### Supplementary table 4: List of included papers

| Author and year | Title                                                                 |
|-----------------|-----------------------------------------------------------------------|
| Allen 2012 [1]  | Patient and provider interventions for managing osteoarthritis in primary care: protocols for two randomized controlled trials |
| Allen 2017 [2]  | Patient, provider, and combined interventions for managing osteoarthritis in primary care: A cluster randomized trial |
| Andryukhin 2010 [3] | The impact of a nurse-led care programme on events and physical and psychosocial parameters in patients with heart failure with preserved ejection fraction: A randomized clinical trial in primary care in Russia |
| Arden 2017 [4]  | Evaluation of a rolling rehabilitation programme for patients with non-specific low back pain in primary care: an observational cohort study |
| Åsenlöf 2005 [5] | Individually tailored treatment targeting activity, motor behavior, and cognition reduces pain-related disability: A randomized controlled trial in patients with musculoskeletal pain |
| Åsenlöf 2009 [6] | Long-term follow-up of tailored behavioural treatment and exercise based physical therapy in persistent musculoskeletal pain: A randomized controlled trial in primary care |
| Avery 2016 [7]  | Systematic development of a theory-informed multifaceted behavioural intervention to increase physical activity of adults with type 2 diabetes in routine primary care: Movement as Medicine for Type 2 Diabetes |
| Barrett 2017 [8] | Feasibility of a physical activity pathway for Irish primary care physiotherapy services |
| Bearne 2011 [9] | Feasibility of an exercise-based rehabilitation programme for chronic hip pain |
| Bierman 2001 [10] | Functional status, the sixth vital sign |
| Bickerdike 2017 [11] | Social prescribing: less rhetoric and more reality. A systematic review of the evidence |
| Bird 2019 [12]  | General practice referral of ‘at risk’populations to community leisure services: applying the RE-AIM framework to evaluate the impact of a community-based physical activity programme for inactive adults with long-term conditions |
| Bjerk 2017 [13] | A falls prevention programme to improve quality of life, physical function and falls efficacy in older people receiving home help services: Study protocol for a randomised controlled trial |
| Bjerre 2019 [14] | Community-based football in men with prostate cancer: 1-year follow-up on a pragmatic, multicentre randomised controlled trial |
| Boehler 2011 [15] | The cost of changing physical activity behaviour: evidence from a" physical activity pathway" in the primary care setting |
| Bossen 2013 [16] | Effectiveness of a web-based physical activity intervention in patients with knee and/or hip osteoarthritis: randomized controlled trial |
| Brannan 2019 [17] | Moving healthcare professionals—a whole system approach to embed physical activity in clinical practice |
| Bull 1995 [18]  | Beliefs and behaviour of general practitioners regarding promotion of physical activity |
| Author(s)           | Title                                                                                       |
|--------------------|---------------------------------------------------------------------------------------------|
| Bull 2008 [19]     | Evaluation of the Physical Activity Care Pathway London Feasibility Pilot—Final Technical Report |
| Bull and Milton 2010 [20] | A process evaluation of a “physical activity pathway” in the primary care setting.             |
| Campbell 2015 [21] | A systematic review and economic evaluation of exercise referral schemes in primary care: a short report |
| Chaplin 2015 [22]  | The evaluation of an interactive web-based Pulmonary Rehabilitation programme: protocol for the WEB SPACE for COPD feasibility study |
| Chatterjee 2017 [23] | GPs’ knowledge, use, and confidence in national physical activity and health guidelines and tools: a questionnaire-based survey of general practice in England |
| Chong 2014 [24]    | Physical activity program preferences and perspectives of older adults with and without cognitive impairment |
| Comer 2013 [25]    | A Home Exercise Programme Is No More Beneficial than Advice and Education for People with Neurogenic Claudication: Results from a Randomised Controlled Trial |
| Coombes 2015 [26]  | “Exercise is medicine”: Curbing the burden of chronic disease and physical inactivity |
| Copeland 2019 [27] | Evaluation of the Public Health England and Sport England Funded Physical Activity Clinical Advice Pad Pilot |
| Coulter 2016 [28]  | Personalised care planning for adults with chronic or long-term health conditions |
| Craike 2019 [29]   | General practitioner referrals to exercise physiologists during routine practice: A prospective study |
| Croteau 2006 [30]  | Physical activity advice in the primary care setting: results of a population study in New Zealand. |
| Dacey 2014 [31]    | Physical activity counseling in medical school education: a systematic review |
| Daniellson 2016 [32] | Crawling Out of the Cocoon: Patients’ Experiences of a Physical Therapy Exercise Intervention in the Treatment of Major Depression. |
| Dejonghe 2020 [33] | Health coaching for promoting physical activity in low back pain patients: a secondary analysis on the usage and acceptance |
| Devi 2014 [34]     | A web-based program improves physical activity outcomes in a primary care angina population: Randomized controlled trial |
| Din 2015 [35]      | Health professionals’ perspectives on exercise referral from a process evaluation of the National Exercise Referral Scheme in Wales |
| Dunlop and Murray 2013 [36] | Major limitations in knowledge of physical activity guidelines among UK medical students revealed: implications for the undergraduate medical curriculum |
| Eakin 2008 [37]    | The Logan Healthy Living Program: A cluster randomized trial of a telephone-delivered physical activity and dietary behavior intervention for primary care patients with type 2 diabetes or hypertension from a socially disadvantaged community - Rationale, design and recruitment |
| Eakin 2010a [38]   | Living Well with Diabetes: a randomized controlled trial of a telephone-delivered intervention for maintenance of weight loss, physical activity and glycaemic control in adults with type 2 diabetes. |
| Author Year | Title                                                                 |
