<u>Title:</u>

Why undergraduate examination and assessment of knowledge and skills is crucial in capacity planning for the future healthcare workforce in physical activity interventions

Footnotes

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<u>Competing interests:</u> ABG is a member of the World Heart Federation, Emerging Leaders Programme; Honorary Associate Professor, The University of Nottingham; Honorary Visiting Professor, Plymouth Marjon University; CEO of Exercise-Works! MGS has contributed to the 2018/19 update of Movement for Movement resources. FM is an assistant professor in the School of Health Sciences, University of Nottingham, and a member of the Swim England Wellbeing Committee. RK is an associate professor in the School of Health Sciences, University of Nottingham. GM has no relevant affiliations or financial involvement with any organization or entity with a financial interest in or financial conflict with the subject matter or materials discussed in the manuscript. This includes employment, consultancies, honoraria, stock ownership or options, expert testimony, or patents received or pending, or royalties. GM and ABG are recipients of an Erasmus+ Grant 2019. IKR is a retired trauma and orthopaedic surgeon and past president of RCSEd, Chair of Scottish Government Health and Social Care Physical Activity Delivery Group.

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Background

The World Health Organization Global Action Plan on Physical Activity (GAPPA) (#GAPPA) (1) highlights the importance of a systems-wide approach to achieving the global goals for reducing physical inactivity at the national, community, individual and patient levels. Within this scope, objective 1.4 of that Plan details the vision and strategy for capacity planning for the health workforce and the collaborations required for success. This objective is closely linked to existing global and national efforts to enable the future health care professional (HCP) workforce to have the capability and competencies to make every contact count for physical activity support and advice (via brief interventions). A significant part of these goals is to enable the future and current health care workforce to meet the challenges of noncommunicable diseases (NCDs), sustainable development goals (SDGs), and person-centred health care, exemplars of which have been identified in most European countries (2,3). Indeed, a physical activity resource focused approach in undergraduate health care courses such as medicine, nursing and allied health is critical in higher education institutes' (HEIs) strategies (2,4,5) to deliver on these directives.

The case for examining and assessing physical activity: knowledge, competencies, capabilities and confidence

Reaching the potential of knowledge and skill acquisition in physical activity interventions is a challenge in practice (6,7,8). Yet we know that HCP practice influences health care behaviours in patients: this is the basis of "making every contact count" in the UK's National Health Service (NHS (9)). In addition, promotion of physical activity to adults with low or no activity recruited in primary care significantly increases physical activity levels at 12 months, so HCPs are in prime position to effect change in inactive populations (10). To do this though they must be trained (1). Undergraduate training on physical activity from placements to practice would mean that we could harness 160,000 UK NHS student HCPs per year to advocate for the physical activity agenda. This will provide substantial, credible, capacity planning across physical activity systems at the start of all UK/European HCP careers. With global implementation, then surely this at scale change, from the lectures, to placements, to practice would provide a significant social movement for improved patient care. These student skill sets could then be consolidated with leadership support to influence patient care beyond the bedside, and to aspire for boardroom influence. Boardroom influence (decision making at the highest organisational levels such as health boards would enable boards to be more informed, take greater collective action and uphold the principles and values of the NHS and other organisations, as well as the rights and responsibilities of patients, communities and staff on physical activity issues. Indeed, student placements would and could provide fertile opportunities for exchange of knowledge, practices and championing leadership outcomes in many primary and secondary care settings. So why are we not ensuring more widespread and consistent examination and assessment of student HCP's competencies in this area?

Small steps forward...

Lancaster Medical School (LMS) in collaboration with others has committed to examining student's knowledge and skill in a variety of ways, as part of the physical activity and NCDs knowledge and skills curricula. LMS have strengthened their question bank and brief intervention assessment template to ensure their medical students can make brief interventions routine, influence at-scale change for physical activity and fulfil the wider #GAPPA aspirations. Lancaster Medical School is currently collaborating on the examination and assessment methodology with other UK universities, to develop a consistent national approach and identify benchmarking opportunities.

In addition, as part of an Erasmus+ Collaborative Partnership Funding, five European countries (Lithuania, France, Greece, Portugal and Estonia) together with the University of Wolverhampton are delighted to identify and use the VANGUARD project (11) to address the importance of undergraduate student assessments. VANGUARD details can be obtained from Professor George Metsios (co-author) and project lead for VANGUARD. The aim is to use implementation science and embed frameworks to identify and evaluate large scale change based on methodology from the NHS (12) and "change agency".

