

Connect. Challenge. Do.

Design and evaluation of *Goalzie*: a goal-setting campaign to promote help-seeking for wellbeing

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YOUNGANDWELL
Cooperative Research Centre



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Young and Well Cooperative Research Centre

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Executive Summary

BACKGROUND

Whilst most young people are doing well, a concerning number are vulnerable to or directly affected by ill mental health (Lawrence et al., 2015). The experience of mental illness can have long lasting impacts including social disconnection and poorer life outcomes (AIHW, 2015). Alongside strategies in early intervention and prevention (Australian Government Department of Health, 2015) is the need to promote good mental health and wellbeing by targeting protective factors such as social connectedness and help-seeking. Social marketing, especially using digital media, holds enormous potential for engaging young people, leveraging community and social connectedness and nudging behaviour in positive ways. Online campaigns developed with young people that utilise existing peer networks and game-based strategies may nudge help-seeking practises to become a proactive behaviour for well-being. This project leverages these opportunities through a collaboration between the University of South Australia, Western Sydney University, Queensland University of Technology, Zuni and the Young & Well CRC.

OBJECTIVES

This study aimed to contribute to the evidence base regarding the relationship between wellbeing, respect, social connectedness and help-seeking. Working with young people, an online social media campaign (*Goalzie*) was developed which sought to foster social connection as a protective factor, using peer-to-peer engagement to promote goal setting as a fun way to enhance, encourage and normalise help-seeking behaviours. This study draws on a theoretical framework based on the Model of Goal-Directed Behaviour (MGB; Perugini & Bagozzi 2001) and Nudge Theory (Thaler & Sunstein, 2008). It explores how young people understand help-seeking for wellbeing and what social and digital practises could usefully inform the design of an online social media campaign. Specifically, key objectives were to: 1) employ a participatory design approach to co-generate and co-design a social marketing campaign with young people which promoted goal setting and proactive help-seeking for wellbeing. 2) Evaluate the campaign to determine if online social marketing campaigns can contribute to attitudinal and behavioural change related to help-seeking practices.

METHODS

Sub-study 1: A Synthesis of the Literature was conducted to provide a context for Campaign 4 in relation to key themes of help-seeking, goal setting, and social connectedness.

Sub-study 2: Participatory Design was employed to explore young people's digital practises and attitudes towards goal-setting. Methods included five co-design workshops, online discussions and a focus group involving a total of 64 young people aged 12 -25 from across Australia. The project team was advised by 15 sector and academic partners from the Young and Well CRC network who reviewed the campaign brief, concepts, and content via teleconference and email.

Sub-study 3: Campaign Evaluation: An age cohort study using a pre-post survey design was used to:

- 1) Contextualise the campaign through the reporting of young people's health, wellbeing, and online behaviours. Measures included Respect, Help-seeking (Rickwood et al., 2005), Model of Goal Directed Behaviour constructs (Perugini & Bagozzi, 2001), DASS21 (Lovibond & Lovibond 1995), Social Connectedness (adapted from Lee et al. 2008; Lee et al. 2001)
- 2) Examine the efficacy of the campaign to effect attitudinal and behavioural change to promote help-seeking for wellbeing. Participants aged 13–18 years were recruited via informed parental consent through Survey Sampling International (SSI), an online research panel provider. A total of 1,106 participants completed the pre-survey and 618 completed the post-survey. Staged testing was employed to ensure data were recorded appropriately. After data cleaning, pre- and post- survey data were matched, assembled and merged with analytics data, using a Unique Identifier (Unique ID) and passcode

Sub-study 4: Mapping Online Engagement via Digital Tracking was achieved through real-time collection of data from users as they engaged with the *Goalzie* app. Campaign 4 passive data collection evolved and extended the innovation from Campaigns 2 and 3 by implementing a bespoke data collection mechanism, using pre-determined data ‘touch points’. All engagement actions by the user were collected by time-stamps and recorded at the individual level with their respective unique ID. During the ‘contained’ research period (pre-public release) a total of 3,719 ‘events’ from 136 participants were recorded. The engagement experience was reconstructed by using Unique ID. 126 of these users were successfully matched to pre-survey data and 59 were further matched to post-survey data. During the post-public release period, 45,797 ‘events’ were collected from 862 participants, with the campaign experience reconstructed for each user by a User ID.

Sub-study 5: Qualitative insights from a sub-sample of cohort participants were generated via semi-structured in-depth telephone interviews. Interviews explored young people’s views and experiences of the *Goalzie* campaign, including their social processes and the impact on young people’s wellbeing and their attitudes towards, and influences on, help-seeking across on- and offline contexts. Five girls aged 13-15 years and three boys aged 13-17 years were interviewed.

KEY FINDINGS

Affordances of social media are well suited to campaigns seeking to foster social connections as protective factors, yet the ethical, design, and technical challenges in actually evaluating campaigns in real time and in the public domain are substantial. Further, determining attitudinal and behavioural changes in naturalistic campaigns in online settings is complex and difficult to do. Despite the challenges, this study yields several areas of learnings:

- Participatory design of the *Goalzie* campaign found that young people are open to the idea of reframing stigmatised concepts, such as help-seeking, in positive and affirming ways. They are particularly responsive to campaign strategies that are fun, and have an element of social or peer-interaction. However, safety considerations, particularly being able to manage their privacy and know who is going to have contact with them, directly influence their willingness to engage with online campaigns and tools.
- Young people want opportunities to engage with and connect to a range of information, resources and help options, without being told what to do. Campaigns that are humorous, engaging, and connect young people to a ‘networked eco-system’ of information and support can help normalise help-seeking for wellbeing and encourage habits of opportunity and problem recognition, as well as help-seeking behaviour.
- Campaigns such as *Goalzie* – which seek to activate and habitualise protective behaviours such as help-seeking and positive social relations and connectedness – are critical. The cohort study confirms that whilst most young people are well, the context for these campaigns is one in which a concerning proportion of young people are experiencing high levels of anxiety, depression and stress. Promotion and prevention strategies must foster and build targeted, protective behaviours and environments, and can also, via online and networked media, help those young people who are distressed to find their way to direct online support.
- Interventions aimed at improving the help-seeking behaviours of most young people, must consider social connectedness and respect for self and others as pillars of a strength-based approach for nudging young people towards proactive help-seeking behaviours.
- For vulnerable groups, however, and for young people who are less connected to others, help-seeking practices should consider and address ways to support young people to develop trusting, respectful relationships and meaningful, supportive and accessible connections with others.
- The MGB constructs, (in particular *attitudes, anticipated emotions, social norms and control*) were useful for application in online research with young people to better understand their help-seeking behaviours and decision-making processes. Within the context of help-seeking, social norms in particular appear to be an important area of focus for programs/campaigns that aim to deliver positive attitudinal change.
- Passive analytic data can be mapped across apps and bespoke database platforms at the Unique ID level and also can successfully be applied to adapted iterations of the MGB. This extends the traditional application of the Model to incorporate both self-reported data and passive analytics data from innovative digital data collection methods and in online research contexts with young people.
- Evaluations of online social marketing campaigns can be enhanced by extending the passive data collection and tracking user engagement beyond the contained period (pre- public release) to ‘in the wild’ (post-public release), where more organic and naturalistic engagement is likely to occur, without the constraints of ethical research parameters. By doing so, a more comprehensive picture of user engagement potentially can be obtained to more accurately determine the impact of a campaign.

CONCLUSIONS

This study has built on learnings from previous project campaigns, applied insights from the literature and successfully employed a participatory design approach to co-design and develop *Goalzie*, along with an age cohort approach to evaluation, with innovative applied digital tracking methodologies.

Goalzie was well received by young people in this study and supported ‘youth wayfinding’ through a user-friendly interface and further integrated a ‘networked ecosystem’ of support resources.

Young people were generally well as determined by all measures employed in this study and their overall attitudes to help-seeking were also positive. This high level of positivity may have impacted on the likelihood of achieving attitudinal and behavioural change in the time frame allowed in this study.

Additionally, ethical restrictions imposed on the peer-to-peer interaction during the contained (pre-public release) period could also have acted as a barrier to achieving changes to attitudes and/or behaviours.

This campaign highlighted the benefit of continuing to collect user engagement data at the Unique ID level for campaign evaluations once an app is in the public domain and widely accessible.

The application of an adapted MGB, is promising and highlights the important role of social norms and attitudes in nudging young people’s help-seeking behaviours.

This study also identified vulnerable youth when it comes to social connectedness and help-seeking practices, and confirms the need for specific, targeted interventions that specifically address the needs of these groups.

It is evident from this study, that alongside the opportunities digital technologies afford, positive relationships, meaningful social connections, and respect for self and others should be cornerstones of social marketing campaigns that aim to promote help-seeking for wellbeing.

Introduction

With one in seven young people experiencing mental illness (Lawrence et al., 2015), there is a critical need for investment in prevention and early intervention initiatives that support young people's wellbeing. Wellbeing can protect against the development of mental health difficulties and help young people cope when experiencing adversity or mental ill-health (Park, 2004). Among factors known to promote positive mental health and wellbeing, social connectedness and help-seeking can play an important role in connecting people to information and support to deal with a problem or achieve a goal. Learnings from previous project campaigns (Spears, et al., 2015a; b) and prior research (Rickwood, Mazzer & Telford, 2015) highlight the importance of peers as key sources of support for youth when seeking help. There is, therefore, an opportunity to increase the perceived value of help-seeking through peer-to-peer interactions and goal setting by encouraging young people to engage in fun and accessible challenges, whilst indirectly reducing the stigma often associated with seeking help.

The online environment provides unprecedented opportunities for connecting Internet users to each other (and to vast amounts of information and resources) in progressively innovative and networked ways (Korda & Itani, 2013). Young people are among the most active consumers, producers, and distributors of digital content in a range of contexts and for a variety of purposes, including entertainment and communication. The widespread adoption of technologies also has created new and sustainable ways of co-generating user-led solutions to complex social and health challenges (Dunlop, Freeman & Jones 2016). Digital media may also help achieve maximum reach and impact in the promotion of desired positive behaviours of a targeted audience. Social marketing, which requires active participation of intended users and enables shared control over the design, development and delivery of related activities (Smith, 2006), is increasingly being recognised as an effective approach for achieving social change (Dibb & Carrigan, 2013).

Using a Participatory Design approach, insights from a literature review, previous campaign research findings (Spears et al, 2015 a, b), workshops and activities with young people, sector partners and communications professionals, the *Goalzie* campaign was created. The app-based campaign aims to 'nudge' (Thaler & Sunstein, 2008) goal setting and Help-seeking for wellbeing by young people aged 13 to 18 years by facilitating peer-to-peer interactions and connections with help sources, mediation of the relationship between intentions to set goals and seek help, and enactment of actual goal-setting and help-seeking behaviours. A cohort and innovative digital data collection methods were then used to evaluate the campaign.

To inform the campaign research and design, the study drew on two theoretical frameworks, the Model of Goal-Directed Behaviour (MGB; Perugini & Bagozzi 2001); and Nudge Theory (Thaler and Sunstein, 2008). The Safe and Well Online project has developed campaigns based on the concept of 'a spiral curriculum' (Bruner, 1961) and, like the previous three campaigns, *Goalzie* is underpinned by the core theme of 'respect for self and others'. This theme provides a coherence across the campaign program, and an opportunity to expose young people to new strategies and messages whilst reinforcing previous concepts. This report presents five sub-studies that comprised the project: a synthesis of the literature which provided a context for the campaign around the key themes of help-seeking, goal setting and social connectedness (Sub-study 1); Participatory Design of the campaign (Sub-study 2); an evaluation of the campaign using a cohort study (Sub-study 3); passive digital data collection during a contained research period (pre-public release) and in the wild (post-public release) (Sub-study 4); and a qualitative study of young people's perceptions of *Goalzie* and their attitudes and behaviours associated with goal setting and help-seeking for wellbeing (Sub-study 5). The required ethics approvals were granted by the Human Research Ethics Committee (HREC) at the University of South Australia, with the Western Sydney University, and the Queensland University of Technology.

