June 2020

Co-design in Aotearoa New Zealand: a snapshot of the literature

Dr Simon Mark
Toi Āria: Design for Public Good
College of Creative Arts Toi Rauwhārangi
Massey University

Dr Penny Hagen
Auckland Co-design Lab
Auckland Council

THE AUCKLAND CO-DESIGN LAB
TOGETHER WE DISCOVER

The Southern Initiative

Auckland Council
Te Kaunihera o Tāmaki Makaurau

TOI ĀRIA
DESIGN FOR PUBLIC GOOD

MASSEY UNIVERSITY
TE KUNENGA KI PŪREHUROA
UNIVERSITY OF NEW ZEALAND

Dedicated in memory of Hilary Boyd. A passionate leader for authentic participation by people in their own healthcare journey in Aotearoa NZ

Table of contents

1.0 Introduction and background to the review

1.1 What is this snapshot?

Co-design refers to a philosophical approach and evolving set of methodologies for involving people in the design of the services, strategies, environments, policies and processes that impact them.

This review gathers together readily available local scholarship and literature about co-design in Aotearoa New Zealand up to September 2019. This document is aimed at the practitioners as much as academics and is more a snapshot than a formal academic literature review. Its aim is to:

» Create a resource to support groups and individuals working in, or commissioning, co-design

» Make visible for those practising or commissioning co-design in Aotearoa New Zealand the current landscape of formal scholarship and research in this space

» Provide a benchmark of current research applying to, or about, co-design, highlighting areas for future scholarship and collaboration. As more literature is identified it can be added to this initial review.

1.2 Who produced the review

The Auckland Co-design Lab (The Lab), based within the Southern Initiative in South Auckland, is jointly funded by Auckland Council and 10 central government agencies. The Lab's remit is to strengthen the capacity of government to support equity and intergenerational wellbeing. To do this the Lab builds capability in design-led, strengths-based, participatory and developmental approaches for the commissioning, design and evaluation of services and policy. The Lab's work includes supporting and growing the body of knowledge about what constitutes good practice in the context of Aotearoa New Zealand as well as how the conditions for good practice can be fostered. This includes putting a critical lens on 'co-design'. The Lab commissioned Toi Āria, Design for Public Good, Massey University to both review the current body of work available around co-design practice in a Aotearoa New Zealand context, and to provide an independent view of the scholarship and its scope.

Toi Āria is a research unit based in the College of Creative Arts at Massey University's Wellington campus. It seeks to improve lives by reforming the design and delivery of public services, by bringing a design lens and a citizen-centric focus to social policy and public services. Toi Āria brings together leading design researchers, practitioners and policy makers to deliver design-led, evidence-based service innovations, leveraging the creative and intellectual freedom of the university environment, while ensuring innovation is grounded in rigorous method and research.

1.3 A perspective on co-design in Aotearoa New Zealand

The term co-design has, over the last 5 years become ubiquitous across government, including in significant strategies, reports, engagement models and procurement requirements. The Auckland Co-design Lab itself represents a continued and growing interest by the Aotearoa New Zealand public service in the potential of co-design of policy, services and community-led responses, aimed at enabling greater participation and more effective responses to complex social and economic issues.

We believe that co-design, when practised well, and used to refer to culturally grounded participatory and developmental design practices shaped by and with people in place, offers the potential for improved community wellbeing. It is an opportunity for people to impact, lead, and shape the things that influence their lives. For this potential of co-design to be realised, the role of tangata whenua is fundamental. When led by Māori for Māori as an expression of te ao Māori values and tikanga, co-design is seen by some Māori practitioners as representing an opportunity for whānau Māori to participate in mana enhancing ways and lead change in their own lives (see for example Menzies et. al. (2017) and Whaanga-Schollum et. al. (2016)).

It also poses significant risk when done poorly. For the 'co' in co-design to be honoured, there needs to be more than design skills and methods involved. Both the capability and the conditions for a relational and value-based, culturally grounded practice based on reciprocity and shared decision-making need to be in place. Doing co-design involves creating time, space and structures for learning,

reciprocity, and power sharing. Delivering on co-design means allowing for changes to how policy, procurement and services are currently configured. These represent significant shifts for most public service teams. This is especially true when government is commissioning co-design that impacts Māori. While the intent of co-design is promising, there is still a lot of work needed to close the gap between potential, capability, conditions and, in some cases, the commitment needed to follow through and deliver on this potential.

To date, co-design practice has been inconsistent and variable in quality. Co-design has, in some spaces, already become a fancy word for consultation, or to infer a degree of power sharing, participation and partnership that never really existed. The concern that outcomes from co-design might not be honoured or followed through by government is genuine.[1] Also worryingly, co-design risks being an imported process that perpetuates colonial and Eurocentric mindsets and values, rather than providing a means to enact Te Tiriti o Waitangi/The Treaty of Waitangi [2] ('Te Tiriti') or be understood as related to practice already existing within te ao Māori.

From our own experience and from practitioner reports, we know that many in the community already distrust the term co-design, are experiencing a form of 'co-design fatigue', and can consider the term to be devalued of meaning.

1.4 The review process and findings

The review includes readily available co-design research published by Aotearoa New Zealand-based authors. Despite the widespread use of co-design in the public sector, the literature is modest.

Material was initially located through academic searching using the term co-design and participatory design. This was applied to the Massey University library collection to examine journal databases and included Google Scholar to locate non-academic reports and articles. Only a small number of formally published articles were identified through this process. To enhance what was available through academic review, the Auckland Co-design Lab also contributed links to reports and grey literature. The peer review process provided by the Auckland Council helped to identify additional sources of relevant literature. A small number of blogs and video links have also been included. While not formal literature, their inclusion improves the value of the paper as a resource for those working in, or commissioning, co-design. Abstracts have been included in the Appendix to allow easier access to sources for practitioners. The text has been written and structured with the intention of being as accessible as possible to a wide audience.

The resulting snapshot of literature provides insight into key themes, issues and opportunities in practice, mostly through the description of specific projects, processes, outcomes and the nature of engagement within them. A synopsis of key points from the snapshot includes:

» A significant emphasis of co-design in the New Zealand health sector,[3] with literature potentially reflecting the influence of the UK National Health Service practice of experience-based design.[4]

» Co-design is seen by many as providing a powerful method to connect with those using or impacted by services and products. This brings their experiences to shape a solution to a problem, and, more importantly, to define the problem itself.

» Co-design was also valued for capability building. This is visible particularly for youth-focused projects, but increasingly also as an aspect of working with whānau and organisations.

» Māori practitioners are leading a strong and emerging practice that explores the potential of approaches based in kaupapa Māori or tikanga Māori practice and principles. It signals the relationship between co-design and the principles of Te Tiriti, and the tension that exists between dominant eurocentric models and culturally grounded, indigenous and place-based practices.

» A need to invest more in the integration of evaluation and co-design. A number of questions are raised about the resources, skills, investment and conditions required for co-design and its ethical practice.

[1] See for example https://www.stuff.co.nz/national/politics/113073959/health-minister-needs-to-apologise-to-midwives-for-budget-snubs--national

[2] The Treaty of Waitangi/Te Tiriti o Waitangi has two texts: one in te reo Māori and one in English. The Waitangi Tribunal provides a general guide to the meaning of the Treaty texts on its website (https://waitangitribunal.govt.nz/treaty-of-waitangi/meaning-of-the-treaty/)

[3] This reflects the activity of the Health Quality & Safety Commission (a crown entity which leads and coordinates health quality and safety activity in Aotearoa New Zealand), the Ministry of Health, the Design for Health and Wellbeing Lab at Auckland Hospital, and the Auckland District Health Board, along with the active scholarship of Dr Lynne Maher and colleagues (with the Commission), Dr Stephen Reay and colleagues (with the Lab) and Hilary Boyd and colleagues (with the ADHB).

[4] https://improvement.nhs.uk/resources/the-experience-based-design-approach/

This review is not exhaustive. For example, it won't capture similar work using language other than co-design or participatory design. Yet, it does help to make the current landscape of formal scholarship and research visible for those practicing or commissioning co-design in Aotearoa New Zealand.

We know there will be literature not captured including unpublished thesis and conference work. There will also be government reports and grey literature not housed in a central database that will have escaped our search strategy. With these limitations in mind we share this snapshot as an initial benchmark that can continue to be added to as more literature is identified.

1.5 Review structure

The review has been organised around the following key themes observed in the literature, these are:

- » Definitional issues;
- » Elements of practice including:
    - — the process of co-design;
    - — the nature of engagement;
    - — ethical aspects of co-design;
- » Benefits of the practice;
- » Challenges.

The conclusion points to key areas for future work. In addition to the references included in the review, an appendix of abstracts or summaries from the reports and papers is also provided.

2.0 Definitional Issues

The term co-design is used interchangeably with a set of other terms: participatory design, experience-based design, co-production, human-centred design and others. Boyd defines co-design within a health context as "…a method of designing better experiences for patients, carers and staff" (Boyd 2012, p4).

In Maher's view, 'true' co-design must include capturing people's experiences of the care journey and involve all stakeholders in developing and testing improvement ideas. Eyles et. al., citing Boyd (2012, p2), provides this definition of co-design, which they note:

> it is a process in which targeted end users and other relevant stakeholders form a partnership with researchers and work together on all aspects of intervention development, from needs assessment to content development, pilot testing, and dissemination.

In 2012 Hagen et. al. provided the following diagram of the intersection of some of the terms relating to co-design practice (see Figure 1). They note that:

> as a user-centric method, Participatory Design puts emphasis on designing from the perspective of the user. It differs however, from other common user-centric methods such as user-centred design (UCD). In UCD user involvement tends to focus on checking 'what works' and 'what doesn't work' within specific evaluation phases…Participatory Design goes beyond consultation and testing to seek active contribution of users as co-designers in the creation of design proposals and alternatives, throughout the design process (Blomberg et. al. 1993). In her evolving map of design research methods, Sanders (2008) describes Participatory Design as user-led and UCD as design-led or 'expert'-led. In the latter, users can become more like an information resource for designers (Brereton & Burr 2008).
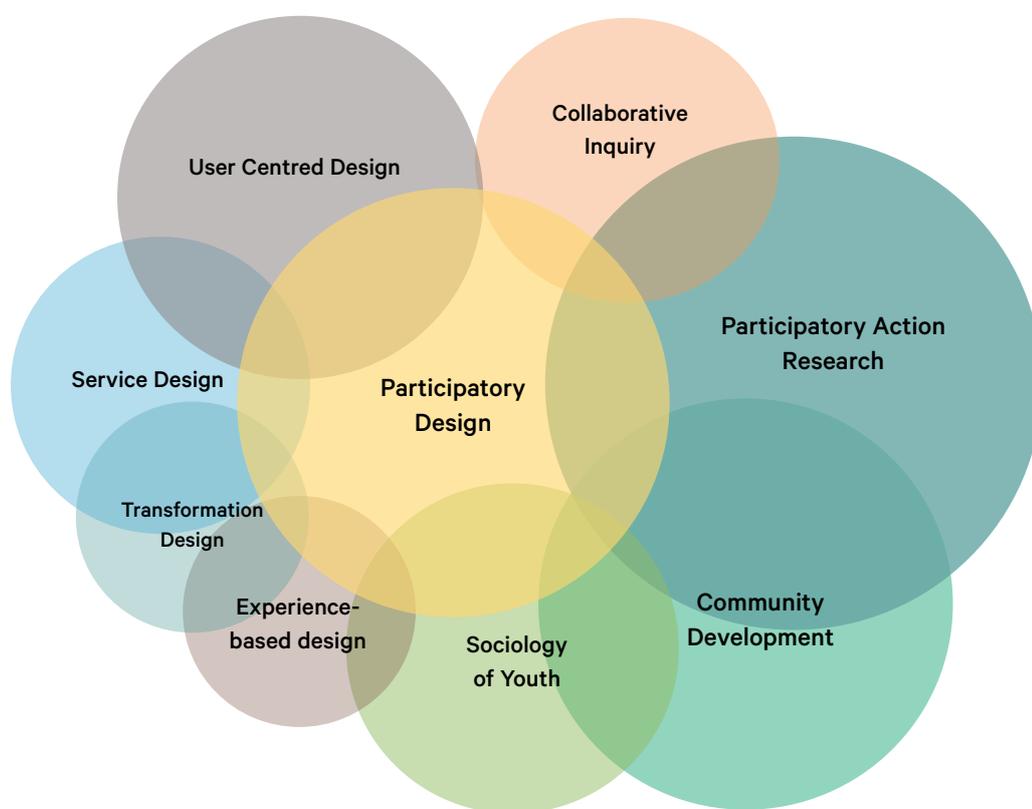
Figure 1: Intersecting fields that influence co-design (Hagen 2012)[5]

[5] This diagram has continued to expand since then to include more

In recent years co-design has been more critically explored and extended as a particular practice situated within Aotearoa New Zealand, including its relationship to kaupapa Māori practice and principles. For example, in a 2017 webinar Mules, Pekepo and Beaton (2017) discuss Māori co-design and how Mātauranga and co-design intersect to benefit Māori communities.

Te Morenga et. al. (2018) describe their practice as an integration of co-design and kaupapa Māori research. Practitioners (e.g. Akama et. al. 2019) have also identified the need to unpack the different interpretations and world views implicated in co-design practice within the context of Aotearoa New Zealand.

