

- 1 Booth FW, Roberts CK, Laye MJ. Lack of exercise is a major cause of chronic diseases. *Compr Physiol* 2012; 2(2): 1143-1211
- 2 Durstine JL, Gordon B, Wang Z, Luo X. Chronic Disease and the link to physical activity. *Journal of Sport and Health Science* 2013; 2(1): 3-11
- 3 Teixeira PJ, Carraça EV, Markland D, Silva MN, Ryan RM. Exercise, physical activity, and self-determination theory: a systematic review. *Int J Behav Nutr Phys Act.* 2012;9:78. Published 2012 Jun 22. doi:10.1186/1479-5868-9-78
- 4 Dunning, D., Heath, C., & Suls, J. M. (2004). Flawed Self-Assessment: Implications for Health, Education, and the Workplace. *Psychological Science in the Public Interest*, 5(3), 69–106. <https://doi.org/10.1111/j.1529-1006.2004.00018.x>
- 5 Lovell, Geoff P., El Ansari, Walid and Parker, John K (2010) *Perceived Exercise Benefits and Barriers of Non-Exercising Female University Students in the United Kingdom*. *International Journal of Environmental Research and Public Health*, 7 (3). pp. 784-798. ISSN 1660-4601
- 6 Loehr, V.G., & Baldwin, A.S. (2014). Affective Forecasting Error in Exercise: Differences between Physically Active and Inactive Individuals, *Sport, Exercise, and Performance Psychology*, 3(3), 177-183
- 7 Jones, C.H., Ogilvie, D. Motivations for active commuting: a qualitative investigation of the period of home or work relocation. *Int J Behav Nutr Phys Act* 9, 109 (2012) doi:10.1186/1479-5868-9-109
- 8 Zubala A, MacGillivray S, Frost H, Kroll T, Skelton DA, Gavine A, et al. Promotion of physical activity interventions for community dwelling older adults: A systematic review of reviews. Zeeb H, editor. *PLoS One* [Internet]. 2017 Jul 10 [cited 2019 Aug 13];12(7):e0180902. Available from: <http://dx.plos.org/10.1371/journal.pone.0180902>
- 9 <https://thecaresfamily.org.uk/>
- 10 Newbold JW, Bianchi-Berthouze N, Gold NE, Tajadura-Jiménez A, Williams AC. Musically Informed Sonification for Chronic Pain Rehabilitation: Facilitating Progress & Avoiding Over-Doing. In: *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems* [Internet]. New York, NY, USA: ACM; 2016. p. 5698–703. (CHI '16). Available from: <http://doi.acm.org/10.1145/2858036.2858302>
- 11 Plangger K, Campbell C, Robson K, Montecchi M (2019) Little rewards, big changes: Using exercise analytics to motivate sustainable changes in physical activity, *Information & Management* 2019, 103216, ISSN 0378-7206 <https://doi.org/10.1016/j.im.2019.103216>. <https://www.sciencedirect.com/science/article/abs/pii/S037872061930285X?via%3Dihub>
- 12 Anton Derlyatka, Oleg Fomenko, Felicia Eck, Egor Khmelev, Mark T Elliott (2019) Bright spots, physical activity investments that work: Sweatcoin: a steps generated virtual currency for sustained physical activity behaviour change *Br J Sports Med* <https://bjsm.bmj.com/content/bjsports/early/2019/01/04/bjsports-2018-099739.full.pdf>
- 13 Chatterjee, R; Chapman, T; Brannan, M, and Varney, J. GPs' knowledge, use, and confidence in national physical activity and health guidelines and tools: a questionnaire-based survey of general practice in England. *Br J Gen Pract* 2017 Oct;67(663):e668-e675.
- 14 Church TS, Blair SN. When will we treat physical activity as a legitimate medical therapy....even though it does not come in a pill? *Br J Sports Med* 2009; 43: 80– 1.

