ELSEVIER

Contents lists available at ScienceDirect

Public Health



journal homepage: www.elsevier.com/locate/puhe

Themed Paper – Review

Co-creation experiences among adults in diverse contexts: A Health CASCADE scoping review

Lauren McCaffrey^a,^{*}, Bryan McCann^a, Maria Giné-Garriga^b, Qingfan An^c, Greet Cardon^d, Sebastien François Martin Chastin^{a,d}, Rabab Chrifou^e, Sonia Lippke^f, Quentin Loisel^a, Giuliana Raffaella Longworth^b, Katrina Messiha^g, Mira Vogelsang^a, Emily Whyte^a, Philippa Margaret Dall^a

^a School of Health and Life Sciences, Research Centre for Health, Glasgow Caledonian University, United Kingdom

^b Faculty of Psychology, Education and Sport Sciences Blanquerna, Universitat Ramon Llull, Spain

^c Department of Community Medicine and Rehabilitation, Umeå University, Sweden

^d Department of Movement and Sports Sciences, Ghent University, Belgium

^e Department of Public Health and Primary Care, Unit Health Promotion, Ghent University, Belgium

f School of Business, Social & Decision Sciences, Constructor University Bremen, Germany

⁸ Department of Public and Occupational Health, Amsterdam Public Health Research Institute, Amsterdam UMC, Vrije Universiteit Amsterdam, the Netherlands

ARTICLE INFO

Keywords: Co-design Co-production Co-creation Experience Scoping review

ABSTRACT

Objectives: This scoping review aimed to summarise available evidence relating to co-creation experiences among adults in diverse contexts. Understanding how participation in co-creation processes shapes experiences is important as it can offer insights into the improved development and effective use of such processes. Co-creation has increasingly gained attention due to its many claimed advantages and benefits to participants. There is however a lack of aggregated literature on stakeholders' experience of the co-creation process. *Study design*: Scoping review.

Methods: Arksey and O'Malley's methodological framework for conducting scoping reviews was used. A systematic search was conducted in Scopus and the Health CASCADE Co-creation Database (an open access curated database of 13,501 articles, screened for inclusion based on criteria relating to co-creation participatory research). Themes were generated through thematic analysis.

Results: We included 80 publications. Positive co-creation experiences were linked to establishing interpersonal relationships and positive group dynamics, enhanced well-being, personal development, satisfaction and fulfilment. Negative experiences were associated with initial uncertainties, project-related challenges, interpersonal issues, dissatisfaction, and disengagement.

Conclusion: This review offers insights into how co-creation shaped experiences and demonstrates the scope and characteristics of co-creation experiences. It highlights the need for further research, particularly in understanding the mechanisms underpinning and explaining experiences and in strategies for promoting positive experiences and mitigating negative experiences.

Introduction

Co-creation can be defined as "any act of collective creativity that involves a broad range of relevant and affected actors in creative problem-solving that aims to produce a desired outcome".¹ Broadly, co-creation aligns with participatory research, the main aim of which is to engage all those who are the subject of the (research) project in all stages of the project.^{2–4} Co-creation is often used interchangeably with similar co-approach terms such as co-production and co-design, and reflects a desire to create more context-specific, tailored and sustainable solutions to complex problems, often as a means to tackle the knowledge-to-practise gap.^{5–7} Co-creation in the public sector, including

https://doi.org/10.1016/j.puhe.2024.11.002

Received 15 July 2024; Received in revised form 18 October 2024; Accepted 1 November 2024

Available online 23 November 2024



^{*} Corresponding author. Department Physiotherapy & Paramedicine, School of Health & Life Sciences, Glasgow Caledonian University, Cowcaddens Road, Glasgow, G4 0BA, Scotland, United Kingdom.

E-mail address: lauren.mccaffrey@gcu.ac.uk (L. McCaffrey).

^{0033-3506/© 2024} The Authors. Published by Elsevier Ltd on behalf of The Royal Society for Public Health. This is an open access article under the CC BY license (http://creativecommons.org/licenses/by/4.0/).

public health, has gained prominence due to its numerous claimed benefits, including its ability to enhance intervention effectiveness, produce outputs that are both relevant and acceptable to users, and foster more sustainable public services through collaborative partnerships and multi-stakeholder action.^{7–9}

We define co-creation experience (CCE) as stakeholders' psychological states, feelings, and perceptions associated with their involvement and interaction with other stakeholders before, during and after the co-creation process. This definition aims to offer a comprehensive understanding of stakeholders' experiences across the entire engagement with the process. The conduct of the co-creation process can be significant to the development of the co-created solution, and evaluation of the process itself and not only the implementation of the solution is recommended.¹⁰ A recent scoping review found most process evaluations of co-creation projects explored evaluation components relating to participation, context, experience of co-creators, impact of the co-creation, satisfaction and fidelity.¹⁰

Understanding how participation in co-creation processes shapes psychological experiences of those involved can guide the development and effective use of such processes. This, in turn, has the potential to vield substantial benefits for both the individuals actively co-creating and for the desired outcomes. There is, however, a lack of synthesised literature pertaining to co-creation experience. In addition, the COVID-19 pandemic forced the transfer of co-creation in an online or distributed setting, increasing the adoption of digital technologies to do so.¹¹ These fast-developing technologies have transformative potential for co-creation processes and could change the roles and relationships between stakeholders, altering the CCE.^{12,13} Thus, we conducted a scoping review to explore and systematically map available literature concerning CCE among adults in diverse contexts. We focused on adults because children's emotional processes are still developing and they may have different emotional experiences, intensity and stability.¹⁴ Scoping reviews are exploratory in nature and systematically map available literature on a broad topic to identify key concepts, theories, sources of evidence and research gaps.¹⁵ A scoping review is a suitable approach because co-creation experience is not well understood and spans various fields of study.

The objectives were to: (1) determine the extent of research on cocreation experience; (2) uncover the range and nature of documented psychological experiences; (3) identify theoretical approaches drawn upon to explain the potential psychological mechanisms underpinning co-creation experiences; and (4) document any technology or tools that impacted participants experience.

Methods

This scoping review is reported in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses for Scoping Reviews (PRISMA-ScR) checklist.¹⁶ Changes made to the publicly available protocol¹⁷ when conducting the review have been clearly reported. Arksey and O'Malley's¹⁸ five-stage methodological framework for conducting scoping reviews was used: (1) identifying the research question; (2) identifying relevant studies; (3) study selection; (4) charting the data; and (5) collating, summarizing and reporting the results.

Stage 1: identifying the research question

Using the review objectives, the research question was formulated as "What is the current state of the evidence regarding the psychological experiences of adults when involved in co-creation?"

Stage 2: identifying relevant studies

The search strategy (Table 1) was developed by [removed for peer review] and consensus reached with co-authors. Searches were conducted in SCOPUS and the Health CASCADE Co-creation Database (HCCD¹). For the search in SCOPUS key terms for co-creation and co-creation experience were combined using the Boolean operator 'AND'. The HCCD is an open access database consolidating knowledge about co-creation (n = 13,501 items), pre-screened for relevance to co-creation, and therefore only terms related to co-creation experience were used. HCCD is limited to searching records between January 1, 1970 and December 1, 2021. The search in Scopus included records from January 1, 1970 until June 2022 (updated May 2024).