3.0 Elements of practice

This section sets out three broad elements of practice observed in the literature:

1. The process of co-design;
2. The nature of engagement;
3. Ethical aspects of co-design.

3.1 The process of co-design

Many of the articles and reports focus on the precise steps involved in a co-design process. A sample of these is as follows. Maher et. al. (2017) suggest that an experience-based design approach entails the use of a specific process, adopted for use in Aotearoa New Zealand. The five project phases are:

1. Introduction to tools;
2. Capturing patient experience (use tools to help people tell their stories);
3. Understand the experience;
4. Improve the experience;
5. Measure the improvement (ibid, p45).

These phases support the programme's principles, which include achieving a partnership between patients, staff and carers, an emphasis on experience rather than attitude or opinion, and systematic evaluation of improvements and benefits.

The process set out in detail by Boyd et. al. in their case study involves six elements or phases, of which the first three are "primarily about capturing and understanding the patient experience" (Boyd et. al. 2012, p5). The authors note that the series of steps in reality may overlap, and some may not be undertaken. The common element is "the active engagement of patients and their families" (ibid, p5). The Auckland District Health Board Toolkit also posits six co-design elements, several of which—but not all—overlap (Auckland District Health Board 2010).

In another article, Boyd (2014) notes that capturing experiences draws on a number of tools: patient journey mapping, experience-based surveys, and co-design workshops. Any co-design process, regardless of variations, has several common features: understanding and improving patient and staff experiences; patients and staff making changes together; an equal relationship throughout the process for users of the services and staff;

a strong emphasis on storytelling and creativity; and the use of a range of design tools (ibid, p6).

The core principles of the Health Quality & Safety Commission's Partners in Care co-design programme included; achieving a partnership between consumers, staff and carers; an emphasis on experience rather than attitude or opinion; a narrative and storytelling approach to identify 'touch points'; and systematic evaluation of improvements and benefits (Ko Awatea 2016). Much of the content of the writing which takes the form of a toolkit or a guide, is relatively straightforward, i.e. that those to be communicated with should know how to use, and have access to, a computer; and that a range of stakeholders be included.

Two reports by The Southern Initiative describe the process and outcomes of co-design that was part of the Ministry of Health's Healthy Homes Initiative in Auckland (The Southern Initiative 2018). This initiative sought to co-design and implement interventions that would result in healthier and warmer homes. Whānau, frontline staff from community, social and health organisations and government agencies worked together to understand, design and prototype a range of possible responses. A four stage process used by the Auckland Co-design Lab is referenced (whilst acknowledging the reality to be much messier than this). These stages included:

1. Framing the context — scanning existing information;
2. Exploring — developing a deeper understanding through the user's perspective;
3. Imagining — brainstorming and developing ideas;
4. Testing — prototyping in a safe-to-fail environment and refining ideas.

The reports give detailed insight into the evolution and iteration of the nine different prototypes, most of which were 'live tested'. The prototypes were either developed into specific programmes with whānau and frontline staff, including a whānau-led peer-to-peer initiative, or provided to policy and operational level stakeholders as further advice and learning about the effect of interventions and policy.

Articles on the OL@-OR@ research project (Te Morenga et. al. 2018; Verbiest et. al. 2018) describe a culturally-grounded approach to the co-design of an mHealth intervention. As noted by the authors, health interventions designed for the general population tend to be less effective for Māori and Pacific communities and can increase health inequities. The OL@-OR@ project involved a collaborative two stage effort to develop, trial and evaluate a culturally-tailored approach to mHealth interventions. Acknowledging the similarities and differences in values and practices, separate co-design processes were run with Māori and Pacific communities in parallel to "maintain a sense of autonomy and self-determination in the respective communities" (Te Morenga et. al. 2018, p91).

The authors draw on kaupapa Māori research principles and norms (Smith 1999; Walker et. al. and the participatory design cycle outlined by Bratteteig et. al. (2012). The authors provide a thorough setting out of the kaupapa Māori practices and principles (tikanga) that shaped the co-design process, including whakawhanuangatanga, mana, manaakitangi, koha and aroha. Storytelling based on traditional Māori creation stories, such as 'Te Hekenga' (the great migration) were also used to examine the ideas further. A detailed description of their principles of engagement and the Te Hekenga framework can be found in the paper.

A subsequent article by Verbiest et. al. (2018) describes the co-design process used to develop health interventions as a culturally-centred approach that integrates existing western evidence around behaviour change with culturally-specific perspectives and experiences of Māori and Pacific partners.

> *Findings from the Māori and Pasifika partners were compared with a 'traditional' Western theoretical approach to the development of behaviour change interventions (the Theoretical Domains Framework) to marry the desires of the communities with the evidence of what has been effective in behaviour change. This approach did not privilege one knowledge base over another, but rather tried to bring together the different sources of knowledge (Verbiest et. al. 2018, p6).*

The report on the Early Years Challenge focussed on young families in South Auckland by the Southern Initiative and the Auckland Co-design Lab also describes a whānau-centred co-design process and practice model that draws on the four phase process used by the Lab but is grounded within, and by, tikanga Māori practices and principles (The Southern Initiative and Auckland Co-Design Lab, 2017). Their definition of whānau-centred co-design practice goes beyond a collaborative process with

whānau, and includes the transfer of design capability and leadership to whānau, who over time build their own capability in design, ultimately leading the design of the process and design decision-making themselves.

In a broader critique of dominant themes in co-design, Akama et. al. (2019) caution against Western descriptions of design processes that put emphasis on process but not on the relationships, people, principles or values that underpin the process. The authors suggest that this approach risks perpetuating the view of practitioners as culturally neutral, objective, interchangeable and not of a specific place or location.

3.2 The nature of engagement

Co-design involves connecting with people that are impacted by services and policy, including communities, patients, frontline staff, various stakeholders and so on. Many authors focus on the nature of engagement. Insights in the health sector include:

» The importance of involving patients early in the process, and securing a representative group of users or patients (Boyd 2012);

» Ensuring that when necessary, patients or users have the opportunity to be part of a group rather than participate by themselves;

» Making sure that if possible, patients feel that their experiences and opinions are valued and that they are considered equal partners (Ko Awatea 2016);

» Ensuring proper staff and sponsor buy-in (in a health organisation, i.e. clinical, management and administrative staff) (Cunningham 2019; Boyd 2012; Maher 2017). Ko Awatea delivered a seven month course on co-design to participating teams (Ko Awatea 2016); [6]

» The importance of staff in the health sector participating in the process to ensure that changes to services are embedded and therefore sustainable. The 2015-2016 evaluation of the Health Quality & Safety Commission's Partners in Care co-design programme notes that "consumers and staff alike recognise co-design as an opportunity to move away from tokenistic engagement with consumers,

---

[6] Ko Awatea is a health system innovation and improvement centre at Counties Manukau Health in Auckland (which delivered iterations of the Health Quality & Safety Commission's co-design programme).

to a more meaningful model of engagement and partnership in which consumers and staff together define the challenges to their current experiences of delivering or receiving care, and co-design solutions" (Ko Awatea 2016, pii);

» The same report noted that the most significant theme which emerged from the programme was the improved knowledge and awareness of staff, particularly the way in which consumer (patient) experiences can inform health care transformation.

With regard to evaluation of impact and efficacy of co-design, Ko Awatea (2016, p2) describe using a post-programme survey and post programme interviews to understand people's experience of the co-design process. It is interesting to note the small sample size for the interviews—in one project it is five. This raises issues with the credibility of evaluation findings for projects which have small numbers, often because of the difficulty of securing ongoing patient involvement.

Te Morenga et. al. (2018) note that it takes time to build relationships with, and gain the trust of, Māori communities. In this context they also describe the engagement, trust-building work and mutual learning process required to build a shared starting point in the team (a cross collaboration of community practitioners and academic researchers). They describe actions that could be undertaken before engagement with communities, such as: revising parameters of the initiative to better support partnership; examining aspects of cross-cultural communication; learning about the possibilities of mHealth technologies; training in design thinking approaches, and how they could be applied with Māori communities led by a Māori co-design expert.

Also focusing on work that needs to be done by practitioners themselves in preparation for co-design, Akama et. al. (2019) stress the need to avoid a Eurocentric mindset. They challenge practitioners to consider what biases the practitioners might bring to their set of questions, and a reflexive awareness of who they are in the process. They recognise that co-design processes operate within an existing and shifting power dynamic and engage with social issues that inevitably involve personal, sensitive, and potentially legal issues.

3.3 Ethical aspects of co-design

Ethical aspects of co-design should, arguably, be regarded as a core element of the practice. In Aotearoa New Zealand this is more in theory than in practice. With the exception of Goodyear-Smith et. al. (2015), Godbold

et. al. (2019) and Akama et. al. (2019), the literature is for the most part quiet about the ethical considerations of co-design.

Co-design practice has largely evolved within practice settings and it is only fairly recently that co-design practitioners have been required to interact with formal research ethics processes. While a rigorous approach to ethics is needed in co-design, Goodyear-Smith et. al. (2015) identify some of the challenges in simply directing design or improvement processes into conventional ethics processes that have their origins in medical settings. Goodyear-Smith (an academic based at the University of Auckland Medical School) and her co-authors, provide a useful discussion about some of the challenges of bringing co-design to the well-regulated ethics regimes of academia. They note that a co-design process is emergent, adaptive, flexible and imprecise, involving collaboration between researchers and end users from the onset. By contrast, the strict control framework required by ethics committees—in the effort to protect participants from harm and help ensure the rigour and transparency of studies—requires decisions about participation to have been already made by researchers. This potentially undermines some of collaborative benefits and intentions of co-design in working with people to design the process. It also contrasts with the more responsive and iterative nature of design and improvement practices. The authors propose some guiding principles: ethics committees acknowledging and celebrating the diversity of research approaches; establishing ground rules for co-design applications; and recognising the benefits of power-sharing (Goodyear-Smith et. al. 2015).

Godbold et. al. (2019) discuss issues faced by students trying to undertake co-design in hospitals. Postgraduate students engagement with patients and staff in hospitals is by definition research. As such, it triggers a requirement for full ethical review by a university and/ or health research committee. However, students are poorly equipped to deal with these ethical requirements, and often either abandon the project, or compromise methods. The authors argue for ensuring that ethical dimensions of human centred design projects are identified and managed through the entire process, embedding ethics education into design curricula. The Auckland District Health Board's co-design toolkit includes four pages addressing ethical matters. A useful set of questions has been provided by Southern Initiative and Auckland Co-design Lab project (Southern Initiative and the Auckland Co-design Lab 2017), when considering a whānau-centric or co-design approach. Whilst not labelled as a set of ethical considerations, they can be viewed in this way.

Questions include:

» How deeply do you understand the cultural context of the people you are working with?

» Have you dedicated the time and the right people to develop a relationship with the whānau/community members you are working with?

» Have you considered how you can include whānau/community in decision-making processes? This can include setting the rules of engagement;

» Do you have the right expertise/advice to ensure a culturally appropriate environment/process?

» Have you considered how you will make people feel welcome within the process and welcome in working spaces?

» Have you ensured a working space and process which people will be able to see themselves (their culture and values) in?

» Have you considered how you will keep the whānau/community updated as the process progresses?

» Have you thought about how the contribution of the whānau/community can be acknowledged?

The need for designers to be aware of their own positionality and the risk of privileging Eurocentric views and models of design and perpetuating colonial mindsets is stressed by Akama et. al. (2019).

This means, as researchers and practitioners, we must be vigilant of assumed and dominant frames of design, so that they do not skew or replace what design means and how it's practiced in and by 'peripheral' locations, cultures, and people. (Akama and Yee 2016 in Akama et. al. 2019, p63).

4.0 Benefits of the practice

This section sets out some of the benefits identified in the literature of using co-design methodologies and approaches.

Co-design practice is, on the whole, viewed positively. The review suggests, that when done well, co-design is a powerful method to connect with those using or impacted by services and products. It allows their experiences to shape a solution to a problem, and, more importantly, to define the problem itself. Benefits highlighted in the literature are outlined below.

4.1 Culturally connected responses

The literature suggests that a culturally-grounded co-design approach, connected to people and place, is capable of supporting and prioritising the world views, experiences and perspectives of Māori and Pacific peoples. It can also create room for participation and leadership of Māori and Pacific peoples in design processes.

Te Morenga et. al. (2018) argue that an integrated kaupapa Māori co-design research approach is best practice for developing health interventions targeting Māori communities. By integrating co-design and kaupapa Māori research approaches, communities are empowered to take an active role in the research. Co-design is compatible with kaupapa Māori methodologies as it gives primacy to the needs and views of those impacted, as they participate and have influence throughout each stage of the research, design, evaluation and implementation process. Practised in this way it is inherently mana enhancing:

> Māori knowledge systems, creation stories, proverbs, oral histories and stories provide a culturally empowering way to generate discussion and insights from Māori whānau and communities (Te Morenga et. al. 2018, p97).

Applying a te ao Māori lens to all co-design is likely to enrich the impact for all (Te Morenga et. al. 2018). Verbiest et. al. (2018) note that the principles underpinning Te Tiriti (equal partnership, participation and protection) underpinned their research approach to co-design. They argue a co-design process for culturally tailored, lifestyle support interventions drawing on mobile technologies offers the potential to look beyond 'traditional' Western approaches to ethnic-specific paradigms that reflect users' perceptions and ensure the intervention is both evidence-based and meets the end users' cultural needs and context (Verbiest et. al. 2018). Akama et. al. (2019) note that a

respectful, reciprocal, and relational approach (which has a sensitivity to design's location within multi-layered sites of power, knowledge, practices, cultural values, and precarious asymmetries) would help overcome the pitfalls of a universal design process perpetuating colonial tropes.

Goodyear-Smith et. al. (2015) note that co-design is considered best practice in research involving indigenous peoples in Aotearoa New Zealand, Australia and Canada. Eyles et. al. (2016, p2) suggest that the iterative nature of co-design fits well when:

> collaborating with minority and indigenous populations because this approach allows for conceptual or tool re-developments and refining based on the socio-cultural needs of partnership groups.