- 15 UK Chief Medical Officers' Physical Activity Guidelines 2019  
[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/832868/uk-chief-medical-officers-physical-activity-guidelines.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/832868/uk-chief-medical-officers-physical-activity-guidelines.pdf)
- 16 NHS Digital. Health Survey for England, 2016. 2016.
- 17 Harris T et al (2019) How do we get adults and older adults to do more physical activity and is it worth it? *Br J Cardiol* 2019;26:8–9 <https://bjcardio.co.uk/2019/02/how-do-we-get-adults-and-older-adults-to-do-more-physical-activity-and-is-it-worth-it/>
- 18 NHS Digital, Lifestyles Team (2019) NHS Health Survey for England 2018, Health and Social Care Information Centre <https://digital.nhs.uk/data-and-information/publications/statistical/health-survey-for-england/2018>
- 19 British Heart Foundation. Physical Inactivity Report 2017 - [Internet]. 2017 [cited 2019 Aug 30]. Available from: <https://www.bhf.org.uk/informationsupport/publications/statistics/physical-inactivity-report-2017>
- 20 Clemes S et al (2014) Office Workers' Objectively Measured Sedentary Behavior and Physical Activity During and Outside Working Hours *Journal of Occupational and Environmental Medicine*. 56(3):298–303  
<https://insights.ovid.com/pubmed?pmid=24603203>
- 21 McKinney et al (2016) The health benefits of physical activity and cardiorespiratory fitness *BCMJ*, vol 58 no 3 p131-137 <https://www.bcmj.org/articles/health-benefits-physical-activity-and-cardiorespiratory-fitness>
- 22 Matthews, C. E., et al. (2015). Mortality Benefits for Replacing Sitting Time with Different Physical Activities. *Medicine & Science in Sports & Exercise*, 47.9, 1833-40. <https://www.ncbi.nlm.nih.gov/pubmed/25628179>.
- 23 Kazakos K, Bourlai T, Fujiki Y, Levine J, Pavlidis I. NEAT-o-Games. In: Proceedings of the 10th international conference on Human computer interaction with mobile devices and services - MobileHCI '08 [Internet]. New York, New York, USA: ACM Press; 2008 [cited 2019 Aug 13]. p. 515. Available from: <http://portal.acm.org/citation.cfm?doid=1409240.1409333>
- 24 Stephenson A, McDonough SM, Murphy MH, Nugent CD, Mair JL. Using computer, mobile and wearable technology enhanced interventions to reduce sedentary behaviour: a systematic review and meta-analysis. *Int J Behav Nutr Phys Act* [Internet]. 2017 Dec 11 [cited 2019 Mar 29];14(1):105. Available from: <http://ijbnpa.biomedcentral.com/articles/10.1186/s12966-017-0561-4>
- 25 Stephenson A (2019) Reducing sedentary behaviour in the workplace: using digital health technology <https://pure.ulster.ac.uk/ws/portalfiles/portal/76437712/2019StephensonAPhD.pdf>
- 26 <https://getamoveon.ac.uk/media/pages/events/symposium-2017/3551716348-1563382476/gamo-symposium-booklet.pdf>
- 27 Morris AS, Murphy RC, Shepherd SO, Healy GN, Edwardson CL, Graves LEF. A multi-component intervention to sit less and move more in a contact centre setting: a feasibility study. *BMC Public Health*. 2019;19(1):292. Published 2019 Mar 12. doi:10.1186/s12889-019-6615-6
- 28 OfCom. Adults: Media use and attitudes report 2019 [Internet]. 2019 [cited 2019 Aug 19]. Available from: [https://www.ofcom.org.uk/\\_data/assets/pdf\\_file/0021/149124/adults-media-use-and-attitudes-report.pdf](https://www.ofcom.org.uk/_data/assets/pdf_file/0021/149124/adults-media-use-and-attitudes-report.pdf)
- 29 Government Office for Science / Foresight (2015) How are attitudes and behaviours to the ageing process changing in light of new media and new technology? How might these continue to evolve by 2025 and 2040? [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/455176/gs-15-17-future-ageing-attitudes-new-technology-er08.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/455176/gs-15-17-future-ageing-attitudes-new-technology-er08.pdf)

- 30 Wilson, G, Jones, D, Schofield, P. Experiences of using a wearable camera to record activity, participation and health-related behaviours: Qualitative reflections of using the Sensecam. *Digital Health* 2016. DOI: 10.1177/0141076817700848.
