

# Curriculum Vitae

Oscar Castro, PhD

Postdoctoral Researcher

Future Health Technologies programme

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[Google Scholar](#) | [ORCID](#) | [Research Gate](#) | [X \(Twitter\)](#) | [LinkedIn](#)

## Education

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- 2017–2021 PhD in Physical Activity and Public Health, University of Southern Queensland, Brisbane, Australia. Degree certificate available [here](#).
- 2014–2016 MSc (Hons) in Sport and Exercise Psychology, University of Jyväskylä, Jyväskylä, Finland (GPA: 4.69/5). Degree certificate and transcript of records available [here](#).
- 2009–2013 BSc (Hons) in Psychology, University of Valencia, Valencia, Spain (GPA: 9.03/10, outstanding graduate award). Degree certificate and transcript of records available [here](#).

## Academic posts

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A brief overview for each project is available via hyperlinks, including main tasks performed. In case of more than one project per position, the percentages reflect the working time spent for each project.

- 2022– (ongoing, 1.0 FTE) **Postdoctoral Researcher**, Future Health Technologies, Singapore-ETH Centre, Singapore, Singapore. [Projects](#):
- Development and evaluation of “LvL UP”: A smartphone-based, conversational agent-delivered holistic lifestyle intervention for primary prevention (95%).
  - Translating the behaviour change technique taxonomy version 1 into Spanish: Methodology and validation (5%).
- 2020–2021 (18 months, 1.0 FTE) **Research Fellow**, Centre for Behaviour Change, University College London, London, UK. [Projects](#):
- The Human Behaviour-Change Project: An artificial intelligence system to answer questions about changing behaviour (90%).
  - Understanding how the Streetspace measures introduced during the COVID-19 pandemic have impacted walking and cycling (5%).
  - Assessing open science practices in physical activity behaviour change intervention evaluations (5%).

- 2020 (6 months, 0.2 FTE)      **Research Assistant**, Institute for Resilient Regions, University of Southern Queensland, Brisbane, Australia. [Project](#):
- Effects of martial arts and combat sports participation on mental health across the lifespan: A systematic review.
- 2018 (5 months, 0.2 FTE)      **Research Assistant**, Institute for Resilient Regions, University of Southern Queensland, Brisbane, Australia. [Projects](#):
- Physical activity and sedentary behaviour information on the internet for cancer survivors: A systematic content analysis (60%).
  - What behaviour change techniques increase participation in mail-out colorectal cancer screening? A realist review (40%).
- 2016–2017 (9 months, 1.0 FTE)      **Research Trainee**, Laboratoire Epsilon, University of Montpellier, Montpellier, France. [Projects](#):
- Investigating the mediating role of cohesion in the student personality – engagement relationship: A multi-level approach (60%).
  - Using exploratory structure equation modelling to validate a new measure of cohesion: The University Group Environment Questionnaire (40%).
- 2015 (4 months, 0.5 FTE)      **Research Trainee** (practicum - unpaid), Faculty of Sport and Health Science, University of Jyväskylä, Jyväskylä, Finland. [Project](#):
- Effectiveness of motivational methods used to promote physical activity in rehabilitation settings: A systematic review and meta-analysis.
- 2013–2014 (9 months, 0.3 FTE)      **Research Trainee**, Research Group of Sport Psychology, University of Valencia, Valencia, Spain. [Project](#):
- Promoting adolescent health through an intervention aimed at improving the quality of their sport participation (PAPA project).

## Funding

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- 2018      Q1 Challenge: Internal grant to stimulate multidisciplinary research projects, University of Southern Queensland. Funds contributed to my employment as research assistant – **€4,200 EUR**.
- 2017      3.5-year international stipend and tuition fees scholarship to support doctoral studies, University of Southern Queensland – **€64,000 EUR**.
- 2016      Erasmus+ traineeship, European Commission. Funds contributed to my research trainee’s living allowance (University of Montpellier) – **€6,750 EUR**.
- 2014      2-year postgraduate stipend and tuition fees scholarship to support master level studies abroad, ‘la Caixa’ banking foundation – **€40,000 EUR**.
- 2013      Research training scholarship for university students, Spanish Ministry of Education, Culture and Sport. Funds contributed to my research trainee’s living allowance (University of Valencia) – **€3,800 EUR**.

## Memberships

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- 2022– (ongoing) Scientific committee: Centre for Behaviour Change conference.  
▪ Help identify speakers and topics of interest (scientific programme); Review abstracts and suggest reviewers; Chair oral and poster sessions.
- 2016–2017 Spanish country representative for the European Network of Young Specialists in Sport and Exercise Psychology (ENYSSP).  
▪ Promote and facilitate cross-national cooperation for research, education, and applied work in sport and exercise psychology; Contribute to the ENYSSP newsletter.

## Peer reviewer

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### Editorial board (consulting editor)

- 2025– (ongoing): [Applied Psychology: Health and Well-Being](#).