The five sub-studies examined the following research questions:

- What is the interplay between goal setting and achievement, notions of respect, social connections/peer-to-peer interactions, and help-seeking in the context of wellbeing?
- To what extent do online social marketing campaigns, which promote safety and wellbeing, positively influence young people's attitudes and behaviours?
- To what extent are the online experiences, platform and mode of delivery trialed in Campaign 4 effective in facilitating positive attitudinal and behavioural change in young people's safety and wellbeing?
- What are young people's perceptions of *Goalzie* and what is their engagement with the content?
- Do survey and passive data collected from the cohort study support the MGB and to what extent is the MGB promising as a theoretical framework for measuring young people's behaviours and attitudes in online settings?
- How can the complex relationships between online/offline activities, wellbeing and help-seeking be better characterised?

Synthesis of Literature (Sub-study 1)

HELP-SEEKING

Improving wellbeing and preventing mental ill-health involves helping adolescents develop the awareness, skills, and strategies to be able to recognise when they need additional support and help from their friends and family members (Rickwood, Deane, & Wilson, 2007; Rickwood, Deane, Wilson, & Ciarrochi, 2005). Considerable resources have been dedicated to improving young people's mental health and wellbeing in Australia over the past decade, yet clinical services still fail to reach young people in need for any number of reasons, including stigma associated with seeking help and a lack of awareness regarding where and how to reach out (Burns & Rapee, 2006; Jorm, Wright & Morgan, 2007). The net result is that many young people choose to not seek the help of others and, instead, try to manage problems on their own (Clement, 2015; Gould et al, 2002; Jennifer et al, 2008; Labouliere, 2015).

Help-seeking can be defined as "the behaviour of actively seeking help from other people" (Rickwood et al., 2005, p. 4). It is a problem-focused coping behaviour, where the problem is addressed and not ignored. "Other people" can refer to informal help sources such as friends or family (Yap, Reavley, & Jorm, 2013), or formal sources such as face-to-face counselling with a psychologist (Gulliver, Griffiths, Christensen, & Brewer, 2012). Rickwood et al. (2005) further explain young people's Help-seeking as a 'progressive process', moving from the personal to the interpersonal. It begins with an awareness of whether they need help, followed by expressing what the problem is, how they can be helped, the availability of help, and finally the willingness of the person to express why they need help.

Reconsidering this process in terms of online opportunities, means that young people now have an additional range of options; an awareness of the online help opportunities, their availability, and anticipated benefits. With the advent of the Internet and the plethora of online options arising, young people are afforded both online and offline opportunities for seeking help, and a consequential blurring of the edges of formal and informal, off and online support opportunities is evident. Professionals can be accessed via information websites and friends can provide support online via messaging services.

There is emerging evidence that using online social networks can effect health behaviour change (Maher et al, 2014) and that web-based interventions are just as effective as non-web-based interventions in terms of health behaviour change (Wantland et al, 2004). One potential way of activating Help-seeking options as a behavioural process involves striving to set or achieve goals (Verplanken & Aarts, 1999), which could assist in the de-stigmatisation and normalisation of help-seeking for young people (Gulliver, Griffiths & Christensen, 2010) and, in turn, could potentially prevent or disrupt the development of mental ill health.

GOAL SETTING

Goal setting, the developing of an action plan to guide or motivate an individual towards a goal, is a conscious undertaking. Frequent goal setting, however, can lead to automaticity, a process that can be carried out rapidly without effort or intention (<http://psychologydictionary.org/automaticity/>). An unconscious process, it is usually the result of learning, repetition or practise (Harkin et al., 2016). In this way, goal setting can be considered in two distinct ways; as a strategy for help-seeking improvement, and as a production of habits which can be conceptualised as automatic goals (Verplanken & Aarts, 1999).

SOCIAL CONNECTEDNESS

Social connectedness is associated with greater wellbeing in young people over time (Haslam et al., 2015; Jose, Ryan, & Pryor, 2012) and refers to the “sense of belonging and subjective psychological bond that people feel in relation to individuals and groups of others” (Haslam et al, 2015, p1). Another approach is to consider social connectedness in terms of relationships within interpersonal networks (Lee, Draper & Lee, 2001). The Internet is an increasingly important setting for social interactions and interpersonal networks for young people in Australia, and it is well established that online interaction can extend and deepen offline social relationships. Further, it can potentially provide safe and supportive spaces and connections for young people who experience marginalisation or discrimination. However, Grieve et al., (2013; 2015) in extending the examination of social connectedness to online settings, found Facebook social connectedness was “related to, but distinct from, social connectedness obtained from face-to-face social networks” (2014, p1). It is important, therefore, to consider young people’s social connectedness holistically, across both settings, in order to fully comprehend the impacts of this construct on young people’s wellbeing, and their opportunities for seeking help. Services such as Reachout.com demonstrate how young people value and utilise online services as a source of information, effectively functioning as a crucial ‘gateway’ service to information and direct service provision (Collin et al., 2011a).

