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Visualizing mental health: co-design for innovative mental health promotion prototypes through interdisciplinary collaboration between psychology professionals, communication design students and tertiary design educators

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ABSTRACT

Approaches to improving people's mental health fall across a spectrum from those targeting risk and protective factors in healthy individuals to those targeting individuals with mental illness. Common to all approaches is a focus on mental health literacy, improving people's knowledge about mental health and how it is fostered. Communication designers are not typically involved early in the development of mental health literacy campaigns or products, reflecting a prioritization of the mental health content. This article reports on the benefits of an interdisciplinary collaboration between mental health clinicians, undergraduate communication design students and tertiary design educators, called Visualizing Mental Health, which takes a different approach. Mental health concepts are used to inspire designers to create unique prototypes including games, apps, toys, and books. The development of these prototypes emerges from design thinking and creative idea generation methods. A key to the development of these outcomes is a focus on deliberately open-ended briefing, through which the creative skills of participating communication designers are expressed prior to finalization of client parameters. This approach in a mental health intervention context over a six-year period has attracted attention from mental health sector funding and led to the development of pilotable interventions into mental health literacy.

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Introduction

The Visualizing Mental Health (VMH) project is a mental health literacy education and training collaboration between psychologists in the community, an interdisciplinary research and professional practice design studio—Match Studio, and communication design students and design lecturers at the University of South Australia. In this project, third year communication design students are given mental health topics to respond to and are then supported by psychologists and lecturers to create unique prototypes such as games, apps, toys, books, products, campaigns, exhibitions and events built around those topics in ways that are appropriate for different audiences.

The overarching goal is to re-imagine how to spark awareness of and embed education around mental health into the broader community and clinical practice in psychology. The process generates unique learning and collaboration experiences for students, psychologists and tertiary educators, as well as industry-level prototypes that innovate beyond expected outputs of such collaborations.

VMH as a concept is supported by a growing body of literature documenting collaborations between university design labs and the health sector, a mutually beneficial partnership that introduces the creative, user-centred processes of design-thinking to calcified health problems while also giving design students experience with real-world clients (Boydell et al. 2021; Groeneveld et al. 2018; Hannan et al. 2019; Nakarada-Kordic et al. 2020; 2021; Page 2018; Reay et al. 2017). VMH connects with this movement and offers a unique contribution to the field with a specific focus on mental health.

This article outlines the VMH process, profiles some of the unique mental health prototypes developed from the collaboration and discusses the value of this model for communication design students, psychologists, tertiary design educators and ultimately the broader health and mental health system and communities. First, however, we will discuss how VMH specifically contributes to the fields of mental health literacy and design for health.

VMH and mental health literacy

Whilst a commonly agreed definition of 'mental health' remains elusive, there are common themes across definitions (Galderisi et al. 2015; Government of Canada 2014; World Health Organisation 2004). These definitions point to mental health being a state of wellbeing that individuals experience that includes the capacity and freedom to:

- Feel, think and act in ways that enhance their ability to enjoy life
- Realize their potential and use their abilities and strengths
- Cope with the stresses and challenges of life

- Work productively and fruitfully and function well in social roles
- Make a contribution to the community in which they live
- Find a positive equilibrium between their values and the values of the society/culture in which they live
- Manage mental ill health if/when it arises

Poor mental health, as typically defined by the presence of diagnosable mental illness, constitutes one of the biggest health challenges across the world. In Australia, mental and substance use disorders account for 13% of the total disease burden, equivalent in impact to cardiovascular disease when considering both fatal and non-fatal burden (Australian Institute of Health and Welfare 2021). In any given 12-month period, it is predicted that 20% of the population will experience a mental health disorder (Australian Institute of Health and Welfare 2018b, 132). At any given point in time, 3.7% of Australian adults report very high levels of psychological distress (Australian Institute of Health and Welfare 2018a) with an estimated 15% experiencing high or very high levels of psychological distress in a given year (Australian Bureau of Statistics 2021). Thus, the ongoing challenge for health and mental health professionals is developing programs, tools, interventions, treatments and services that meaningfully improve the mental health of individuals and communities.