Stage 3: study selection

Publications identified in the search were exported as a CSV file with duplicates removed in Excel and screened in Rayyan.¹⁹ The title and abstract were screened independently by two reviewers (from LMcC, QA, QL, EW, GRL, RC, MV) with conflicts resolved through discussion. All full text studies were screened by one reviewer (LMcC), and 80% were independently screened by a second reviewer (from QA, QL, EW, GRL, RC, MV, KM), with conflicts resolved through discussion (LMcC, PD, MGG). During full-text screening, limited reporting on specific aspects of participatory methods posed challenges with identifying studies using co-creation. As a result, the inclusion criteria (Table 2) were adjusted, deviating from the protocol. To avoid overly inclusive interpretations the scope was narrowed to focus only on papers using operational co-approach terms of co-creation, co-design, and co-production. This refinement made it possible to more precisely target publications that aligned with the review objectives.

Stage 4: charting the data

Data were extracted from publications using a Microsoft Excel spreadsheet, which was first piloted. Data extraction was completed by LMcC and a 10% sample checked by QL. Extracted data included study details (authors, year published, country of origin, setting), co-creation process (definition, sample, format, mode of delivery), and co-creation experience (definition, data collection methods, experience, impact of technology, theoretical underpinning). Extracted data is presented in tables alongside a narrative summary to describe how the results relate to the scoping review objectives. Researchers or facilitators (henceforth, facilitators) in a co-creation project may not always take the role of a co-creator. That demarcation was not always clear in the included studies, therefore, insights into facilitators' experiences were reported separately. Due to limited reporting on co-creation processes, we did not carry out the planned quality assessment of co-creation reporting.¹⁷

Table 1

Key search terms used to capture co-creation and co-creation experience.

Co-creation	Co-creation Experience
"co-creat*" OR "co-production" OR "co-design" OR "experience based design"	"experien*" OR "emotion*" OR "psycholog*" OR "mental state*" OR "positive affect" OR "negative affect" OR "affective state*" OR "affective response*" OR "feeling*" OR "empower*" OR "sociali*" OR "autonomy" OR "competency" OR "competence" OR "relatedness"

Table 2

Inclusion criteria.

- Inclusion criteria:
- Articles written in English, Chinese, Dutch, French and Spanish (languages spoken by co-authors, note the HCCD only includes articles in English).
- All study participants were adults, described as people aged 18 years and over.
- Empirical publications included a description of the co-created product, service or intervention and evaluated the stakeholders' co-creation experience.
- Co-creation process is referred to using the co-approach terms of 'co-creation', 'co-design' or 'co-production'.

Note. Italics indicates an update from the protocol.



Fig. 1. PRISMA flow chart outlining the review process.

Results

Stage 5: collating, summarizing and reporting the results

The search identified 15,027 records, 669 were screened at full-text and 80 were included in the review (Fig. 1). Two publications^{20,21} reported on the same study, and four publications^{22–25} contained two case studies which were extracted separately, resulting in 83 studies from 80 publications.^{20–25,29,32–105}

The extent of research on co-creation experience (objective one)

Sources of publications

Most studies were published in Europe (59%), with the UK particularly well represented (31%). Five studies did not explicitly state the country of origin, although this could possibly be inferred from author affiliations. Publication years ranged between 2011 and 2024, with the number increasing over time.

Characteristics of included publications

Co-creation processes were held in a variety of settings including,

healthcare (n = 38), education (n = 19), community (n = 18), urban (n = 4), occupational (n = 2) or virtual world (n = 2) settings. When reported, most co-creation processes (45%) were conducted in-person. Online (20%) and hybrid formats (17%), mainly occurred in recent years, sometimes in response to COVID-19 restrictions.

Definitions of co-creation and CCE

Most publications (73%) offered a description of co-creation or related co-approach terms, but, consistent with other reviews,^{26–28} few gave specific definitions. No study included an explicit definition of CCE, however, one study described the term "co-experience" as the "process of learning, maintaining and modifying meaning in social inter-action"²⁹(p.59), and another³⁰ referenced Dewey's³¹ perspective of experience.

Methods to collect data on experience

Experience was mostly explored using qualitative data collection methods (73%), but mixed methods (17%) and quantitative (8%) approaches were also used (Table S1 supplementary file). Interviews were the most common qualitative data collection method (54%), other methods included focus groups, reflection activities, observation,

meeting notes, workshop transcripts, and email correspondence. Studies that used quantitative measures all used questionnaires, but all were different.

The range and nature of co-creation experience (objective two)

Throughout the co-creation process, participants encountered a range of experiences. We extracted CCE data from article results, including verbatim participant quotations, and for quantitative data, such as questionnaires, we extracted and coded item statements along-side the qualitative data. We categorised reported CCE into positive and negative groupings, further organised into themes (Table 3), which are described narratively. Details of the included publications and extracted information are available in Table S1 (supplementary file). For some publications, data on CCE were limited, reported only as general statements of experiences and different stakeholders' experiences were not always clearly separated.

Interpersonal challenges played a role in shaping negative experiences. Instances of conflict between individuals, feelings of disrespect, and a lack of collaboration and joint decision-making may have led to frustration. In one study,⁹⁹ a business-like approach to forming working relationships coupled with a lack of genuine interest in the partnership contributed to lower quality relationships and was reported to have hindered the co-creation process itself. Other negative experiences arose from project-related challenges, including initial apprehension due to uncertainty about the process and confusion arising from a lack of role clarification and poor communication within the project (e.g.,^{22,81}). Additionally, participants reported feeling deflated when faced with unexpected barriers, experiencing stress or pressure due to perceived workloads as a participant, and feeling bored when the process was more instructional than immersive (e.g., 24,29,45). In some studies, negative experiences endured after project completion. For example, dissatisfaction from a desire for more communication and clarification during the process and after the process had ended, specifically regarding the impact of involvement on the project's outcomes (e.g.,⁶⁶). In some cases, individuals expressed dissatisfaction or distrust with the process or experienced interpersonal conflict, which led to participant drop-out (e.g.,^{23,42}). Interpersonal relationships also played a role in shaping positive experiences. Forming relationships and partnerships was facilitated through a comfortable and collaborative environment which helped participants understand each other's individual contexts, offer peer support and express themselves honestly (e.g.,³⁸). Positive group dynamics, such as effective communication, collaboration and engagement contributed to a safe space that allowed participants to feel respected and heard, which may contribute to a sense of social connection and belonging to the group and project (e.g.,³⁶). The role of the facilitators was perceived as important as they shaped participants experiences by fostering a safe space and effectively resolving conflicts (e.g.,⁵⁵). The process also sparked motivation and creativity, leading to a shared sense of excitement, enthusiasm, and enjoyment among participants. In some studies, positive experiences had a lasting impact beyond the co-creation project. For example, participants reported gaining increased knowledge on a particular topic and gaining transferable skills such as leadership and active listening (e.g., 31,67,89). Learning from one another helped participants acquire new insights into different perspectives, especially within particular groups, such as older adults and students (e.g., 87). Participants expressed a sense of satisfaction with both the process and its outcomes, as well as their overall experience. They also felt a strong sense of pride in their contributions, accomplishments, and the progress made (e.g., 29,47). Additionally, many participants experienced a sense of ownership, increased confidence in making decisions, and a commitment to their involvement (e.g., 48,67). Finally, within some studies some participants reported enhanced well-being, for example, a more positive outlook on life or gaining something personally from their active engagement in the co-creation process (e. g., 42,56).