4.2 Improved systems and services

The literature also strongly supports the proposition that design can act as an agent of change in the wider health system and hospitals. The experiences of patients, the public and healthcare staff when they receive or deliver healthcare services are a valuable source of information that can be used to improve care and transform services (Maher 2017; Ko Awatea 2016). The results shown by D'Young et. al. (2014) for instance, who used a co-design process to improve timely bleed reporting by adults with haemophilia, are significant.

Co-design is seen as an agent of change in hospitals, particularly bringing about improvements in patient experiences, and in increasing staff understanding of patients' experiences (Cunningham 2019; Boyd 2012).

> Consumers and staff alike recognise co-design as an opportunity to move away from tokenistic engagement with consumers, to a more meaningful model of engagement and partnership in which consumers and staff together define the challenges to their current experiences of delivering or receiving care, and co-design solutions. (Ko Awatea 2016, pii).

Boyd (2012) notes that co-design could have the potential to make a difference for services where there has been a lot of staff dissatisfaction or patient complaints, where there are high 'did not attend' rates, or where a new facility or service is being developed. Boyd (2014) also notes that co-design in health can improve existing — or develop new — services, assist in the design of facilities, deal with specific issues across services (i.e. waiting times) and help in the design of products. In addition, the use of co-design

to improve health services has the potential to act as an exemplar for other parts of the health system.

In her work to co-design assistance technology for people with dementia, Jury (2016) suggests that the potential for collaboration with people such as those affected by dementia in the design of new products which improve people's lives, has been previously overlooked. In reflecting on work undertaken for her thesis Jury (2016) notes that people with dementia are able to contribute to the design process and suggests that co-design can be an empowering and positive experience for people living with dementia.

In the wider health system, one example is the Ministry of Health's efforts to address the issue of young Māori women who smoke, utilising a co-design methodology and the services of a design consultancy, ThinkPlace, to unlock new insights into the complexities surrounding the lives of young Māori women (aged 18 to 24). Co-design enabled a greater understanding of the experience of young Māori women and their surrounding social and whānau environment and helped the Ministry better invest future funding (Ministry of Health in collaboration with ThinkPlace 2017).

The co-design process that made up part of the Ministry of Health's Healthy Homes Initiative in Auckland helped to facilitate change for a number of teams across the fields of both health and housing (The Southern Initiative 2018). In addition to new interventions that have now been implemented, the process created a platform that connected stakeholders from across parts of the health and housing system for the first time. This resulted in new capabilities and connections, as well as increased trust and coordination between different teams and providers that improved their ability to achieve outcomes that mattered with and for families (Auckland Co-design Lab 2019).

Outside the health and community sector, other literature notes additional benefits of co-design practice as a core contributor to business strategy. McLean, Scully and Tergas (2008) of the design consultancy ThinkPlace, who have written about their work for the IRD on service design, make the interesting point that the involvement of users (taxpayers) in developing and improving services is important because of IRD's focus on voluntary compliance as its underlying business model. To maximise IRD's voluntary compliance objective (which seeks to keep costs down to a minimum, in particular chasing up non-paying taxpayers), the whole service experience for users needs to be as good as it can be. If taxpayers are put off when complying, they may decide not to. The case for service design is not simply to bring about the best possible services for consumers but goes to the very heart of the IRD's business model.

4.3 Prioritising the experiences and perspectives of young people

Nakarada-Kordic et. al. (2017) note that engaging young people — especially those experiencing psychosis — to develop new health resources can be challenging due to their unique culture, behaviours and values. However, the use of co-design methods, particularly those which are empowering, enjoyable, and familiar, can help increase participation, so as to ensure that solutions meet needs. Young people faced with mental health challenges can meaningfully engage with a co-design process. The key is working with, rather than for, them, and treating young people as equal partners.

Thabrew et. al. (2018) also argue for the benefits of co-design with young people, and e-health interventions in particular, sharing three different examples of how co-design can increase the extent to which interventions are user centred. They argue that co-design can successfully be undertaken with children and young people, but that this requires a shift from conventional practice, and that additional thought needs to be given to settings and techniques to ensure meaningful engagement and participation.

Hagen et. al. (2012) argue that there are a number of benefits of applying participatory design to youth mental health services and interventions:

1. It offers clear, accessible and adaptable methods and techniques to support the active participation of young people and other stakeholders in the design process, regardless of their design expertise;

2. It helps develop better and deeper understandings of how young people see and act in the world, which can lead to new understandings about the source of such problems as well as potential responses;

3. It helps develop interventions that are engaging to young people and therefore are more likely to be used, increasing the overall reach and impact of the intervention;

4. It aids the creation of a shared language to support consensus-building across stakeholders, critical in the multidisciplinary field of online health work, and can help to facilitate research with groups who are traditionally considered 'hard to reach' or less likely to seek help when they need it (e.g. young men);

5. It asserts the rights of young people to define their own wellbeing goals and participate in their own care.

4.4 To build capability and capacity

In a later paper about co-design for youth wellbeing in an educational context, Hagen et. al. (2018) expand on the benefits of co-design with young people as a means to build readiness and capability for changes in practice, and in particular improving the conditions for youth wellbeing. The initiative described in this paper sought to generate benefits and outcomes across three areas as a result of a cross sector, youth-led wellbeing collaboration within an education and community setting. These were:

1. Initiatives — support creative learner-led wellbeing initiatives within the school system and wider community;

2. Capability — build wellbeing, creativity and co-design knowledge and confidence for learners, teaching staff and collaborators;

3. Relationships — build social cohesion and community participation through increased connections.

In addition to producing specific initiatives, the paper notes that this work built confidence, capability, capacity and connections between students, the school and community collaborators, helping to contribute to longer-term wellbeing benefits within that particular community.

The authors connect co-design with one of its origins in the Scandinavian participatory design movement of the 1960s and 1970s. Participatory design in this form assumes that design efforts must not just be about what is designed, but also about building or preparing for the new practices and capacities needed in order to realise any future, different, way of working. They suggest a return to this earlier premise of participatory design, because a core benefit of co-design within the context of complex social and systems change is that it is a process of mutual learning and action that produces the new skills and capacities needed to enable change and a means to model those new practices in action.

This is also highlighted in the summary report on the Early Years Challenge which notes that *how* service and agencies engage is as important as the *subject* of the engagement, and see 'conscious and careful' co-design, particularly if it is whānau-centric, as providing a range of benefits including new connections and capability. The Early Years Challenge design process created positive ripples of impact beyond the initiatives themselves:

An unexpected consequence of the co-design approach was that a number of participants started to make changes in their lives outside of the

co-design process utilising the problem solving skills they had developed. Participants have reflected that the experience of being valued and respected, developing genuine relationships, learning from one another, and building new skills has fuelled their confidence and sense of purpose. This has in turn allowed them to build confidence and a sense of agency that has encouraged them to tackle new challenges and make positive changes to their lives, their relationships, homes and communities (The Southern Initiative and Auckland Co-design Lab 2017, p24).

The report's authors suggest that change could be sustained through families continuing to participate in (and lead) the planning, design, and ongoing development of their own communities.

The more agencies actively share power and control, the more opportunities there will be to practise and grow these skills (ibid p24)

As noted by a peer reviewer, practitioners who write about co-design may well be more likely to think the process is a good one (otherwise why use it?), or be inclined to favour sharing positive outcomes if the work is related to paying clients. The papers reviewed share benefits and challenges as well as recommendations for effective practice, including in some cases findings from evaluations of co-design. However, as is noted in the challenges section that follows, there is an argument for a greater investment in the evaluation of co-design to both better understand its benefits as well as support and build evidence for meaningful or 'good' practice.

5.0 Challenges

The literature set out in this review highlights challenges observed by those undertaking co-design.

5.1 Lack of culturally connected practice

As noted, Akama et. al. (2019) state that enthusiasm for design thinking toolkits for beginners can overlook due process for, and consideration of, duty of care, safety or ethics. Design is undertaken by cultures and peoples in diverse locations. This necessitates the researchers' own accountabilities. They argue that respect, reciprocity, and relationships are required dimensions of co-design, as is an engaged consciousness for indigenous self-determination. The authors believe that design needs to be decolonised, and optimistically see a 'nascent but growing movement of design's decolonisation' (ibid, p62).

In a similar vein, Helen Cunningham's (2020) doctoral research explores the application of a post-structural philosophical approach to a live design project (specifically, applied to a product used by those with Obstructive Sleep Apnoea) based on the work of the French philosopher Michel Foucault. The research explores and uncovers perspectives and cultural discourses not always accessible or evident. Her findings show that the design of the mask for apnoea is constrained by discourses associated with Western situated cultural aesthetics, masculine occupations and scientific legitimacy. Through the asking of questions such as 'who are the stakeholders and who is missing?', 'how are our conceptions of materials constructed?' and 'who is the key beneficiary of the product being studied?', products can be better designed.

5.2 What is required to support 'good practice'

Challenges specific to engagement in a co-design process involving Māori and Pacific communities were also identified in the literature and include;

- » The importance of moving away from the notion of a universal design method, essentially based on the notion that the 'West knows best' (Akama et. al. 2019);
- » Recognising that a whānau-centric co-design process is time intensive;
- » Convincing research funders of the merits of co-design approaches especially when they typically

require proposals that describe well-defined research ideas, clear research plans and milestones and can demonstrate the significance of the likely impact (Te Morenga et. al. 2018, p251)

The Ministry of Health's reporting on its comprehensive co-design project aimed at exploring the complexities surrounding the lives of young Māori women who smoke also highlights the following challenges that were experienced in the project:

- » Pākehā practitioner capacity to support appropriate cultural protocols and perspectives;
- » Ensuring enough time is available for the prototyping phase;
- » Ensuring wāhine are involved in all steps of the overall process;
- » A mismatch in the length of time available to test, learn and adapt and to re-orient resources;
- » Critically assessing the impact and risks of co-designing in Māori contexts when rapid testing is too brief.

That project's evaluation noted the importance of strong commitment by leadership, genuine partnership, retention of evaluation and co-design mentoring, realistic assessment of ongoing funding needs, exploring and setting out what 'good' co-design looks like when working with Māori providers and whānau (Wehipeihana et. al. 2018).[7]

---

[7] The first phase project sought to identify new ideas and areas of opportunity which could positively narrow existing age and ethnicity disparities and halt the transference of smoking across generations. A concomitant project provided quantitative analytics using 2013 Census data. Another report provided an examination of the collaborative process in more detail, pointing to what worked well, what stretched the team, and opportunities for future client insights work. The phase two project tested a collaborative programme of prototyping and evaluation, with the prototypes developed and implemented by 'four providers with a good reputation for delivering services to Māori,' and the evaluation by Wehipeihana et. al. 2018 See https://www.health.govt.nz/our-work/preventative-health-wellness/tobacco-control/insights-maori-women-smoking

5.3 Time, resources, leadership and implementation

Additional challenges identified specific to engagement in a health setting include:

» Ensuring effective staff and sponsor commitment;

» Patient attrition from co-design projects;

» The number of patients available for involvement in a project evaluation (Maher, 2017; Boyd, 2017) and in sharing the co-design methodology;

» Engaging with consumers' patients about participating in co-design;

» The need for co-design entities embedded in a hospital to remain agile, including responding to requests in a timely manner, and to adapt the methodology or approach to meet specific needs of those involved;

» The coordination of people with differing commitments, the engagement and attrition of project teams, securing staff release time, and competing priorities;

» Staff can be both a limitation to, and a champion for, co-design in the health system (one report mentioned the challenge of the involvement of senior leaders with limited knowledge of the co-design approach);

» The importance of ensuring that changes made as a result of the co-design process are embedded and sustained. An associated challenge is overcoming the fear of change — how do you embed in an organisation's culture a 'commitment to sustained use of co-design methods' (Maher, 2012, 50; Boyd 2012; Cunningham 2017)?

5.4 Demonstrating value

Another challenge noted was the importance of ensuring that co-design projects incorporate sufficient time and resources to allow for an evaluation of the project to take place once the improvements have been made and bedded down (Boyd 2012; Maher 2017). Reay and Cunningham (2019) believe co-design needs to demonstrate its value to implement change and muster the resources required. Wehipeihana et. al. (2018) note, in this context, the value to a project of having evaluation as an integral part of co-design, particularly from the very outset of a project, and ensuring that evaluators are involved throughout the lifetime of a project.

In establishing the value of co-design, processes that allow teams to compare the outcomes of co-design approaches to other methods are also difficult to achieve. Eyles et. al. (2016) suggest that areas of future research should include the use of co-design methods and processes for the development of health interventions and to determine whether co-design is more effective than traditional approaches to intervention development.[8] In their review of co-design challenges and benefits for e-health interventions with children and young people, Thabrew et. al. (2018) also note that the relative effectiveness of co-designed interventions has only been researched to a limited extent. Their review reiterates some of the challenges outlined above and highlight additional risks including meeting the needs of a range of different users, the potential for scope creep and the importance of managing expectations and being transparent around constraints.

5.5 Skills, capacity and commitment to support participation and partnership

One evaluation of a major co-design programme in the health sector suggested that in order to increase the sustainability of co-design approaches, it was important to embed co-design within existing organisational training; to deliver workshops on those areas of the co-design process which participants have found challenging; to identify, and then provide support for, participants who train others; and to draw on a range of delivery modalities to fit in with differing staff workday schedules (for instance, e-volunteering). (Ko Awatea, Research and Evaluation Office 2016, piii).