Approaches to improving mental health fall across a spectrum from those targeting the entire population (universal prevention) through to those providing long-term care for individuals with severe or chronic illness (Mrazek and Haggerty 1994). Mental health literacy is central to all interventions. The concept of 'mental health literacy' was first proposed by an Australian-based research team who were concerned that the wider 'health literacy' field was ignoring mental illness (Jorm 2015, 1166). Mental health literacy interventions aim to increase population knowledge in a range of areas, including:

> knowing how to prevent mental disorders, being able to recognize when a mental disorder is developing, knowing about help-seeking options and treatments available, knowing about self-help strategies, and mental health first aid skills to support others affected by mental health problems

> (Jorm 2015, 1166)

As recognition of this concept has increased, studies have shown a positive correlation between high mental health literacy and outcomes such as increased wellbeing and willingness to seek help for mental health issues (Bjørnsen et al. 2019; Bonabi et al. 2016; Gorczynski et al. 2017; Jung, von Sternberg, and Davis 2017; Lam 2014). However, a recent national survey concluded that there is still much work to be done in improving mental

health literacy in Australia, especially for demographics such as men, older Australians and Indigenous Australians (Bishop et al. 2021).

It is in this context that we developed the VMH project. Mental health professionals work with communication design students and experienced design lecturers to experiment with the communication of different mental health concepts. VMH acts as a low-stakes incubator environment for exploring different ways to promote awareness, education, help-seeking, behaviour change and structural change in relation to mental health. Our hope is that we inspire other tertiary design educators and educational settings to adopt similar training processes, as well as inspire mental health organizations to collaborate with these initiatives to push the boundaries of what they do. The goal is to generate innovative products, services, programs and campaigns that are distributed to communities that need them, enhancing mental health literacy and ultimately improving mental health outcomes.

VMH and design for health

From a communication design perspective, the process for developing print and digital communications in mental health contexts generally follows design briefing conventions established in broader graphic or communication design client-designer relationships. A brief is devised, often by the client (Cornish et al. 2015, 177), the delivery of which can range from informal dot-points or verbal instructions—sometimes in collaboration with the designer—to an extensive, formal written briefing document outlining the client's requirements. Clients can be unsure of what to include to successfully brief a designer or design team, highlighting that 'the lack of clear frameworks for graphic design briefs is a hotly debated topic' (Meron 2021). While approaches to the development of the brief can vary to include the design team and other stakeholders through collaborative approaches (Meron 2021), the instigating of the project by the commissioning client nonetheless omits the creative talents of the designer from the inception stages of the project. This omission is crucial, as these inception stages are where unique formats and approaches could be developed, resulting in an entirely different outcome than the one originally envisaged by the client. Instead, power is with the client, who is generally funding the production, and who may not be creatively inclined or focussed solely on budget or deadline requirements. As a result, the client is likely to prefer existing, often predictable design outcomes, leaving design professionals to feel that 'they lack design capital within the creative process' (Meron 2021).

VMH seeks to rebalance this designer-client power differential, with the goal of generating unique mental health literacy prototypes. Instead of psychologists or other health professionals dictating the core message and

communication parameters, and simply employing designers to enhance it, the psychologists share mental health concepts that provide inspiration for designers to create their own messages and prototypes. VMH therefore flips the typical health client and designer relationship and process.

Other benefits of VMH

Apart from its contributions to the fields of mental health literacy and design for health, VHM also benefits the students, psychologists, and tertiary educators involved in the project, as well as producing prototypes that may eventually benefit the wider public. Firstly, VMH provides communication design students with a novel training experience, where they must navigate an open brief with significant ambiguity about potential final products and without too many decisions having already been made. The deliberate ambiguity around defining a specific outcome during the briefing stage can initially be unsettling for students. Navigating the uncertainty and discomfort it generates is alleviated to a large extent by liaising with the psychologists, undertaking their own research, and discussing their findings with their team and classmates, encouraging them to venture into different design territories. Equally, for tertiary design educators, for whom this project is the first time they meet the student cohort throughout their degree, it can be an intense and often challenging form of teaching, requiring quick thinking skills to articulate appropriate and ongoing feedback to student teams without the prior preparation usually undertaken for teaching of projects that follow standard briefing processes. Participating design educators need to build trust in themselves, and the design process itself, in order to guide and to re-assure student teams that anxiety at the beginning of the project is expected. Once students feel more comfortable, it is an extremely rewarding process which opens conversations and depths of thinking about concepts and creative approaches that are not achieved throughout other projects.

Secondly, for participating psychologists—clients in this case—this approach is frequently a new experience in thinking about mental health literacy and engaging with designers. The VMH collaboration provides participating psychologists with the chance to explore alternatives to their usual modes of communication. Instead of individual or group therapy, academic papers, conference presentations and written articles, they instead get to imagine what their knowledge would look like translated into games, apps, toys, books, products, campaigns, exhibitions, events or services. They get to see mental health concepts and ideas expressed in different formats and contexts which forces them to re-evaluate their understanding of those concepts and how they utilize them in their normal work-life. This requires

thinking creatively about their communication and challenging existing conventions on how to communicate lessons from their profession.

