical student)

☐ Confirmed reason for visit

☐ Elicited pt's full set of concerns

☐ Set a clear agenda for the encounter (e.g., "I'm going to take your history and perform a physical exam. After that, we'll discuss next steps regarding your care.")

☐ Organized the encounter effectively, prioritizing pt concerns w/ pt input

☐ Closed the encounter effectively (e.g., summarized the information obtained; explained what the next steps would be, such as reporting back to the attending, scheduling a follow-up visit, ordering tests)

☐ Other (please list):

2 - Questioning and Listening Skills – Check all that apply

☐ Used open-ended questions to elicit information

☐ Used direct/follow-up questions to clarify/confirm information

- ☐ Listened actively using VERBAL techniques (e.g., echoing pt's concerns, summarizing/paraphrasing pt information for accuracy, praising pt for proper health care technique, recommending change supportively, diplomatically regarding unhealthy habits, did not repeat questions unless needed for clarification)
- ☐ Listened actively using NON-VERBAL techniques (e.g., eye contact, open body language facing pt, nodding to indicate understanding)
- ☐ Encouraged pt participation/feedback throughout the encounter, using appropriate transitional words, phrases (e.g., "So, now that we've discussed your work, let's move on to your relationships.")
- ☐ Allowed pt to finish statements/did not interrupt or "cut off" pt while speaking
- ☐ Used common, pt-friendly language instead of medical jargon (if medical jargon used, was able to explain meaning in lay terms for clarification)
- ☐ Other (please list):

3 - Patient Centeredness, Education and Partnership – Check all that apply

- ☐ Explored pt's beliefs AND/OR concerns about the problem(s)
- ☐ Delivered information interactively, conversationally versus in lecture-type format
- ☐ Provided appropriate opportunity for pt to ask questions
- ☐ Was honest and direct with information AND/OR with answers to pt's question/concerns
- ☐ Demonstrated genuine caring/empathy for pt's problem(s) AND/OR situation (e.g., NURS-name, understand, respect, support)

- ☐ Created a safe environment for pt to discuss concerns/issues through verbal positive reinforcement (e.g., "That sounds really upsetting."), tone of voice, affirming vocal expression or sound (e.g., "Uh-huh.")
- ☐ Created a safe environment for pt to discuss concerns/issues through non-verbal positive reinforcement (e.g., an appropriate touch of the hand or shoulder, appropriate facial expression, reorientation of physical space toward or away from pt)
- ☐ Attended to pt reaction(s) (e.g., asked if pt needed a break)
- ☐ Discussed goals and treatment options with pt, collaborating with pt on next steps, as appropriate
- ☐ Worked to assure pt understanding by reiterating information delivered AND/OR by asking pt to repeat back information delivered (e.g., teach-back)
- ☐ Other (please list):

4 - English Proficiency/Speech Pattern – Check all that apply

- ☐ Student articulated and pronounced words in a way that could be clearly understood
- ☐ Student used correct and/or comprehensible English vocabulary and grammar
- ☐ If language/speech pattern was a potential barrier, student took steps to confirm pt understanding
- ☐ If language/speech pattern was a potential barrier, student seemed unaware and/or DID NOT take steps to confirm pt understanding

☐ Other (please list):

Supplemental digital content for Kirley K, Hayer R, Khan T, Johnson E, Sanchez ES, Kosowicz L, Terry V, Henderson D, Krebsbach C, Park YS, Dekhtyar M, Williams BC. Expanding the traditional history and physical examination to address chronic diseases and social needs: A multi-site randomized control trial of four medical schools. Acad Med. 2020;95(11 Suppl).

Supplemental Digital Appendix 4
Standard H&P

Patient:

Age:

Subjective:

Reasons for visit:

History of present illness (Is this a new patient? If yes, complete full history. If not, document pertinent changes)

Past Medical Hx

Medications:

Allergies:

Social Hx:

Family Hx:

ROS:

Objective:

Physical exam:

Data:

Assessment/Plan

1. Problem #1. Summarize status of problem and any issues impacting management.

   Plan:

   - Labs
   - Medications
   - Counseling
   - Resources needed
   - Other

- Follow up and return precautions: Always list a follow up plan for the patient and any symptoms/problems that would warrant repeat evaluation sooner.

2. Problem #2. Summarize status of problem and any issues impacting management

   Plan:

   - Labs
   - Medications
   - Counseling
   - Resources needed
   - Other
   - Follow up and return precautions: Always list a follow up plan for the patient and any symptoms/problems that would warrant repeat evaluation sooner.

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Supplemental Digital Appendix 5
Student Instructions

H&P 360 Instructions

Thank you for agreeing to participate in our study.

You have 20 minutes to review all the documents in this envelope.

After reviewing the contents of this envelope, you conduct a history with a standardized patient. You DO NOT need to conduct a physical exam. You will find objective information about the patient enclosed in this packet on the door chart. This information should take the place of your physical exam.

You should also discuss an assessment and plan with the patient, as if you have already discussed this with an attending physician. We do not expect your assessment and plan to be perfect from a medical standpoint - do your best.

You will have 25 minutes to complete your encounter (history, assessment, and plan) with your patient. You will receive a warning when 5 minutes remain. After your encounter, you will write an H&P note, and complete a very brief survey.

You will find a template for a history and physical enclosed. This may look different from the H&P that you were taught. There is an additional document enclosed that gives further explanation about this H&P. You should use this template to guide your interview with your patient. You do not need to ask questions in the order listed on the template - conduct your interview in any order that you think is appropriate. It may not be possible to ask every question that you might want to ask during the time allotted - use your judgement. For example, you do not need to conduct a complete review of systems; simply ask about those systems that you think are relevant.

We have enclosed scrap paper. You may use that paper or the template to take notes now and while you are in the room with the standardized patient. You can take all the documents in this packet into the room with you during your encounter and while you write your H&P note.

After you review these documents, please refrain from conversation with the other participants until you have completed the study today.

Standard H&P Instructions

Thank you for agreeing to participate in our study.

You have **20 minutes** to review all the documents in this envelope.

After reviewing the contents of this envelope, you conduct a history with a standardized patient. **You DO NOT need to conduct a physical exam.** You will find objective information about the patient enclosed in this packet on the door chart. This information should take the place of your physical exam.

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Supplemental Digital Appendix 6
Mapping of Checklist Items to H&P 360 Domains

Factor	Domain	Checklist Item
1	Perception of health	3a, 3b, 3c
1	Goals and priorities	4
2	Psychosocial concerns	5a, 5b, 5c
2	Behavioral health	6a, 6b, 6c, 6d
3	Relationships	7a, 7b, 7c, 7d, 7e
3	Resources	8a, 8b, 8c, 8d
3	Functional status	9
4	Biomedical	2, 1a, 1b