### Grant proposal reviewer

- 2024: European Science Foundation.
- 2025– (ongoing): Member of the European Science Foundation's [College of Expert Reviewers](#).

### Journal reviewer

Ad-hoc reviewer for a wide range of journals in multiple disciplines including:

- Health psychology / Public health: British Journal of Health Psychology, PLOS ONE, AIMS Public Health, Frontiers in Public Health, HRB Open Research, Frontiers in Digital Health.
- Physical activity and exercise: Journal of Physical Activity & Health, European Journal of Sport Science, International Journal of Sport and Exercise Psychology, Journal of Activity, Sedentary and Sleep Behaviors, European Journal of Adapted Physical Activity, Performance Enhancement & Health, Asian Journal of Sport and Exercise Psychology.
- Higher education health: Health Education Journal, Journal of American College Health.
- Developmental health: European Journal of Pediatrics, Journal of Intellectual Disability Research.

### Reviewer for scientific conferences

- 2025: UbiComp / ISWC: Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT).
- 2023: International Society of Behavioural Nutrition and Physical Activity (ISBNPA) conference.
- 2022 & 2023: International Joint Conference on Biomedical Engineering Systems and Technologies (BIOSTEC).
- 2022– (ongoing): Centre for Behaviour Change (CBC) conference.

### Expert consultation

- 2025: Invited to review and endorse Canada's 2025 position statement on active outdoor play.

- 2022: Three-round Delphi [study](#) – What should all health professionals know about movement behaviour change? Study conducted at the University of Queensland, Australia.
- 2020: Validation process of an ecologic momentary assessment questionnaire focused on sedentary time. Study conducted at the Université du Québec à Trois-Rivières, Canada.

## Teaching contributions

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| 2025 (6 hours, on-campus)              | <p><b>Lecturer</b>, Nanyang Technological University, Singapore, Singapore.</p> <ul style="list-style-type: none"> <li>▪ Keynote as part of the Precision Digital Therapeutics Master Class for PhD students and postdoctoral researchers: ‘Optimizing Precision Digital Therapeutics’.</li> <li>▪ Advice to, and grading of, team projects throughout the 1-week Master Class.</li> </ul> |
| 2022 (12 hours, on-campus)             | <p><b>Lecturer</b>, Singapore University of Technology and Design, Singapore, Singapore.</p> <ul style="list-style-type: none"> <li>▪ Lectures and workshops for architecture MSc students on built environment &amp; digital health.</li> <li>▪ Master’s thesis advice.</li> </ul>  |
| 2021 (8 hours, on-campus)              | <p><b>Lecturer</b>, University of Geneva, Geneva, Switzerland.</p> <ul style="list-style-type: none"> <li>▪ One-day introductory course on behaviour change science as part of the ‘Behavioural sciences applied to health promotion’ Certificate of Advanced Studies (CAS).</li> </ul>  |
| 2021 (5 hours, online)                 | <p><b>Lecturer (assistant)</b>, University College London, London, UK.</p> <ul style="list-style-type: none"> <li>▪ Assist with delivery of mentoring sessions as part of the UCL’s Centre for Behaviour Change international summer school.</li> </ul>  |
| 2016 (3 workshops x2 hours, on-campus) | <p><b>Workshop facilitator</b>, University of Jyväskylä, Jyväskylä, Finland.</p> <ul style="list-style-type: none"> <li>▪ Deliver motivational climate workshops to help coaches understand how to make youth sport engaging and enjoyable.</li> </ul>   |

## Invited talks

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| 2025 (1.5 hours, online) | <p>Virtual session series of the Iberoamerican Cochrane Network.</p> <ul style="list-style-type: none"> <li>▪ Invited talk: “The Behaviour Change Intervention Ontology and its application to evidence synthesis”. Recording available <a href="#">here</a> (in Spanish).</li> </ul>   |
| 2024 (1 hour, on-campus) | <p>Department of Health Psychology &amp; Behavioral Medicine, University of Bern, Bern, Switzerland.</p> <ul style="list-style-type: none"> <li>▪ Invited talk as part of the University of Bern’s brown bag seminar series: ‘Development and evaluation of "LvL UP": A mHealth intervention for preventing non-communicable diseases in Southeast Asian populations’.</li> </ul> |
| 2023 (1.5 hours, online) | <p>Centre for Quantitative Medicine, Duke-NUS Medical School, Singapore, Singapore.</p>   |

- Invited talk as part of the seminar ‘Methods in Action’, together with Dr Bibhas Chakraborty: ‘An introduction to Sequential, Multiple Assignment, Randomized Trial (SMART) designs’.

2023 (1 hour, online) Singapore Nutrition and Dietetics Association (SNDA), Singapore, Singapore.  
 ▪ Invited talk: “Singapore-ETH Centre’s future health technologies programme: An overview of the mobile health interventions module”.