Finally, the VMH process generates prototype products, services, campaigns and concepts that have real-world value and build on and sometimes even subvert current practice in the area. Through these prototypes, students re-imagine mental health promotion in a range of contexts. Their prototypes speak to audiences beyond those interested in psychology and mental health, to those interested in communication, design, art and aesthetics. Students find ways of embedding these concepts into everyday life that are not obvious to psychologists, who can have a biased way of viewing these topics. As such, these prototypes have the potential to be seed projects for use in the mental health or health systems more broadly, or act as inspiration for mental health organizations venturing out on new mental health literacy projects. As evidence, multiple VMH projects have attracted attention from the South Australian State Mental Health Commission and health sector funding, leading to the development of pilotable interventions that communicate complex psychological concepts.

How VMH works

VMH was designed in late 2015 by authors DD, JA and GF. The goal was the development of a core communication design course component that involved students tackling a real-world challenge (mental health) through co-design and inter-disciplinary collaboration with subject matter experts (i.e. psychologists). Since 2016, VMH has formed part of the core design studio course of the third year communication design program at the University of South Australia. VMH is the first project that communication design students are tasked with when commencing their final undergraduate year; for most, it is their first experience of engaging with a client. The project comprises twenty-five percent of the course and runs for the duration of a whole thirteen-week semester.

Each year starts with participating psychologists (led by GF) developing one or more written 'briefs' that describe a mental health-related topic. Topics are broad enough to give students significant flexibility in deciding which specific populations to target in building on that topic (Table 1). Topics are selected on the basis that communicating information about that topic to a general audience, a selected segment or demographic of the community, or in one-on-one clinical settings, would be expected to be therapeutic in some way. For example, a person might learn about tools to manage unpleasant feelings or how to help a friend that was struggling. Thus, the topic content sits within mental health literacy frameworks by helping people build knowledge and skills, attitudes and behaviours that

Table 1. Visualizing mental health topics.

2022	2021	2020	2019	2018	2017	2016
Psychological tools Teaching people techniques to look after their mental health.	**Resilience** Supporting people/ families/communities to adapt, cope, respond, persist, recover and even grow in the face of stressors, adversity or setbacks.	**Emotions** Encouraging people to learn more about their emotions and what role they play in their lives.	**Emotions** Encouraging people to learn more about their emotions and what role they play in their lives.	**Emotions** Encouraging people to learn more about their emotions and what role they play in their lives.	**Cognitive behavioural therapy (CBT)** Teaching people how to use the techniques from this popular model of therapy in improving their everyday lives.	**Cognitive behavioural therapy (CBT)** Teaching people how to use the techniques from this popular model of therapy in improving their everyday lives.
		Courtesy Alerting people to what constitutes polite behaviour in different situations.	**Courtesy** Alerting people to what constitutes polite behaviour in different situations.	**Behaviour change** Instructing people on how to improve their lives through changing some aspect of their behaviour.	**Emotions** Encouraging people to learn more about their emotions and what role they play in their lives.	**Emotions** Encouraging people to learn more about their emotions and what role they play in their lives.
		Social Isolation Giving people the knowledge and tools necessary to tackle social isolation and build meaningful friendships.	**Evidence in health** Helping people navigate the complex world of information (i.e. the internet/social media /fast news cycles) to make good decisions about their health.	**Mental health and wellbeing of university students.** Promoting help-seeking in university students struggling with mental ill health.	**Experiential avoidance** Teaching people about this common tendency to avoid difficult and upsetting thoughts, memories, feelings and sensations.	**Quality of life** Getting people to consider what is most important to them in their life.
		Mental Fitness Encouraging people to add mentally healthy activities into their everyday life.	**Mental Fitness** Encouraging people to add mentally healthy activities into their everyday life.	**Theory of Mind (TOM)** Helping people better understand the internal worlds of others.	**Mental Health First Aid** Convincing people to learn more about how to support those struggling with mental ill health.	**Experiential avoidance** Teaching people about this common tendency to avoid difficult and upsetting thoughts, memories, feelings and sensations.
		Theory of Mind (TOM) Helping people better understand the internal worlds of others.	**Theory of Mind (TOM)** Helping people better understand the internal worlds of others.			**Psychologists and Psychiatrists** Helping people understand the differences between these two professions.
		Climate Change Anxiety Teaching people how to manage the distress associated with climate change whilst taking relevant action.				

reduce risk, encourage growth, and empower people to take an active role in their own and others' mental health. Topics draw on psychological research and practice to ensure alignment with current evidence.