|-------------|----------------------------------------------------------------------|
| Eakin 2010b | Maintenance of physical activity and dietary change following a      |
|             | telephone-delivered intervention                                     |
| Ewald 2018  | Physical activity coaching by Australian Exercise Physiologists is   |
|             | cost effective for patients referred from general practice           |
| Fife-Schaw 2014 | Comparing exercise interventions to increase persistence with      |
|             | physical exercise and sporting activity among people with hypertension|
|             | or high normal blood pressure: Study protocol for a randomised     |
|             | controlled trial                                                     |
| Forsyth 2009 | Dietitians and exercise physiologists in primary care: Lifestyle    |
|             | interventions for patients with depression and/or anxiety            |
| Gamboa Moreno 2013 | Impact of a self-care education programme on patients with type 2   |
|             | diabetes in primary care in the Basque Country                       |
| Gamboa Moreno 2016 | A Pilot Study to Assess the Feasibility of the Spanish Diabetes     |
|             | Self-Management Program in the Basque Country                       |
| Goode 2012  | Telephone-delivered interventions for physical activity and dietary |
|             | behavior change: an updated systematic review                        |
| Grant 2014 | Exercise as a vital sign: A quasi-experimental analysis of a health  |
|             | system intervention to collect patient-reported exercise levels       |
| Healey 2018 | The feasibility and acceptability of a physical activity intervention|
|             | for older people with chronic musculoskeletal pain: The iPOPP pilot|
|             | trial protocol                                                       |
| Hinrichs 2011a | General practitioner advice on physical activity: analyses in a      |
|             | cohort of older primary health care patients (getABI)                |
| Hinrichs 2011b | Effects of an exercise programme for chronically ill and mobility-   |
|             | restricted elderly with structured support by the general practitioner|
|             | ’s practice (HOMEfit) - study protocol of a randomised controlled   |
|             | trial                                                      |
| Hinrichs 2016 | Home-Based Exercise Supported by General Practitioner Practices:    |
|             | Ineffective in a Sample of Chronically Ill, Mobility-Limited Older  |
|             | Adults (the HOMEfit Randomized Controlled Trial)                     |
| Holden 2012 | Role of exercise for knee pain: What do older adults in the community|
|             | think?                                                              |
| Hurley 2018 | Exercise interventions and patient beliefs for people with hip,      |
|             | knee or hip and knee osteoarthritis: A mixed methods review         |
| Husk 2019  | What approaches to social prescribing work, for whom, and in what   |
|             | circumstances? A realist review                                    |
| James 2017 | Referral for Expert Physical Activity Counseling: A Pragmatic RCT    |
| Janssink 2010 | Primary care nurses struggle with lifestyle counseling in diabetes   |
|             | care: a qualitative analysis                                        |
| Jones 2018 | Development of a physical literacy model for older adults—a consensus|
|             | process by the collaborative working group on physical literacy for  |
|             | older Canadians                                                     |
| Jorgensen 2012 | How do general practitioners in Denmark promote physical activity?  |
| Kosteli 2017 | Barriers and enablers of physical activity engagement for patients  |
|             | with COPD in primary care                                           |
| Lamming 2017 | What do we know about brief interventions for physical activity that |
|             | could be delivered in primary care consultations? A systematic review|
|             | of reviews                                                         |
| Author                  | Title                                                                 |
|------------------------|----------------------------------------------------------------------|
| Leemrijse 2015 [60]    | Collaboration of general practitioners and exercise providers in promotion of physical activity a written survey among general practitioners |
| Leenaars 2016 [61]     | The role of the care sport connector in the Netherlands               |
| Leijon 2008 [62]       | Physical activity referrals in Swedish primary health care - Prescriber and patient characteristics, reasons for prescriptions, and prescribed activities |
| Lindeman 2020 [63]     | The extent to which family physicians record their patients’ exercise in medical records: a scoping review |
| Lion 2019 [64]         | Physical activity promotion in primary care: a Utopian quest?         |
| Lobelo 2009 [65]       | Physical activity habits of doctors and medical students influence their counselling practices |
| Lohmann 2010 [66]      | Fitness consultations in routine care of patients with type 2 diabetes in general practice: An 18-month non-randomised intervention study |
| Loughren 2014 [67]     | ‘Let’s Get Moving’ Physical Activity Care Pathway (Gloucestershire) Post-Programme Evaluation Report. |
| Martin-Borras 2018 [68]| A new model of exercise referral scheme in primary care: is the effect on adherence to physical activity sustainable in the long term? A 15-month randomised controlled trial |
| McDonough 2013 [69]    | Pedometer-driven walking for chronic low back pain: A feasibility randomized controlled trial |
| McKay 2001 [70]        | The Diabetes Network Internet-Based Physical Activity Intervention A randomized pilot study. |
| Melillo 2000 [71]      | Perceptions of nurse practitioners regarding their role in physical activity and exercise prescription for older adults |
| Moore 2013 [72]        | Mixed-method process evaluation of the welsh national exercise referral scheme |
| Morgan 2015 [73]       | Physical ACTivity facilitation for Elders (PACE): Study protocol for a randomised controlled trial |