2023 (2 hours, online) The University of Santiago, Santiago, Chile.  
 ▪ Invited talk: ‘How to apply behavioural science for promoting health and sustainability’.

2022 (1.5 hours, online) Centre for Digital Health Interventions, ETH Zurich, Zurich, Switzerland.  
 ▪ Invited talk: ‘Introducing the Behaviour Change Wheel: A practical guide for developing interventions’. Recording available [here](#).

## Outreach and media contributions

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- 2026: Featured in the ‘Faces of FHT’ interview series, introducing different staff members from Singapore-ETH Centre’s Future Health Technologies programme. Video available [here](#).
- 2025: Showcased Singapore-ETH Centre’s research on mobile health interventions as part of a public outreach initiative. Video available [here](#).
- 2025: Discussed ontologies and their potential application to improve evidence synthesis in behavioural science – Podcast. Recording available [here](#).
- 2024– (ongoing): [Personal website](#)’s blog featuring reflections on health behaviour change, recent research, and academic updates.
- 2020: Student Life Talking Sedentary Behaviour with Oscar Castro (interview) – University of Southern Queensland Student Life. Video available [here](#).
- 2020: How sedentary are university students? A systematic review and meta-analysis – Study featured in the Sedentary Behaviour Research Network’s newsletter. Post available [here](#).
- 2017: The Behaviour Change Wheel: A guide to design interventions. Newsletter (issue 3; p 14-16) – European Network of Young Specialists in Sport and Exercise Psychology (ENYSSP). Newsletter available [here](#).
- 2013: TennisPsico – A blog dedicated to bridging the gap between psychology and the racquet sport par excellence. Ideal for players, coaches, and tennis enthusiasts. Blog available [here](#) (in Spanish).

## Data analysis experience

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- **Quantitative analyses:** basic descriptive & correlational analysis, single-level and multilevel regression analysis, sample size / power calculations, missing-data imputation, and inter-coder reliability analysis. Specific to meta-analysis: compute effect sizes, quantify heterogeneity, explore sources of heterogeneity (sub-group and meta-regression analyses), and estimate publication bias.

- **Qualitative analyses:** deductive and inductive qualitative analyses (e.g., directed content analysis, thematic analysis), trustworthiness (e.g., member checking, triangulation, use of ‘critical friends’).
- **Accelerometer-derived data processing:** ActivPAL and ActiGraph.
- **Software:** Mplus, R, SPSS, Comprehensive Meta-Analysis Software, Excel, Atlas.ti, and Nvivo.

## Honours and awards

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- 2024 Best poster award. 12th International Society for Research on Internet Interventions (ISRII) conference, Limerick, Ireland.
- 2019 PhD Confirmation of Candidature document selected for inclusion at the University of Southern Queensland’s exemplary confirmation proposal database.
- 2016 2nd best poster presentation. 12th European Network of Young Specialists in Sport Psychology Conference, Warsaw, Poland.
- 2013 Outstanding graduate award for the 2nd highest GPA among the University of Valencia’s psychology students graduating in the academic course 2012/2013.

## Work experience

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- 2018 (6 months, part-time) **Tennis Instructor**, Baseline tennis coaching, Brisbane, Australia.
  - Teach the basic strokes and main tactical aspects of tennis for players aged 6-17.
- 2016 (4 months, part-time) **Sport Psychologist** (Practicum - unpaid), Faculty of Sport and Health Science, University of Jyväskylä, Jyväskylä, Finland.
  - Deliver motivational climate workshops to help coaches understand how to make youth sport engaging and enjoyable.
- 2012-2013 (9 months, part-time) **Sport Psychologist** (Practicum - unpaid), TennisVal - Altur & Alvariño, Valencia, Spain.
  - Develop, implement, and evaluate a psychological training program for young professional tennis players aged 14-18.
- 2011-2013 (3 years, part-time) **Tennis Instructor**, Powerplay tennis academy, Valencia, Spain.
  - Teach the basic strokes and main tactical aspects of tennis for players aged 6-14.

## Volunteer roles

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- 2018 Brisbane Tennis International ATP 250, Brisbane, Australia.
  - Player services.
- 2016 EUCAPA (European Congress of Adapted Physical Activity), Olomouc, Czech Republic.
  - Assist in the organisation of the congress.

- 2015 Finnish Conference of Sport Science, Jyväskylä, Finland.  
 ▪ Assist in the organisation of the conference.
- 2014 AVALCAB (Association of Patients with Eating Disorders), Valencia, Spain.  
 ▪ Co-lead a bi-weekly self-help group for 6 months.
- 2013 Valencia Tennis Open ATP 500, Valencia, Spain.  
 ▪ Courtesy car driver.

## Languages

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- Spanish (Castilian) – Native speaker
- English – Proficient level (C1)
- Catalan / Valencian – Proficient level (C1)
- French – Intermediate level (B1)

## List of publications

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First-authored publications are presented first (\* indicates shared first authorship). Full texts are provided via hyperlink to the title. You can also check my [Google Scholar](#) profile.