Facilitators' experience

Fourteen studies reported specifically on the facilitators' experience of the co-creation process. Negative experiences primarily revolved around the challenges associated with facilitation. Some facilitators found the role to be uncomfortable, stressful, and anxiety-inducing (e. $g_{,,}^{68,81}$), struggled to balance the responsibilities of simultaneously facilitating and taking notes, and experienced a sense of unease in surrendering control (e.g.,⁸¹). Facilitators also faced uncertainty about responding appropriately to sensitive conversations whilst ensuring the group well-being and keeping within project scope (e.g.,⁸⁷). Protocol deviations led to uncertainties about the direction of process and outcomes (e.g.,⁶²). Unexpected challenges arose from misunderstandings during the process, negatively impacting group cohesion resulting in disappointment or a dip in energy (e.g.,⁸¹).

Positive experiences were also reported, such as significant learning opportunities on a personal and professional level. Engaging in an unfamiliar role helped broaden knowledge and skill-sets which fostered confidence (e.g.,⁸¹). A sense of fulfilment was derived from involvement and recognition of making a meaningful impact. Having clear responsibilities in the facilitator role was reassuring, as it allowed them to relax into the process and derive more enjoyment from it (e.g.,⁶⁸). Facilitators reported being pleasantly surprised when the facilitation process ran smoothly, enhancing their positive experiences.

Theoretical underpinnings of experience (objective three)

Very few studies used theoretical approaches to elucidating the potential psychological mechanisms underpinning CCE. For the purposes of this review, a theoretical approach was defined as the use of theories and concepts designed to understand and explain CCE. All of the studies that adopted a theoretical approach used different approaches.

Van den Berg et al.⁹⁹ briefly referenced self-determination theory,¹⁰⁴ Erikson's¹⁰⁵ adult development theory, intergroup contact theories (e. g.,¹⁰⁶), and Barnett and Dean's¹⁰⁷ concept of a good life to explain their findings. Clarke et al.⁴⁵ used the normalisation process theory¹⁰⁸ to guide their process evaluation, using it as a lens to interpret and

Table 3				
Co-creation	experience	grouping	and	themes.

	Co-creation experience		Ν
Negative	Project-related challenges	(such as, unexpected barriers, workload pressure/stress, lack of clarification about roles and initial uncertainties)	35
	Interpersonal challenges	(such as conflict, disrespect, lack of collaboration or shared decision making)	16
	Dissatisfaction	(such as, disappointment, and poor communication post project completion)	8
	Disengagement	(such as, withdrawal or participant drop-out)	9
Positive	Establishing interpersonal relationships	(such as forming partnerships and peer support)	39
	Positive group dynamics	(such as, effective communication, collaboration, and engagement)	64
	Well-being and personal development	(such as increased knowledge, insight and transferable skills)	36
	Satisfaction and fulfilment	(such as, sense of empowerment, ownership, and pride)	47

Note. The grouping and themes were generated through thematic analysis by the first author and, as a result, may not necessarily reflect the language used in each individual publication. N = number of studies reporting the co-creation experience.

understand the data. Gheduzzi et al.⁴⁸ applied the concept of co-destruction to understand barriers in co-production. Kohler et al.²⁴ drew upon Nambisan and Nambisan's¹⁰⁹ analytical framework to provide an understanding of the user's experience in the virtual co-creation environment. Juel et al.⁵⁹ used the theory of psychological ownership¹¹⁰ to explore participants sense of ownership. To guide their analyses, Güemes and Resina⁵¹ incorporated studies of trust and Scornavacco et al.⁸⁹ used the lens of leadership. Wang et al.²⁵ approached analysis from the perspective of empowerment.

Technology's impact on experience (objective four)

Twenty-two studies reported on technology or specific tools that impacted CCE. Overall, there was a mix of positive and negative experiences reported on the use of technology in the co-creation process. Unfamiliarity with technologies and technical issues gave rise to concerns and apprehensions (e.g., 46,60). However, when technology was fit-for-purpose and working smoothly, it helped facilitate the process, sparked interest, and strengthened feelings of co-ownership, particularly when accompanied by clear instructions, support, and prior technology experience (e.g., 24,68).

Discussion

Although increasing attention has been paid to CCE, few publications have the primary aim of evaluating CCE. Across publications of varying co-creation approaches and stakeholders, shared co-creation experiences were identified. These experiences spanned pre, during, and postprocess phases, were often expressed in terms of emotions or feelings (e. g., excitement, frustration), and highlighted the importance of interpersonal relationships.

Various factors such as context, resources, interaction process, and team composition can enable or hinder collaboration depending on how they are implemented.¹¹¹ Forging collaborative relationships in a supportive environment appears to be an important aspect of the co-creation process, consistent with research showing that trust, effective communication, and shared goals are crucial for successful collaborations.^{111–113} Therefore, it seems imperative to invest effort into involving an array of relevant co-creators, ensuring that all voices are not only heard but also valued, and embracing flexibility in strategies aimed at promoting active participation among co-creators. Achieving this will likely necessitate ongoing reflection as the co-creation process unfolds, with continuous evaluation of participant experiences to ensure progress towards co-creating a solution remains relevant, efficient and sustainable.

Some studies reported that participants experienced improved wellbeing through their involvement in the co-creation process. This finding aligns with Davis et al.'s¹¹⁴ proposition of understanding co-design as a process of 'welldoing', as a means to enhance participants well-being while also contributing to the collective outcome of the co-creation project. In therapeutic and art-based health settings, creative activities have been linked to physical health and psychological well-being.¹¹⁵ Given that the co-creation process involves creative methods and brainstorming, it has the potential to similarly promote well-being through participant engagement.

Recommendations for future research

Based on the findings from this review, there is a clear need for gaining a better understanding of CCE to inform the design of cocreation processes that support co-creators to co-create relevant solutions and enhance well-being and personal development. We propose a future research agenda to fill identified gaps and inspire future research directions.

Firstly, in agreement with findings from others^{6,116} there is a need for greater clarity in reporting on co-creation, but also for CCE. We propose

use of the term 'co-creation experience' when referring to the experiences of people involved in the co-creation process. A common language identifying key attributes of co-creation could aid systematic reporting and support data pooling.^{116,117} An accurate and detailed description of CCE will help those embarking on their co-creation journey to identify information relevant to their own context. Additionally, this scoping review aggregated research with adults, and future research should explore the CCE of young co-creators and specific groups (e.g., people with disabilities).