| Morishita 2014 [74]    | Primary care physicians' own exercise habits influence exercise counseling for patients with chronic kidney disease: A cross-sectional study |
| Faculty of Sport and Exercise Medicine UK 2018 [75] | ‘Moving Medicine’ |
| Muellmann 2018 [76]    | Effectiveness of eHealth interventions for the promotion of physical activity in older adults: A systematic review |
| Murphy 2012 [77]       | An exploratory cluster randomised trial of a university halls of residence based social norms intervention in Wales, UK |
| NHS leading change [78]| Introducing group consultations for adults with Type 2 diabetes |
| NICE 2015 [79]         | Dementia, disability and frailty in later life – mid-life approaches to delay or prevent onset. |
| NICE 2013 [80]         | Physical activity: brief advice for adults in primary care |
| NICE 2014 [81]         | Behaviour change: individual approaches |
| NICE 2014 [82]         | Physical activity: exercise referral schemes. |
| NICE 2019 [83]         | Making Every Contact Count: How NICE resources can support local priorities |
| Author and Year | Title/Description |
|-----------------|-------------------|
| Omura 2018 [84] | Primary care providers’ physical activity counseling and referral practices and barriers for cardiovascular disease prevention |
| Parish 2006 [85] | Examination of the constructs of the Transtheoretical model in patients with heart failure: a focus on physical activity readiness. |
| Parkrun practice [86] | parkrun UK teams up with RCGP to ‘prescribe’ active lifestyles to patients and practice staff |
| Persson 2013 [87] | Physical activity on prescription (PAP) from the general practitioner’s perspective—A qualitative study |
| Pescheny 2018 [88] | Facilitators and barriers of implementing and delivering social prescribing services: a systematic review |
| Prochaska 2000 [89] | PACE Interactive Communication Technology for Behavior Change in Clinical Settings |
| Department of Health 2012 [90] | Let’s Get Moving commissioning guidance |
| Quirk and Haarke 2019 [91] | How can we get more people with long-term health conditions involved in parkrun? A qualitative study evaluating parkrun’s PROVE project |
| Rhodes 2020 [92] | Increasing physical activity by four legs rather than two: systematic review of dog-facilitated physical activity interventions |
| Royal College of General Practitioners [93] | Active Practice' Website |
| Rushforth 2016 [94] | Barriers to effective management of type 2 diabetes in primary care: A qualitative systematic review |
| Savill 2015 [95] | Is general practice engaged with physical activity promotion? |
| Schofield 2005 [96] | Trust levels of physical activity information sources: a population study |
| Shaw 2012 [97] | Exercise for overweight or obesity |
| Short 2016 [98] | Physical activity recommendations from general practitioners in Australia. Results from a national survey |
| Smith 2016 [99] | Interventions for improving outcomes in patients with multimorbidity in primary care and community settings |
| Smith 2019 [100] | Social prescribing programmes to prevent or delay frailty in community-dwelling older adults |
| Stone 2015 [101] | Painful choices: A qualitative exploration of facilitators and barriers to active lifestyles among adults with osteoarthritis |
| Sturgiss 2016 [102] | Increasing general practitioners’ confidence and self-efficacy in managing obesity: A mixed methods study |
| UK Chief Medical Officers 2011 [103] | Start Active, Stay Active: A report on physical activity from the four home countries’ Chief Medical Officers (now updated, see below) |
| UK Chief Medical Officers 2019 [104] | Physical activity guidelines: UK Chief Medical Officers' report |
| Physical Activity Guidelines for Americans [105] | Physical Activity Guidelines for Americans |
| Van der Wulp 2012 [106] | Effectiveness of peer-led self-management coaching for patients recently diagnosed with Type 2 diabetes mellitus in primary care: A randomized controlled trial |
| Reference          | Title                                                                 |
|--------------------|----------------------------------------------------------------------|
| Val Slujis 2005    | Effect of a tailored physical activity intervention delivered in general practice settings: results of a randomized controlled trial |
| Van Slujis 2005    | The positive effect on determinants of physical activity of a tailored, general practice-based physical activity intervention |
| Vanroy 2017        | Short- and long-term effects of a need-supportive physical activity intervention among patients with type 2 diabetes mellitus: A randomized controlled pilot trial |
| Verwey 2014        | A pilot study of a tool to stimulate physical activity in patients with COPD or type 2 diabetes in primary care |
| Verwey 2014        | A monitoring and feedback tool embedded in a counselling protocol to increase physical activity of patients with COPD or type 2 diabetes in primary care: Study protocol of a three-arm cluster randomised controlled trial |
| Verwey 2016        | Upgrading physical activity counselling in primary care in the Netherlands, Oxford University Press. |
| Verwey 2016        | Process evaluation of physical activity counselling with and without the use of mobile technology: A mixed methods study |
| Walsh 1999         | Exercise Counseling by Primary Care Physicians in the Era of Managed Care. |
| Ward 2015          | A Survey of Physical Activity in Medical Curricula: A report of the HEPA in Health Care SettingsHEPA Europe Working Group |
| Weiler 2012        | Physical activity education in the undergraduate curricula of all UK medical schools. Are tomorrow’s doctors equipped to follow clinical guidelines? |
| Weinstock 2011     | Lessened decline in physical activity and impairment of older adults with diabetes with telemedicine and pedometer use: results from the IDEATel study. Age and Ageing 40(1): 98-105. |
| Wheeler 2019       | Primary care knowledge and beliefs about physical activity and health: a survey of primary healthcare team members |
| Wilcox 2010        | Adoption and Implementation of Physical Activity and Dietary Counseling by Community Health Center Providers and Nurses. |
| Williams 2020      | Translating a walking intervention for health professional delivery within primary care: A mixed-methods treatment fidelity assessment. |
| Wormald and Ingle  | Hull and East Riding Primary Care Trusts, Hull. 2 Lecturer in Exercise Physiology. |