The availability of experienced co-design practitioners and capacity and capability of teams to support effective co-design is also a potential challenge. As the literature indicates, co-design is very demanding, and this would be more so if one were to rely on the sometimes very comprehensive toolkits without also having assistance of those who have previous experience. Four areas of potential for co-design were identified by Boyd in 2014, including increasing staff skill base; increasing collaboration with service designers; establishing a central place for sharing resources; and hearing the 'voices of the unheard.' (Boyd 2014).

---

[8] Their article synthesises co-design projects in six countries, none of which is Aotearoa New Zealand, but is included in this review as all eight authors are based in Aotearoa New Zealand.

Wake and Eames, writing about a school space co-design project involving children, note that:

> major barriers to children's participation are adults' willingness to allow it, followed by its interpretation and enactment (Wake and Eames 2013, p308).

There is the potential for "participation to be token … many adults lack conviction about children's capability to plan, design and build, although in some recent examples practitioners have attested the skills children brought to the design table" (ibid). Other authors cited by Wake and Eames acknowledge that children are natural designers, free of the constraints adulthood brings, but lack knowledge and skills to achieve a complex built structure. A caution is offered against making the dangerous assumption that children are like adults in thinking and behaving, thereby ignoring the critical adult dimension within participatory processes. Providing an authentic co-design and build experience for children is challenging with the budget and time frame constraints of most real-world projects.

A paper by Cattermole (2015) outlines one of the few formally published examples of co-design applied to policymaking in Aotearoa New Zealand. The paper uses Ara Toi Ōtepoti — Our Creative Future — Dunedin Arts and Culture Strategy as a case study of the challenges of participatory governance. They highlight in particular the challenges that arise from different interpretations of what 'partnership' involves as community groups and local councils seek to work together around policy-making.[9]

Finally, Brown et. al. (2019) note that it can sometimes be a challenge, when undertaking a "full participatory design framework", to ensure that participants in any given process feel comfortable in expressing their views freely. This may entail the provision of peer support in family workshops, for instance, to help manage the balance between involving the full range of participants in any given project (such as designers, families, frontline providers and specialists) and ensuring that there is no undue influence or censorship in a mixed-group approach (this may be due to some participants being particularly vulnerable, and not willing, or able, to express freely their thoughts when in the presence of those they do not know, or are representatives of agencies of authority).

---

[9] Other examples of co-design and design-led practice in policy development in Aotearoa New Zealand have been profiled by the Auckland Co-design Lab but not formally published. See Policy by Design – Exploring the intersection of design and policy in Aotearoa New Zealand: 7 Case Studies (2018) Auckland Co-design Lab https://www.aucklandco-lab.nz/s/Policy-by-Design-7-cases-studies-from-Aotearoa-NZ.pdf

6.0 Conclusion

This literature review has focused on Aotearoa New Zealand and Aotearoa New Zealand-based authors and readily available literature. The extensive international literature has not been analysed.

Co-design is clearly regarded as a powerful tool for engaging with those most impacted by services, and involving them in the design of improvements to those services, particularly in the health sector, where it seems to be widely used, and in involving Māori communities as equal partners in the process of improvement. The review reflects the various dimensions of practice involved in co-design and its potential as a practice in the development of policies, services and strategies. It also profiles some of the benefits and challenges.

In addition to the themes and issues identified in the literature, the small pool of available literature also tells us something about the state of current scholarship in this space, even taking into account the lag time of academic publication. It would seem that scholarship about co-design has not kept pace with wide usage in practice and does not yet reflect the level of activity happening in communities.

The largest body of literature is from the health sector, which perhaps reflects the strength of the relationship between health practice and academic research. It seems likely that the presence of formal evaluation practice also increases the chances of contributions to formal literature. Interestingly, with the exception of papers from Auckland University of Technology, very few other academic papers originating from design fields were identified. Several papers were published through government reports rather than academic journals.

There is little in the literature that reflects some of the broader concerns or critical debates alive in practice, including the co-opting of the term co-design, the wide variation in quality of practice and the potential for it to simply reinforce or perpetuate colonial mindsets and values. This reflects the emerging nature of this as a field, and creates a strong case for closer relations between practice and academic scholarship, particularly in design related areas.

From the perspective of the Auckland Co-design Lab, the review helps to confirm the need for greater investment in further critical scholarship in this space and the value of continuing to foster connections with academic research partners that can support the development and sharing of practice-based research and evidence.

As a follow-up step to this review, and to better capture the overall scope of co-design work happening in Aotearoa New Zealand, we intend to develop a separate practice-based snapshot of co-design activity happening within different iwi, ministries, agencies, events and organisations across Aotearoa New Zealand.

Acknowledgements

7.0 References

» Akama, Y., Hagen, P., Whaanga-Schollum, D. 2019. Problematizing Replicable Design to Practice Respectful, Reciprocal, and Relational Co-designing with Indigenous People. *Design and Culture*, 11:1, 59-84. (DOI: 10.1080/17547075.2019.1571306).

» Auckland District Health Board. 2010. Health Service Co-design toolkit. https://www.healthCo-design.org.nz/assets/Health-co-design/2010-07-HCD-Toolkit-17.1MB.pdf

» Auckland Co-design Lab. 2018. Policy by Design – Exploring the intersection of design and policy in Aotearoa New Zealand: 7 Case Studies https://www.aucklandco-lab.nz/s/Policy-by-Design-7-cases-studies-from-Aotearoa-NZ.pdf

» Auckland Co-design Lab. 2019. Learning in Complex Settings, Innovation Brief: https://www.aucklandco-lab.nz/s/Learning-In-Complex-Settings_InnovationBriefMay2019.pdf

» Boyd, H., McKernon, S., Mullin, B., Old, A. 2012. Improving healthcare through the use of co-design. *NZMJ*, 125: 1357, 4-15. (ISSN 1175 87162012).

» Boyd, H. 2014. Co-design in Healthcare. A report submitted to the Winston Churchill Fellowship Trust, May 2014.

» Bratteteig, T., Bødker, K., Dittrich, Y., Mogensen., P.H., & Simonsen, J. 2012, Methods: Organising principles and general guidelines for Participatory Design projects. in J Simonsen & T Robertson (eds), *Routledge International Handbook of Participatory Design*. Routledge, New York, pp. 117-144.

» Brown, A., Chouldechova, A., Putnam-Hornstein,E., Tobin, A., and Vaithianathan, R (2019). Toward Algorithmic Accountability in Public Services: A Qualitative Study of Affected Community Perspectives on Algorithmic Decision-Making in Child Welfare Services. In *CHI Conference on Human Factors in Computing Systems Proceedings* (CHI 2019), May 4–9, 2019, Glasgow, Scotland UK. ACM, New York, NY, USA, 12 pages (DOI: https://doi.org/10.1145/3290605.3300271)

» Cattermole, J. 2018. Dunedin's arts and culture strategy: a case study of the challenges of participatory governance in Aotearoa New Zealand. *Asia Pacific Journal of Public Administration*, 40:1, 43-56. (DOI: 10.1080/23276665.2018.1435006)

» Cunningham, H. 2020. Discourse and Design of CPAP Therapy Masks for OSA: Applying Foucault to Product Design Research. A Thesis Submitted to Auckland University of Technology in Fulfilment of the Requirements for the Degree of Doctor of Philosophy (PhD). Auckland, Aotearoa New Zealand. http://hdl.handle.net/10292/13139

» Cunningham, H., Reay, S. 2019. Co-creating design for health in a city hospital: perceptions of value, opportunity and limitations from 'Designing Together' symposium. *Design for Health* (DOI: 10.1080/24735132.2019.1575658)

» D'Young et. al. 2014. The use of a co-design model in improving timely bleed reporting by adults with haemophilia living in the Auckland region of Aotearoa New Zealand. *Haemophilia*, 20, 388–397.

» Eyles, H., Jull, A., Dobson, R., Firestone, R., Whittaker, R., Morenga, L.T., Goodwin, D., & Mhurchu, C.N. (2016). Co-design of mHealth Delivered Interventions: A Systematic Review to Assess Key Methods and Processes. *Current Nutrition Reports*, 5, 160-167.

» Godbold, R., Lees, A., Reay, S. 2019. Ethical Challenges for Student Design Projects in Health Care Settings in Aotearoa New Zealand. *International Journal of Art & Design Education*; Oxford. 38:1 182-192.

» Goodyear-Smith et. al. 2015. Co-design and implementation research: challenges and solutions for ethics committees. *BMC Medical Ethics* 16:78 (DOI 10.1186/s12910-015-0072-2)

» Hagen, P., Collin, P., Metcalf, A., Nicholas, M., Rahilly, K., Swainston, N. 2012, Participatory Design of evidence-based online youth mental health promotion, prevention, early intervention and treatment. Young and Well Cooperative Research Centre, Melbourne. https://www.westernsydney.edu.au/__data/assets/pdf_file/0005/476330/Young_and_Well_CRC_IM_PD_Guide.pdf

» Hagen, P., Reid, T., Evans M., Vea, A. T. 2018. Co-design reconfigured as a tool for youth wellbeing and education: A community collaboration case study. In *PDC '18: Proceedings of the 15th Participatory Design Conference* Volume 1, August 20-24, 2018, Hasselt and Genk, Belgium, 5 pages: DOI: 10.1145/3210604.3210632

» Hayward, P. 2017. Six tips on co-design. http://koawatea.co.nz/six-tips-co-design/

» Jury, R. 2016. Not for me without me: co-designing assistive technology with people affected by dementia. An Exegesis Submitted to Auckland University of Technology in Fulfilment of the Requirements for the Degree of Master of Design (MDES): http://hdl.handle.net/10292/9900)

» Ko Awatea (Research and Evaluation Office). Co-Design Programme 2015-2016. Report on the evaluation survey and interviews. Prepared for the Health Quality & Safety Commission Aotearoa New Zealand. https://www.hqsc.govt.nz/assets/Consumer-Engagement/Resources/Co-Design-Programme-2015-16-evaluation-report-Jul-2016.pdf

» Maher, L., Hayward, B., Hayward, P., and Walsh, C. 2017. Increasing sustainability in co-design projects: A qualitative evaluation of a co-design programme in Aotearoa New Zealand. *Patient Experience Journal*, 4:2. Available at: https://pxjournal.org/journal/vol4/iss2/7

» Maher, L. Co-designing Health and Care Services for the Partners In Care Programme for the Health Quality and Safety Commission, Aotearoa New Zealand, 2017. https://www.hqsc.govt.nz/our-programmes/partners-in-care/work-programmes/co-design/

» McLean, K., Scully, J., and Tergas, L., 2008. Inland Revenue Aotearoa New Zealand: Service Design in a Regulatory Context. *DMI Review*, 19:1, 28-37.

» Menzies, D., Whaanga-Schollum, D., Livesey, B., & Clarke, J., 2017. Ngā Ahō, Designing Māori Futures Report. Commissioned by The Independent Māori Statutory Board.

» Ministry of Health in collaboration with ThinkPlace. 2017. Exploring why young Māori women smoke. Taking a new approach to understanding the experiences of people in our communities. Wellington: Ministry of Health.

» Mules, R., Pekepo, C., and Beaton, S. 2017. Co-design and Community Development: Kōrero and Insights from Māori Co-designers. October 19 2017. http://www.communityresearch.org.nz/webinar-co-design-community-development-korero-insights-maori-co-designers/

» Nakarada-Kordic, I., Hayes, N., Reay, S., Corbet, C., Chan, A. 2017. Co-designing for mental health: creative methods to engage young people experiencing psychosis. *Design for Health*, 1:2, 229-244. DOI: 10.1080/24735132.2017.1386954

» Smith, L. T. (1999). Decolonizing methodologies: Research and indigenous peoples. London, England: Zed Books.

» Thabrew, H., Fleming, T., Hetrick, S., Merry, S.2018. Co-design of eHealth Interventions with Children and Young People. *Frontiers in Psychiatry*. 9:481. Published 2018 Oct 18. DOI: 10.3389/fpsyt.2018.00481

» The Southern Initiative and the Auckland Co-design Lab (October 2017). Early Years Challenge. Supporting parents to give tamariki a great start in life. Summary report. Available at: https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-plans-strategies/place-based-plans/Documents/TSI-early-years-challenge-report.pdf

» The Southern Initiative 2018, 2019. Healthy Homes Initiative — Auckland: Co-design: Testing ideas to make homes warmer and drier: Stage 1 Report Available at: .https://www.health.govt.nz/publication/healthy-homes-initiative-auckland-Co-design-stage1 Stage 2 Report Available at: https://www.health.govt.nz/publication/healthy-homes-initiative-auckland-Co-design-stage2

» Te Morenga, L., Pekepo, C., Corrigan, C., Matoe, L., Mules, R., Goodwin, D., Dymus, J., Tunks, M., Grey, J., Humphrey, G., Jull, A., Whittaker, R., Verbiest, M., Firestone, R., Ni Mhurchu, C. 2018. Co-designing an mHealth tool in the Aotearoa New Zealand Māori community with a "Kaupapa Māori" approach. *AlterNative* 14 (1), 90-99.