Secondly, use of psychological theory can be useful way to explore and explain the meaning of research findings. For example, Juel et al.⁵⁹ applied the theory of psychological ownership to participants experience of co-designing a website, allowed them to further understand how ownership can be developed and hindered, and to identify which strategies can be used to promote ownership among co-creators to promote a favourable CCE. However, as most publications did not report on psychological mechanisms underpinning CCE, our ability to explain these mechanisms are limited. A recent systematic review¹¹⁸ also identified a lack of explicit theory used for co-creation within public health research. Research to bridge this gap could enhance our understanding of causal factors influencing the CCE, and facilitate design of co-creation process that promote and sustain favourable CCE.

Thirdly, the review findings demonstrated that the COVID-19 pandemic has acted as catalyst for the widespread use of online meetings. As digital platforms to host co-creation processes and emerging technologies like virtual reality and AI become more accessible, future research could explore CCE across different modes of delivery. Technological issues consistently contributed to negative experiences, therefore prioritising accessible technology and offering technical support may help mitigate adverse experiences, a strategy identified by others.^{119,120} Fails et al.¹²¹ argues that as we transition back to in-person co-creation, we should not revert to pre-pandemic practices but instead build on lessons learned about technological mediation and co-creator's interaction needs.

Fourthly, CCE appears to be partly influenced by the role of the facilitator. Factors such as confidence, understanding of their role, and ability to managing sensitive conversations and challenging behaviours can shape not only the facilitator's own CCE, but also that of other stakeholders'. Facilitators tend to reflect on the challenges and benefits of their participatory research projects and sharing their 'lessons learned', but they tend to focus more on the co-creators' psychological experiences than their own. For example, doctoral researchers have^{122,123} shared their personal reflections and experiences of participatory research projects. However, future research should move beyond reflective accounts of the challenges and benefits to consider how the interactions among researchers, facilitators and co-creators influence the co-creation process, their roles, relationships and their experiences.

Limitations

A scoping review aims to synthesize all evidence about a topic, which presents tension in terms of the resources needed to conduct a thorough review. This review limited the scope of its searching and conduct, for pragmatic reasons, in a number of ways. Multiple definitions of comethodology approaches.²⁸ alongside limited reporting led to a large number of articles to screen and we deviated from our protocol to narrow inclusion criteria relating to co-creation design and did not double-screen all full-texts. We also did not explore grey literature, and limited our search to the languages spoken by co-authors. Although we included 80 publications, it is possible that other relevant work was missed.

Conclusion

This scoping review synthesises co-creation experiences across varied co-creation processes involving adults in diverse contexts. The necessity of this work stems from growing recognition of how stakeholders' experiences shape the co-creation process, collaborations and outcomes and vice versa. The review demonstrated that both negative and positive experiences can span pre, during, and post-process phases. Instances of conflict, frustration, and deflation amidst unexpected barriers offered insights into participants nuanced emotional journeys. Dissatisfaction or distrust with the process has the potential to result in the withdrawal of participation. The review underscores the value of cultivating positive group dynamics for building relationships and partnerships. Active engagement has the potential to instil a sense of empowerment and enhanced well-being. Facilitators and designers of the co-creation process play a pivotal role in shaping experiences. This review not only enriches our understanding of CCE but also lays the foundation for future researchers and facilitators to optimise it in designing effective and productive co-creation processes.

Author statements

Funding

This work is funded by the European Union's Horizon 2020 research and innovation programme under Marie Skłodowska-Curie grant agreement n° 956501.

Competing interests

There are no competing interests from the authors.

Data availability

The review protocol is publicly available and all relevant data is included in this article.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.puhe.2024.11.002.

References

*Included in scoping review

- Agnello DM, Loisel QEA, An Q, et al. Establishing a health CASCADE-curated open-access database to consolidate knowledge about Co-creation: novel artificial intelligence-assisted methodology based on systematic reviews. *J Med Internet Res.* 2023;25(1), e45059. https://doi.org/10.2196/45059.
- Leask CF, Sandlund M, Skelton DA, et al. Framework, principles and recommendations for utilising participatory methodologies in the co-creation and evaluation of public health interventions. *Res Involv Engagem*. 2019;5(1):2. https:// doi.org/10.1186/s40900-018-0136-9.
- Vargas C, Whelan J, Brimblecombe J, Allender S. Co-creation, co-design, coproduction for public health – a perspective on definition and distinctions. *Public Health Res Pract.* 2022;32(2), 3222211. https://doi.org/10.17061/phrp3222211.
- Wright MT, Springett J, Kongats K. What is participatory health research? In: Wright MT, Kongats K, eds. Participatory Health Research. Springer International Publishing; 2018:3–15. https://doi.org/10.1007/978-3-319-92177-8 1.
- Grindell C, Coates E, Croot L, O'Cathain A. The use of co-production, co-design and co-creation to mobilise knowledge in the management of health conditions: a systematic review. *BMC Health Serv Res.* 2022;22(1):877. https://doi.org/ 10.1186/s12913-022-08079-y.
- Voorberg WH, Bekkers VJJM, Tummers LG. A systematic review of co-creation and co-production: embarking on the social innovation journey. *Publ Manag Rev.* 2015; 17(9):1333–1357. https://doi.org/10.1080/14719037.2014.930505.
- Rodriguez Müller AP, Casiano Flores C, Albrecht V, Steen T, Crompvoets J. A scoping review of empirical evidence on (digital) public services Co-creation. *Adm Sci.* 2021;11(4):130. https://doi.org/10.3390/admsci11040130.
- Greenhalgh T, Jackson C, Shaw S, Janamian T. Achieving research impact through Co-creation in community-based health services: literature review and case study. *Milbank Q.* 2016;94(2):392–429. https://doi.org/10.1111/1468-0009.12197.