**Full reference list**

1. Allen, K.D., et al., Patient, provider, and combined interventions for managing osteoarthritis in primary care: A cluster randomized trial. Annals of Internal Medicine, 2017. 166(6): p. 401-411.
2. Allen, K.D., et al., Patient and provider interventions for managing osteoarthritis in primary care: protocols for two randomized controlled trials, 2012.
3. Andryukhin, A., et al., The impact of a nurse-led care programme on events and physical and psychosocial parameters in patients with heart failure with preserved ejection fraction: A randomized clinical trial in primary care in Russia. European Journal of General Practice, 2010. 16(4): p. 205-214.
4. Arden, K., F. Fatoye, and G. Yeowell, Evaluation of a rolling rehabilitation programme for patients with non-specific low back pain in primary care: an observational cohort study. Journal of Evaluation in Clinical Practice, 2017. 23(2): p. 272-278.

5. Åsenlöf, P., E. Denison, and P. Lindberg, Individually tailored treatment targeting activity, motor behavior, and cognition reduces pain-related disability: A randomized controlled trial in patients with musculoskeletal pain. Journal of Pain, 2005. 6(9): p. 588-603.

6. Åsenlöf, P., E. Denison, and P. Lindberg, Long-term follow-up of tailored behavioural treatment and exercise based physical therapy in persistent musculoskeletal pain: A randomized controlled trial in primary care. European Journal of Pain, 2009. 13(10): p. 1080-1088.

7. Avery, L., et al., Systematic development of a theory-informed multifaceted behavioural intervention to increase physical activity of adults with type 2 diabetes in routine primary care: Movement as Medicine for Type 2 Diabetes. Implement Sci, 2016. 11(1).

8. Barrett, E.M., J. Hussey, and C.D. Darker, Feasibility of a physical activity pathway for Irish primary care physiotherapy services. Physiotherapy, 2017. 103(1): p. 106-112.

9. Bearne, L.M., et al., Feasibility of an exercise-based rehabilitation programme for chronic hip pain. Musculoskeletal Care, 2011. 9(3): p. 160-168.

10. Bierman, A.S., Functional status, the sixth vital sign. Journal of General Internal Medicine, 2001(16): p. 785-786.

11. Bickerdike, L., et al., Social prescribing: less rhetoric and more reality. A systematic review of the evidence. BMJ open, 2017. 7(4): p. e013384.

12. Bird, E.L., M.S.Y. Biddle, and J.E. Powell, General practice referral of ‘at risk’populations to community leisure services: applying the RE-AIM framework to evaluate the impact of a community-based physical activity programme for inactive adults with long-term conditions. BMC public health, 2019. 19(1): p. 1308.

13. Bjerk, M., et al., A falls prevention programme to improve quality of life, physical function and falls efficacy in older people receiving home help services: Study protocol for a randomised controlled trial. BMC Health Services Research, 2017. 17(1).