The written briefs are purposefully not overly detailed or prescriptive. This provides greater freedom for students to interpret and explore the topic. Structurally, each brief is 2–4 pages in which an overview of the topic is provided, and students are invited to develop a campaign, product, service, object, creative communication artefact or approach that communicates, interprets or responds to the underlying topic. Some example ideas might be provided as starting points (including ideas from previous cohorts) and often there are links to further readings for those student groups that wish to do further research. Topics evolve from year-to-year based on relevance and student interest from the previous year.

Briefs and topics for each year are presented to students in a formal presentation at the beginning of the course. For most of the cohort (approximately 80 students), it is the first time they are exposed to working on a project involving external stakeholders. During the briefing, the VMH team (design lecturers, psychologists and Match Studio representatives) purposefully avoid providing students with detailed parameters, such as the format, media type, function, or relevant demographic for the intervention. Instead, the focus of the briefing session is to provide students with a preliminary understanding of the topics for that year. Students are encouraged to take notes and ask questions during the briefing presentation.

Following the verbal presentation, students are provided with printed copies of the briefs, which also include assessment details and deadlines. If there are multiple topics for the year, students are given time to reflect on each of them and choose one. Students then form teams of 3–5 people with those interested in the same topic, resulting in around 17–22 teams in total, depending on cohort size.

Positioning the students at the beginning of the idea generation process, the collaboration is framed around what are now widely accepted Design Thinking (DT) iteration processes popularized by IDEO, including rapid prototyping (Brown 2008). Teams are provided with resources and readings about their chosen psychological topic, guidance on successful teamwork, and reassurance to trust in the process, the core of which is acceptance that the design outcome and its parameters are unknown at this stage of the project. This open-ended approach aligns with the 'pedagogy of ambiguity' that Suzi Vaughan et al. (2008, 1) believe is crucial to preparing art and design students 'to negotiate the complex and unpredictable demands of the creative industries'. Vaughan et al. (2008, 24) note that students often find such ambiguity challenging, as they expect linear 'techniques or thinking methods which will guarantee success'. This has also been our educators' experience

in VMH, and we find that the open-ended nature and lack of specifics of what teams are supposed to develop requires consistent reminders and re-assurance that they have the capabilities to interpret the mental health concepts creatively from the very beginning and determine the appropriate audience and unique framing through a creative prototype. This commitment for the communication designers to be involved at the beginning of the process and without specific briefing parameters aligns with Brown's (2008) assertion that, '… rather than asking designers to make an already developed idea more attractive to consumers' such involvement 'leads to dramatic new forms of value'. This differentiates VMH from other mental health and tertiary design education collaborations, such as that described by Katherine Boydell et al. (2021), in which students are only brought in to fine-tune solutions already developed by experts.

Through the deliberately ambiguous setting of the task, students focus on understanding, translating and finding innovative approaches to communicating the mental health concepts presented to them for a specific segment of the community of their choice. Participating psychologists engage with student teams for feedback and discussion, answering questions regarding the underlying mental health concepts. These discussions about translating and embedding complex mental health concepts in creative prototypes connect to the premise of Participatory Design, which involves 'the active participation of users in the design of different systems, services and products' (Hagen et al. 2012, 5). While it is common for consumers to be brought in to evaluate an end product, 'Participatory Design goes beyond consultation and testing to seek active contribution of users as co-designers' (Hagen et al. 2012: 5). For VMH, the participating psychologists are positioned as users of the creative prototypes, particularly when they are designed for application in clinical settings.

The collaborative process is structured through three student-team Work-In-Progress (WIP) meetings (with psychologists present) at set intervals. The first of these in week 3, requires students to articulate their understanding of the topic through the development of a return brief, created with input from the psychologists. The second WIP meeting in week 6 is where student teams discuss their top three prototype ideas with psychologists, at the end of which the preferred prototype concept is determined. The final WIP meeting with the psychologists in week 9 focuses on refinements to the overall approach and visual development. The prototype is then developed to an industry standard level of presentation by week 13.