PEERS, SOCIAL NORMS AND CONNECTEDNESS

Peers are developmentally significant for young people (Hartup, 1996) in the quest for emerging adult independence, autonomy, social acceptance and identity (Parker & Gottman, 1989). Simultaneously, as peers become increasingly central to how young people perceive themselves, the time spent with and influence of parents decreases (Centifanti, Modecki, MacLellan, & Gowling 2014; Steinberg, 2008), highlighting the importance of peer norms in the development of pro- and anti-social and behavioural cultures of young people. Social norms amongst peers, then, are powerful motivating forces shaping behaviour (Baumeister & Bushman, 2008), influencing conformity, and contributing to social connectedness. Social norms are thus important considerations for interventions to improve safety and wellbeing.

GAMES AND GAMIFICATION

Games are rule-based and involve playing and winning, whilst game-based learning relates to the use of games to enhance the learning experience. The development and range of online/digital games to promote health and wellbeing in children and young people has grown exponentially in recent years (Webb, Burns & Collin, 2008). A major review identified there are strong indications that gaming broadly has many benefits for wellbeing (Johnson, Jones, Scholes & Carras, 2013). Gamification, however, involves the application of game design and mechanics to non-game contexts and is defined as the “application of typical elements of game-playing such as achievement, rewards, scoring points and competition with others, to other areas of activity, to encourage engagement with a product/service (<http://www.oxforddictionaries.com/definition/english/gamification>). Gamification has recently gained attention as a strategy for increasing user engagement in health and wellbeing initiatives with a view to making the ‘dull and ordinary’ more rewarding and appealing (Prince, 2013). The advantages and challenges of employing gamification are becoming increasingly understood. Feldman (2011) previously highlighted the emerging evidence base demonstrating improvements in health behaviours and outcomes across a range of concerns; addiction control, healthy eating, physical activity, physical therapy, cognitive therapy, smoking cessation, cancer treatment adherence, asthma self-management and diabetes self-management. In a study of a “social, multiuser, web-tablet based prevention game for middle-school youths” Schoech et al (2013) highlighted engagement, motivation, self-disclosure, and co-learning as advantages, while reliance on technology and difficulty of development are challenges. Similarly, Johnson et al (2013) outlined the positive and negative impacts of videogames on wellbeing. Gamification may be an effective means of targeting motivational components, and games may be effective at triggering individuals’ responses and increasing popularity of apps (Lister 2014). Combined, however, they may increase success in changing health related behaviours.

NETWORKED AND STRENGTHS-BASED APPROACHES

Understanding how gamification, social and peer relationships can be applied to social marketing campaigns is also contingent on the increasingly expanding networks of places, people, technologies and services in which they live and grow. Social connectedness, peer-to-peer interaction, informal learning and norms are all interrelated and, as Ahn suggests, “cultural norms and behavioural practices influence how one ultimately uses a technology” (2011, p. 1436). Understanding how young people navigate and negotiate a range of social and material resources and support is therefore necessary for effect research, design and development of interventions that promote wellbeing. For example, a brief overview of the first three Safe and Well Online campaigns (Appendix 1) highlights some of the behaviours, artefacts, social arrangements and practices which were developed as part of the PD process in the Safe and Well Online project’s previous campaigns: respect, positive body-image and positive informal help-seeking. Key to all these campaigns was tapping into digital practices of young people, such as: signalling opportunities for action (Keep it Tame), sharing inspirational messages (Appreciate a Mate), or using humorous videos as an entry-point to supportive resources (Something Haunting You?). Working with young people to identify and foreground the opportunities available to promote wellbeing shows that social support, digital resources, as well as choices and opportunities are key.

A ‘settings approach’ to health promotion (World Health Organization, 1986) recognises the influence of contexts and contends that investment in the daily social systems of individuals is required for health improvement (Dooris et al 2007). Ecological and systems thinking approaches can support health promotion precisely because they acknowledge the complex interactions of environmental, organisational, and personal factors (*ibid*). This shift from individualised, deficit-led approaches, toward developing “supportive contexts in the places that people live their lives” (*ibid*) is especially important when digital technologies are considered. A strength-based approach incorporates the learnings from previous campaigns (Spears et al., *in press*) and highlights the concept of a ‘networked ecosystem’ – the evolving and interconnected range of people, places and technologies that can both enable and constrain young people’s choices and opportunities. Young people must navigate and negotiate diverse pathways to help in a networked society. The concept of youth wayfinding helps to articulate how this can be supported by the architecture and affordances of online interventions, without ‘telling’ young people what to do.

However, this is not an easy or simple process. Previous research (Spears et al., 2015), highlights the integral role of participatory design (Hagen et al 2012) in supporting multiple perspectives and diverse expertise. Valuing but not privileging the views of any one group; young people, scholars, or industry professionals. Further, to inform understanding of a ‘networked ecosystem’, the interrelated social, technical and environmental dimensions of social life, needs to be analysed and explored together with the role of technology, rather than as separate conditions.

This thinking brings together multi-disciplinary teams of experts from the gaming communities, hard and software designers, behavioural, social and cognitive psychologists, behavioural economists, communication leaders and designers (Feldman, 2011). The potential for multiple stakeholders to collaborate and co-design different platforms to curate digital content for enhancing young people’s wellbeing is significant. While the Internet may be a valuable resource for young people to search about health topics, as Hargittai and Young (2012) highlight, the complexities of navigating accurate and relevant online content remains. This opens up new possibilities for “incorporating social media in the research design to see how they may play a role in the search process” (p. 18). The role of exploring the benefits of social networking services and social media for young people’s wellbeing (Collin, 2011b; Swist et al., 2015) highlight the importance of understanding the role these digital platforms and practices play in the overall strategies for wellbeing interventions.

Research and design of a campaign to promote help-seeking, goal setting and social connections (Sub-study 2)

AIMS

Using a Participatory Design (PD) approach, research insights from the first three campaigns in the Safe and Well Online project (Appendix 1) were incorporated. Further, findings from generative and co-design workshops, online and focus group discussions, and the advice of the sector partners (Project Reference Group) were used in the design and development of the campaign.