14. Bjerre, E.D., et al., Community-based football in men with prostate cancer: 1-year follow-up on a pragmatic, multicentre randomised controlled trial. PLoS medicine, 2019. 16(10).

15. Boehler, C., et al., The cost of changing physical activity behaviour: evidence from a “physical activity pathway” in the primary care setting. BMC Public Health, 2011. 11(1): p. 370-370.

16. Bossen, D., et al., Effectiveness of a web-based physical activity intervention in patients with knee and/or hip osteoarthritis: randomized controlled trial. Journal of medical Internet research, 2013. 15(11).

17. Brannan, M., et al., Moving healthcare professionals—a whole system approach to embed physical activity in clinical practice. BMC Med Educ, 2019. 19(1): p. 84.

18. Bull, F.C.L., et al., Beliefs and behaviour of general practitioners regarding promotion of physical activity. Australian Journal of Public Health, 1995. 19(3): p. 300-304.

19. Bull, F., K. Milton, and C. Boehler, Evaluation of the Physical Activity Care Pathway London Feasibility Pilot—Final Technical Report, 2008: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/192041/Evaluation_of_the_Physical_Activity_Care_Pathway_London_Feasibility_Pilot_-_Report.pdf.

20. Bull, F.C. and K.E. Milton, A process evaluation of a "physical activity pathway" in the primary care setting. BMC Public Health, 2010. 10(1): p. 463.

21. Campbell, F., et al., A systematic review and economic evaluation of exercise referral schemes in primary care: a short report. Health Technol Assess, 2015. 19(60).

22. Chaplin, E., et al., The evaluation of an interactive web-based Pulmonary Rehabilitation programme: protocol for the WEB SPACE for COPD feasibility study. BMJ open, 2015. 5(8): p. e008055.
23. Chatterjee, R., et al., *GP's 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. 67(663): p. e668-e675.

24. Chong, T.W.H., et al., *Physical activity program preferences and perspectives of older adults with and without cognitive impairment*. Asia-Pacific Psychiatry, 2014. 6(2): p. 179-190.

25. Comer, C., et al., *A Home Exercise Programme Is No More Beneficial than Advice and Education for People with Neurogenic Claudication: Results from a Randomised Controlled Trial*. PLoS ONE, 2013. 8(9).

26. Coombes, J.S., et al., *"Exercise is medicine": Curbing the burden of chronic disease and physical inactivity*. Asia-Pacific Journal of Public Health, 2015. 27(2): p. NP600-NP605.

27. Copeland, R., et al., *Evaluation of the Public Health England and Sport England Funded Physical Activity Clinical Advice Pad Pilot*, 2019: Sheffield: National Centre for Sport and Exercise Medicine.

28. Coulter, A., et al., *Personalised care planning for adults with chronic or long-term health conditions*. Cochrane Database Syst Rev, 2015. 3(3).

29. Craike, M., et al., *General practitioner referrals to exercise physiologists during routine practice: A prospective study*. Journal of science and medicine in sport, 2019. 22(4): p. 478-483.

30. Croteau, K., G. Schofield, and G. McLean, *Physical activity advice in the primary care setting: results of a population study in New Zealand*. Australian and New Zealand journal of public health, 2006. 30(3): p. 262-267.

31. Dacey, M.L., et al., *Physical activity counseling in medical school education: a systematic review*. Medical education online, 2014. 19(1): p. 24325.

32. Danielsson, L., B. Kihlbom, and S. Rosberg, *"Crawling Out of the Cocoon": Patients' Experiences of a Physical Therapy Exercise Intervention in the Treatment of Major Depression*, 2016.

33. Devi, R., J. Powell, and S. Singh, *A web-based program improves physical activity outcomes in a primary care angina population: Randomized controlled trial*. Journal of Medical Internet Research, 2014. 16(9).

34. Eakin, E.G., et al., *The Logan Healthy Living Program: A cluster randomized trial of a telephone-delivered physical activity and dietary behavior intervention for primary care patients with type 2 diabetes or hypertension from a socially disadvantaged community - Rationale, design and recruitment*. Contemporary Clinical Trials, 2008. 29(3): p. 439-454.

35. Eakin, E.G., et al., *Living Well with Diabetes: a randomized controlled trial of a telephone-delivered intervention for maintenance of weight loss, physical activity and glycaemic control in adults with type 2 diabetes, 2010.*

36. Eakin, E., et al., *Maintenance of physical activity and dietary change following a telephone-delivered intervention*. Health Psychology, 2010. 29(6): p. 566-573.

37. Ewald, B., et al., *Physical activity coaching by Australian Exercise Physiologists is cost effective for patients referred from general practice*. Aust N Z J Public Health, 2018. 42(1): p. 12-15.
41. Fife-Schaw, C., et al., *Comparing exercise interventions to increase persistence with physical exercise and sporting activity among people with hypertension or high normal blood pressure: Study protocol for a randomised controlled trial*. Trials, 2014. 15(1).