### Journal articles

26. **Castro, O.**, Norris, E., Wright, A. J., Hayes, E., Howes, E., Moore, C., West, R., & Michie, S. (2025). [From smoking cessation to physical activity: Can ontology-based methods for automated evidence synthesis generalise across behaviour change domains?](#). *Wellcome Open Research*, 9(402), 402. <https://doi.org/10.12688/wellcomeopenres.21664.1>
25. **Castro, O.\***, Mair, J. L.\*, Zheng, S., Tan, S. Y. X., Jabir, A. I., Yan, X., Chakraborty, B., Tai, E. S., van Dam, R. M., van Wangenheim, F., Fleisch, E., Griva, K., Kowatsch, T., & Müller-Riemenschneider, F. (2025). [The LvL UP Trial: Protocol for a sequential, multiple assignment, randomized controlled trial to assess the effectiveness of a blended mobile lifestyle intervention](#). *Contemporary Clinical Trials*, 150, 107833. <https://doi.org/10.1016/j.cct.2025.107833>
24. **Castro, O.\***, Salamanca-Sanabria, A.\*, Alattas, A., Teepe, G., Leidenberger, K., Fleisch, E., Tudor Car, L., Falk Müller-Riemenschneider., Kowatsch, T. (2024). [Top-funded companies offering digital health interventions for the prevention and treatment of depression: A systematic market analysis](#). *Archives of Public Health*, 82, 200. <https://doi.org/10.1186/s13690-024-01424-z>
23. **Castro, O.**, Fajardo, G., Johnston, M., Laroze, D., Leiva-Pinto, E., Figueroa, O., Corker, E., Chacón-Candia, J., & Duarte, G. (2024). [Translating the behaviour change technique taxonomy version 1 into Spanish: Methodology and validation](#). *Wellcome Open Research*, 9(298), 298. <https://doi.org/10.12688/wellcomeopenres.21388.1>
22. **Castro, O.\***, Mair, J. L.\*, Salamanca-Sanabria, A.\*, Alattas, A., Keller, R., Zheng, S., Jabir, A. I., Lin, X., Frese, B. F., Lim, C. S., Santhanam, P., van Dam, M. R., Car, J., Lee, J., Tai, E. S., Fleisch, E., von Wangenheim, F., Tudor-Car, L., Müller-Riemenschneider, F., & Kowatsch, T. (2023). [Development of ‘LvL UP 1.0’: A smartphone-based, conversational agent-delivered holistic](#)

- [lifestyle intervention for the prevention of non-communicable diseases and common mental disorders](#). *Frontiers in Digital Health*, 5, 1039171. <https://doi.org/10.3389/fdgth.2023.1039171>
21. Mair, J. L.\*, **Castro, O.\***, Salamanca-Sanabria, A., Frese, B. F., Von Wangenheim, F., Tai, E. S., Kowatsch, T., & Müller-Riemenschneider, F. (2023). [Exploring the potential of mobile health interventions to address behavioural risk factors for the prevention of non-communicable diseases in Asian populations: A qualitative study](#). *BMC Public Health*, 23(1), 753. <https://doi.org/10.1186/s12889-023-15598-8>
  20. **Castro, O.**, Vergeer, I., Bennie, J., & Biddle, S. J. H. (2021). [Feasibility of reducing and breaking up university students' sedentary behaviour: Pilot trial and process evaluation](#). *Frontiers in Psychology*, 12, 2060. <https://doi.org/10.3389/fpsyg.2021.661994>
  19. **Castro, O.**, Vergeer, I., Bennie, J., Cagas, J., & Biddle, S. J. H. (2021). [Using the Behavior Change Wheel to understand university students' prolonged sitting time and identify potential intervention strategies](#). *International Journal of Behavioral Medicine*, 28, 360-371. <https://doi.org/10.1007/s12529-020-09926-0>
  18. **Castro, O.**, Bennie, J., Vergeer, I., Bosselut, G., & Biddle, S. J. H. (2020). [How sedentary are university students? A systematic review and meta-analysis](#). *Prevention Science*, 1, 1-12. <https://doi.org/10.1007/s11121-020-01093-8>
  17. **Castro, O.**, Bennie, J., Vergeer, I., Bosselut, G., & Biddle, S. J. H. (2018). [Correlates of sedentary behaviour in university students: A systematic review](#). *Preventive Medicine*, 116, 194-202. <https://doi.org/10.1016/j.ypmed.2018.09.016>
  16. **Castro, O.**, Ng, K., Novoradovskaya, E., Bosselut, G., & Hassandra, M. (2018). [A scoping review on interventions to promote physical activity among adults with disabilities](#). *Disability and Health Journal*, 11, 174-183. <https://doi.org/10.1016/j.dhjo.2017.10.013>
  15. Zheng, S., **Castro, O.**, Mair J. L., Jabir, A. I., Tan, S. Y. X., Shenoi, A., Negi, S., Mathews, R. R., Sim, R. K. W., Yan, X., Chakraborty, B., Tai, E. S., van Dam, M. R., von Wangenheim, F., Fleisch, E., Griva, K., Kowatsch, T., Müller-Riemenschneider, F. (2026). [A pilot sequential multiple assignment randomised trial of LvL UP: An adaptive holistic mhealth coaching intervention integrating physical activity, diet, and mental health](#). *International Journal of Behavioral Nutrition and Physical Activity*. <https://doi.org/10.1186/s12966-025-01869-7>
  14. Mair, J. L., Jabir, A. I., Salamanca-Sanabria, A., **Castro, O.**, Zheng, S., Keller, R., Frese, B. F., Lim, C. S., Alattas, A., Negi, S., Shenoi, A., van Dam, M. R., Tai, E. S., Fleisch, E., von Wangenheim, F., Tudor Car, L., Müller-Riemenschneider, F., & Kowatsch, T. (2025). [Feasibility of the LvL UP digital lifestyle coaching intervention designed to prevent non-communicable diseases and common mental disorders](#). *Scientific Reports*. <https://doi.org/10.1038/s41598-025-30960-z>
  13. Schenk, P. M.\*, West, R.\* , **Castro, O.**, Hayes, E., Hastings, J., Johnston, M., Marques, M. M., Corker, E., Wright, A. J., Stuart, G., Zhang, L., Santilli, M. & Michie, S. (2025). [An ontological framework for organising and describing behaviours: The Human Behaviour Ontology](#). *Wellcome Open Research*, 9(237), 237. <https://doi.org/10.12688/wellcomeopenres.21252.1>
  12. Cagas, J., Vergeer, I., **Castro, O.**, & Biddle, S. J. H. (2024). ["Men need role models": Exploring the facilitators and barriers for yoga participation among men](#). *American Journal of Men's Health*, 18, 6. <https://doi.org/10.1177/15579883241298663>