Initial campaign concepts were developed by the digital industry partners (Zuni and DAN) based on the key findings from Campaign 3 development:

- Reframe help-seeking from being deficit to strengths-based
- Recognise the diversity of young people's help-seeking pathways
- Acknowledge the complex interrelationship between people, places and tools that mean help-seeking is not a linear process

This study therefore aimed to investigate the following:

- How can help-seeking be reframed for wellbeing - not just problems?
- What would a successful campaign outcome be according to 15 year old males and females?
- How can the campaign implicitly promote Help-seeking as a normal part of being healthy and well?
- How can a campaign help young people explore short term goals?
- What affordances of fun and peer-to-peer interaction online can promote early, informal help-seeking?

The PD research reported here focused firstly on exploring the range of obstacles and opportunities which can enable and constrain young people's choices and opportunities (bridges, barriers and strengths-based strategies) for help-seeking for wellbeing. Secondly, young people assessed and recommended refinements to the App developed for the campaign.

METHODS

- Workshops - Five workshops involving young people, researchers and digital/creative agency representatives informed different phases of the PD process. Co-design workshops facilitated the creation and critique of campaign content and usability/User Acceptance Testing (UAT) workshops assisted in reflecting upon the navigation, architecture and testing of the campaign prototype.
- Online discussions and focus group - Two groups participated in online discussions: five young people aged 12–17 years were Campaign Collaborators and contributed to discussions online throughout the project; and the Young and Well CRC Youth Brains Trust undertook reviews of the campaign brief, concepts and draft assets. One peer-focus group was conducted by the Young and Well youth facilitator as part of the concept phase.
- Teleconference and Email Communications - NGO and academic partners reviewed the campaign brief, campaign ideas, creative and final content via teleconference and email.

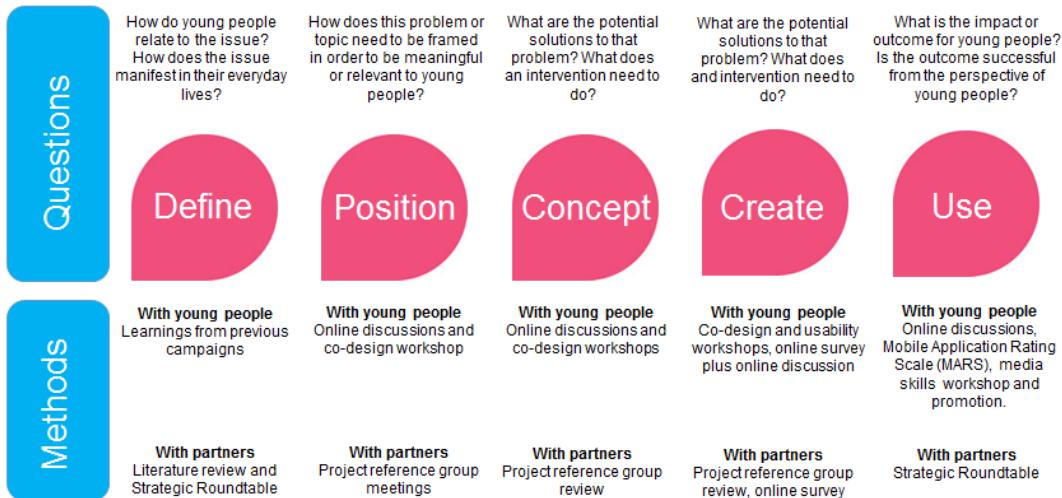


Figure 1 Participatory Design Framework for Campaign 4 Goalzie

These methods produced artefacts which were analysed and shared with young people, digital strategists, creative agency, mental health sector professionals and researchers to integrate into the design and development of the campaigns. Examples of these artefacts produced included campaign proposition, user goals and brand/design guidelines, personas, user journeys, creative concept briefs, story-boards, mood-boards (for the concept and create phases), app wireframes, campaign content and the app prototype (for the use phase).

PARTICIPANTS AND ACTIVITIES

To define, position and create the campaign, 64 young people aged 12–25 from across Australia participated in a range of workshops and online discussions. They were recruited via Young and Well CRC networks, a high school in Greater Western Sydney and a recruitment agency. The project was also informed by 1 intern, aged 13.

Fifteen partner organisations from the Young and Well CRC network (including government departments and agencies, non-government and community organisations and technology providers) contributed knowledge and expertise in relation to audience and messaging, evaluation design, campaign strategy and creative and content. These partners were involved throughout the campaign development via teleconferences and online reviews (Table 1).

Table 1 Participatory Design Participants and Activities

	Participants	Workshops	Activity
November 2014	Young people, inner west Sydney Intern Youth Brains Trust Campaign Collaborators Project Reference Group	Co-design workshop 1 Online tools review Online discussion and campaign concept review	Inform campaign brief
April 2015	Young people, Parramatta Project Reference Group	Co-design workshop 2 & 3	Develop campaign concept
June 2015	Young people inner city Sydney Project Reference Group Youth Brains Trust	Co-design workshop 4 Online survey	Review and develop campaign creative
September 2015	Young people, Western Sydney Young people, Western Sydney and Melbourne	UAT workshop Mobile Application Rating Scale (MARS)	Test prototype Review content
January 2016	Intern	Promotion	Promote campaign

CO-DESIGN WORKSHOPS AND ONLINE DISCUSSIONS: Young people explored the concept of help-seeking for wellbeing in relation to campaign concepts (developed from insights from Campaign 3). Specific questions were; what do they already do to improve wellbeing, what would they consider doing and why, what are the characteristics of their existing social and digital practises that would encourage them to seek help for wellbeing?