» Verbiest, M., Corrigan, C., Dalhousie, S., Firestone, R., Funaki, T., Goodwin, D., Grey, J., Henry, A., Humphrey, G., Jull, A., Vano, M., Pekepo, C., Morenga, L. T., Whittaker, R., Mhurchu, C. N. (2019). Using Co-design to develop a culturally tailored, behavior change mHealth intervention for indigenous and other priority

communities: A case study in Aotearoa New Zealand. *Translational Behavioral Medicine*, 9(4), 720–736. https://doi.org/10.1093/tbm/iby093

» Verbiest M., Borrell S., Dalhousie S., Tupa'i-Firestone R., Funaki T., Goodwin D., Grey J., Henry A., Hughes E., Humphrey G., Jiang Y., Jull A., Pekepo C., Schumacher J., Te Morenga L., Tunks M., Vano M., Whittaker R., Mhurchu C. N., 2018. A Co-Designed, Culturally-Tailored mHealth Tool to Support Healthy Lifestyles in Māori and Pasifika Communities in Aotearoa New Zealand: Protocol for a Cluster Randomized Controlled Trial. *JMIR Research Protocols*, 7:8. (DOI: 10.2196/10789)

» Wake, S., and Eames, C. 2013. Developing an "ecology of learning" within a school sustainability co-design project with children in Aotearoa New Zealand. *Local Environment*, 18:3, 305-322. (DOI: 10.1080/13549839.2012.748723). https://doi.org/10.1080/13549839.2012.748723

» Walker, S., Eketone, A., Gibbs, A. (2006). An exploration of kaupapa Māori research, its principles, processes and applications. *International Journal of Social Research Methodology*, 9, 331–344.

» Wehipeihana, N., Were, L., Goodwin, D., Pipi., K. 2018. Addressing the Challenges of Young Māori Women Who Smoke: A developmental evaluation of the phase two demonstration project. Evaluation report. Wellington: Ministry of Health.

» Whaanga-Schollum, D., Mules, R., Hagen, P. 2016. Notes – Tikanga Māori Co-design Wānanga. Delivered as a component of the Masters in Creative Practice, Creative Industries Unitec.

8.0 Appendix
Abstracts and
article summaries

All the local literature referenced in the snapshot is included here along with abstracts. Some additional papers suggested by reviewers have also been listed here. The abstracts provided below are sourced from the academic publications. Where reports or webpages are referenced that did not have abstracts, summaries have been written by Toi Āria.

....

Akama, Y., Hagen, P., and Whaanga-Schollum, D. 2019. Problematizing Replicable Design to Practice Respectful, Reciprocal, and Relational Co-designing with Indigenous People. *Design and Culture*, 11:1, 59-84. (DOI: 10.1080/17547075.2019.1571306).

Designing among Indigenous and non-Indigenous people is turbulent because we are all working within differing legacies of colonialism and entrenched systems of "othering." When design enters this space through widely popular methods like the Double Diamond or Human-Centered Design (HCD) toolkits, it often carries legacies of its industrialized, Eurocentric origins. These origins emphasize problem-solving, replicable methods and outcomes, pursue simplicity and efficiency, and detach knowledge, people, and relationality from the sites of design's embodiment. This risks perpetuating acts of colonialism, inadvertently displacing Indigenous practices, knowledges, and world views. Instead, we propose respectful, reciprocal, and relational approaches as an ontology of co-designing social innovation. This ontology requires a sensitivity to design's location within multi-layered sites of power, knowledge, practices, cultural values, and precarious asymmetries as the condition of collaboration. We provide personal, reflexive stories as Māori, Pākehā, and Japanese designers negotiating the legacies of colonialism, laying bare our whole selves to show accountability and articulate pluralities of practices. In respecting design that is already rooted in local practices, we learn from these foundations and construct our practices in relation to them. For us, respect, reciprocity, and relationships are required dimensions of co-design as an engaged consciousness for Indigenous self-determination.

....

Auckland District Health Board. 2010. Health Service Co-design toolkit.

https://www.healthCo-design.org.nz/assets/Health-co-design/2010-07-HCD-Toolkit-17.1MB.pdf

A guide to help work with patients to understand their experiences and make improvements to healthcare services.

....

Boyd, H., McKernon, S., Mullin, B., Old, A. 2012. Improving healthcare through the use of co-design. *NZMJ*, 125: 1357, 4-15. (ISSN 1175 87162012).

Aim: This paper describes how co-design methods can be used to improve patient experiences and services within healthcare organisations. Using the Patient Co-design of Breast Service Project as an example, we describe how patient experiences were captured and understood, the improvements made and implications for future work.

Method: We used a six-step process: engage, plan, explore, develop, decide and change. Tools and techniques employed were based on service design approaches. These included patient journey mapping, experience-based surveys and co-design workshops.

Results: Information, communication, navigation and co-ordination, and environment emerged as key themes for the Breast Service. And as a result, a suite of improvements were made. Key methodological learnings included using co-design alongside traditional quality improvement methodologies, engaging with patients early, the importance of staff buy-in and the necessity of trying things outside one's comfort zone.

Conclusion: Use of co-design within the Breast Service has resulted in tangible improvements and has demonstrated the value of engaging patients and focussing on their experiences. It is recommended that: evaluation phases are factored into future co-design work, further research is conducted on sustainability and funding and support is given to allow co-design to become more widespread throughout Aotearoa New Zealand.

....

Boyd, H. 2014. Co-design in Healthcare. A report submitted to the Winston Churchill Fellowship Trust, May 2014.

Experience-based co-design is a method for involving service users and staff in improving the design and delivery of healthcare services. It was developed in the UK less than 10 years ago. In Aotearoa New Zealand co-design has been adapted and used within healthcare services since 2008. In 2013, I undertook a one-month Winston Churchill Fellowship to England and Australia to learn about advances, adaptations and innovative approaches to co-design in healthcare. This report does not attempt to summarise my whole trip rather it highlights some of the innovative practices happening overseas and identifies some of the key challenges ahead for Aotearoa New Zealand. England and Australia have many approaches to co-design in healthcare. The second part of the report describes innovations around collaboration, the challenge approach, accelerated co-design, digital media and strategy. Learning about how a variety of organisations worked overseas led me to reflect on how we could progress things in Aotearoa New Zealand. Four immediate opportunities became apparent: staff skills, collaboration with designers, centralising resources and tapping in to 'unheard voices'. These are discussed in the third part of the report along with ideas for how we can progress. The report concludes that continuing to learn about and apply co-design may provide part of the answer to what some believe are two of the core challenges of service improvement in healthcare: 1) How can we truly understand people's experiences of our healthcare service? 2) How can we work together to improve them?

....

Brown, A., Chouldechova, A., Putnam-Hornstein,E., Tobin, A., and Vaithianathan, R (2019). Toward Algorithmic Accountability in Public Services: A Qualitative Study of Affected Community Perspectives on Algorithmic Decision-Making in Child Welfare Services. In _CHI Conference on Human Factors in Computing Systems Proceedings_ (CHI 2019), May 4–9, 2019, Glasgow, Scotland UK. ACM, New York, NY, USA, 12 pages (DOI: https://doi.org/10.1145/3290605.3300271)

Algorithmic decision-making systems are increasingly being adopted by government public service agencies. Researchers, policy experts, and civil rights groups have all voiced concerns that such systems are being deployed without adequate consideration of potential harms, disparate impacts, and public accountability practices. Yet little is known about the concerns of those most likely to be affected by these systems. We report on workshops conducted to learn about the concerns of affected communities in the context of child welfare services. The workshops involved 83 study participants including families involved in the child welfare system, employees of child welfare agencies, and service providers. Our findings indicate that general distrust in the existing system contributes significantly to low comfort in algorithmic decision-making. We identify strategies for improving comfort through greater transparency and improved communication strategies. We discuss the implications of our study for accountable algorithm design for child welfare applications.

....

Cattermole, J. 2018. Dunedin's arts and culture strategy: a case study of the challenges of participatory governance in Aotearoa New Zealand. _Asia Pacific Journal of Public Administration_, 40:1, 43-56. (DOI: 10.1080/23276665.2018.1435006)

This article uses Ara Toi Ōtepoti – Our Creative Future – Dunedin Arts and Culture Strategy 2015 as a case study of the challenges of participatory governance. As the strategy was co-created by local arts lobby group Transforming Dunedin and the Dunedin City Council, an examination of its development provides an insight into some of the challenges community groups and local councils face when working together in co-design approaches to policy-making. The discussion focuses on key challenges encountered, which centred on differing understandings of what the term "partnership" actually entails. In response, it concludes by suggesting some good practice values and conditions to underpin co-design relationships.

....

Charlier, N., Glover, M., Robertson, J. 2009. Keeping Kids Smokefree: Lessons Learned on Community Participation. _Health Education Research_, 24:6, 949-956.

Community participation in program decision-making and implementation is an ideal that community and academic stakeholders aspire to in participatory research. This ideal, however, can be difficult to achieve. We describe lessons learned about community participation from a quasi-experimental trial aimed at reducing the uptake of smoking among pre-adolescents in a community with a high percentage of Māori and Pacific Island people. The intervention involves students, parents, school teachers and management, extended families and members of the wider community. A total of approximately 4000 students (and their parents) of four urban Auckland

schools were enrolled in the study over 3 years. The intervention is carried out through collaborations between public health professionals, academic institutions and school personnel. In order to enhance community participation, we conclude that (i) time commitment is needed to establish long-term ongoing relationships through face-to-face communication, (ii) research team members should ideally share similar cultural and ethnic backgrounds to the target audience and have in-depth understanding of and experience in the community milieu and (iii) collaborative partnerships between academic institutions and public health services are necessary to create strength and cohesion, and assist with clear articulation of the research project mission and objectives.

··

Cunningham, H. 2020. Discourse and Design of CPAP Therapy Masks for OSA: Applying Foucault to Product Design Research. A Thesis Submitted to Auckland University of Technology in Fulfilment of the Requirements for the Degree of Doctor of Philosophy (PhD). Auckland, Aotearoa New Zealand. http://hdl. handle.net/10292/13139

Abstract (partial)

Current approaches to personal medical product design address complex governance, technical and functional issues. However, little attention has been given to broader perceptions of the social and interpersonal issues related to medical products despite community attitudes playing an important role in supporting or inhibiting treatment uptake. Rethinking personal medical product design in light of the complex social contexts that they inhabit is needed to improve their desirability and subsequent uptake. Using the Continuous Positive Airway Pressure (CPAP) therapy mask when used to treat Obstructive Sleep Apnoea (OSA) as one example of a personal medical product, this study explored the social construction of breathing interfaces, by taking a critical approach to the design process. The purpose was to investigate how identification of the social and, relational understandings that are integrated into the design process and the product itself could be used as a tool to rethink and develop new possibilities for breathing interfaces and people with OSA. The findings of this study have highlighted design factors and effects (relating to uptake of a product) that have not been considered previously, and would not be accessible using current human-centred design approaches. The findings have highlighted important considerations specific to the CPAP therapy mask design, and the approach itself offers valuable material for the study

of medical devices more generally. Indeed this may have even broader applicability in product design by presenting a method of appealing to a range of actual and potential future users, whose needs remain currently unmet.

··

Cunningham, H., & Reay, S. 2019. Co-creating design for health in a city hospital: perceptions of value, opportunity and limitations from 'Designing Together' symposium. *Design for Health* (DOI: 10.1080/24735132.2019.1575658)

This research explores how co-creation and a design-led approach to the traditional notion of symposium brought together industry, academia and the voice of patients in a hospital-based environment. The symposium 'designing together' provided a primer to consider what opportunities and constraints might influence how design could thrive in a hospital environment. The qualitative survey based response, from 21 participants, was analyzed using a general inductive approach to uncover themes relating to the need for change versus resistance to change within the hospital, the need for a patient-centred approach balanced with the need to engage staff throughout design processes, and demonstrating the value of design balanced against financial constraints. Encouraging collaborative co-creation and insight from patients, staff and designers within a free public hospital event was a unique approach that may provide a useful template for designers, researchers and public health professionals in developing the future design in health collaborations.

··

Dickson, C. 2017. From Stigma to Silver Linings: Improving the Experiences of Long-term Tracheostomy Users Through Product Design. An Exegesis Submitted to Auckland University of Technology in Fulfilment of the Requirements for the Degree of Master of Design (MDES). http://hdl.handle.net/10292/10490

Abstract; The design of tracheostomy products has barely changed in over 100 years. Furthermore, existing literature demonstrates little understanding of what it is like to live with long-term tracheostomy. In response, this project aims to capture the stories of real tracheostomy users. It applies an action research methodology to challenge historic stagnation and advocate for the consideration of users' needs in tracheostomy product design. Where a cultural and systemic drive to minimise production costs and maintain clinical function have become

the defining features of medical product design, this project uses human-centred design, and co-design approaches to bring focus to the need for emotionally sensitive aesthetics and improved usability. The findings contribute an understanding of the challenges tracheostomy users face in everyday life and the complex relationships they have with their tracheostomy products. Design outcomes include a series of artefacts intended to capture and evoke empathy for aspects of users' experiences, as well as a design proposal demonstrating a possible approach to improving tracheostomy products through enhanced choice, usability, and aesthetics. The research highlights aspects of tracheostomy user experiences requiring further research, sets a precedent for future design-led research in this area, and makes a compelling case for tracheostomy product design innovation.

....

Dickson, C., Reay, S., Douglas, R., Nakarada-Kordic, I. 2017. Co-design to understand the tracheostomy product experiences of long-term tracheostomy users, _Design for Health_, DOI: 10.1080/24735132.2017.1386440

Tracheostomy product designs have barely changed in 100 years. Furthermore, there is limited research into the experiences of people living with long-term tracheostomy. Existing tracheostomy designs focus on minimizing costs and maintaining clinical function, often at the expense of user experience. Because tracheostomy user numbers are relatively small, their needs are overlooked despite the significant impact on their everyday lives. In response, this research aimed to capture tracheostomy users' stories, advocate for greater consideration of their needs and challenge historic stagnation in tracheostomy design. Co-design workshops were used to give tracheostomy users a voice, build a better understanding of the daily challenges they face and explore the complex relationships they have with their tracheostomy products. Research findings were captured in a series of critical design artefacts intended to evoke empathy for users' experiences and highlight problems with existing tracheostomy products. The research highlights aspects of tracheostomy user experiences requiring further research, sets a precedent for future design-led research in this area and makes a compelling case for tracheostomy product design innovation. The critical design artefacts are part of ongoing work concerning the design of tracheostomy products, and will be used to build support for improving tracheostomy users' experiences.