- Nabatchi T, Sancino A, Sicilia M. Varieties of participation in public services: the who, when, and what of coproduction. *Publ Adm Rev.* 2017;77(5):766–776. https://doi.org/10.1111/puar.12765.
- Longworth GR, Boer J de, Goh K, et al. Navigating process evaluation in cocreation: a Health CASCADE scoping review of used frameworks and assessed components. *BMJ Glob Health*. 2024;9(7), e014483. https://doi.org/10.1136/ bmjgh-2023-014483.
- Slingerland G, Murray M, Lukosch S, McCarthy J, Brazier F. Participatory design going digital: challenges and opportunities for distributed place-making. *Comput* Support Coop Work CSCW. 2022;31. https://doi.org/10.1007/s10606-022-09438-3.
- Lember V, Brandsen T, Tonurist P. The potential impacts of digital technologies on co-production and co-creation. *Publ Manag Rev.* 2019;21(11):1665–1686. https:// doi.org/10.1080/14719037.2019.1619807.
- Osborne S, Powell M, Cucciniello M, Macfarlane J. It is a relay not a sprint! Evolving co-design in a digital and virtual environment: neighbourhood services for elders. *Glob Public Policy Gov.* 2022;2:518–538. https://doi.org/10.1007/ s43508-022-00053-v.
- Bailen NH, Green LM, Thompson RJ. Understanding emotion in adolescents: a review of emotional frequency, intensity, instability, and clarity. *Emot Rev.* 2019; 11(1):63–73. https://doi.org/10.1177/1754073918768878.
- Peters MDJ, Marnie C, Tricco AC, et al. Updated methodological guidance for the conduct of scoping reviews. JBI Evidence Synthesis. 2020;18(10):2119–2126. https://doi.org/10.11124/JBIES-20-00167.
- Tricco AC, Lillie E, Zarin W, et al. PRISMA extension for scoping reviews (PRISMA-ScR): checklist and explanation. Ann Intern Med. 2018;169(7):467–473. https:// doi.org/10.7326/M18-0850.
- McCaffrey L, McCann B, Giné-Garriga M, et al. Adult co-creators' emotional and psychological experiences of the co-creation process: a Health CASCADE scoping review protocol. Sys. Rev. 2024;13(1). https://doi.org/10.1186/s13643-024-02643-9
- Arksey H, O'Malley L. Scoping studies: towards a methodological framework. Int J Soc Res Methodol. 2005;8(1):19–32. https://doi.org/10.1080/ 1364557032000119616.
- Ouzzani M, Hammady H, Fedorowicz Z, Elmagarmid A. Rayyan—a web and mobile app for systematic reviews. Syst Rev. 2016;5(1):210. https://doi.org/ 10.1186/s13643-016-0384-4.
- * Frøiland CT, Akerjordet K, Aase I, Husebø AML, Andersen LL, Laugaland K. Registered nurse mentors' experiences from co-creation in higher education targeting enhancement of mentorship practices in nursing homes: a qualitative study. J Adv Nurs. 2023;79(7):2525–2538. https://doi.org/10.1111/jan.15602.
- * Laugaland K, Aase I, Ravik M, Gonzalez MT, Akerjordet K. Exploring stakeholders' experiences in co-creation initiatives for clinical nursing education: a qualitative study. *BMC Nurs*. 2023;22(1):416. https://doi.org/10.1186/s12912-023-01582-5.
- * Eggertsen Teder M. Placemaking as co-creation professional roles and attitudes in practice. *CoDesign*. 2019;15(4):289–307. https://doi.org/10.1080/ 15710882.2018.1472284.
- * Jaspers S, Steen T. Does Co-production lead to the creation of public value? Balancing the dimensions of public value creation in urban mobility planning. Adm Soc. 2021;53(4):619–646. https://doi.org/10.1177/0095399720957613.
- * Kohler Fueller, Matzler Stieger, Füller. Co-creation in virtual worlds: the design of the user experience. *MIS Q.* 2011;35(3):773–788. https://doi.org/10.2307/ 23042808.
- * Wang B, Ji T, He R. Empowerment or disempowerment: the (Dis)empowering processes and outcomes of Co-designing with rural craftspeople. *Sustainability*. 2023;15(5):4468. https://doi.org/10.3390/su15054468.
- Halvorsrud K, Kucharska J, Adlington K, et al. Identifying evidence of effectiveness in the co-creation of research: a systematic review and meta-analysis of the international healthcare literature. J Public Health. 2021;43(1):197–208. https:// doi.org/10.1093/pubmed/fdz126.
- Meister Broekema P, Bulder EAM, Horlings LG. Evaluating co-creation in social innovation projects: towards a process orientated framework for EU projects and beyond. *Res Eval*. 2023;32(2):286–298. https://doi.org/10.1093/reseval/rvad017.
- Pearce T, Maple M, Shakeshaft A, Wayland S, McKay K. What is the Co-creation of new knowledge? A content analysis and proposed definition for health interventions. *Int J Environ Res Publ Health*. 2020;17(7):2229. https://doi.org/ 10.3390/ijerph17072229.
- 29. * De Couvreur L, Dejonghe W, Detand J, Goossens R. The role of subjective wellbeing in Co-designing open-design assistive devices. Int J Des. 2013;7(3):57–70.
- * Tremblay M, Hamel C, Viau-Guay A, Giroux D. User experience of the Co-design research approach in eHealth: activity analysis with the course-of-action framework. JMIR Hum Factors. 2022;9(3), e35577. https://doi.org/10.2196/ 35577.
- 31. Dewey J. Art as Experience. G. P. Putnam's Sons; 1980.
- * Aflatoony L, Lee SJ, Sanford J. Collective making: Co-designing 3D printed assistive technologies with occupational therapists, designers, and end-users. Assist Technol. 2021;35(2):153–162. https://doi.org/10.1080/10400435.2021.1983070.
- 33. * Álvarez-Pérez Y, Perestelo-Pérez L, Rivero-Santanta A, et al. Co-creation of massive open online courses to improve digital health literacy in pregnant and lactating women. *Int J Environ Res Publ Health*. 2022;19(2):913. https://doi.org/ 10.3390/ijerph19020913.
- * Andréasson F, Aidemark J, Magnusson L, Strömberg A, Hanson EJ. Lifeworld in co-designing with informal carers. J Enabling Technol. 2019;13(1):29–39. https:// doi.org/10.1108/JET-05-2018-0023.