CONCEPT REVIEW AND CO-DESIGN WORKSHOPS: Young people critiqued and extended campaign concepts developed by a digital agency. Using mock-ups, they first discussed how each concept would engage with the target group, address the campaign aim, and be improved. They also explored the potential and limitations of each concept and then voted for their favourite. An online survey with Campaign Collaborators, Youth Brains Trust representatives and Project Partners was also conducted to gain feedback and ideas about the goal, design, strengths, risk and promotion.

CONTENT DEVELOPMENT AND UAT WORKSHOPS: Young people contributed to the design, look and feel of the campaign. The workshops explored customisation and accessibility in the design of the app as well as the ways challenges could motivate young people to interact with each other and the app. In addition, participants generated ideas for digital content and identified barriers and bridges to engagement with the campaign.

Six young people aged 14 –18 assessed the *Goalzie* developed for the campaign using the Mobile Application Rating Scale assessment (Stoyanov et al, 2015).

RESULTS

HELP-SEEKING FOR WELLBEING

Unlike help-seeking models that are predicated on a 'problem', help-seeking for wellbeing requires identifying an opportunity. The research, development and evaluation of the previous campaigns in the Safe and Well Online project also identified that young people may relate to the value of seeking help in order to achieve a goal if the campaign:

- Adopts a strengths-based approach; highlighting existing skills, attitudes and behaviours as resources to do better
- Acknowledges and works with the diversity of young people's help-seeking pathways
- Accommodates the complex interrelationship between people, places and tools that influences whether and when people will seek help
- Identifies and addresses the range of obstacles and opportunities which can enable and constrain young people's choices and opportunities (barriers and bridges)

The workshops and online discussions identified key themes that motivate or de-incentivise young people and provide 'hooks' (scaffolding and signposting) towards help-seeking for wellbeing.

FUN

Participants do, or would, engage with a campaign that is fun, competitive and motivating. In responding to campaign concepts, young people highlighted that doing things that are new or hard is made easier if it is fun. Activities that are fun or playful were seen as valuable because they could both relieve young people of the stigma of doing something their peers might disapprove of, as well as the fear of failure, in order to encourage participation. They also noted that challenges could become more serious over time, once participants had been drawn in via playful or light-hearted tasks. Participants also felt that setting 'challenges' highlighted positive aspects of Help-seeking by implying that a benefit could be drawn. Rather than trivialising engagement, fun is understood as a positive quality.

COMPETITION AND PLAY

Most young people enjoyed competition, experiencing it as an incentive to achieve. Replacing the concept of 'failure' (as proposed in one campaign concept) with a fun consequence was widely regarded as a good strategy for encouraging young people to take part. These insights from young people's digital practises corresponds with the literature around why games mechanics work: "Games satisfy some of our fundamental desires: reward, competition, status, achievement, and altruism" (Feldman 2011, p. 11). Many features, now commonplace in online tools, apps and platforms, were also identified as relevant to a campaign both incentivising and enhancing the experience of challenge-based campaign. These include rewards systems, levels and new features, points, customisation and personalisation. Related to the broad terrain of play was the concept of exploring, experimenting and testing ideas and actions – the options – for getting help to achieve a goal. Importantly, young people want a range of reliable options but do not want to be told what to do.

PEERS AND SOCIAL NETWORKS

In keeping with the literature, young people widely referred to peers as a source of support and help, as well as a key influencer of attitudes and behaviours. When reviewing existing tools and the campaign concepts, young people identified peer-to-peer interaction as a major incentive. As one young person highlighted when reviewing campaign concepts:

"Fame or Flame¹ is my favourite campaign as it is a fun and creative way to engage young adults and to promote goal-setting. As it is a game played with friends and there are consequences it will definitely help people to get really passionate about reaching their set goal". (F, 12, Campaign Collaborator)

As Ahn has observed: "Adolescents bring already existing social, psychological, and emotional characteristics into the online community. These human factors interact with the respective SNS platform to influence how individuals network and communicate. It is ultimately these communications behaviours that may provide the causal link to the social outcomes of interest" (2011, p1444)

The playful way in which young people can challenge and respond to peers is a strength upon which to extend awareness and knowledge of opportunities and resources for wellbeing. As Donath notes: "Despite the ubiquity of mass media, personal networks remain an important information source. People can use their beliefs about another person's knowledge and credibility to assess new ideas that come from that source" (2007). It is important to note that young people emphasised it is their social networks within which small risks can be taken with regards to trying new ideas and activities.

However, while peer networks and social media practices were viewed as bridges to new knowledge, attitudes and behaviours, young people warned that campaigns based on 'open publics' and which allowed contact from unknown people would be a dis-incentive.

Finally, gender differences were highlighted in relation to language, particularly popular vernacular. The most popular campaign concept was 'Fame or Flame', but the young women perceived the name, and therefore the underlying motivations, as too 'boyish', 'blokeish' and a bit confronting. While broadly supportive of the idea of goals and challenges as a focus for encouraging help-seeking for wellbeing, they preferred language and concepts that did not emulate the kinds of practices or aspirations young people are often (unfairly) accused of. This feedback contributed to rethinking and selection of the eventual name: *Goalzie*.

ENGAGING AND SIGNPOSTING

Campaign 3 – Something Haunting You (Spears et al., 2016) – identified that young people are increasingly experiencing a complex and expanding digitally networked ecosystem of social and formal information and support opportunities. The following concepts were developed to help make sense of this and guide the development of Campaign 4:

- Networked ecosystem: The evolving range of people, places and technology which are interconnected and can both enable and constrain young people's choices and opportunities for safety and wellbeing.
- Youth wayfinding: The diverse pathways through issues and opportunities which are navigated by young people in a networked society and negotiated via a combination of social and material resources and support.