42. Forsyth, A., F.P. Deane, and P. Williams, *Dietitians and exercise physiologists in primary care: Lifestyle interventions for patients with depression and/or anxiety*. Journal of Allied Health, 2009.

43. Gamboa Moreno, E., et al., *Impact of a self-care education programme on patients with type 2 diabetes in primary care in the Basque Country*. BMC Public Health, 2013. 13(1).

44. Gamboa Moreno, E., et al., *A Pilot Study to Assess the Feasibility of the Spanish Diabetes Self-Management Program in the Basque Country*. Journal of diabetes research, 2016. 2016: p. 9145673-9145673.

45. Goode, A.D., M.M. Reeves, and E.G. Eakin, *Telephone-delivered interventions for physical activity and dietary behavior change: an updated systematic review*. Am J Prev Med, 2012. 42(1): p. 81-88.

46. Grant, R.W., et al., *Exercise as a vital sign: A quasi-experimental analysis of a health system intervention to collect patient-reported exercise levels*. Journal of General Internal Medicine, 2014. 29(2): p. 341-348.

47. Healey, E.L., et al., *The feasibility and acceptability of a physical activity intervention for older people with chronic musculoskeletal pain: The iPOPP pilot trial protocol*. Musculoskeletal Care, 2018. 16(1): p. 118-132.

48. Hinrichs, T., et al., *General practitioner advice on physical activity: analyses in a cohort of older primary health care patients (getABI)*. BMC family practice, 2011. 12(1): p. 26.

49. Hinrichs, T., et al., *Effects of an exercise programme for chronically ill and mobility-restricted elderly with structured support by the general practitioner's practice (HOMEfit) - study protocol of a randomised controlled trial*. Trials, 2011. 12.

50. Hinrichs, T., et al., *Home-Based Exercise Supported by General Practitioner Practices: Ineffective in a Sample of Chronically Ill, Mobility-Limited Older Adults (the HOMEfit Randomized Controlled Trial)*. Journal of the American Geriatrics Society, 2016. 64(11): p. 2270-2279.

51. Holden, M.A., et al., *Role of exercise for knee pain: What do older adults in the community think?* Arthritis Care and Research, 2012. 64(10): p. 1554-1564.

52. Hurley, M., et al., *Exercise interventions and patient beliefs for people with hip, knee or hip and knee osteoarthritis: A mixed methods review*, 2018, John Wiley and Sons Ltd.

53. Husk, K., et al., *Barriers and enablers of physical activity engagement for patients with COPD in primary care*. Scandinavian Journal of Primary Health Care, 2012. 30(3): p. 141-146.

54. James, E.L., et al., *Referral for Expert Physical Activity Counseling: A Pragmatic RCT*. American Journal of Preventive Medicine 2017. 53(4): p. 490-499.

55. Jansink, R., et al., *Primary care nurses struggle with lifestyle counseling in diabetes care: a qualitative analysis*. BMC family practice, 2010. 11(1): p. 41.

56. Jones, G.R., et al., *Development of a physical literacy model for older adults—a consensus process by the collaborative working group on physical literacy for older Canadians*. 2018.

57. Jørgensen, T.K., M. Nordentoft, and J. Krogh, *How do general practitioners in Denmark promote physical activity?* Scandinavian Journal of Primary Health Care, 2012. 30(3): p. 141-146.

58. Kosteli, M.C., et al., *Barriers and enablers of physical activity engagement for patients with COPD in primary care*. International Journal of COPD, 2017. 12: p. 1019-1031.

