

Appendices

A.

Emergency Medicine Physical Activity Questionnaire (EMPAQ)

Thank you for taking the time to fill out this anonymous questionnaire. It should take no more than 7 minutes to complete.

Please answer part 1 and part 2 in full and as truthfully as possible, reflecting a typical week for you in recent times**

Working on the front line as ED doctor, we have all experienced firsthand the impact of the Covid-19 pandemic. Part of its devastation is due to the ever-increasing incidence of non-communicable diseases (NCDs) over decades, with rising obesity and physical inactivity (PI), the so-called 'silent pandemic'. PI is now recognised as the fourth leading cause of global mortality. 1 in 3 men and 1 in 4 women in the UK are classified as physically inactive, by not adhering to the latest physical activity (PA) guidelines. Latest research by Hamer et al (2020) has shown that habitual PA reduces the risk of severe Covid-19 infection by up to 40%, after accounting for confounders. With ever-increasing pressures of rising ED attendances, we need to act to directly reduce this burden for ourselves, but also improve not only our patients' health, but our own as well.

Working in conjunction with the Division of Surgery and Interventional Sciences at University College London (UCL) and the Royal College of Emergency Medicine (RCEM), this questionnaire has been formulated and expanded using the Global Physical Activity Questionnaire (GPAQ) developed by the World Health Organisation (WHO). It takes into account the latest edition of the 2020 PA and sedentary behaviour (SB) guidelines (<https://www.who.int/publications/i/item/9789240015128>) and has been applied to doctors who work in an emergency care setting.

By taking part in this questionnaire you consent to the use of the data provided. You can navigate back or forwards and can save or exit the questionnaire at any time.

If you have any questions or queries please email me (removed)

Part 1

A. Baseline demographic data

1. Age (yy)
2. Sex: male/female/other/prefer not to say
3. Ethnicity: White: British, Irish, any other White background
Mixed: White and Black Caribbean/White and Black African/White and Asian/Another other mixed group
Asian or Asian British: Indian/Pakistani/Bangladeshi/Chinese/Any other Asian background
Black, African, Caribbean or Black British: African/Caribbean/Any other Black, African or Caribbean background
Other ethnic group: Arab/any other ethnic group

4. Marital status: Single/in a relationship/married/divorced/widowed/separated
5. Job role: F1/F2/CT1-2/JCF/CT3-ST6/SCF/trust grade/consultant/GP/other (if other, please specify)
6. Name of hospital currently employed at:
7. Height (nearest cm)
8. Weight (nearest Kg)
9. Smoking status: never/ex-smoker/current smoker
10. How many diagnosed co-morbidities do you have, if any? (if 0 skip to Q12)
11. Do any of your co-morbidities affect your ability to be physically active? Yes or no (if yes please very briefly explain how below)
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12. How would you rate your health? Excellent/very good/good/fair/poor

Definition

Vigorous intensity physical activity: On a scale relative to an individual's personal capacity, vigorous-intensity physical activity is usually a 7 or 8 on a scale of 0–10. Using the talk test, you would not be able to say more than a few words before needing to take a breath.

B. Activity at work

13. Does your work involve vigorous-intensity activity that causes large increases in breathing or heart rate [like carrying or lifting heavy loads, digging or construction work] for at least 10 minutes continuously?

Yes or no (if no, skip to Q16)

14. In a typical week, on how many days do you do vigorous- intensity activities as part of your work?

.....days

15. How much time do you spend doing vigorous-intensity activities at work on a typical day?

.....hoursminutes

Definition

Moderate intensity physical activity: On a scale relative to an individual's personal capacity, moderate-intensity physical activity is usually a 5 or 6 on a scale of 0–10. Using the talk test is another way of deciding on moderate intensity - you could talk doing the activity but not sing.

16. Does your work involve moderate-intensity activity that causes small increases in breathing or heart rate such as brisk walking [or carrying light loads] for at least 10 minutes continuously?

Yes or no (if no, skip to Q19)

17. In a typical week, on how many days do you do moderate- intensity activities as part of your work?

.....days

18. How much time do you spend doing moderate-intensity activities at work on a typical day?

.....hoursminutes

C. Travel to and from places (exclude physical activities at work that you have already mentioned)

19. Do you walk or use a bicycle (pedal cycle) for at least 10 minutes continuously to get to and from places?

Yes or no (if no, skip to Q22)

20. In a typical week, on how many days do you walk or bicycle for at least 10 minutes continuously to get to and from places?

.....days

21. How much time do you spend walking or bicycling for travel on a typical day?

.....hoursminutes

D. Recreational activities (exclude the work and transport activities that you already mentioned)

Definition

Vigorous intensity physical activity: On a scale relative to an individual's personal capacity, vigorous-intensity physical activity is usually a 7 or 8 on a scale of 0–10. Using the talk test, you would not be able to say more than a few words before needing to take a breath.

22. Do you do any vigorous-intensity sports, fitness or recreational (leisure) activities that cause large increases in breathing or heart rate like [running or football,] for at least 10 minutes continuously?