Over the years, students have been tasked with producing a range of outputs in relation to their prototype design. Core requirements include a work-file (showing the research and evolution of their design thinking, process and prototyping), a formal live presentation given to lecturers and

psychologists on the completed prototype, a poster file for printing and exhibition display and any files or objects that relate to the prototype idea itself. In recent years, students have also been asked to produce a video pitch and dedicated imagery for the VMH website and Match Studio social media. Prototypes are assessed by the lecturers with input from participating psychologists who attend or watch presentations given by the student groups on their prototype. Students are not assessed on their understanding of psychological concepts.

A selection of professionally executed prototypes—represented as posters, video, audio or physical objects—are displayed in an exhibition at the Kerry Packer Gallery during Mental Health Month (October) in South Australia (University of South Australia n.d.). Projects are also displayed on the VMH website to provide additional exposure and attract potential collaborators (Visualizing Mental Health 2022).

Selected VMH prototypes

In this next section we discuss a number of prototype exemplars which demonstrate how VMH's process leads to unique approaches to mental health literacy. Please note that prior to commencing work, all students sign a consent form authorizing University of South Australia to include their work and names in future publications such as this article.

Kick Forward

On the topic of 'Resilience', the *Kick Forward* prototype is an app- and activity-based tool for amateur and junior league soccer clubs (players and coaches) to guide resilience building in the context of players being cut from the team. Through deep understanding of the negative mental health impacts on individual players who are no longer offered a place on the team, the *Kick Forward* prototype is unique as it engineers powerful resilience building opportunities into the regular, weekly operations of the soccer club. Players rehearse their coping strategies, all team-members gain better understanding and empathy through first-hand experience of being excluded, and coaches are required to consider their responsibilities and impacts of their decisions while being provided hands-on tools to manage them successfully. Such 'in the moment' resilience training opportunities can be difficult to create, and *Kick Forward* is an imaginative prototype for achieving this.

Character Ties

Another prototype on the topic of 'Resilience' is *Character Ties* (Figure 1), a classroom-based hands-on game in which primary-school students construct

Figure 1. *Character Ties.* Alicia Ey, Jayde Vandborg and Lauren Mowbray.

individualized bracelets based on an analysis of their personal strengths. The game seeks to strengthen resilience in young children, including children who may be struggling with issues around identity and gender. *Character Ties* provides a powerful visual metaphor for representing personal strengths and allows children to celebrate the strengths they already have, but also provide an avenue for them to consider what strengths they would like to develop. This is achieved by considering activities they can engage in to access updates to their bracelet, namely preferred beads, representative of these qualities. The creation of a wearable artefact means the child can be regularly reminded of their strengths and personal goals. *Character Ties* is an inclusive and fun way to embed valuable resilience training in the school curriculum.

Monster Me

The *Monster Me* (Figure 2) mobile game was developed in response to the 'Mental Fitness' topic. This topic tasked teams to develop a prototype which encouraged a defined demographic to add and sustain psychologically healthy activities to their lifestyle. Through *Monster Me*, children take care of their own 'monster' character which they can individualize prior to play. In addition to caring for their monster via exercise, diet and sleep, children can support their monster using psychological and social strategies, such as spending time with friends. Variations in the monster's health and mood help teach children the links between lifestyle choices and mental health.
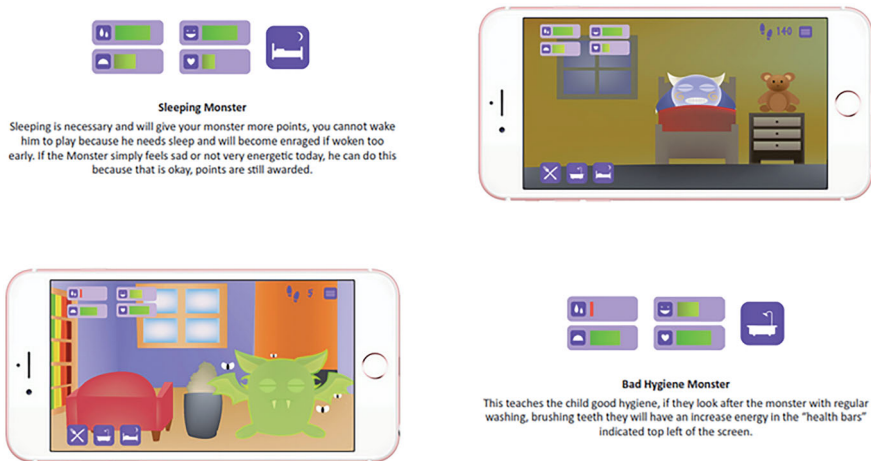
Figure 2. *Monster Me.* Kimberly Molenaar, Amelia Nichols and Kit Ying Chloe Yau.