....

Douglas, R., Reay, S., Munn, J., & Hayes, N. 2018. Prototyping an emotionally responsive hospital environment. _Design for Health_, 2:1, 89-106. 10.1080/24735132.2017.1412689

This case study presents a project based on a spatial redesign at Auckland City Hospital. The project aimed to improve the public waiting area located outside an intensive care unit – a space where families and friends wait for updates on their loved one's condition. As an environment, the area was characterized by high levels of stress and anxiety, and described by families and staff as 'impersonal', 'unfriendly' and 'uncomfortable'. The project focused on how designers sought to engage users, collected insights about their experiences, developed concepts for improvement and generated buy-in from hospital stakeholders. We explore how making or prototyping as design practice was used to inspire new ways of thinking about the space to respond to its users' emotional needs. Through this, the Design for Health & Wellbeing Lab design team sought to make visible the process and value designers can bring to a hospital environment through prototyping and sharing ideas.

....

D'Young et. al. 2014. The use of a co-design model in improving timely bleed reporting by adults with haemophilia living in the Auckland region of Aotearoa New Zealand. _Haemophilia_, 20, 388–397.

Summary. Many adult patients diagnosed with phenotypically moderate and severe haemophilia living in the Auckland region of Aotearoa New Zealand do not report bleeding episodes within a timeframe that allows for optimal assessment and management. This can result in poor clinical outcomes for patients and poor oversight of the use of expensive clotting factor concentrates. Our goal was to improve both the number and speed at which bleeding episodes were reported to our centre, improving access to care and clinical oversight of the use of expensive factor concentrates and aiding the development of a care partnership with patients. We worked with 70 adult PWH living in the Auckland region of Aotearoa New Zealand with moderate and severe haemophilia A and B. Over a 5-month period between March and July 2013 we used a co-design model to develop and implement a range of strategies to improve the timing and frequency of bleed reporting. Mean bleed reporting time was reduced threefold, with a threefold increase in the number of bleeds reported per month. We reduced the number of bleeding episodes reported outside of a pre-specified 48-h time limit by 68%. We significantly improved

bleed reporting and time to report, indicating improved access to our services, improved clinical oversight and improved accountability to our national funder. We have achieved a care partnership and a reduction in factor consumption for the study population without compromising the quality of care they receive.

....

Eyles, H., Jull, A., Dobson, R., Firestone, R., Whittaker, R., Te Morenga, L., . . . Ni Mhurchu, C. (2016). Co-design of mHealth Delivered Interventions: A Systematic Review to Assess Key Methods and Processes. *Current Nutrition Reports***, 5(3), 160-167. doi:10.1007/s13668-016-0165-7**

Most mobile health (mHealth) programmes are designed with minimal input from target end users and are not truly personalized or adaptive to their specific and evolving needs. This review describes the methods and processes used in the co-design of mHealth interventions. Nine relevant studies of varying design were identified following searches of six academic databases. All employed co-design or participatory methods for the development of a health intervention delivered via a mobile device, with three focusing on health behaviour change (one on nutrition), and six on management of a health condition. Overall, six key phases of design and 17 different methods were used. Sufficiency of reporting was poor, and no study undertook a robust assessment of efficacy; these factors should be a focus for future studies. An opportunity exists to use co-design methods to develop acceptable and feasible mHealth interventions, especially to support improved nutrition and for minority and Indigenous groups.

....

Godbold, R., Lees, A., Reay, S. 2019. Ethical Challenges for Student Design Projects in Health Care Settings in Aotearoa New Zealand. *International Journal of Art & Design Education***; Oxford 38 (1), 182-192.**

Student-led design projects undertaken within healthcare settings raise considerable ethical challenges, primarily resulting from collaboration with service users. This article emerged out of the experiences of design from a Aotearoa New Zealand university undertaking real world projects in acute health care contexts. A human-centred approach to design is underpinned by a requirement for students to immerse themselves in the user context to optimise design outcomes. Several issues exist in relation to the management of the ethical complexities arising from these projects. Multiple formal ethical review processes were triggered when students' projects were defined as research. These processes were perceived as onerous and disproportionate to the scale of the projects, and students were ill equipped to identify ethical issues and engage with formal review processes. This resulted in either abandoned projects or the use of compromised methods. A review of codes of practice and design industry approaches identifies a gap in guidance for both students and qualified designers. Some designers describe their projects as service improvement, and not subject to formal ethical review. This article argues for embedding consideration of ethics in all design projects to enhance the process, to be true to the underpinning philosophy of human centred design and to produce ethically aware graduates. To achieve this, a multi-pronged pedagogical approach which encompasses both hypothetical, class-based and real-world learning experiences is described, with the ultimate goal of normalising the consideration and development of ethical standards for students and best practice across the industry.

....

Goodyear-Smith et. al. Co-design and implementation research: challenges and solutions for ethics committees. *BMC Medical Ethics* **(2015)16:78 (DOI 10.1186/s12910-015-0072-2)**

Background: Implementation science research, especially when using participatory and co-design approaches, raises unique challenges for research ethics committees. Such challenges may be poorly addressed by approval and governance mechanisms that were developed for more traditional research approaches such as randomised controlled trials. Discussion: Implementation science commonly involves the partnership of researchers and stakeholders, attempting to understand and encourage uptake of completed or piloted research. A co-creation approach involves collaboration between researchers and end users from the onset, in question framing, research design and delivery, and influencing strategy, with implementation and broader dissemination strategies part of its design from gestation. A defining feature of co-creation is its emergent and adaptive nature, making detailed pre-specification of interventions and outcome measures impossible. This methodology sits oddly with ethics committee protocols that require precise pre-definition of interventions, mode of delivery, outcome measurements, and the role of study participants. But the strict (and, some would say, inflexible) requirements of ethics committees were developed for a purpose – to protect participants from harm and help ensure the

rigour and transparency of studies. We propose some guiding principles to help square this circle. First, ethics committees should acknowledge and celebrate the diversity of research approaches, both formally (through training) and informally (by promoting debate and discussion); without active support, their members may not understand or value participatory designs. Second, ground rules should be established for co-design applications (e.g. how to judge when 'consultation' or 'engagement' becomes research) and communicated to committee members and stakeholders. Third, the benefits of power-sharing should be recognised and credit given to measures likely to support this important goal, especially in research with vulnerable communities. Co-design is considered best practice, for example, in research involving indigenous peoples in Aotearoa New Zealand, Australia and Canada.

....

Hagen, P. 2011. Co-design, some principles, theory and practice. Blog post (17 May 2011).
https://www.smallfire.co.nz/2011/05/17/co-design-some-principles-theory-and-practice/

Summary: Blog post summary of the key messages of co-design given as part of a teaching workshop on co-design for the Design Masters Program at University Technology Sydney. Outlines the premise, principles and theory of co-design, how it has evolved from Participatory design and its use of generative design research methods of creativity, physicality, storytelling, playfulness, reflexivity, and what the expected outcomes are from this type of approach. It also discusses what the ideal involvement and partnership of users is within the entire design process — start to finish.

....

Hagen, P. 2016. Co-design in Aotearoa. Blog post and presentation (2 December 2016).
https://www.smallfire.co.nz/2016/12/02/co-design-in-aotearoa/

Summary: Blog post summary of the presentation 'The Evolution of Co-design in Aotearoa' given at the UXNZ conference in Wellington in October 2016. The presentation is embedded in the page. As the blog summary notes, the presentation highlights the recent shifts and current state of co-design in Aotearoa, specifically: the move towards more complex interdisciplinary and interagency teams; the cultural opportunities presented through co-design and whānau centric practice; a focus on place-based and systems work – and more relational practice; an emphasis on design as a means for community capability and

capacity building; a greater emphasis on action, outcomes and impact during and after the design process; increasing complexity with regards to ethics and participation, and how we support these forms of engagement in legitimate, safe and sustainable ways.

....

Hagen, P, Collin, P, Metcalf, A, Nicholas, M, Rahilly, K, Swainston, N. 2012, Participatory Design of evidence-based online youth mental health promotion, prevention, early intervention and treatment. Young and Well Cooperative Research Centre, Melbourne.
www.westernsydney.edu.au/__data/assets/pdf_file/0005/476330/Young_and_Well_CRC_IM_PD_Guide.pdf

For researchers already using participatory approaches to research and development in mental health promotion, this guide should assist the extension of this approach into the design phases of an intervention. For others it presents an accessible introduction and a framework with tools and methods. It aims to assist Young and Well CRC partners to adopt a Participatory Design approach to research projects by:

  » *Providing an introduction to the principles and practices of Participatory Design and demonstrating the benefits of using this approach in the context of youth mental health.*

  » *Providing a framework that demonstrates how a Participatory Design approach can be integrated with evidence-based approaches to the design of mental health promotion interventions.*

  » *Providing methodological, conceptual and practical tools, tips and resources that can be used in applying the framework.*

....

Hagen, P., Reid, T., Evans M., and Vea, A. T. 2018. Co-design reconfigured as a tool for youth wellbeing and education: A community collaboration case study. In *PDC '18: Proceedings of the 15th Participatory Design Conference* Volume 1, August 20-24, 2018, Hasselt and Genk, Belgium, 5 pages. https://doi.org/10.1145/3210604.3210632

In the Community Collaboration reported in this paper co-design was 'reconfigured' as a means for supporting youth wellbeing and educational outcomes for young people, including capability, confidence and connections that can contribute to longer-term wellbeing benefits within a particular community. While Participatory Design has always been an approach that shapes situations of the future and the capacities and skills needed to realize

those, 'co-design' as promoted within the public sector in Aotearoa New Zealand and Australia has tended to position co-design as a means for delivering new "designs." Less emphasis has been placed on the benefits of mutual learning that it produces, including new skills and capacities needed to action change. This paper shares how these additional and significant outcomes of participatory practice have been pursued and made visible within a specific case study.

⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯

Hagen, P. (2018). Interview. Ethical challenges of co-design and participatory design practice, and the things we need to consider particularly in the context of Aotearoa New Zealand. VIDEO https://www.aucklandco-lab.nz/resources

⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯

Hayward, P. 2017. Six tips on co-design.
http://koawatea.co.nz/six-tips-co-design/

This article shares six tips for healthcare teams to maximise the benefits of co-design and ensure it runs smoothly. Co-design is part of a process that enables those who deliver services and those who receive services to create improvements together. Each person or group is considered to have equally important views. For example, in healthcare staff have extensive knowledge to offer on the clinical or technical aspects of care and consumers have extensive knowledge about how it feels to experience the process as it is delivered to them. Many consumers also have significant expertise in their own health conditions, especially those with long-term conditions. Both parties are able to contribute ideas from their perspectives, which leads to better understanding of the current process and increased ability to create the most effective improvements for the future.

⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯

Jury, R. 2016. Not for me without me: co-designing assistive technology with people affected by dementia. An Exegesis Submitted to Auckland University of Technology in Fulfilment of the Requirements for the Degree of Master of Design (MDES). http://hdl.handle.net/10292/9900)

Designers are providing new and exciting products to help improve the lives of people with dementia. However, there is a deficiency of collaboration between designers and people affected by dementia in the design process, due to the symptoms of dementia. The data...suggest[s] that people with dementia are able to contribute to the design process, and suggests that co-design can be an empowering and positive experience for people living with dementia.

⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯

Khoo, C. 2018. Co-designing FRANK: Exploring how co-design might be used to engage young people in designing a new brand and online platform. An Exegesis Submitted to Auckland University of Technology in Fulfilment of the Requirements for the Degree of Master of Design (MDES). http://hdl.handle.net/10292/11662

This design-led research project explored how co-design can be used to engage young people in the design of a new brand and online platform for the Auckland District Health Board's Peer Sexuality Support Programme (PSSP). Common branding practices normally engage users through surveys and evaluation of design proposals to provide insights. They do not generally involve users as equals in co-creation in the early discovery stages of the design process. In this research, young people were brought into the design process as informants and partners, to drive the design of a new brand and online platform that would be better positioned to engage, appeal to, and be accepted by their peers. The research explored ways in which young people might be more effectively engaged to inform design solutions that better meet user needs. A series of discovery and evaluation co-design workshops were used to engage with a diverse range of youth in the programme. Game-like interactive activities, and the opportunity for open discussions were found to be engaging and meaningful for participants. Engaging young people in this way helped participants to uncover and share insights that could only be possible by directly involving them in the design process. The first output of this research was the conception of a new brand called FRANK that was co-designed with PSSP youth leaders. This better positioned the brand to be well received by their peers. FRANK and its brand identity applications were further evaluated with other PSSP youth leaders to determine how well the brand might be accepted by a diverse audience of young people. This evaluation revealed that FRANK had strong visual appeal, but there were divided opinions around the use of the brand name. This illustrated challenges associated with pleasing a large and diverse group of users and stakeholders, but indicated potential for co-design to better understand and position design solutions. The second output was a proposal for an online platform. The online platform (also co-designed with PSSP youth leaders) was developed to give the organisation more of an online presence. Furthermore, the online platform addressed some of the key challenges PSSP youth leaders face in their roles when supporting their peers. The final design solution elicited a strong positive response from them, which highlighted the importance of involving young people in the design of products and services that address issues affecting them.

⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯⋯

Ko Awatea (Research and Evaluation Office). Co-Design Programme 2015-2016. Report on the evaluation survey and interviews. Prepared for the Health Quality & Safety Commission Aotearoa New Zealand. https://www.hqsc. govt.nz/assets/Consumer-Engagement/Resources/ Co-Design-Programme-2015-16-evaluation-report-Jul-2016.pdf

Reflections by 20 people through a post-programme survey and interviews on the Co-Design Programme for 2015–16, an iteration of the Co-Design Programme delivered in two Aotearoa New Zealand district health boards (DHBs) over the period October 2015–May 2016. The report has identified a number of lessons that offer potential future opportunities to increase the sustainability of co-design approaches through: 1) embedding co-design within existing organisational training at DHBs, for example, the improvement advisor programme, safety programmes and other general improvement training; 2) delivering focused workshops on areas of the co-design process participants have found challenging, such as effectively engaging with consumers; 3) identifying programme participants who may need additional support to train or teach colleagues and connect them to existing training or mentorship in their organisation that can assist in developing these skills; 4) considering different modalities for the delivery of programme content which teams can access within timescales that suit their needs, for example, e-learning programmes; 5) increasing support for senior leaders to understand co-design and expected benefits, and how co-design can fit within their organisational strategy, values and priorities, potentially through targeted training or communications to senior leaders; and 6) support senior leaders and sponsors to play a more active role in sharing the co-design methodology, in particular, advocating for co-design to be embedded within broader organisational policies or strategy.

....

Ko Awatea resources on co-design (Tag Archives: co-design). Available at:http://koawatea.co.nz/tag/co-design/)

Summary: a suite of videos about health professionals working with patients to improve healthcare services in a process often called co-design or co-production, and articles and stories, including: 1) Counties Manukau Health (CM Health) is using co-design to create a local oncology service that meets the needs of cancer patients as well as healthcare professionals 2) Counties Manukau Health (CM Health) is using co-design to create a new rehabilitation service that better meets the needs of healthcare consumers. Links:

(https://www.healthnavigator.org.nz/videos/c/co-design-explained/#),

(http://koawatea.co.nz/using-co-design-create-local-oncology-service/)

 (http://koawatea.co.nz/reinventing-rehabilitation-co-design/).

....

Labattaglia, O. 2019. Accessible Co-design. An Exegesis Submitted to Auckland University of Technology in Fulfilment of the Requirements for the Degree of Master of Philosophy (MPhil). http://hdl.handle.net/10292/12477

Co-design involves working creatively with, rather than for, people throughout the design process. Increasing attention is being paid to the power and value of applying design thinking to improve public services. However, while still in its infancy the application of co-design for healthcare is relatively fragmented and underdeveloped. There is a considerable gap in the research literature and practice concerned with accessible co-design methods and approaches. This research explores how an accessible approach to co-design may produce a more empowering experience for participants who experience disability and impairment.

In Aotearoa New Zealand, according to the most recent disability survey, 24 percent of the population were identified as disabled. Since persons with disabilities are often more vulnerable to secondary and co-morbid conditions, they tend to seek more healthcare than people without disabilities. In this research, principles for conducting co-design with participants who experience disability and impairment were explored, contextualised and analysed through a series of co-design workshops. The focus of each workshop was two-fold, the university experience for students who experience disability and impairment was explored, and the co-design process was assessed for accessibility. Participants' reflections on the co-design experience brought to life the meaning of 'accessibility' in this context. The resulting outputs of this research include an accessible co-design toolkit produced for designers and researchers. The toolkit consists of a guide which explores principles for conducting accessible co-design to help other researchers establish more accessibility-friendly environments and experiences. A toolbox on wheels, to support more independent making in group situations, was developed, along with suggested materials and tools to use in a co-design process. If co-design continues

....

to be applied in healthcare and wellbeing fields, co-design should acknowledge, respect and accommodate the variability of physical and cognitive function in the population. Participant empowerment is a core function of co-design. Consequently, researchers and designers need to ensure that co-design is used in a way that is accessible to all participants regardless of their impairment or disability.

....

Maher, L., Hayward, B., Hayward, P., and Walsh, C. 2017. Increasing sustainability in co-design projects: A qualitative evaluation of a co-design programme in Aotearoa New Zealand. *Patient Experience Journal*, 4:2. Available at: https://pxjournal.org/journal/vol4/iss2/7

The Health Quality & Safety Commission Aotearoa New Zealand commissioned Ko Awatea, an innovation and improvement centre, to deliver a co-design programme to nine teams of healthcare providers. The co-design programme was part of Partners in Care, a broader programme developed in 2012 to support and enable patient engagement and participation across the health and disability sector. Teams received training, guidance and mentorship in Experience Based Design (EBD) methodology. We evaluated the co-design programme to explore barriers and facilitators to the sustainability of the co-design projects and the EBD approach. The evaluation involved seventeen semi-structured interviews with programme participants, including seven team members, five sponsors, four patients and the programme facilitator. A further two team members provided written feedback. Eight teams provided completed workbooks. Data from the interviews and workbooks was thematically analysed. Team members saw support from sponsors as important to increase visibility and successful completion of co-design projects, mitigate barriers, and to secure resources and buy-in from peers. Five of nine participating teams reported dissatisfaction with the support received. Communication and competing priorities were challenges to sponsor engagement. Sharing co-design skills with peers and alignment with organisational strategy were seen as important for sustainability. Teams identified lack of secured resources or staff time, and consumer or staff attrition as key barriers to sustainability. The conclusion: buy-in from sponsors and senior leaders, support from colleagues, user-friendliness of co-design tools, consumer and staff availability, alignment, and system or culture change were key factors that influenced project sustainability.

....

Maher, L. Co-designing Health and Care Services for the Partners In Care Programme for the Health Quality and Safety Commission, Aotearoa New Zealand. 2017. https://www.hqsc.govt.nz/our-programmes/partners-in-care/work-programmes/co-design/

'Co-design Partners in Care' is a 6–8 month programme brought to you by the Health Quality & Safety Commission with a focus on consumer engagement. It is based on the National Health Service Institute's experience-based design programme, and is facilitated by Lynne Maher.

....

McLean, K., Scully, J., and Tergas, L., 2008. Inland Revenue Aotearoa New Zealand: Service Design in a Regulatory Context. *DMI Review*, 19:1, 28-37.

As the service sector has grown in importance to developed economies, so has awareness of the value of taking a design approach to creating these services. The business world is realizing that well-conceived and well-designed user-centered services can increase customer satisfaction, create brand differentiation, generate new income streams, and return greater profits. This article describes the role of customer-focused services in achieving Inland Revenue (IR) goals as a government agency, why and how they are building a service design capability, some of their successes, and some of their challenges as they work to embed service design as a core organizational competency and practice. The objective of IR's service strategy is to maintain and improve overall customer compliance through the delivery of service. IR identified customer segments that required a specific strategy to bring together the intersection of customer insights and IR strategic goals and formulate a vision for their approach to each of these segments.

....

Menzies, D., Whaanga-Schollum, D., Livesey, B., & Clarke, J., 2017. Ngā Ahō, Designing Māori Futures Report. Commissioned by Independent Māori Statutory Board.

The purpose of this report is to develop better design outcomes for Tamaki Makaurau which "recognise the importance of Māori and Māori values in building a safe, inclusive and equitable region". (IMSB) These design outcomes align with the Board's advocacy to promote distinctive Māori design identity and practice in Auckland and ensure sufficient resources are provided across CCO's and departments that have responsibility directly or indirectly for the promotion of Māori identity. These design outcomes have been prepared with oversight by Phil Wihongi who is the Māori Design

Leader at Auckland Council to ensure that there is alignment with the Auckland Design Office (ADO) work programme and that duplication is avoided.

....

Ministry of Health and NOOS Consulting. 2017. Young Māori women who smoke: technical report. Wellington: Ministry of Health.

This project took an innovative approach to gaining greater understanding of the lives of a group of Aotearoa New Zealanders for whom the smoking rate remains persistently high despite efforts to reduce it: young Māori women. This project used a 'think big, test small and move fast' approach to build an understanding of the lives of young Māori women who smoke, to lead to actionable insights. This technical report describes the analytics component of the project, presenting results of the analysis itself. The report also shows that this form of innovative project process, which represented a number of 'first' for the Ministry of Health (including having the co-design and analytics components running in tandem), was largely successful. However, we note a number of lessons learnt that will improve the process for future projects. As such, the key findings of this report are divided into two sections — what we discovered and how we learnt. This technical report should be read in conjunction with the other three documents that were produced as part of the analytical part of this project: evidence brief, summary A3, and the how-to guide.

....

Ministry of Health in collaboration with ThinkPlace. 2017. Exploring why young Māori women smoke. Taking a new approach to understanding the experiences of people in our communities

Sets out key aspects of a project undertaken to unlock new insights into the complexities surrounding the lives of young Māori women (aged 18 to 24) who smoke. The aim is to help the Ministry of Health identify new ideas and areas of opportunity which could positively narrow existing age and ethnicity disparities and halt the transference of smoking across generations.

....

Mules, R., Pekepo, C., and Beaton, S. 2017. Co-design and Community Development: Kōrero and Insights from Māori Co-designers. October 19 2017. http://www.communityresearch.org.nz/webinar-co-design-community-development-korero-insights-maori-co-designers/

Summary: hosted by Jan Hinde and Kaye-Maree Dunn from communityresearch.org.nz, this 1-hour webinar explores these key questions: How do we inject humanity into the design of our programmes and services, and what makes Māori co-design unique and special? The three guest presenters, Rangimārie Mules, Crystal Pekepo, and Sophia Beaton give an overview of Māori co-design in Aotearoa and discuss the use of co-design in their projects around homelessness and well-being. Their Kōrero and presentations also explore: practical methods, tools and skills to support co-design and participation; principles of good co-design alongside Māori; how Mātauranga and co-design intersect, to benefit Māori communities; and, how you can embed the purakau (unique stories, our history) within projects.

....

Nakarada-Kordic, I., et. al. 2017. Co-designing for mental health: creative methods to engage young people experiencing psychosis. Design for Health, 1:2, 229-244. (DOI: 10.1080/24735132.2017.1386954).

This paper describes the development and use of creative methods to engage young people experiencing psychosis in co-creation of an online resource to support their education and wellbeing. Engaging young people in a meaningful way, let alone those experiencing psychosis, can be challenging using traditional research methods. Throughout a series of discovery, and prototyping and evaluation workshops, we successfully engaged young people, their families/carers and clinicians in hospital and community mental health settings in enjoyable and empowering co-design activities. These co-design sessions were largely inspired by young people's extensive use of social media metaphors and were adaptable to their interests, preferences and mood. We used storytelling through emojis, a relatable persona with emotion mapping, a card sorting activity and an icebreaker that involved the group co-designing a pizza for our lunch. In the prototyping and evaluation workshops, emotion abstract sketching was used to guide the look-and-feel of the future resource. Using creative methods can enable more than just active engagement of young people with complex health issues. Engagement

through creative activities can help draw out the unique experiences and perspectives of potentially vulnerable young people so that solutions that most effectively meet their needs can be explored and developed.

....

NOOS Consulting and Ministry of Health. 2017. How-to guide to undertaking analysis: learnings from the project on young Māori women who smoke. Wellington: Ministry of Health.

Summary: a guide which includes information about the project; the role of analytics, scope of the project, approach, skills and roles of the project team, a step-to-step guide, and key lessons and tips.

....

Reay, S., Collier, G., Douglas, R., Hayes, N., Nakarada-Kordic, I., Nair, A., & Kennedy-Good, J. 2017. Prototyping collaborative relationships between design and healthcare experts: mapping the patient journey. _Design for Health_, 1:1, 65-79. (DOI: 10.1080/24735132.2017.1294845)

This case study presents the first project undertaken in a recent in-hospital design collaboration — the Design for Health and Wellbeing Lab (DHW Lab). Specifically, we explore some of the challenges and opportunities associated with designing a journey map for the Adult Emergency Department, the DHW Lab's first opportunity to put co-design into practice. The intention and outcome of this project was as much about designing a journey map prototype as it was about building the interdisciplinary relationships that would help enable future successful design-led collaborations. As such, the notion of prototyping was applied to both generate artefacts to communicate care pathways to patients and families, as well as a way to build and test collaborative relationships between designers and clinical staff. The outcomes of the project resulted in new products to help patients and families negotiate a complex emergency department as well as gaining insight into how to bring people from different backgrounds together to start a design-led conversation around a culture of care within a hospital.

....

Reay, S., Collier, G., Kennedy-Good, J., Old, A., Douglas, R., Bill, A. 2017. Designing the future of healthcare together: prototyping a hospital co-design space. _Co-design_, 13:4, 227-244. (DOI: 10.1080/15710882.2016.1160127)

This paper contextualises the emergence and continuing development of the Design for Health and Wellbeing (DHW) Lab, a collaboration between a university and a hospital in Auckland, Aotearoa New Zealand. The DHW Lab was established with the vision of creating a design space in which designers, students, patients and hospital staff could work together to identify and address contemporary healthcare issues in innovative ways. In this paper, we explain how the continuing development of the space reflects the design principles it espouses, and how this is embedding design principles and practices into a healthcare organisation. In particular, we will show how the users of the space contribute to the evolution of its physical appearance, its values and its performance as they come to identify and make sense of the challenges, possibilities and potential of the DHW Lab initiative.

....

The Southern Initiative and the Auckland Co-design Lab (October 2017). Early Years Challenge. Supporting parents to give tamariki a great start in life. Summary report. Available at: https://auckland-colab.squarespace.com/s/Early-Years-Challenge-report-FINAL-web.pdf

The Southern Initiative's Early Years Challenge examined the first thousand days through the lens of the lived experience of parents in South Auckland, combined with insights provided by international neuroscience research, and local big data and longitudinal research. This document summarises the Challenge's objectives, what was learnt, and what can be done to create positive transformation in young lives in South Auckland. The paper sought to inform the work of community groups, agencies and other interested people to better understand and respond to the challenges and opportunities for parents and families in South Auckland.