Yes or no (if no, skip to Q25)

23. In a typical week, on how many days do you do vigorous- intensity sports, fitness or recreational (leisure) activities?

.....days

24. How much time do you spend doing vigorous-intensity sports, fitness or recreational activities on a typical day?

.....hoursminutes

Definition

Moderate intensity physical activity: On a scale relative to an individual's personal capacity, moderate-intensity physical activity is usually a 5 or 6 on a scale of 0–10. Using the talk test is another way of deciding on moderate intensity - you could talk doing the activity but not sing.

25. Do you do any moderate-intensity sports, fitness or recreational (leisure) activities that causes a small increase in breathing or heart rate such as brisk walking,(cycling, swimming, volleyball)for at least 10 minutes continuously?

Yes or no (if no, skip to Q28)

26. In a typical week, on how many days do you do moderate-intensity sports, fitness or recreational (leisure) activities?

.....days

27. How much time do you spend doing moderate-intensity sports, fitness or recreational (leisure) activities on a typical day?

.....hoursminutes

E. Sedentary behaviour (includes sitting or reclining at work, home, getting to and from places or with friends (includes sitting at a desk, sitting with friends, travelling in a car, bus, train, reading, watching TV etc. Do not include time spent sleeping)

28. Are you aware of the latest adult WHO physical activity and sedentary behaviour guidelines 2020 advice of at least 150-300 minutes moderate-intensity aerobic physical activity or at least 75-150 minutes vigorous-intensity aerobic physical activity throughout the week, and that adults should limit the amount of time being sedentary?

Yes or no

29. How much time do you usually spend sitting or reclining on a typical day? **DO NOT** include time spent sleeping.

.....hoursminutes

F. Muscle strengthening activities (includes activities such as heavy lifting at work or home, gym machines, swimming, resistance bands, weights or body weight exercises (e.g. push ups, sit ups)).

30. How many time per week do you undertake muscle strengthening activities involving all major muscle groups (legs, back, abdomen, chest, shoulders and arms)?

31. Are you aware of the latest adult WHO physical activity and sedentary behaviour guidelines 2020 advice for muscle-strengthening activities at moderate or greater intensity on 2 or more days a week?

Yes or no

G. Other considerations

32. Are you pregnant or postpartum?

Yes or no

33. Are you living with disability?

Yes or no (if yes, please specify)

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Part 2

H. General

34. Do you monitor your physical activity by a device (e.g. phone, watch, step counter etc...)?

Yes or no

35. What are the main barriers to achieving the physical activity guidelines (select as many as appropriate)?:

None/shift patterns/length of shift/lack of set, structured breaks/work stress/lack of time/cost/lack of motivation/lack of equipment/lack of facilities/lack of knowledge/worry about what people at work would think if I exercised on shift/care duties (e.g. childcare)/other (if other please specify).....

36. Would any of the following solutions help you increase your physical activity levels (select as many as appropriate)?:

None/standing desk option/reduced shift length/hospital gym facilities available/departmental exercise room/improved changing room facilities/improved active commute facilities (e.g. safe bicycle store)/work exercise clubs/free exercise classes (e.g. free app access/gym access)/wearables (e.g. step counter)/other (if other please specify).....

37. Do you feel it is important to ask about physical activity and sedentary behaviour in your history?

Yes or no

38. Do you feel it is important to advise about physical activity and sedentary behaviour in your patient history when relevant?

Yes or no

39. Do you give general advice about physical activity and sedentary behaviour in your consultant when relevant?

Yes or no

40. Do you feel it is important to prescribe physical activity from an ED setting when appropriate?

Yes or no (if yes do to Q42)

41. Do you prescribe physical activity from an ED setting when appropriate?

Yes or no

42. What are the barriers to prescribing physical activity from an ED setting (select as many as appropriate)?

None/I do not feel confident to prescribe physical activity/I do not feel it is relevant for ED doctors to prescribe physical activity/I don't think patients are interested/concern about follow up/I don't have enough time/other (if other please specify).....

43. Would any of the following solutions help to increase physical activity prescription from an ED setting (select as many as appropriate)?

None/signposting to resources e.g. e-learning modules/formal teaching/having hospital/departmental physical activity champion/resources to give to patients (e.g. leaflets)/posters in the waiting room/other (if other please specify).....

44. Overall, how has the Covid-19 pandemic affected your physical activity levels?

Increased my physical activity levels/unchanged/reduced my physical activity levels

45. Overall, how has the Covid-19 pandemic affected your sedentary behaviour levels?

Increased my sedentary behaviour/unchanged/reduced my sedentary behaviour

46. Overall, how has the Covid-19 pandemic affected your muscle strengthening activities?

Increased my muscle strengthening activities/unchanged/reduced my muscle strengthening activities

47. Do you have any comments or suggestions to increase physical activity and reduce sedentary behaviour for ED staff or for patients who attend ED?

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Please leave your email below if you would like to participate in future research and/or would like to be informed of the results of this research

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End of questionnaire - thank you for your participation

If you have any questions or queries please email me: (removed)