- * Arblaster K, Mackenzie L, Buus N, et al. Co-design and evaluation of a multidisciplinary teaching resource on mental health recovery involving people with lived experience. Aust Occup Ther J. 2023;70(3):354–365. https://doi.org/ 10.1111/1440-1630.12859.
- 36. * Bell J, Lim A, Williams R, Girdler S, Milbourn B, Black M. 'Nothing about us without us': co-production ingredients for working alongside stakeholders to develop mental health interventions. *Adv Ment Health*. 2021;21(1):4–16. https:// doi.org/10.1080/18387357.2021.2020143.
- * Bell T, Vat LE, McGavin C, et al. Co-building a patient-oriented research curriculum in Canada. *Res Involv Engagem*. 2019;5(1). https://doi.org/10.1186/ s40900-019-0141-7.
- * Bilous R, Hammersley L, Lloyd K, et al. 'All of us together in a blurred space': principles for co-creating curriculum with international partners. *Int J Acad Dev.* 2018;23(3):165–178. https://doi.org/10.1080/1360144X.2017.1412973.
- * Binder MJ, Beks H, Versace VL, et al. Participant perspectives of an online codesign process to develop a prevention-focused mental health and well-being platform for primary producers. *Aust J Rural Health*. 2022;30(6):719–729. https:// doi.org/10.1111/ajr.12911.
- * Bowen S, McSeveny K, Lockley E, Wolstenholme D, Cobb M, Dearden A. How was it for you? Experiences of participatory design in the UK health service. *CoDesign*. 2013;9(4):230–246. https://doi.org/10.1080/15710882.2013.846384.
- * Bressler A, Quintana RM, Zint M. Co-creation of a massive open online course: an exploration of the motives and motive fulfillment of a faculty member and student co-instructors. *Front Educ.* 2022;7, 1010018. https://doi.org/10.3389/ feduc.2022.1010018.
- * Brook J, Aitken Leanne, MacLaren DJA, Salmon D. Co-production of an intervention to increase retention of early career nurses: acceptability and feasibility. *Nurse Educ Pract.* 2020;47, 102861. https://doi.org/10.1016/j. nepr.2020.102861.
- * Carminati JYJ, Ponsford JL, Gould KR. "This group... I felt like I was medicating myself from this cyberscam illness that was living with me." A qualitative evaluation of co-designing cybersafety training resources with and for people with acquired brain injury. *Disabil Rehabil*. 2023;45(22):3719–3729. https://doi.org/ 10.1080/09638288.2022.2139418.
- 44. * Cedstrand E, Mølsted Alvesson H, Augustsson H, et al. Co-creating an occupational health intervention within the construction industry in Sweden: stakeholder perceptions of the process and output. Int J Environ Res Publ Health. 2021;18(24), 12872. https://doi.org/10.3390/ijerph182412872.
- 45. * Clarke D, Gombert-Waldron K, Honey S, et al. Co-designing organisational improvements and interventions to increase inpatient activity in four stroke units in England: a mixed-methods process evaluation using normalisation process theory. *BMJ Open.* 2021;11(1), e042723. https://doi.org/10.1136/bmjopen-2020-042723.
- * Cviko A, McKenney S, Voogt J. Teachers as co-designers of technology-rich learning activities for early literacy. *Technol Pedagog Educ*. 2015;24(4):443–459. https://doi.org/10.1080/1475939X.2014.953197.
- * Devan H, Perry MA, Yaghoubi M, Hale L. "A coalition of the willing": experiences of co-designing an online pain management programme (iSelf-help) for people with persistent pain. *Res Involv Engagem*. 2021;7(1):28. https://doi.org/10.1186/ s40900-021-00275-0.
- * Gheduzzi E, Masella C, Morelli N, Graffigna G. How to prevent and avoid barriers in co-production with family carers living in rural and remote area: an Italian case study. *Res Involv Engagem.* 2021;7(1):16. https://doi.org/10.1186/s40900-021-00259-0.
- * Griffin J, Austin D, Lynham J, et al. Positive family connections: co-producing a virtual group programme for family carers of children with learning disabilities or who are autistic. *Learn Disabil Rev.* 2023;28(3/4):61–70. https://doi.org/10.1108/ TLDR-03-2023-0008.
- * Gros B, López M. Students as co-creators of technology-rich learning activities in higher education. Int J Educ Technol High Educ. 2016;13(1):28. https://doi.org/ 10.1186/s41239-016-0026-x.
- * Güemes C, Resina J. 'Come together?' Citizens and civil servants dialogue and trust. Aust J Publ Adm. 2019;78(2):155–171. https://doi.org/10.1111/1467-8500.12377.
- * Hall J, Morton S, Hall J, et al. A co-production approach guided by the behaviour change wheel to develop an intervention for reducing sedentary behaviour after stroke. *Pilot Feasibility Stud.* 2020;6(1):115. https://doi.org/10.1186/s40814-020-00667-1.
- 53. * Hall T, Loveday S, Pullen S, et al. Co-Designing an integrated health and social care hub with and for families experiencing adversity. 2023;23(1):3. https://doi. org/10.5334/ijic.6975.
- * Holmqvist M, Ros A, Lindenfalk B, Thor J, Johansson L. How older persons and health care professionals Co-designed a medication plan prototype remotely to promote patient safety: case study. *JMIR Aging*. 2023;6(1), e41950. https://doi. org/10.2196/41950.
- * Hyett N, Bagley K, Iacono T, McKinstry C, Spong J, Landry O. Evaluation of a codesign method used to support the inclusion of children with disability in mainstream schools. *Int J Qual Methods*. 2020;19:1–12. https://doi.org/10.1177/ 1609406920924982.
- * Illarregi ER, Alexiou K, DiMalta G, Zamenopoulos T. Is designing therapeutic? A case study exploring the experience of co-design and psychosis. *Psychosis*. 2022;15 (3):277–291. https://doi.org/10.1080/17522439.2022.2052450.
- 57. * Istanboulian L, Rose L, Yunusova Y, Dale C. Adapting co-design methodology to a virtual environment: co-designing a communication intervention for adult patients in critical care. *Res Involv Engagem*. 2023;9(1):103. https://doi.org/10.1186/ s40900-023-00514-6.