....

The Southern Initiative 2018. Healthy Homes Initiative – Auckland: Co-design: Testing ideas to make homes warmer and drier: Report on Stage one available at .https://www.health.govt.nz/publication/healthy-homes-initiative-auckland-Co-design-stage1. Report on Stage two available at https://www.health.govt.nz/publication/healthy-homes-initiative-auckland-Co-design-stage2

This document records the Auckland Wide Healthy Homes (AWHI) co-design journey for the period October 2015 to September 2016. It is not a plan of how to resolve issues but a record of the co-design process and the learnings from it. The report takes the reader through the four stages of co-design: 1) Framing the context — scanning existing information 2) Exploring — developing a deeper understanding through the user's perspective 3) Imagining — brainstorming and developing ideas 4) Testing — prototyping in a safer to fail environment and refining ideas. AWHI was the first Healthy Homes Initiative (HHI) set up by the Ministry of Health to reduce household crowding and household transmission of strep throat bacteria. In 2015, the initiative was expanded to Northland, Waikato, Wellington, Lakes, Bay of Plenty, Hawke's Bay and Tairāwhiti DHB regions. The purpose of the co-design was to ensure a human-centred design approach was used to develop practical solutions and advocate for long-term systems change towards preventing structural and functional crowding. This put the users, the families involved with AWHI, at the centre — what were their drivers, and what were their needs?

....

The Southern Initiative and Auckland Co-design Lab, Creating 'home' story book. Co-design sprint 26-28 July 2016. Report Available at: https://www.aucklandco-lab.nz/s/Creating-home-co-design-sprint-story-book-FINAL.pdf

This story book is a summary of a 3 day co-design sprint held at Rainbow's End, Manukau between 26 and 28 July 2016. It provides a brief overview and visual story of the experience of the parents, children and key partners who took part.

....

Te Morenga, L., Pekepo, C., Corrigan, C., Matoe, L., Mules, R., Goodwin, D., Dymus, J., Tunks, M., Grey, J., Humphrey, G., Jull, A., Whittaker, R., Verbiest, M., Firestone, R., Ni Mhurchu, C. 2018. Co-designing an mHealth tool in the Aotearoa New Zealand Māori community with a "Kaupapa Māori" approach. *AlterNative 14* **(1), 90-99.**

Obesity rates in Aotearoa/Aotearoa New Zealand continue to rise, and there is an urgent need for effective interventions. However, interventions designed for the general population tend to be less effective for Māori communities and may contribute to increased health inequities. We describe the integration of co-design and kaupapa Māori research approaches to design a mobile-phone delivered (mHealth) healthy lifestyle app that supports the health aspirations of Māori communities. The co-design approach empowered our communities to take an active role in the research. They described a holistic vision of health centred on family well-being and maintaining connections to people and place. Our resultant prototype app, OL@-OR@, includes content that would not have been readily envisaged by academic researchers used to adapting international research on behaviour change techniques to develop health interventions. We argue that this research approach should be considered best practice for developing health interventions targeting Māori communities in future.

....

Thabrew H, Fleming T, Hetrick S, Merry S. Co-design of eHealth Interventions with Children and Young People. *Frontiers of Psychiatry*. **2018;9:481. Published 2018 Oct 18.** doi:10.3389/fpsyt.2018.00481

Co-design, defined as collective creativity across the entire design process, can lead to the development of interventions that are more engaging, satisfying, and useful to potential users. However, using this methodology within the research arena requires a shift from traditional practice. Co-design of eHealth interventions with children and young people has additional challenges. This review summarizes the applied core principles of co-design and recommends techniques for undertaking co-design with children and young people. Three examples of co-design during the development of eHealth interventions (Starship Rescue, a computer game for treating anxiety in children with long-term physical conditions, a self-monitoring app for use during treatment of depression in young people, and HABITS, the development of an emotional health and substance use app, and eHealth platform for young people) are provided to illustrate the value and challenges of this contemporary process.

....

Tolooei, N., Payne, D., Reay, S. D. 2018. The Integration of Feminist Disability and Co-design: An Approach to Better Explore the Diversity in Product Design. In L. Di Lucchio,, A. Mazzeo,, & L. Imbesi (Eds.), No Boundaries Design. Barcelona, Spain: Common Ground Research Networks, NFP

There seems to be a significant gap in the current literature on the experience of disabled mothers in the symbiotic design approach involving feminist disability and co-design. Given that an epistemological approach will significantly impact the way that product design responds to the needs and experiences of women with disability, feminist disability theory can be an opportunity to be integrated with co-design to address disabled women more effectively. Marginalization creates stigmatizing adjectives that can influence the experience of motherhood. Consequently, the intersection of categories results in cumulative impact. This research focuses on the intersection of three areas. The intersection of feminist disability, mothering with disability, and co-design will enable designers to explore the underlying challenges and issues that are not apparent when considering only one discipline. As a result, new questions, theories, and methods in different academic disciplines including design will evolve. This can further offer novel approaches to produce knowledge in a way that science and design can become more beneficial to mothers with disability. This paper introduces preliminary findings from the initial stages of a PhD research project that uses the integration of feminist disability and co-design to explore the needs of mothers with spinal cord injury.

....

Verbiest M., Borrell S., Dalhousie S., Tupa'i-Firestone R., Funaki T., Goodwin D., Grey J., Henry A., Hughes E., Humphrey G., Jiang Y., Jull A., Pekepo C., Schumacher J., Te Morenga L., Tunks M., Vano M., Whittaker R., Ni Mhurchu C. 2018. A Co-Designed, Culturally-Tailored mHealth Tool to Support Healthy Lifestyles in Māori and Pasifika Communities in Aotearoa New Zealand: Protocol for a Cluster Randomized Controlled Trial. *JMIR Research Protocols*, 7:8. (DOI: 10.2196/10789)

Background: Aotearoa New Zealand urgently requires scalable, effective, behavior change programs to support healthy lifestyles that are tailored to the needs and lived contexts of Māori and Pasifika communities.

Objective: The primary objective of this study is to determine the effects of a co-designed, culturally tailored, lifestyle support mHealth tool (the OL@-OR@ mobile phone app and website) on key risk factors and behaviors associated with an increased risk of

noncommunicable disease (diet, physical activity, smoking, and alcohol consumption) compared with a control condition.

Methods: A 12-week, community-based, two-arm, cluster-randomized controlled trial will be conducted across Aotearoa New Zealand from January to December 2018. Participants (target N=1280; 64 clusters: 32 Māori, 32 Pasifika; 32 clusters per arm; 20 participants per cluster) will be individuals aged ≥18 years who identify with either Māori or Pasifika ethnicity, live in Aotearoa New Zealand, are interested in improving their health and wellbeing or making lifestyle changes, and have regular access to a mobile phone, tablet, laptop, or computer and to the internet. Clusters will be identified by community coordinators and randomly assigned (1:1 ratio) to either the full OL@-OR@ tool or a control version of the app (data collection only plus a weekly notification), stratified by geographic location (Auckland or Waikato) for Pasifika clusters and by region (rural, urban, or provincial) for Māori clusters. All participants will provide self-reported data at baseline and at 4 and 12 weeks postrandomization. The primary outcome is adherence to healthy lifestyle behaviors measured using a self-reported composite health behavior score at 12 weeks that assesses smoking behavior, fruit and vegetable intake, alcohol intake, and physical activity. Secondary outcomes include self-reported body weight, holistic health and wellbeing status, medication use, and recorded engagement with the OL@-OR@ tool. Results: Trial recruitment opened in January 2018 and will close in July 2018. Trial findings are expected to be available early in 2019.

....

Wake, S., and Eames, C. 2013. Developing an "ecology of learning" within a school sustainability co-design project with children in Aotearoa New Zealand. *Local Environment*, 18:3, 305-322. (DOI: 10.1080/13549839.2012.748723). https://doi.org/10.1080/13549839.2012.748723

This paper analyses the inter-relatedness of layers of involvement, as contributing to learning, within a school sustainability project (the eco-classroom project). This engaged students, staff and community members (including professional practitioners) in an architectural co-design project that resulted, after 4 years, in a built classroom. The paper utilises an "ecology of learning" diagram to indicate layers and show connections, which are evidenced by findings from the project, alongside relevant literature in geographies of architecture and childhood, pedagogies of sustainable learning and children's participatory and co-design examples.

In conclusion, the ecology of learning approach is critiqued and encouragement of more sustainability co-design projects with children is recommended. It is proposed this could lead to improved processes for all participants while promoting authentic and relevant sustainability learning.

....

Wehipeihana N, Were L, Goodwin D, Pipi, K. 2018. Addressing the Challenges of Young Māori Women Who Smoke: A developmental evaluation of the phase two demonstration project. Evaluation report. Wellington: Ministry of Health.

Executive summary: Smoking is the single leading preventable cause of early death in Aotearoa New Zealand and Māori smoking is significantly higher than smoking in the general population. The combined effect of tobacco control interventions has seen the daily smoking rate decrease from 18.3 percent in 2007 to 13.8 percent in 2017. However, the decrease has not been equally shared across all Aotearoa New Zealanders. Significant inequalities remain for Māori — particularly for young Māori women aged 18 to 24 years.Addressing the problem of young Māori women who smoke is a major priority for the Ministry of Health (the Ministry). The Ministry began to unlock new insights into the complexities surrounding the lives of this group of women with phase one, Exploring Why Young Māori Women Smoke. Since then, phase two — Addressing the Challenge of Young Māori Women Who Smoke: A co-design demonstration project — has been conducted with the overall aim of helping the Ministry to identify new ideas and areas of opportunity that could positively impact on the rate of smoking among young Māori women, narrow the existing age and ethnicity disparities and halt the transference of smoking across generations.

....

Whaanga-Schollum, D., Mules, P., Hagen, P. 2016. Notes – Tikanga Māori Co-design Wānanga. Delivered as a component of the Masters in Creative Practice, Creative Industries Unitec.

The first Tikanga Māori co-design wānanga was held in Nov 2016, bringing together a multidisciplinary collaboration of committed Māori co-design practitioners, to connect, share, and learn about the practice of Māori-led co-design. With 55 practitioners and kaupapa whānau hosted by Ngā Ahō, Toi Tangata, Awa Associates and Unitec Masters in Creative Practice, the wānanga manifested an emerging network of Māori co-designers. Attendees were welcomed onto Unitec's Te Noho

Kotahitanga Marae to share stories and questions and begin to build ideas for tikanga Māori co-design frameworks. The afternoon event built on kōrero, mahi and connections from across recent co-design initiatives and programmes around the motu. In this formative / wānanga kākano practitioners considered: 1) Pūrākau & whakapapa foundational practices; 2) Tikanga & principles based practices.

http://www.ngaaho.maori.nz/cms/notes-TIKANGA-MAORI-CO-DESIGN-2016-1.pdf

....

Yan, J., Reay, S. D., Hedges, S. (2017). Playscapes: Pure Ludens. In K. Seemann, & D. Barron (Eds.), _Proceedings of the Fourth International Conference on Design4Health_ 2017 (pp. 347-351). Melbourne, Australia.

Introduction: Intuitively, we play. Cultural theorists Johan Huizinga and Brian Sutton-Smith (1997) discuss the ambiguous nature of play and its relation to space. Play is more than just a frivolous activity or playgrounds and theme parks; it is how we — and especially children — can discover and engage with our environment. Spaces cannot force play, one of Huizinga's (1955) conditions for play is that it must be a free choice, but spaces might inspire someone to want to play. But what happens when play is situated in the very ordered structure of a hospital? This practice-led research asks how can an enquiry into play activate therapeutic hospital environments through empathy, imagination, and re-enchantment? To consider this, we explore the tension between the highly regimented hospital environment and the unregulated nature of children's play through play theory, drawing methodologies and colour. This paper describes findings and research to date and how these might be folded into a design proposition.

....

Yan, J. 2018. Playscapes: Pure Ludens. An Exegesis Submitted to Auckland University of Technology in Fulfilment of the Requirements for the Degree of Master of Design (MDES). http://hdl.handle.net/10292/11561

Abstract: More than just a frivolous activity, play can be a means of expression, escape, and familiarity. But how does play fit within a hospital context; a context where treatment, care, efficiency, and function supersede the comfort and experience of patients and visitors? Based at Starship Children's Health in Auckland, Aotearoa New Zealand, this research supports the output of a design proposal for central public spaces within the hospital (atrium, mezzanine, and the Koromiko Garden). An investigation into hospital design saw a shift towards

more patient-centred design. With play being inherently linked to how children see the world, a notion of play drives this project and asks; how can an enquiry into play activate therapeutic hospital environments through empathy, imagination, and re-enchantment? User-engagement through staff interviews and a children's design charrette helped frame the brief and ensured their voices were central to the project. Material studies of colour, drawings, and mappings created connections between ideas from users and the site. Iterative developments of the design proposal layered these imaginative interrelationships between people and their environment, with the aim of improving the experiences for Starship patients, families, and staff.

Find out more

Phone 09 301 0101
Email rimu@aucklandcouncil.govt.nz
Visit aucklandcouncil.govt.nz and/or
knowledgeauckland.org.nz

Contact us:
Auckland Co-design Lab
aucklandcodesignlab@aucklandcouncil.govt.nz
Visit https://www.aucklandco-lab.nz

Toi Āria: Design for Public Good
Massey University
toiaria@massey.ac.nz
www.toiaria.org