- 31 Watt, A., Swainston, K., & Wilson, G. (2019). Health professionals' attitudes to patients' use of wearable technology. *Digital Health*. <https://doi.org/10.1177/2055207619845544>
- 32 Mercer, K, Li, M, Grindrod, KA. Do wearable activity trackers have a place in pharmacies? *Can Pharm J (Ott)* 2015; 148: 134–137.
- 33 Walsh D, Woods C, Furlong B and McCaffrey N (2016). AN ASSESSMENT OF PATIENT NEED FOR A TECHNOLOGY-ENABLED REMOTE EXERCISE REHABILITATION PROGRAMME AMONG A CHRONIC ILLNESS POPULATION *Front. Public Health. Conference Abstract: 2nd Behaviour Change Conference: Digital Health and Wellbeing*. doi: 10.3389/conf.FPUBH.2016.01.00101
- 34 Buys R, Claes J, Walsh D, et al. Cardiac patients show high interest in technology enabled cardiovascular rehabilitation. *BMC Med Inform Decis Mak*. 2016;16:95. Published 2016 Jul 19. doi:10.1186/s12911-016-0329-9
- 35 Wiratunga N, Cooper K, Wijekoon A, Palihawadana C, Mendham V, Reiter E, Martin K (2019) FitChat: Conversational Artificial Intelligence Interventions for Encouraging Physical Activity in Older Adults, School of Computing and Digital Media, Robert Gordon University, Aberdeen <https://getamoveon.ac.uk/media/pages/publications/3732446674-1576580095/nirmali-wiratunga-fitchat-full-technical-report.pdf>
- 36 Yerrakalva D, Yerrakalva D, Hajna S, Griffin S (2019) Effects of Mobile Health App Interventions on Sedentary Time, Physical Activity, and Fitness in Older Adults: Systematic Review and Meta-Analysis *J Med Internet Res* 2019;21(11):e14343 <https://www.imir.org/2019/11/e14343#ref22>
- 37 Harrison D, Marshall P, Bianchi-Berthouze N, Bird J. Activity tracking: barriers, workarounds and customisation. 2015 Sep 7 [cited 2016 Feb 5];617–21. Available from: <http://dl.acm.org/citation.cfm?id=2750858.2805832>
- 38 Hurling R, Catt M, De Boni M, Fairley B, Hurst T, Murray P, et al. Using internet and mobile phone technology to deliver an automated physical activity program: randomized controlled trial. *J Med Internet Res*. 2007;9(2):e7.