For example, if they engage with their monster during the night, it will be cranky, tired and not feeling energetic the next day. The game allows children a fun and safe way to externalize consideration of what kinds of lifestyle factors promote good physical and mental health and reflect on their own self-care. By playing with and caring for their personal monster, the child is encouraged to consider whether the same acts of care would be appropriate for themselves and others. The use of psychological concepts (mental self-care) as game elements is an example of stealthy inclusion of mental health concepts. *Monster Me* was the winner of the inaugural SA Mental Health Commission (SAMHC) prize in 2019.

Uni Foodi

The *Uni Foodi* concept is a response to the 'Mental health and wellbeing of university students' topic. The concept consists of a food truck which travels to different university campuses providing affordable healthy meals and promoting healthy eating for mental health, with a prime focus on the Mediterranean diet. The positive role that food can play in mental health is reinforced at all levels of the concept: the food itself, the packaging and the accompanying app. This concept capitalizes on a growing literature showing the relationship between what we eat and how we feel, and communicates this to the purchaser, creating memories that guide positive future food choices. Nutrition is not part of the standard toolkit for psychologists but it is growing in importance. The concept bundles a valuable service (cheap high-quality meals) to a receptive audience (university students) with education about the role of nutrition in mental health. A great example of mental health education being embedded in the service industry.
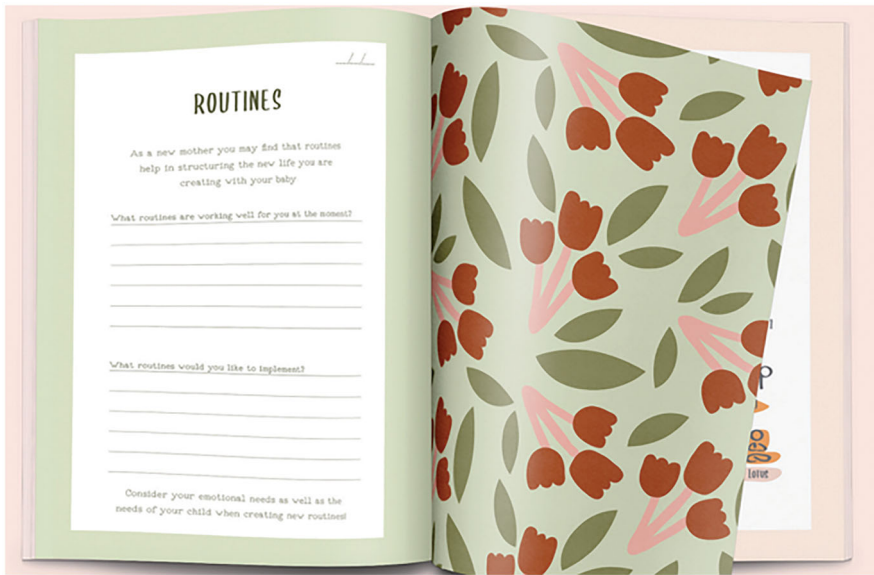
Figure 3. *Mother in the Making*. Lulu Hardy, Winnie Packer, Sophie Horvat and Hannah Brooks.

Mother in the Making

The *Mother in the Making* (Figure 3) team were responding to the 'Emotions' topic. The *Mother in the Making* prototype consists of a reflective prompt journal, designed to help new mothers navigate the emotional journey of motherhood. It includes reflective written exercises and resilience-building activities exploring the full range of emotions experienced in becoming a mother. The prototype imbues a natural period of reflection and consideration with relevant therapeutic processes and content. It also takes a difficult issue (post-partum depression) and weaves it into a broader narrative about adapting into the role of a 'mother'. In this way, the topic is not avoided, but considered alongside other post-birth experiences. In doing so, it destigmatizes help-seeking for post-partum depression as a potential part of the post-birth process for some mothers. Mental health practitioners are increasingly creating communications that focus on illness but as part of a bigger narrative around the positive and negative experiences of mental health. This prototype is an example of such an approach. *Mother in the Making* won a runner-up prize from SAMHC in 2019 and is being developed further.