- * Iqbal MZ, Könings KD, Al-Eraky MM, van Merriënboer JJG. It's about time to involve all stakeholders in co-creating faculty development programmes exploring the perceptions of students and teachers. *Innovat Educ Teach Int.* 2022;60 (2):239–251. https://doi.org/10.1080/14703297.2022.2030781.
- * Juel A, Berring LL, Erlangsen A, Larsen ER, Buus N. Sense of psychological ownership in co-design processes: a case study. *Health Expect.* 2023;27(1), e13886. https://doi.org/10.1111/hex.13886.
- * Kelly M, Taffe S. When digital doesn't work: experiences of Co-designing an indigenous community museum. *Multimodal Technol Interact.* 2022;6(5):34. https://doi.org/10.3390/mti6050034.
- * Kenis I, Kinnaer LM, Delombaerde C, et al. A self-directed co-creation process for developing a care pathway for patients on oral anticancer therapy: a qualitative process evaluation. *Eur J Oncol Nurs*. 2023;65, 102353. https://doi.org/10.1016/j. ejon.2023.102353.
- * Knowles SE, Allen D, Donnelly A, et al. More than a method: trusting relationships, productive tensions, and two-way learning as mechanisms of authentic co-production. *Res Involv Engagem*. 2021;7(1):34. https://doi.org/ 10.1186/s40900-021-00262-5.
- * Kotzur M, Amiri R, Gatting L, et al. Adapting participatory workshops to a virtual setting: Co-design with muslim women of a faith-based intervention to encourage cancer screening uptake. *Int J Qual Methods*. 2023;22:1–15. https://doi.org/ 10.1177/16094069231205194.
- * Leask CF, Colledge N, Laventure RME, McCann DA, Skelton DA. Co-creating recommendations to redesign and promote strength and balance service provision. *Int J Environ Res Publ Health*. 2019;16(17):3169. https://doi.org/10.3390/ ijerph16173169.
- * Lloyd-Williams F, Hyseni L, Guzman-Castillo M, et al. Evaluating stakeholder involvement in building a decision support tool for NHS health checks: coproducing the WorkHORSE study. *BMC Med Inf Decis Making*. 2020;20(1):182. https://doi.org/10.1186/s12911-020-01205-y.
- * Lord K, Kelleher D, Ogden M, et al. Co-designing complex interventions with people living with dementia and their supporters. *Dementia*. 2022;21(2):426–441. https://doi.org/10.1177/14713012211042466.
- * Lubicz-Nawrocka T, Bovill C. Do students experience transformation through cocreating curriculum in higher education?. *Teach High Educ.* 2021:1744–1760. https://doi.org/10.1080/13562517.2021.1928060. Published online May 17.
- * Lundell S, Toots A, Sönnerfors P, Halvarsson A, Wadell K. Participatory methods in a digital setting: experiences from the co-creation of an eHealth tool for people with chronic obstructive pulmonary disease. *BMC Med Inf Decis Making*. 2022;22 (1):68. https://doi.org/10.1186/s12911-022-01806-9.
- 69. * Macdonald I, Malone E, Firth R. How can scientists and designers find ways of working together? A case study of playful learning to co-design visual interpretations of immunology concepts. *Stud High Educ.* 2022;47(9):1980–1996. https://doi.org/10.1080/03075079.2021.2020745.
- * Malpass A, Breel A, Stubbs J, et al. Create to Collaborate: using creative activity and participatory performance in online workshops to build collaborative research relationships. *Res Involv Engagem.* 2023;9(1):111. https://doi.org/10.1186/ s40900-023-00512-8.
- * Marwaa MN, Guidetti S, Ytterberg C, Kristensen HK. Using experience-based codesign to develop mobile/tablet applications to support a person-centred and empowering stroke rehabilitation. *Res Involv Engagem*. 2023;9(1):69. https://doi. org/10.1186/s40900-023-00472-z.
- * McAllister S, Simpson A, Tsianakas V, et al. Developing a theory-informed complex intervention to improve nurse-patient therapeutic engagement employing Experience-based Co-design and the Behaviour Change Wheel: an acute mental health ward case study. *BMJ Open*. 2021;11(5), e047114. https://doi.org/ 10.1136/bmjopen-2020-047114.
- 73. * McGowan D, Morley C, Hansen E, Shaw K, Winzenberg T. Experiences of participants in the co-design of a community-based health service for people with high healthcare service use. *BMC Health Serv Res.* 2024;24(1):339. https://doi.org/ 10.1186/s12913-024-10788-5.
- 74. * McGeown H, Potter L, Stone T, et al. Trauma-informed co-production: collaborating and combining expertise to improve access to primary care with women with complex needs. *Health Expect.* 2023;26(5):1895–1914. https://doi. org/10.1111/hex.13795.
- 75. * Molloy R, Hansen A, Robinson E, D'Astoli P, Wood T, Buus N. Stakeholder perspectives on co-designing a post-registration mental health nursing curriculum: a case study. J Psychiatr Ment Health Nurs. 2024;31(3):303–312. https://doi.org/ 10.1111/jpm.12988.
- * Munoz SA. Co-producing care services in rural areas. J Integrated Care. 2013;21 (5):276–287. https://doi.org/10.1108/JICA-05-2013-0014.
- * Murdock L, Osgood L, Elizabeth, McCarvill L. Embracing Co-design: a case study examining how community partners became Co-creators. *Educ Sci.* 2023;13(5): 492. https://doi.org/10.3390/educsci13050492.
- 78. * Nasri N, Mohamad Nasri N, Abd Talib MA. Developing an inclusive curriculum: understanding co-creation through cultural lens. *Int J Incl Educ.* 2021;1072–1083. https://doi.org/10.1080/13603116.2021.1880652. Published online February 4.
- * Nasri N, Xu W, Jamaludin KA, Mohamad Nasri N. Socio-culturally responsive medical professionalism and ethics education: a curriculum co-creation approach. *Med Educ Online*. 2024;29(1), 2303209. https://doi.org/10.1080/ 10872981.2024.2303209.
- * Onukwugha F, Dyson J, Howlett H, et al. Reflections of maternity service users and midwives' on the co-creation of interventions to support midwives addressing alcohol during antenatal care. *Patient Educ Counsel*. 2023;115, 107896. https://doi. org/10.1016/j.pec.2023.107896.

- * Pallesen KS, Rogers L, Anjara S, De Brún A, McAuliffe E. A qualitative evaluation of participants' experiences of using co-design to develop a collective leadership educational intervention for health-care teams. *Health Expect.* 2020;23(2): 358–367. https://doi.org/10.1111/hex.13002.
- * Pearce T, Maple M, McKay K, Shakeshaft A, Wayland S. Co-creation of new knowledge: good fortune or good management?. *Res Involv Engagem*. 2022;8(1):65. https://doi.org/10.1186/s40900-022-00394-2.
- * Potvin AS, Teeters LP, Penuel WR, Dimidjian S. Humanizing Co-design through attention to educators' affective and relational experiences. *J Learn Sci.* 2024;33 (1):41–79. https://doi.org/10.1080/10508406.2024.2318557.
- * Randall K, Tayleur S, Allamby W. A case study: using an appreciative inquiry model to co-produce a gender-informed women's only access to drug and alcohol treatment space. *Hous Care Support*. 2022;25(3/4):178–189. https://doi.org/ 10.1108/HCS-12-2021-0046.
- * Revenäs Å, Hvitfeldt Forsberg H, Granström E, Wannheden C. Co-designing an eHealth service for the Co-care of Parkinson disease: explorative study of values and challenges. JMIR Res Protoc. 2018;7(10), e11278. https://doi.org/10.2196/ 11278.
- * Richards L, Williams B, Przybylak P, Flynn S. The experiences of people with learning disabilities in co-produced challenging behaviour training. *Learn Disabil Pract.* 2018;21(4):28–35. https://doi.org/10.7748/ldp.2018.e1909.
- * Sakaguchi-Tang DK, Cunningham JL, Roldan W, Yip J, Kientz JA. Co-design with older adults: examining and reflecting on collaboration with aging communities. *Proc ACM Hum-Comput Interact.* 2021;5(CSCW2):362. https://doi.org/10.1145/ 3479506.
- * Sakamoto M, Guo YP, Ellen, Wong KLY, et al. Co-design of a digital app "WhatMatters" to support person-centred care: a critical reflection. *Int J Geriatr Psychiatr.* 2023;38(10), e6014. https://doi.org/10.1002/gps.6014.
- * Scornavacco K, Kelly MR, Boardman A. Leading with curricular Co-design: an exploration of teacher leadership through the Co-design process. J Res Leadersh Educ. 2022;17(4):333–357. https://doi.org/10.1177/19427751211017595.
- 90. * Sherriff S, Miller H, Tong A, et al. Building trust and sharing power for cocreation in Aboriginal health research: a stakeholder interview study. *Evid Policy A J Res Debate Pract.* 2019;15(3):371–392. https://doi.org/10.1332/ 174426419X15524681005401.
- * Tanay MAL, Armes J, Oakley C, et al. Co-designing a cancer care intervention: reflections of participants and a doctoral researcher on roles and contributions. Res Involv Engagem. 2022;8(1):36. https://doi.org/10.1186/s40900-022-00373-7.
- * Teodorowski P, Gleason K, Gregory JJ, et al. Participatory evaluation of the process of co-producing resources for the public on data science and artificial intelligence. *Res Involv Engagem*. 2023;9(1):67. https://doi.org/10.1186/s40900-023-00480-z.
- 93. * Tessarolo F, Petsani D, Conotter V, et al. Developing ambient assisted living technologies exploiting potential of user-centred co-creation and agile methodology: the CAPTAIN project experience. *J Ambient Intell Hum Comput.* 2022. https://doi.org/10.1007/s12652-021-03649-0. Published online April 9.
- * Tollyfield R. Facilitating an accelerated experience-based co-design project. Br J Nurs. 2014;23(3):136–141. https://doi.org/10.12968/bjon.2014.23.3.136.
- * Toros K, Kangro K, Lepik KL, et al. Co-creation of social services on the example of social hackathon: the case of Estonia. *Int Soc Work*. 2022;65(4):593–606. https://doi.org/10.1177/0020872820904130.
- * Tossavainen PJ. Co-create with stakeholders: action research approach in service development. Action Res. 2017;15(3):276–293. https://doi.org/10.1177/ 1476750316641995.
- 97. * Tran J, Vlaev I, Read D, et al. A qualitative evaluation of a Nudgeathon event for the co-design of sexual health campaign images targeting overseas-born men who have sex with men. Sex Health. 2023;20(2):158–163. https://doi.org/10.1071/ SH22125.
- * Tsianakas V, Robert G, Maben J, Richardson A, Dale C, Wiseman T. Implementing patient-centred cancer care: using experience-based co-design to improve patient experience in breast and lung cancer services. *Support Care Cancer*. 2012;20(11):2639–2647. https://doi.org/10.1007/s00520-012-1470-3.
- 99. * van den Berg A, Dewar B, Smits C, Jukema JS. Experiences of older adults and undergraduate students in co-creating age-friendly services in an educational living lab. Int Pract Dev J. 2019;9(2):1–14. https://doi.org/10.19043/ipdj.92.002.
- * Vargas C, Hillenaar M, Strugnell C, et al. Lived experience of participants who engaged in the co-creation of initiatives to improve children's health in a rural Australian community. Aust J Rural Health. 2023;31(4):659–669. https://doi.org/ 10.1111/ajr.12996.