- 39 Fukuoka Y, Haskell W, Lin F, Vittinghoff E. Short- and Long-term Effects of a Mobile Phone App in Conjunction With Brief In-Person Counseling on Physical Activity Among Physically Inactive Women. *JAMA Netw Open* [Internet]. 2019 May 24 [cited 2019 Aug 8];2(5):e194281. Available from: <http://jamanetworkopen.jamanetwork.com/article.aspx?doi=10.1001/jamanetworkopen.2019.4281>
- 40 Schoeppe S, Alley S, Van Lippevelde W, Bray NA, Williams SL, Duncan MJ, et al. Efficacy of interventions that use apps to improve diet, physical activity and sedentary behaviour: a systematic review. *Int J Behav Nutr Phys Act* [Internet]. 2016 Dec 7 [cited 2018 Dec 5];13(1):127. Available from: <http://ijbnpa.biomedcentral.com/articles/10.1186/s12966-016-0454-y>
- 41 McKay FH, Wright A, Shill J, Stephens H, Uccellini M. Using Health and Well-Being Apps for Behavior Change: A Systematic Search and Rating of Apps. *JMIR mHealth uHealth* [Internet]. 2019 Jul 4 [cited 2019 Aug 8];7(7):e11926. Available from: <https://mhealth.jmir.org/2019/7/e11926/>
- 42 Ian Renfree, Danny Harrison, Paul Marshall, Katarzyna Stawarz, Anna Cox (2016) Don't Kick the Habit: The Role of Dependency in Habit Formation Apps in Proceedings of the 34th Annual ACM Conference Extended Abstracts on Human Factors in Computing Systems, Conference paper (text), San Jose, CA, USA <https://dl.acm.org/citation.cfm?doid=2851581.2892495>

- 43 Bondaronek P, Alkhaldi G, Slee A, Hamilton FL, Murray E. Quality of Publicly Available Physical Activity Apps: Review and Content Analysis. JMIR mHealth uHealth [Internet]. 2018 Mar 21 [cited 2019 Aug 8];6(3):e53. Available from: <http://mhealth.jmir.org/2018/3/e53/>
- 44 Kirwan M, Duncan MJ, Vandelanotte C, Mummery WK. Using smartphone technology to monitor physical activity in the 10,000 Steps program: a matched case-control trial. J Med Internet Res [Internet]. 2012 Apr 20 [cited 2019 Aug 13];14(2):e55. Available from: <http://www.jmir.org/2012/2/e55/>
- 45 Munson SA, Consolvo S. Exploring goal-setting, rewards, self-monitoring, and sharing to motivate physical activity. In: Pervasive computing technologies for healthcare (PervasiveHealth), 2012 6th international conference on. 2012. p. 25–32.
- 46 Shieh C, Weaver MT, Hanna KM, Newsome K, Mogos M. Association of self-efficacy and self-regulation with nutrition and exercise behaviors in a community sample of adults. J Community Health Nurs. 2015;32(4):199–211.
- 47 Chen FX, King AC, Hekler EB, Chen FX, King AC, Hekler EB. "healthifying"; exergames. In: Proceedings of the 32nd annual ACM conference on Human factors in computing systems - CHI '14 [Internet]. New York, New York, USA: ACM Press; 2014 [cited 2019 Aug 8]. p. 1855–64. Available from: <http://dl.acm.org/citation.cfm?doid=2556288.2557246>
- 48 Notthoff N, Carstensen LL. Promoting walking in older adults: Perceived neighborhood walkability influences the effectiveness of motivational messages. J Health Psychol [Internet]. 2014; Available from: <http://dx.doi.org/10.1177/1359105315616470>
- 49 Khot RA, Lee J, Aggarwal D, Hjorth L, Mueller F. Tastybeats: Designing palatable representations of physical activity. In: Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems. 2015. p. 2933–42.