There will be many who are also working in this area, so let's collaborate and share even more. Please get in touch and let's make this happen, sooner rather than later. The #MovementForMovement community of practice (13, 4, 5) is keen to progress the #GAPPA agenda and the clock is ticking for the healthcare sector to meet the 2030 SDG goals.

...but large leaps await?

Examining and assessing physical activity knowledge and skills of undergraduate HCPs is crucial to implementing the #GAPPA objectives. Now is the time to ensure that physical activity knowledge is taught, learnt and assessed in a meaningful way. This last point is critical, as the nature of an assessment effectively signposts students in terms of what they should be learning and how (14). By assessing them in this domain, HEIs also send the message that physical activity is an essential component of HCP education and their professional practice. The WHO goals depend on this, and we need to ensure that our future health workforce can fulfil their promise as practitioners and leaders. This makes the case for all schools of medicine and health to work together on this essential examination and assessment agenda and with an inter/trans faculty approach.

References

- 1. Global action plan on physical activity 2018–2030: more active people for a healthier world. Geneva: World Health Organization; 2018. Licence: CC BY-NC-SA 3.0 IGO.
- WHO Europe Physical activity country factsheets 2018. Accessed 11 November 2018
 <u>http://www.euro.who.int/en/health-topics/disease-prevention/physical-activity/data-and-statistics/physical-activity-fact-sheets/physical-activity-country-fact-sheets/united-kingdom-of-great-britain-and-northern-ireland</u>
- 3. WHO Europe Physical Activity in the Health Sector Report 2018 Accessed 11 November 2018 http://www.euro.who.int/___data/assets/pdf_file/0008/382337/fs-health-eng.pdf?ua=1
- 4. Gates AB, Ritchie IK, Moffatt F, et al Leadership in physical activity: is this the currency of change in the student healthcare curriculum? British Journal of Sports Medicine 2018;52:1484-1485.
- 5. Gates AB, Swainson MG, Isba R, et al Movement for Movement: a practical insight into embedding physical activity into the undergraduate medical curriculum exemplified by Lancaster Medical School British Journal of Sports Medicine 2019;53:609-610.
- Lowe A, Littlewood C, McLean S, et al Physiotherapy and physical activity: a cross-sectional survey exploring physical activity promotion, knowledge of physical activity guidelines and the physical activity habits of UK physiotherapists BMJ Open Sport & Exercise Medicine 2017;3:e000290. doi: 10.1136/bmjsem-2017-000290
- Freene et al. BMC Sports Science, Medicine and Rehabilitation (2017) 9:19 DOI 10.1186/s13102-017-0084-y

https://researchsystem.canberra.edu.au/ws/portalfiles/portal/21664173/2017_Freene_Are_we_missin g_opportunities.pdf Accessed 7 October 2019.

- 8. Robin Chatterjee, Tim Chapman, Mike GT Brannan and Justin Varney British Journal of General Practice 2017; 67 (663): e668-e675. DOI: <u>https://doi.org/10.3399/bjgp17X692513</u>
- Making Every Contact Count (MECC): Consensus statement Produced by Public Health England, NHS England and Health Education England, April 2016. <u>https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/76</u> <u>9486/Making_Every_Contact_Count_Consensus_Statement.pdf Accessed 8th October 2019</u>.
- Orrow Gillian, Kinmonth Ann-Louise, Sanderson Simon, Sutton Stephen. Effectiveness of physical activity promotion based in primary care: systematic review and meta-analysis of randomised controlled trials BMJ 2012; 344 :e1389
- 11. Erasmus+ Sport Collaborative Partnerships Funding Announcements September 2019. https://eacea.ec.europa.eu/sites/eacea-site/files/results_-_scp.pdf
- 12. Leading Large-Scale Change: A practical guide. NHS 2017 <u>https://www.england.nhs.uk/wp-</u> <u>content/uploads/2017/09/practical-guide-large-scale-change-april-2018-smll.pdf Accessed 7th October</u> <u>2019</u>.
- 13. Gates AB, Kerry R, Moffatt F, et al Movement for movement: exercise as everybody's business? British Journal of Sports Medicine 2017;51:767-768. Accessed 11 November 2019
- Sambell, K. and McDowell, L. (1998). The Construction of the Hidden Curriculum: messages and meanings in the assessment of student learning. Assessment & Evaluation in Higher Education, 23(4), pp.391-402.