11. Ciaccioni, S., **Castro, O.**, Bahrami, F., Tomporowski, P. D., Capranica, L., Biddle, S. J., Vergeer, I., & Pesce, C. (2024). [Martial arts, combat sports, and mental health in adults: A systematic review](#). *Psychology of Sport and Exercise*, 102556. <https://doi.org/10.1016/j.psychsport.2023.102556>
10. Zheng, S., Edney, S. M., Goh, C. H., Tai, B. C., Mair, J. L., **Castro, O.**, Salamanca-Sanabria, A., Kowatsch, T., van Dam, R. M., & Müller-Riemenschneider, F. (2023). [Effectiveness of holistic mobile health interventions on diet, and physical, and mental health outcomes: A systematic review and meta-analysis](#). *EClinicalMedicine*, 66. <https://doi.org/10.1016/j.eclinm.2023.102309>
9. Lunetto, M., **Castro, O.**, Gericke, C., & Hale, J. (2023). [Barriers and enablers to local active travel during COVID-19: A case study of Streetspace interventions in two London boroughs](#). *Wellcome Open Research*, 8:177. <https://doi.org/10.12688/wellcomeopenres.19164.1>
8. Zheng, S., Edney, S. M., Mair, J. L., Kowatsch, T., **Castro, O.**, Salamanca-Sanabria, A., & Müller-Riemenschneider, F. (2023). [Holistic mHealth interventions for the promotion of healthy ageing: Protocol for a systematic review](#). *BMJ Open*, 13(5), e066662. <http://dx.doi.org/10.1136/bmjopen-2022-066662>
7. Norris, E., Sulevani, I., Finnerty, A. N., & **Castro, O.** (2022). [Assessing Open Science practices in physical activity behaviour change intervention evaluations](#). *BMJ Open Sport & Exercise Medicine*, 8(2), e001282. <https://doi.org/10.1136/bmjsem-2021-001282>
6. Bosselut, G., **Castro, O.**, Chevalier, S. & Fouquereau, E (2020). [Does perceived cohesion mediate the student personality – engagement relationship in the university setting?](#). *Journal of Educational Psychology*, 112, 1692. <https://doi.org/10.1037/edu0000442>
5. Goodwin, B., Crawford-Williams, F., **Castro, O.**, Rowe, A., & De Cocker, K. (2020). [Online physical activity and sedentary behaviour information for cancer survivors](#). *Journal of Cancer Survivorship*, 14, 677-688. <https://doi.org/10.1007/s11764-020-00881-z>
4. Myers, L. S., Goodwin, B., Ralph, N., **Castro, O.**, & March, S. (2020). [Implementation Strategies for Interventions Aiming to Increase Participation in Mail-Out Bowel Cancer Screening Programmes: A Realist Review](#). *Frontiers in Oncology*, 10, 1799. <https://doi.org/10.3389/fonc.2020.543732>
3. Thomas, G., Bennie, J. A., De Cocker, K., **Castro, O.**, & Biddle, S. J. H. (2019). [A descriptive epidemiology of screen-based devices by children and adolescents: A scoping review of 130 surveillance studies since 2000](#). *Child Indicators Research*, 13, 935-950. <https://doi.org/10.1007/s12187-019-09663-1>
2. Bosselut, G., Heuzé, J. P., **Castro, O.**, Fouquereau, E., & Chevalier, S. (2018). [Using Exploratory Structure Equation Modeling to validate a new measure of cohesion in the university classroom setting: The University Group Environment Questionnaire \(UGEQ\)](#). *International Journal of Educational Research*, 89, 1-9. <https://doi.org/10.1016/j.ijer.2018.03.003>
1. Bosselut, G., Boiché, J., Salamé, B., Fouquereau, E., Guilbert, L., & **Castro, O.** (2018). [Transformational leadership and group cohesion in sport: Examining the mediating role of interactional justice using a within-and between-team approach](#). *International Journal of Sports Science & Coaching*, 13, 912-928. <https://doi.org/10.1177/1747954118801156>