- 50 Cavallo DN, Tate DF, Ries A V., Brown JD, DeVellis RF, Ammerman AS. A Social Media–Based Physical Activity Intervention: A Randomized Controlled Trial. Am J Prev Med [Internet]. 2012 Nov 1 [cited 2019 Aug 13];43(5):527–32. Available from: <https://www.sciencedirect.com/science/article/pii/S074937971200520X>
- 51 Hajat, C., Hasan, A., Subel, S. *et al.* The impact of short-term incentives on physical activity in a UK behavioural incentives programme. *npj Digit. Med.* 2, 91 (2019) doi:10.1038/s41746-019-0164-3 <https://www.nature.com/articles/s41746-019-0164-3#article-info>
- 52 Patel M, O’Kane AA. Contextual Influences on the Use and Non-Use of Digital Technology While Exercising at the Gym. In: Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems - CHI '15 [Internet]. New York, New York, USA: ACM Press; 2015 [cited 2019 Aug 8]. p. 2923–32. Available from: <http://dl.acm.org/citation.cfm?doid=2702123.2702384>
- 53 A new rehab app for home-based physio support after knee surgery [https://www.youtube.com/watch?v=9\\_0QAJLyEqY&feature=youtu.be](https://www.youtube.com/watch?v=9_0QAJLyEqY&feature=youtu.be)
- 54 How to get healthier with Alexa <https://www.youtube.com/watch?v=9mjRRxctkNI&feature=youtu.be>
- 55 <https://www.youtube.com/watch?v=vZybbhkgV0U&feature=youtu.be>
- 56 <https://www.youtube.com/watch?v=vtWtN5pLhE4&feature=youtu.be>
- 57 House of Commons Select Committee on Science and Technology report on impact of social media and screen-use on young people’s health January 2019 <https://publications.parliament.uk/pa/cm201719/cmselect/cmsctech/822/82206.htm>

- 58 Daniel Kardefelt-Winther. How does the time children spend using digital technology impact their mental well-being, social relationships and physical activity? An evidence-focused literature review. Innocenti Discussion Paper 2017–02, UNICEF Office of Research – Innocenti, Florence, p20
- 59 David A. Ellis, Brittany I. Davidson, Heather Shaw, Kristoffer Geyer. Do smartphone usage scales predict behavior? *International Journal of Human-Computer Studies*, 2019; 130: 86 DOI: [10.1016/j.ijhcs.2019.05.004](https://doi.org/10.1016/j.ijhcs.2019.05.004)
- 60 Professor Andrew Przybylski (2019) Is technology addiction a myth? BBC <https://www.bbc.com/ideas/videos/is-technology-addiction-a-myth/p07ggx85> 78
- 61 Davis, Nicola (2019) One in four children ‘have problematic smart phone use’, The Guardian, Friday 29 November 2019 [https://www.theguardian.com/society/2019/nov/29/one-in-four-children-have-problematic-smartphone-use?CMP=share\\_btn\\_tw](https://www.theguardian.com/society/2019/nov/29/one-in-four-children-have-problematic-smartphone-use?CMP=share_btn_tw)
- 62 David A. Ellis, Brittany I. Davidson (2019) Digital detoxes are a solution in search of a problem. The Conversation <https://theconversation.com/digital-detoxes-are-a-solution-looking-for-a-problem-106460>
- 63 Biddiss E, Irwin J. Active video games to promote physical activity in children and youth: a systematic review. *Arch Pediatr Adolesc Med* [Internet]. 2010 Jul 5 [cited 2016 Feb 20];164(7):664–72. Available from: <http://archpedi.jamanetwork.com/article.aspx?articleid=383491>
- 64 Norris E, Shelton N, Dunsmuir S, Duke-Williams O and Stamatakis E (2016). Development of Virtual Traveller: A behaviour change intervention to increase physical activity during primary school lessons. *Front. Public Health. Conference Abstract: 2nd Behaviour Change Conference: Digital Health and Wellbeing.* doi: 10.3389/conf.FPUBH.2016.01.00052
- 65 SHAIKH, Atiya A; DANDEKAR, Sukanya P. Perceived Benefits and Barriers to Exercise among Physically Active and Non-Active Elderly People. *Disability, CBR & Inclusive Development*, [S.l.], v. 30, n. 2, p. 73-83, oct. 2019. ISSN 2211-5242. Available at: <http://dcidj.org/article/view/839>>. Date accessed: 15 nov. 2019. doi:<https://doi.org/10.5463/dcid.v30i2.839>.
- 66 <https://streettag.co.uk/>
- 67 Bondaronek P, Slee A, Hamilton FL, et al Relationship between popularity and the likely efficacy: an observational study based on a random selection on top-ranked physical activity apps *BMJ Open* 2019;9:e027536. doi: 10.1136/bmjopen-2018-027536 <https://bmjopen.bmj.com/content/9/11/e027536>