Think Like Me

Think Like Me was a concept developed in response to the 'Theory of Mind' topic, supporting individuals to develop an understanding of the inner world of others. *Think Like Me* is an interactive installation experience through which people gain the perspective of those affected by mental ill health. The

Figure 4. *Tok Tea.* Adam John Lockier, Chloe Hannah Grimes, Leigh Christopher Down and Olivia Marie Hill.

installation encourages individuals to physically step into a pair of shoes, put on some headphones and view a screen in front of them. Six audio simulations can be accessed, each one capturing the way a person with a particular mental health disorder might be feeling or thinking. Through this experiential setting, *Think Like Me* encourages others to understand a little more about the lives of those struggling with mental illness, in the hope that this will encourage further discussion, empathy and compassion. This innovative use of technology is both a potent avenue through which to tell the stories of those with lived experience of mental illness, but also a highly sensory experience for those listening to the stories. Those without an experience of mental illness can literally climb into the shoes of someone who has struggled and hear first-hand the internal dialogue that can accompany such illness.

Tok Tea

The student team that developed *Tok Tea* (Figure 4) did so in response to the 'Emotions' topic, as a conversation starter in aged-care settings. The *Tok Tea* package includes a range of teabags which associate different herbal ingredients to particular moods and emotions. The tags on each teabag include prompt questions and thought-provoking conversation starters which are designed to support interactions between residents, and between residents and visitors (such as family). This prototype sought to take an everyday activity and inject it with psychological prompts for conversation and connection. The team recognized that reflection on and sharing of one's feelings can promote bonding between people and that a trigger to engage

Figure 5. *In Their Shoes*. Kate Twigden, Hamish Cook, Benjamin Stoeckel and Morgan Todonai.

in such activities could be embedded in an everyday item. The *Tok Tea* prototype was further developed through funding from SA Health's Office of the Chief Psychiatrist. Limited voluntary user testing included aged care homes and office settings where management were seeking to increase staff communication about mental health and wellbeing. *Tok Tea* is therefore an exciting example of a student prototype taking the next step into industry.

In Their Shoes

In Their Shoes (Figure 5) is a card game targeted at university-aged students, which employs 'Theory of mind' concepts to improve players' understandings of one another and themselves. The game dynamics are set up so that winning requires being able to accurately assess other players' responses to common everyday scenarios. Each round, a player draws a scenario card from the box. They proceed to read out the scenario and, keeping it to

Figure 6. *Universal Stories.* Oliver White, Breeze Millard, Christopher Filosi and Adburrahman Mohammadi.

themselves, use the game board to choose the emotion they would be feeling and how they would realistically respond. The rest of the players now take it in turns to guess what emotion the first player would be feeling and how they would respond. Players are rewarded for correct guesses and receive the scenario card as a symbol of winning a round. This prototype is unique as it could be played in a clinical scenario as a therapeutic exercise to help illustrate the concept of theory of mind, but also operates as a fun game separate from its potential therapeutic value. It is a good example of the VMH process generating an outcome that can straddle both mental health and recreational domains.

Universal Stories

Universal Stories (Figure 6) is a comprehensive multi-card game pack, designed to combat social isolation and loneliness in migrant populations. Its three included games focus on bringing individuals together and are specifically designed with the aim of building confidence in participants. Each game targets a different area of social hardship migrants may face in relocating: 'Insight' assists with locational knowledge, 'Slang' with linguistic hurdles, and 'Small Talk' with conversational and relationship building. The game pack has been created to be used in existing environments where interpersonal connection takes place, including English language lessons or with facilitation by social workers through migrant support organizations. The ultimate goal of the game is to foster collaboration and provide a more inclusive and less isolated migrant population. This unique prototype solves

a problem (cultural adjustment) but does so in a way that also fosters the development of other social and psychological skills.

Discussion

Mental health remains one of the big health challenges of our time, but despite increased attention on mental health, and increases in funding and treatment uptake, rates of mental illness have not changed significantly (Jorm 2021). This suggests ongoing value in exploring creative ways to communicate, teach and educate individuals on how to look after their mental health and provide clinicians with innovative tools to support them. The VMH collaboration provides a model for achieving such innovations.

VMH is also a unique training experience for third year communication design students that yields unique mental health themed products, services and campaigns that have potential value as tools for increasing mental health literacy as well as inspiration for other organizations trying to innovate in this space. This article has profiled some of the most interesting prototypes to be developed from this collaboration. VMH challenges the usual collaboration model between mental health professionals and young designers, situating mental health concepts as a source of inspiration for unique communication design outcomes. Central to the strength of the collaborative process and the unique prototypes developed is the embracing of ambiguity. Participating design students are engaged through a deliberately ambiguous and open-ended briefing process at the very beginning of the project, thereby generating innovative and unique responses to the complex problems of mental health literacy.