Conference paper

Castro, O., Mair, J. L., von Wangenheim, F., & Kowatsch, T. (2024). [Taking behavioral science to the next level: Opportunities for the use of ontologies to enable artificial intelligence-driven evidence synthesis and prediction](#). In Proceedings of the *17th International Joint Conference on Biomedical Engineering Systems and Technologies* (BIOSTEC 2024), 2, 671-678. <https://doi.org/10.5220/0012437300003657>

### Book chapters

2. Mair, J., & Castro, O. (upcoming). Novel and emerging technologies. In M. Armstrong, K. Gebel, R. Macniven, M. Western & A. Bauman (Eds.) *Handbook on Physical Activity and Health* (1st edition). Routledge.
1. Mair, J., Castro, O., & Hashim., J. (2025). Co-producing mobile health interventions for physical activity behaviour change. In S. Morton (Eds.) [Using Co-Production in Physical Activity for Health Research](#) (1st edition). Routledge. <https://doi.org/10.4324/9781032657189>

### Theses

3. Castro, O. (2021). [Using the Behaviour Change Wheel to develop an intervention to reduce sedentary behaviour in university students](#) (doctoral thesis). Faculty of Health, Engineering and Sciences, University of Southern Queensland, Brisbane, Australia.
2. Castro, O. (2016). [A scoping review on interventions to promote physical activity among adults with disabilities](#) (master's thesis). Faculty of Sport and Health Sciences, University of Jyväskylä, Jyväskylä, Finland.
1. Castro, O. (2013). The effects of a mindfulness-training program on tennis serve self-efficacy and performance: A case study (bachelor's thesis, in Spanish). Faculty of Psychology, University of Valencia, Valencia, Spain.

## **Conference contributions**

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First-authored conference contributions are presented first.

30. Castro, O. (2025). New kid on the block: How the behaviour change intervention ontology can advance physical activity research and practice. Presented at the 5th Asia-Pacific Society for Physical Activity Conference, Newcastle, Australia. **Poster presentation.**
29. Castro, O., Lunetto, M., Gericke, C., Hale, J. (2025). Barriers and enablers to local active travel during COVID-19: A case study of Streetspace interventions in two London boroughs. Presented at the 18th International Congress of Behavioral Medicine, Vienna, Austria. **Poster presentation.**
28. Castro, O., Norris, E., Wright, A. J., Hayes, E., Howes, E., Moore, C., West, R., & Michie, S. (2025). Creating a body of physical activity evidence to test the generalisation of annotation methods for automated evidence synthesis. Presented at the 9th international conference from the UCL Centre for Behaviour Change, Lisbon, Portugal. **Oral presentation.**
27. Castro, O., Fajardo, G., Johnston, M., Laroze, D., Leiva-Pinto, E., Figueroa, O., Corker, E., Chacón-Candia, J., & Duarte, G. (2025). Translating the behaviour change technique taxonomy version 1 into Spanish: Methodology and validation. Presented at the 46th Society of Behavioral Medicine's congress, San Francisco, USA. **Poster presentation.**