Fun, goal-setting and social networks were viewed as key to further iterations of the app design and development to inspire, signal and support the journey of young people's everyday informal help-seeking:

- Fun: young people highlighted the need to make accomplishing goals fun and engaging as part of the app journey. Also, making sure that there was a good batch of playful challenges to inspire people to use the app was seen by participants as a way of building their interest and confidence before connecting with more serious challenges.
- Goal-setting and Tips: the app was viewed as a way of encouraging young people's goal-setting through showing an array of plans and resources from which they can choose. This was conceptualised as 'sign-posting'; providing guidance, but not telling young people what to do. Young people also viewed more built-in incentives and levels of challenges as key to engaging users. Integrating more incentives (like a points system) for motivating young people to use it even more as well as to keep returning
- Social networks: were viewed as key for both giving and receiving advice.

¹ 'Fame or Flame' was the name for the initial concept that was later developed into the *Goalzie* app and campaign

A design which incorporated these triple incentives was seen as important.

The perceived benefits of the campaign from young people's perspectives were:

- a) To feel motivated to set goals and try and achieve them
- b) To feel a connection to peers and their social network

This suggested an integrated approach for a design that could not only nudge (through fun) but support (through goal-setting and links) and inspire (via peers) (Figure 2).

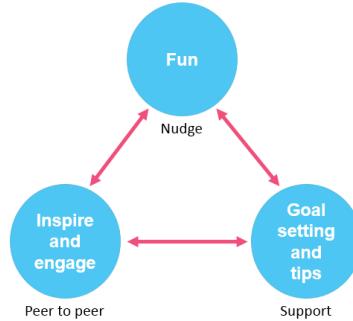


Figure 2 Fun, goals and peers - an integrated design approach

For instance, a point system and multi-level challenges will motivate young people to engage with the campaign, set out paths for them to follow to help accomplish their goals, and mobilise the social network they value and trust to both give and receive advice. If the app development drew upon these elements, then it would correspond and complement the idea of 'youth wayfinding'.

APP AND CAMPAIGN DESIGN AND DEVELOPMENT

Participants highlighted the need for the name to be appealing to youth through being funny, or using slang words, rhyme or word-play to reflect the central proposition. They suggested that the name needed to reflect the intention of the app in a simple and fun way. A funny or simple app icon, or image, that reflects the name was also seen as key to engaging young people. A one word name plus associated strong colour, for example.

In a team activity called 'Idea-Race' participants were invited to brainstorm the platforms which they most use – plus add what they like about the look, design and feel of the related platform (Figure 3). Participants expressed a preference for online platforms which are vibrant, simple, interactive, and often have some level of customisation, personalisation and gamification. In terms of the help phrase and associated icon, they stated how it needs to signal more clearly its importance and assistance for directing the user toward help to achieve their goal.



Figure 3 Mock-up of the potential app to facilitate a brainstorm for name ideas

Challenges, consequences and online help

In terms of navigating the ‘networked ecosystem’, young people identified a range of challenges, consequences and online help which they viewed as being relevant and meaningful to the target audience. Challenges ranged across funny (standing on one leg all of recess), health (no fast food for a week, run 7km in a week, only drink water), technology (no social media for a week), and social (ask someone out). Participants also identified a range of online apps and websites which could support their peers in achieving their goals.

Personal and social rewards

The range of rewards young people valued (both individual and peer-based) was also key in understanding how rewards and consequences could be arranged, especially as an incentive for goal-setting (as part of their ‘youth wayfinding’). For example, in these workshops, young people identified the difference between personal rewards and social rewards. Examples of personal rewards included individual activities which they found enjoyable, entertaining or valuable. For example, relaxing, eating, watching TV and movies, listening to music, purchasing. In contrast, social rewards identified key people or activities which included other people, such as hanging out with friends and family, playing sport or games, watching a movie or shopping together. In terms of integrating these insights into the design, consequences need to reflect/impact upon the range of personal and social rewards young people value.

Risk and privacy issues

Participants identified a number of risk and privacy concerns which relate to their views and experiences of navigating the ‘networked ecosystem’. For example, the potential for unauthorised use of data was viewed as key. In addition, participants strongly voiced how young people don’t read privacy policies. They also highlighted the limitations of only being able to sign in via one social media platform (such as Facebook). Also viewed as a risk was the scope for harassment (e.g. sending multiple challenges to annoy, rather than inspire someone).

To address these issues, young people highlighted the need to specify the quality of coding or raise awareness where and how their data would be used. Making the privacy policy clearer was also viewed as key to informing young people about why and how their data would be used; participants suggested making the design and content of the policy interesting as well as visual and reader-friendly (and to please try and reduce the word count!). Allowing for signing in via a variety of social media apps was also viewed as key to engaging a broader youth audience. In addition, they suggested the application could integrate affordances for private/group conversations (as sometimes people don’t want to publicly share challenges). A timer or cap on sharing challenges could also inhibit the nuisance of someone setting multiple challenges.

Insights for campaign design

Another significant insight from the PD process to support and signpost ‘youth wayfinding’ was to identify and leverage young people’s existing digital engagement, practises and affordances. For example, young people really connected with the design (simple and colourful), motivators (range of challenges, fun, constraints and competitive), access and usability (easy, logical, signposting/info), peer to peer (connecting with friends through Facebook, nudging friends to get involved). Young people valued more personalised usability (customisation), ongoing engagement (diversity, updating, difficulty and creating of challenges), audience research (reminders and sign-in), and P2P affordances (leverage competition aspects, maximise communication, synchronous engagement).

Design: Customisation and access

Opportunities for choice, personal selection and clear navigation were also highlighted as key to young people finding their way through the ‘networked ecosystem’. For instance, young people favoured design features that allowed for customisation such as the colour theme according to their favourite colour, or have a changeable icon or mascot. While participants connected with the challenges available, they also wanted to create their own within the application.

From the workshop, young people liked the simple graphics of the prototype. They thought the robot mascot was ‘cool’ and liked the cartoonish artwork. They also thought the colours were bright and solid – colourful, not boring. They also liked the simplicity of the front page and that the navigation was logical and accessible. The interface was viewed as easy with clean, simple menus and that the information informs you well.