- 101. * Webber R, Partridge R, Grindell C. The creative co-design of low back pain education resources. *Evid Policy*. 2022;18(2):436–453. https://doi.org/10.1332/ 174426421X16437342906266.
- 102. * Wemyss D, Lobsiger-Kägi E, Jud S, Cellina F. Leveraging realities of saving energy at home: contributions of co-design to behavioural interventions. *Energy Res Social Sci.* 2023;104, 103258. https://doi.org/10.1016/j.erss.2023.103258.
- 103. * West J, Birt L, Wilson D, Mathie E, Poland F. A case study of Co-production within a mental health recovery college dementia course: perspectives of A person with dementia, their family supporter and mental health staff. *Front Rehabil Sci.* 2022;3. https://doi.org/10.3389/fresc.2022.920496.
- Ryan RM, Deci EL. Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *Am Psychol.* 2000;55(1):68–78. https://doi.org/10.1037/0003-066X.55.1.68.
- 105. Erikson E. Childhood and Society. W.W. Norton & Company; 1950.
- 106. Allport GW. The Nature of Prejudice. Perseus Books; 1954.
- 107. Barnett K, Dean M. Identifying the evidence base for the good lives concept. Final Report: Matching Research Evidence to the Good Lives Model. University of Adelaide; 2012.
- May C, Finch T. Implementing, embedding, and integrating practices: an outline of normalization process theory. *Sociology*. 2009;43(3):535–554. https://doi.org/ 10.1177/0038038509103208.
- 109. Nambisan S, Nambisan P. How to profit from a better virtual customer environment'. MIT Sloan Manag Rev. 2008;49:53–61.
- Pierce JL, Kostova T, Dirks KT. Toward a theory of psychological ownership in organizations. Acad Manag Rev. 2001;26(2):298–310. https://doi.org/10.2307/ 259124.
- Patel H, Pettitt M, Wilson JR. Factors of collaborative working: a framework for a collaboration model. *Appl Ergon.* 2012;43(1):1–26. https://doi.org/10.1016/j. apergo.2011.04.009.
- 112. Batti R. Understanding the drivers of partnership success. HSS. 2019;7(1):21. https://doi.org/10.11648/j.hss.20190701.13.
- Pertuz V, Miranda LF, Charris-Fontanilla A, Pertuz-Peralta L. University-industry collaboration: a scoping review of success factors. *JESI*. 2021;8(3):280–290. https://doi.org/10.9770/jesi.2021.8.3, 16.
- Davis A, Tuckey M, Gwilt I, Wallace N. Understanding Co-design practice as a process of "welldoing.". Int J Art Des Educ. 2023;42(2):278–293. https://doi.org/ 10.1111/jade.12459.
- 115. Fancourt D, Finn S. What Is the Evidence on the Role of the Arts in Improving Health and Well-Being? A Scoping Review. World Health Organization. Regional Office for Europe; 2019. https://apps.who.int/iris/handle/10665/329834. Accessed September 13, 2023.
- Masterson D, Areskoug Josefsson K, Robert G, Nylander E, Kjellström S. Mapping definitions of co-production and co-design in health and social care: a systematic scoping review providing lessons for the future. *Health Expect.* 2022;25(3): 902–913. https://doi.org/10.1111/hex.13470.
- 117. Smith B, Williams O, Bone L, Collective the MSWC production. Co-production: a resource to guide co-producing research in the sport, exercise, and health sciences. *Qual. Res. Sport Exerc. Health.* 2022:1–29 https://doi.org/10.1080/2159676X.2022.2052946. Published online March 19.
- Messiha K, Chinapaw MJM, Ket HCFF, et al. Systematic review of contemporary theories used for Co-creation, Co-design and Co-production in public health. J Public Health. 2023;45(3):723–737. https://doi.org/10.1093/pubmed/fdad046.
- 119. Eilola S, Käyhkö N, Fagerholm N. Lessons learned from participatory land use planning with high-resolution remote sensing images in Tanzania: practitioners' and participants' perspectives. *Land Use Pol.* 2021;109, 105649.
- 120. Walsh G, Foss E. A case for intergenerational distributed co-design: the online kidsteam example. In: Proceedings of the 14th International Conference on Interaction Design and Children. ACM; 2015:99–108.
- 121. Fails JA, Ratakonda DK, Koren N, Elsayed-Ali S, Bonsignore E, Yip J. Pushing boundaries of co-design by going online: lessons learned and reflections from three perspectives. *IJCCI*. 2022;33, 100476.
- 122. Taylor-Bower E, Plaisted-Grant K, Archer S. Collaboration and Co-creation in autism research: a reflection on the challenges and benefits of participatory approaches in doctoral research. *Educ Action Res.* 2024, 1080/ 09650792.2024.2329195.
- 123. Godden NJ. The participation imperative in Co-operative inquiry: personal reflections of an initiating researcher. Syst Pract Action Res. 2017;30(1):1–18. https://doi.org/10.1007/s11213-016-9387-2.