26. **Castro, O.**, Norris, E., Sulevani, I., Finnerty, A. (2024). Assessing open science practices in physical activity behaviour change intervention reports. Presented at the 10th International Society for Physical Activity and Health (ISPAH) congress, Paris, France. **Poster presentation.**
25. **Castro, O.**, Mair, J., von Wangenheim, F., & Kowatsch, T. (2024). Moving past traditional evidence synthesis approaches by developing an ontology-informed, artificial intelligence-based system in behavioural science. Presented at the 12th International Society for Research on Internet Interventions (ISRII) conference, Limerick, Ireland. **Oral presentation (sounding board).**
24. **Castro, O.**, Mair, J., Zheng, S., Tan S., Jabir A. I., Yan, X., Chakraborty, B., Tan, S., van Dam, R., Tai E. S., von Wangenheim, F., Fleisch, E., Griva, K. Kowatsch, T., & Mueller-Riemenschneider, F. (2024). The LvL UP Trial: Protocol for a sequential, multiple assignment, randomized controlled trial to assess the effectiveness of a blended mobile lifestyle intervention. Presented at the 12th International Society for Research on Internet Interventions (ISRII) conference, Limerick, Ireland. **Poster presentation.**
23. **Castro, O.**, Mair, J. L., von Wangenheim, F., & Kowatsch, T. (2024). Taking behavioral science to the next level: Opportunities for the use of ontologies to enable artificial intelligence-driven evidence synthesis and prediction. Presented at the 17th International Joint Conference on Biomedical Engineering Systems and Technologies (BIOSTEC 2024). **Oral presentation.**
22. **Castro, O.**, Mair, J. L., Salamanca-Sanabria, A., Alattas, A., Keller, R., Zheng, S., Jabir, A. I., Lin, X., Frese, B. F., Lim, C. S., Santhanam, P., van Dam, M. R., Car, J., Lee, J., Tai, E. S., Fleisch, E., von Wangenheim, F., Tudor-Car, L., Müller-Riemenschneider, F., & Kowatsch, T. (2023). Development of 'LvL UP': A smartphone-based, conversational agent-delivered holistic lifestyle intervention for the prevention of non-communicable diseases and common mental disorders. Presented at the 20th International Society for Behavioural Nutrition and Physical Activity (ISBNPA) conference, Uppsala, Sweden. **Poster presentation.**
21. **Castro, O.**, Vergeer, I., Bennie, J., Cagas, J., & Biddle, S. J. H. (2022). Using the Behaviour Change Wheel to understand university students' sedentary behaviour and identify intervention strategies. Presented at the 9th International Society for Physical Activity and Health (ISPAH) congress, Abu Dhabi, UAE. **Poster presentation.**
20. **Castro, O.**, Bennie, J., Vergeer, I., Bosselut, G., & Biddle, S. J. H. (2022). How sedentary are university students? A systematic review and meta-analysis. Presented at the 9th International Society for Physical Activity and Health (ISPAH) congress, Abu Dhabi, UAE. **Poster presentation.**
19. **Castro, O.**, Gericke, C., Lunetto, M., & Hale, Jo. (2021). Residents' perceptions of Streetspace measures introduced during the COVID-19 pandemic: An analysis of two London boroughs. Presented at the 7th International Centre for Behaviour Change Conference, London, UK. **Oral presentation** as part of the symposium titled 'Creating better streets, blue and green spaces for sustainability and health: Learning from stakeholders in London through the CUSSH project'.
18. **Castro, O.**, Bennie, J., Vergeer, I., Bosselut, G., & Biddle, S. J. H. (2018). Correlates of sedentary behaviour in university students: A systematic review. Presented at the 'Research to Practice' Exercise and Sport Science Australia (ESSA) conference, Brisbane, Australia. **Poster presentation.**
17. **Castro, O.**, Bosselut, G., & Middleton, T. (2016). Creating environments that prompt athletes' optimal functioning: An education program on coach-created motivational climate. Presented at

the 12th European Network of Young Specialists in Sport Psychology Conference, Warsaw, Poland. **Workshop.**