59. Lamming, L., et al., *What do we know about brief interventions for physical activity that could be delivered in primary care consultations? A systematic review of reviews*. Prev Med, 2017. 99: p. 152-163.
60. Leemrijse, C.J., et al., Collaboration of general practitioners and exercise providers in promotion of physical activity: a written survey among general practitioners. BMC Family Practice, 2015. 16(1): p. 1-9.
61. Leenaars, K.E., et al., The role of the care sport connector in the Netherlands. Health Promotion International, 2016.
62. Leijon, M.E., et al., Physical activity referrals in Swedish primary health care: Prescriber and patient characteristics, reasons for prescriptions, and prescribed activities. BMC Health Services Research, 2008. 8.
63. Lindeman, C., et al., The extent to which family physicians record their patients’ exercise in medical records: a scoping review. BMJ open, 2020. 10(2).
64. Lion, A., et al., Physical activity promotion in primary care: a Utopian quest? Health promotion international, 2019. 34(4): p. 877-886.
65. Lobelo, F., J. Duperly, and E. Frank, Physical activity habits of doctors and medical students influence their counselling practices. Br J Sports Med online, 2009. 43(2): p. 89-92.
66. Lohmann, H., V. Siersma, and N.F. Olivarius, Fitness consultations in routine care of patients with type 2 diabetes in general practice: An 18-month non-randomised intervention study. BMC Family Practice, 2010. 11.
67. Loughren, E.A., C. Baker, and D. Crone, ‘Let’s Get Moving’ Physical Activity Care Pathway (Gloucestershire) Post-Programme Evaluation Report., 2014: http://eprints.glos.ac.uk/2378/.
68. Martin-Borràs, C., et al., A new model of exercise referral scheme in primary care: is the effect on adherence to physical activity sustainable in the long term? A 15-month randomised controlled trial. BMJ Open, 2018. 8(3): p. e017211-e017211.
69. McDonough, S.M., et al., Pedometer-driven walking for chronic low back pain: A feasibility randomized controlled trial. Clinical Journal of Pain, 2013. 29(11): p. 972-981.
70. McKay, H.G., et al., The Diabetes Network Internet-Based Physical Activity Intervention A randomized pilot study, 2001.
71. Melillo, K.D., et al., Perceptions of nurse practitioners regarding their role in physical activity and exercise prescription for older adults. Clinical excellence for nurse practitioners : the international journal of NPACE, 2000. 4(2): p. 108-116.
72. Moore, G.F., et al., Mixed-method process evaluation of the welsh national exercise referral scheme. Health Education 2013.
73. Morgan, G.S., et al., Physical Activity facilitation for Elders (PACE): Study protocol for a randomised controlled trial. Trials, 2015. 16(1).
74. Morishita, Y., et al., Primary care physicians’ own exercise habits influence exercise counseling for patients with chronic kidney disease: A cross-sectional study. BMC Nephrology, 2014. 15(1).
75. Faculty of Sport and Exercise Medicine. Moving Medicine. 2018.
76. Muellmann, S., et al., Effectiveness of eHealth interventions for the promotion of physical activity in older adults: A systematic review. Prev Med, 2018. 108: p. 93-110.
77. Murphy, S., et al., An exploratory cluster randomised trial of a university halls of residence based social norms intervention in Wales, UK. BMC Public Health, 2012. 12(186): p. 1471-2458.
78. NHS Leading Change Adding Value Team. Introducing group consultations for adults with Type 2 diabetes. 2019-2020.
79. National Institute for Clinical Excellence, Dementia, disability and frailty in later life – mid-life approaches to delay or prevent onset, 2015.
80. National Institute for Clinical Excellence, Physical activity: brief advice for adults in primary care. London: Nice public health guidance 2013: p. 44.
81. National Institute for Clinical Excellence, Behaviour change: individual approaches, 2014.
82. National Institute for Clinical Excellence, Physical activity: exercise referral schemes, 2014.
83. National Institute for Clinical Excellence. *Making Every Contact Count: How NICE resources can support local priorities.* [cited 2019; Available from: https://stpsupport.nice.org.uk/mecc/index.html.

84. Omura, J.D., et al., *Primary care providers’ physical activity counseling and referral practices and barriers for cardiovascular disease prevention.* Preventive Medicine, 2018. **108**: p. 115-122.

85. Rena Parish, T. and B.B.S. Tracie Rena Parish, *Examination of the constructs of the Transtheoretical model in patients with heart failure: a focus on physical activity readiness,* 2006.

86. RCGP and Parkrun, *parkrun UK teams up with RCGP to ‘prescribe’ active lifestyles to patients and practice staff* 21st June 2018 [cited 2019.

87. Persson, G., et al., *Physical activity on prescription (PAP) from the general practitioner’s perspective—a qualitative study.* BMC family practice, 2013. **14**(1): p. 128.

88. Pescheny, J.V., Y. Pappas, and G. Randhawa, *Facilitators and barriers of implementing and delivering social prescribing services: a systematic review.* BMC health services research, 2018. **18**(1): p. 86.

89. Prochaska, J.J., et al., *PACE Interactive Communication Technology for Behavior Change in Clinical Settings,* 2000. p. 127-131.

90. Department of Health, *Resources for commissioning Let’s Get Moving interventions 2012 05/04/2020*.

91. Quirk, H. and S. Haake, *How can we get more people with long-term health conditions involved in parkrun? A qualitative study evaluating parkrun’s PROVE project.* BMC Sports Sci Med Rehabil, 2019. **11**(1): p. 22.

92. Rhodes, R.E., et al., *Increasing physical activity by four legs rather than two: systematic review of dog-facilitated physical activity interventions.* British Journal of Sports Medicine, 2020.

93. Royal College of General Practitioners. *RCGP Active Practice Charter.* 2019 [cited 2019; Available from: https://r1.dotdigital-pages.com/p/49 LX-51R/active-practice-charter.

94. Rushforth, B., et al., *Barriers to effective management of type 2 diabetes in primary care: qualitative systematic review. Br J Gen Pract,* 2016. **66**(643): p. e114-e127.

95. Savill, B., A. Murray, and R. Weiler, *Is general practice engaged with physical activity promotion? Br J Gen Pract,* 2015. **65**(638): p. 484-485.

