Authors' Reply: "Adolescent Cocreation in Digital Health: From Passive Subjects to Active Stakeholders"

Callum C Lewis¹, BClinSc, MD; Melody Taba^{1,2}, BSc, MPH; Tiffany B Allen¹, BSc, MD; Patrina H.Y Caldwell^{1,3}, BMed, PhD; S Rachel Skinner^{1,3}, MBBS, PhD; Melissa Kang⁴, MBBS, MCH, PhD; Hamish Henderson⁵, BScIT; Liam Bray⁵, BA; Madeleine Borthwick⁵, MSc; Philippa Collin⁶, BA, PhD; Kirsten McCaffery², BSc, PhD; Karen M Scott^{1,7}, BEd, MA, PhD

³Children's Hospital at Westmead, Sydney, Australia

⁴General Practice Clinical School, Faculty of Medicine and Health, University of Sydney, Sydney, Australia

⁶Institute for Culture and Society, Western Sydney University, Richmond, Australia

⁷Education Office, Sydney Medical School, Faculty of Medicine and Health, University of Sydney, Sydney, Australia

Corresponding Author:

Karen M Scott, BEd, MA, PhD Education Office, Sydney Medical School Faculty of Medicine and Health University of Sydney Room 208D, Edward Ford Building Sydney, 2006 Australia Phone: 1 298453385 Email: karen.scott@sydney.edu.au

Related Articles:

Comment on: <u>http://www.jmir.org/2025/1/e70020/</u> Comment on: <u>https://www.jmir.org/2024/1/e49453/</u>

(J Med Internet Res 2025;27:e71897) doi: 10.2196/71897

KEYWORDS

adolescent health; digital health literacy; adolescents; online health information; co-design; health education; eHealth literacy; social media

The author of "Adolescent Cocreation in Digital Health: From Passive Subjects to Active Stakeholders" [1] highlights the importance of actively involving adolescents in research about adolescent health. Our co-design with adolescents, outlined in "Developing an Educational Resource Aimed at Improving Adolescent Digital Health Literacy: Using Co-Design as Research Methodology" [2], was characterized as a "pivotal intervention" because we prioritized the youth voice in its design process.

The role played by adolescents in our research was central to our development of a digital educational resource that would help adolescents improve their digital health literacy. We valued the involvement of a diverse group of adolescents as research partners in the co-design, to ensure the resource was engaging and aligned with the educational needs of a broad range of adolescents. Thus, our adolescent research partners' insights and recommended designs were an integral part of the

RenderX

educational resource, which was created for use on handheld devices, based around quizzes and serious games, and featured short videos and still images that are typical of social media platforms that are popular with adolescents.

Our adolescent research partners who rejoined us for beta testing were pleasantly surprised to see that the educational resource was developed based on their design ideas, and they were pleased to have been involved and heard in the project. This highlighted the valuable combination of inputs from these diverse adolescent research partners with the equally diverse research team members, all of whom brought unique perspectives to the design. In a separate, follow-up evaluation, we found that the educational resource was effective at improving the digital health literacy of another group of adolescents, who felt that the content was engaging and met their age group's educational needs.

¹Specialty of Child and Adolescent Health, Faculty of Medicine and Health, University of Sydney, Sydney, Australia

²Sydney Health Literacy Lab, School of Public Health, Faculty of Medicine and Health, University of Sydney, Sydney, Australia

⁵Sydney School of Architecture, Design and Planning, University of Sydney, Sydney, Australia

JOURNAL OF MEDICAL INTERNET RESEARCH

Social-cognitive theory's concept of self-efficacy (confidence in one's abilities) was foundational in our co-design approach and the educational resource [3]. To enhance users' self-efficacy and learning through co-design, we ensured the resource was appropriate to adolescents' attitudes and behavior and embedded in their social context.

A participatory research approach is crucial when conducting research in adolescent health with adolescents [4]. There is increasing recognition of adolescence as an important life phase, involving multiple physical and psychosocial changes that influence health behavior and health outcomes into adulthood [5]. Nevertheless, adolescents are not a homogenous group: adolescence ranges in age from 10-25 years and involves broad differences in sociodemographic background, interests, abilities, and gender and sexual identities. When conducting participatory research with adolescents, it is important to collaborate with a group that includes members from all subpopulations of interest who have a stake in the project's outcomes [6].