Through VMH projects, students are required to deeply consider designing for someone else's needs (from young children to older adults) and communicate complex psychological concepts and tools through an appropriate design response addressing these needs. Teams frequently select a demographic of which they are a part, which in itself can stimulate interesting conversations around knowledge, belief systems and experiences. We hope that participation in the VMH collaboration has lasting impacts on students who may decide to embrace mental health themed work in the future, and on students' professional confidence and interactions with clients (health or otherwise). In her overview of projects conducted by the Health Design Lab—based at Emily Carr University of Art + Design in Vancouver, Canada—Caylee Raber (2018) says that 'the lab helps to expose student to healthcare contexts as opportunities for design, and many choose to seek work in these areas post-graduation'. We aim for a similar outcome here.

The VMH process, with its focus on providing designers significant freedom to create mental health communication prototypes, would present

some challenges if transported directly into mental health organizations. Most mental health organizations are working with precise budgets and must deliver maximal output and outcomes for money. They have specific remits in place, goals in mind and psychological science they need to honour. These organizations generally contract designers when they already have a strong sense of the outcome they want. Thus, designers need to work with commissioning organizations to highlight the benefits of being there from the initial conversations. Educational institutions such as universities training future design professionals need to play a role in facilitating such interactions.

The VMH model acts as a low-stakes incubator environment in which mental health communication prototypes are conceptualized and developed, without the constraints of programmatic funding. Mental health organizations could then adopt some of the prototypes, utilize prototypes as inspiration, or engage the designers, educators and psychologists to further elaborate their ideas as means to develop novel campaigns and interventions. Mental health organizations can also play a role in shaping the starting topics and briefs. For the 2022 VMH brief, for example, Be Well Co (https://www.bewellco.io/) provided students access to their psychological toolkit as inspiration for developing new ways of communicating those psychological tools. Thus, a partnership model in which mental health organizations collaborate with VMH style initiatives in the university sector could be powerful avenues for innovation.

Limitations

The *VMH* process does have limitations. Variation in the skills, uncertainty tolerance and work ethic of the students means a high degree of variability in the quality of prototypes generated each year. In some cases, students do not yet have the technical skill to realize their ideas fully. In other cases, the ambiguity can freeze students and they default to safer, more predictable idea sets. Sometimes the challenges of working in a group format (e.g. getting agreement on concepts, allocation of responsibilities) can hinder progress on idea development. Whilst there is always natural variation in skill and performance in such cohorts, VMH does cluster a few challenges together (working with clients, ambiguity, challenging topic) that may lead to more students struggling. Nonetheless, each year reliably produces high quality and interesting prototypes.

In contrast to a project that is led by mental health professionals, the freedom afforded to students and the deliberately light guidance from psychologists (the clients) means some prototypes deviate from the underlying mental health/psychological science. For example, a campaign might

promise exaggerated beneficial results or an app might be designed on a faulty understanding of behaviour change methods. This means some prototypes, if they were to be further developed, would require modifications to bring them in line with current evidence or best practice guidelines. The silver lining here is that the freedom afforded to students means fewer barriers at the idea generation level and greater variety of total ideas. Furthermore, we have not encountered any projects that could not have their underlying science improved, whilst still retaining the spark of the original concept.

In some cases, VMH limitations constitute areas we would like to explore further. For example, the high prevalence of mental health issues in the student cohort means some may be triggered by the topic discussions. In future cohorts, we would like to better explore what impact involvement in VMH might have on mental health self-reflective capacity in the students and participating lecturers and psychologists. Whilst the topic content may act as a trigger, the topic could also act to improve mental health literacy and functioning in the cohort. We therefore need to explore ways that participation in VMH could be therapeutic for students.

We are also keen to strengthen partnerships with mental health organizations to increase the breadth of topics, but also start developing avenues to further develop prototypes. In its current form, VMH excludes two key stakeholder groups: end users who would use the prototypes and the mental health organizations that would promote them. To involve these stakeholders in the development process would be ideal and a great expansion to the VMH concept. To date, only a very small number of prototypes have been funded to go through to user-testing phase. With greater mental health organizational participation, projects could be designed with multiple inputs.

Conclusion

Since 2016, the Visualizing Mental Health collaboration has centralized the role of communication designers in developing unique mental health literacy prototypes, inspired by concepts from psychological science. VMH presents a powerful training experience for designers, psychologists and lecturers, but increasingly the outputs of the process are being considered by health and mental health groups as potential seed ideas for new campaigns and products. We encourage other design education settings to consider a similar model and to utilize design education as a low-stakes incubator environment in which to generate innovative health promotion interventions, whilst also equipping future designers with improved health literacy and capacity to tolerate ambiguity.

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