16. **Castro, O.**, Hassandra, M., Ng, K., & Novoradovskaya, E. (2016). Using the Behaviour Change Techniques Taxonomy Version 1 to identify active ingredients within physical activity promotion interventions among adults with disabilities. Presented at the 12th European Network of Young Specialists in Sport Psychology Conference, Warsaw, Poland. **Poster presentation.**
15. **Castro, O.**, Hassandra, M., & Ng, K. (2016). Interventions to promote physical activity among individuals with disabilities: A scoping review. Presented at the 11th European Congress of Adapted Physical Activity, Olomouc, Czech Republic. **Oral presentation.**
14. Griva, K., Zheng, S., **Castro, O.**, Mair, J. L., Tan, S. Y. X., Jabir, A. I., Yan, X., Chakraborty, B., Tai, E. S., van Dam, R. M., van Wangenheim, F., Fleisch, E., Kowatsch, T., & Müller-Riemenschneider, F. (2025). The LvL UP trial: Pilot trial for a sequential, multiple assignment, randomized controlled trial of a blended mobile lifestyle intervention. Presented at the 18th International Congress of Behavioral Medicine, Vienna, Austria. **Oral presentation.**
13. Zheng, S., **Castro, O.**, Mair J. L., Jabir, A. I., Tan, S. Y. X., Sheno, A., Negi, S., Mathews, R. R., Sim, R. K. W., Yan, X., Chakraborty, B., Tai, E. S., van Dam, M. R., von Wangenheim, F., Fleisch, E., Griva, K., Kowatsch, T., Müller-Riemenschneider, F. (2025). SMART health, adaptive support: A pilot sequential, multiple assignment, randomised controlled trial. Presented at the 22th International Society of Behavioral Nutrition and Physical Activity (ISBNPA) conference, Auckland, New Zealand. **Poster presentation.**
12. Mair J. L., Negi, S., **Castro, O.**, Jabir, A. I., Sheno, A., von Wangenheim, F., Kowatsch, T. (2025). Active Algorithms: Developing the physical activity interventions of the future with machine learning and artificial intelligence. Presented at the 22th International Society of Behavioral Nutrition and Physical Activity (ISBNPA) conference, Auckland, New Zealand. **Oral presentation.**
11. Zheng, S., **Castro, O.**, Mair, J. L., Jabir, A. I., Tan, S. Y. X., Griva, K., van Dam, R. M., Kowatsch, T., Müller-Riemenschneider, F. (2024). Initial Learnings from the LvL UP Intervention: A sequential, multiple assignment, randomised controlled pilot trial. Presented at the 4th Asia-Pacific Society for Physical Activity (ASPA) conference, Perth, Australia. **Oral presentation.**
10. Mair, J. L., **Castro, O.**, Vetrovsky, T., Sculthorpe, N. (2024). Developing and evaluating mobile health interventions that target movement behaviours. Presented at the 10th International Society for Physical Activity and Health (ISPAH) congress, Paris, France. **Workshop.**
9. Zheng, S., Edney, S. M., Goh, C. H., Tai, B. C., Mair, J. L., **Castro, O.**, Salamanca-Sanabria, A., Kowatsch, T., van Dam, R. M., & Müller-Riemenschneider, F. (2023). Do holistic mHealth interventions have the potential to promote healthy ageing? A systematic review and meta-analysis. Presented at the 20th International Society for Behavioural Nutrition and Physical Activity (ISBNPA) conference, Uppsala, Sweden. **Oral presentation.**
8. Mair, J. L., Vandelanotte, C., Maher, C., **Castro, O.** (2022). Using intelligent conversational agents ('chatbots') to support physical activity behaviour change. Presented at the 9th International Society for Physical Activity and Health (ISPAH) congress, Abu Dhabi, UAE. **Symposium.**
7. Salamanca-Sanabria, A., Mair, J. L., **Castro, O.**, Frese, B., Kowatsch, T., Tai E. S., von Wangenheim, F., Müller-Riemenschneider, F. (2022). Exploring the potential of existing and emerging digital

- health technologies in tackling non-communicable diseases and mental health conditions: Focus group study with a multiethnic Asian population. Presented at the 11th International Society for Research on Internet Interventions (ISRII) conference, Pittsburgh, USA. **Poster presentation.**
6. Alattas, A., Mair, J. L., Salamanca-Sanabria, A., **Castro, O.**, Keller, R., Kowatsch, T. (2022). Feasibility of 'LvL UP': Designing a smartphone-based chatbot-delivered lifestyle behaviour intervention. Presented at the 11th International Society for Research on Internet Interventions (ISRII) conference, Pittsburgh, USA. **Poster presentation.**
  5. Johnston, M., Michie, S., West, R., Hastings, J., **Castro, O.**, Marques, M., Hayes, E., Corker, E. (2021). Making the most of behavioural evidence: Development of an ontology of human behaviours. Presented at the 35th European Health Psychology Society online conference. **Oral presentation.**
  4. Thomas, G., Bennie, J., De Cocker, K., **Castro, O.**, & Biddle, S. J. H. (2018) Time-use in screen-based devices among children and adolescents: A systematic scoping review of large population-based studies published since 2000. Presented at the 7th International Society for Physical Activity and Health, London, UK. **Poster presentation.**
  3. Novoradovskaya, E., Mikola, N., Þórhaldsótir, S., **Castro, O.**, Papantoniou, A., Hassandra, M., Sjögren, T., & Lintunen, T. (2016). Effectiveness of behaviour change techniques used to increase physical activity of working-age adults: A systematic review. Presented at the 8th Nordic Health Promotion Research Conference, Jyväskylä, Finland. **Poster presentation.**
  2. Novoradovskaya E., Hassandra, M., Sjögren T., Ruiz, M., Lintunen T., Þórhaldsótir, S. & **Castro, O.** (2015). Effective motivational methods to change physical activity behavior of sedentary adults in a rehabilitation setting: Systematic review protocol. Presented at the 14th European Congress of Sport Psychology, Bern, Switzerland. **Poster presentation.**
  1. Fabra, P., Castillo, I., Atienza, F., González, L., **Castro, O.**, Galilea, B., & Balaguer, I. (2014). Contribución diferencial de cada una de las tres necesidades psicológicas básicas sobre las regulaciones motivacionales en jóvenes jugadores de fútbol [Differential contribution of the three basic psychological needs on the motivational regulation process in youth soccer players]. Presented at the 14th National Congress and 1st International Congress of Physical Activity and Sport Psychology, Cáceres, Spain. **Poster presentation.**