For participatory research to be maximally effective, adolescents should be involved in the actual research design. This has implications for research planning, with time required for recruiting adolescents to the research team and research training. Acknowledgement and remuneration are required in appreciation of the adolescents' lived experience expertise and time dedicated to research training and design. Adolescents' contributions also need to be in ethics applications to human research ethics committees. When seeking research funding, budgetary provisions need to be available for this preparatory phase of participatory research [7].

Conflicts of Interest

None declared.

References

- 1. Yang A. Adolescent cocreation in digital health: from passive subjects to active stakeholders. J Med Internet Res. Feb 20, 2025;27:e70020.
- Lewis CC, Taba M, Allen TB, Caldwell PHY, Skinner SR, Kang M, et al. Developing an educational resource aimed at improving adolescent digital health literacy: using co-design as research methodology. J Med Internet Res. Aug 07, 2024;26:e49453. [FREE Full text] [doi: 10.2196/49453] [Medline: 39110967]
- Taba M, Allen TB, Caldwell PH, Skinner SR, Kang M, McCaffery K, et al. Adolescents' self-efficacy and digital health literacy: a cross-sectional mixed methods study. BMC Public Health. Jul 20, 2022;22(1):1223. [FREE Full text] [doi: 10.1186/s12889-022-13599-7] [Medline: 35725389]
- 4. Hagen P, Collin P, Metcalf A, Nicholas M, Rahilly K, Swainston N. Participatory design of evidence-based online youth mental health promotion, intervention and treatment. Young and Well Cooperative Research Centre. Sep 2012. URL: <u>https://www.westernsydney.edu.au/_data/assets/pdf_file/0005/476330/Young_and_Well_CRC_IM_PD_Guide.pdf</u> [accessed 2025-01-31]
- Patton GC, Sawyer SM, Santelli JS, Ross DA, Afifi R, Allen NB, et al. Our future: a Lancet commission on adolescent health and wellbeing. Lancet. Jul 11, 2016;387(10036):2423-2478. [FREE Full text] [doi: 10.1016/S0140-6736(16)00579-1] [Medline: 27174304]
- 6. Simonsen J, Robertson T. Routledge International Handbook of Participatory Design. Oxfordshire, England. Routledge; 2013.
- Paxino J, Eppich W, Bolton J, Woodward-Kron R, Denniston C. A primer on participatory research for health professional education. Focus on Health Professional Education: A Multi-Professional Journal. Sep 30, 2024;25(3):121-132. [doi: 10.11157/fohpe.v25i3.860]

Edited by T Leung; this is a non-peer-reviewed article. Submitted 29.01.25; accepted 29.01.25; published 20.02.25.

<u>Please cite as:</u>

Lewis CC, Taba M, Allen TB, Caldwell PH, Skinner SR, Kang M, Henderson H, Bray L, Borthwick M, Collin P, McCaffery K, Scott KM

Authors' Reply: "Adolescent Cocreation in Digital Health: From Passive Subjects to Active Stakeholders" J Med Internet Res 2025;27:e71897 URL: <u>https://www.jmir.org/2025/1/e71897</u> doi: <u>10.2196/71897</u> PMID:

©Callum C Lewis, Melody Taba, Tiffany B Allen, Patrina H.Y Caldwell, S Rachel Skinner, Melissa Kang, Hamish Henderson, Liam Bray, Madeleine Borthwick, Philippa Collin, Kirsten McCaffery, Karen M Scott. Originally published in the Journal of Medical Internet Research (https://www.jmir.org), 20.02.2025. This is an open-access article distributed under the terms of the Creative Commons Attribution License (https://creativecommons.org/licenses/by/4.0/), which permits unrestricted use, distribution,

JOURNAL OF MEDICAL INTERNET RESEARCH

and reproduction in any medium, provided the original work, first published in the Journal of Medical Internet Research (ISSN 1438-8871), is properly cited. The complete bibliographic information, a link to the original publication on https://www.jmir.org/, as well as this copyright and license information must be included.