96. Schofield, G., K. Croteau, and G. McLean, *Trust levels of physical activity information sources: a population study.* Health Promotion Journal of Australia, 2005. **16**(3): p. 221-224.

97. Shaw, R., et al., *Pre-exercise screening and health coaching in CHD secondary prevention: A qualitative study of the patient experience.* Health Education Research, 2012. **27**(3): p. 424-436.

98. Short, C.E., et al., *Physical activity recommendations from general practitioners in Australia. Results from a national survey.* Australian and New Zealand Journal of Public Health, 2016. **40**(1): p. 83-90.

99. Smith, S.M., et al., *Interventions for improving outcomes in patients with multimorbidity in primary care and community settings.* Cochrane Database of Systematic Reviews, 2016(3).

100. Smith, T.O., et al., *Social prescribing programmes to prevent or delay frailty in community-dwelling older adults.* Geriatrics, 2019. **4**(4): p. 65.

101. Stone, R.C. and J. Baker, *Painful choices: a qualitative exploration of facilitators and barriers to active lifestyles among adults with osteoarthritis.* Journal of Applied Gerontology, 2015. **36**(9): p. 1091-1116.

102. Sturgiss, E., et al., *Increasing general practitioners’ confidence and self-efficacy in managing obesity: a mixed methods study BMJ open 2017.* **7**(1): p. e014314.

103. Department of Health, P.A., Health Improvement and Protection, *Start Active, Stay Active: A report on physical activity from the four home countries’ Chief Medical Officers* (Now
104. UK CMOs, Physical activity guidelines: UK chief medical officers’ report, 2019: https://www.gov.uk/government/publications/physical-activity-guidelines-uk-chief-medical-officers-report.

105. US Department of Health and Human Services, Physical Activity Guidelines for Americans, 2nd edition, 2018: Washington, DC.

106. Van der Wulp, I., et al., Effectiveness of peer-led self-management coaching for patients recently diagnosed with Type 2 diabetes mellitus in primary care: A randomized controlled trial. Diabetic Medicine, 2012. 29(10).

107. van Sluijs, E.M.F., et al., Effect of a tailored physical activity intervention delivered in general practice settings: results of a randomized controlled trial. American Journal of Public Health, 2005. 95(10): p. 1825-1831.

108. Van Sluijs, E.M.F., et al., The positive effect on determinants of physical activity of a tailored, general practice-based physical activity intervention. Health education research, 2005. 20(3): p. 345-356.

109. Vanroy, J., et al., Short- and long-term effects of a need-supportive physical activity intervention among patients with type 2 diabetes mellitus: A randomized controlled pilot trial. PLoS ONE, 2017. 12(4).

110. Verwey, R., et al., A pilot study of a tool to stimulate physical activity in patients with COPD or type 2 diabetes in primary care. Journal of Telemedicine and Telecare, 2014. 20(1): p. 29-34.

111. Verwey, R., et al., A monitoring and feedback tool embedded in a counselling protocol to increase physical activity of patients with COPD or type 2 diabetes in primary care: Study protocol of a three-arm cluster randomised controlled trial. BMC Family Practice, 2014. 15(1).

112. Verwey, R.D.S.e., et al. Upgrading physical activity counselling in primary care in the Netherlands. Oxford University Press.

113. Verwey, R., et al., Process evaluation of physical activity counselling with and without the use of mobile technology: A mixed methods study. International Journal of Nursing Studies, 2016. 53: p. 3-16.

114. Walsh, J.M.E., et al., Exercise Counseling by Primary Care Physicians in the Era of Managed Care, 1999.

115. Ward, M., A Survey of Physical Activity in MedicalCurricula: A report of the HEPA in Health Care Settings, 2015: HEPA Europe Working Group.

116. Weiler, R., et al., Physical activity education in the undergraduate curricula of all UK medical schools. Are tomorrow’s doctors equipped to follow clinical guidelines? British journal of sports medicine, 2012. 46(14): p. 1024-1026.

117. Weinstock, R.S., et al., Lessened decline in physical activity and impairment of older adults with diabetes with telemedicine and pedometer use: results from the IDEATel study. Age and Ageing, 2011. 40(1): p. 98-105.

118. Wheeler, P.C., et al., Primary care knowledge and beliefs about physical activity and health: a survey of primary healthcare team members. BJGP open, 2017. 1(2).

119. Wilcox, S., et al., Adoption and Implementation of Physical Activity and Dietary Counseling by Community Health Center Providers and Nurses, 2004.

120. Williams, S.L., et al., Translating a walking intervention for health professional delivery within primary care: A mixed-methods treatment fidelity assessment. Br J Health Psychol, 2019. 25(1): p. 17-38.

121. Wormald, H. and L. Ingle, GP exercise referral schemes: Improving the patient’s experience. Education Journal, 2004. 63(4): p. 362-373