Motivators: Challenges, updates and gradients/levels

Also relevant to supporting ‘youth wayfinding’ is the arrangement of a diversity of resources and motivations from which young people can choose to suit and sustain their unique help-seeking journey. Young people identified that they would like to see more health and wellbeing challenges, such as fitness challenges. In addition, they suggested that if challenges were updated every week then users would keep returning to see what they were and maybe engage with them. Challenges of different gradients were viewed as being an aspect to engage young people at different levels. Participants also reiterated the need for the challenges to be fun and not too serious. Keeping the challenges limited and achievable was also viewed as enhancing engagement and competitiveness. The concept of challenging each other to achieve or face fun consequences was viewed as good way to build on the competitive nature of gaming.

Participants highlighted how their peers would like the goal-setting aspect of the app. For example, a goal they have to complete in a set time limit rather than immediately. Some participants also raised that there was a thrill to challenging and that the idea of consequences were motivating.

Linking diverse digital content: informal learning & humour

Also key to supporting ‘youth wayfinding’ was the understanding that the app resources were a way of nudging and exploring new and interesting things to do ‘in the moment’. This combination of information access and informal availability assists in reframing help-seeking as something to; trial as you need it, test support, and share with others (rather than postpone, fear, or do on your own). The challenges and links were viewed as motivation to do exercise or something fun in your spare time, or when bored. Because the challenges were designed to embarrass in a light-hearted way, the content encouraged users to try help-seeking in a non-risky way.

Social connections: public leader board and multiple platform access

Social connections were clear markers of supporting young people’s navigation and negotiation of the ‘networked ecosystem’. For example, young people identified a public leader board as a key way to enhance social connections through the app development. Building on gamification features, they suggested this feature would keep a score between you and your opponents, points lost for every challenge failed, as well as ranks attained from achievements. Key to this was the social/public visibility where there was a sense of accountability from having people see others accounts on what challenges they have received, as well as to tell you who was online at the same time as you. In terms of accessing information about the app, they say it as convenient to receive notifications via Facebook.

Participants highlighted how some of their peers would like the Facebook connectivity to build on that connection with others and the ability to quickly and easily challenge friends, and that it could be a good conversation starter. However, another key issue about access raised was to the ability to sign in through various social media to allow for people who don’t have Facebook. However, it should be noted that technical, budget, and time limitations sometimes make this difficult.

BARRIERS AND BRIDGES TO ENGAGEMENT

Barriers: Potential risks

Young people highlighted a range of potential risks associated with the campaign which could hinder ‘youth wayfinding’ and app engagement: constraints which contributed to the maze and confusion of online and offline information and advice. They raised issues relating to the range of negative repercussions from uploading particular content, antagonistic sharing, as well as the reputation of the app. Specific examples included: inappropriate video uploaded as evidence; accidental sharing of uncomfortable video; being embarrassed on social media if you post something embarrassing; campaign flopping and not catching on; risk of ridicule, bullying, deterioration of friendships; not enough interest/people on the app; some of the challenges aren’t challenging or fun. Some participants suggested that some of their friends would not want to embarrass themselves by posting videos related to the app – while others said their peers would get a bit bored with the game.

Bridges: Key insights & Promotion

Peer-to-peer recommendations, uniqueness and multi-platform connections were key features viewed by young people as being fundamental to campaign engagement, as well as key to navigating and negotiating the 'networked ecosystem'. A combination of platforms and social motivators was seen as critical to the success of any app aimed at supporting and engaging young people. For example, using social media to challenge each other.

Promotion ideas raised from young people included a range of multimodal options spanning a range of platforms and spaces. These included; getting it on the 'featured' section of the app store, animated banner ads, YouTube video, common social networking sites (e.g. Facebook, YouTube), famous YouTubers to advertise the campaign (someone teenagers listen to and trust), Instagram posts and game apps. An interesting idea was the potential of digital signage at bus stops or train stations. Underlying all these ideas was the recommendation to promote the campaign in a balanced way; as a light-hearted challenge with rewards. Young people noted that consequences would also encourage the sending of challenges among friends. Central to 'youth wayfinding' through the 'networked ecosystem' therefore requires insights and understandings of young people's digital media practises. This includes the online and offline social and material resources and incentives related to viewing, creating and sharing fun content and gaming.

USABILITY AND FUTURE USE

Young people reviewed the usability of the app in a UAT workshop (Figure 4) and by completing the Mobile Application Rating Scale (MARS) (Stoyanov et al, 2015). The UAT workshop began with participants downloading the app onto their device. This was no quick and easy task. For example, iOS users needed to follow a range of steps; download the 'TestFlight' app, open the invitation email, install, log into Facebook, enter the individual passcode, and only then start playing! Android users had a less complex process of downloading the app, logging in with Facebook and then entering the password.

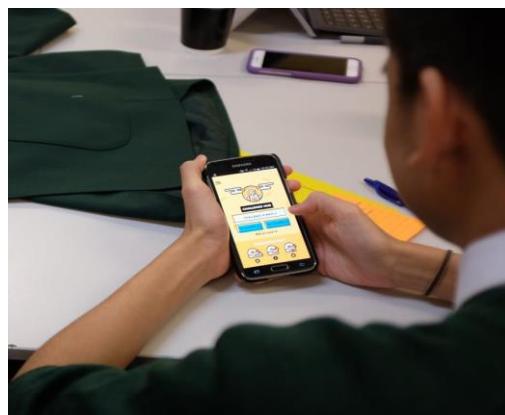


Figure 4 UAT workshop 14/9/2015

Approximately 30 minutes was taken to address issues such as being unable to download the app, remembering Facebook passwords and charging device batteries. Some young people in the group were not already Facebook friends, so requested their peers as friends for this workshop so they could test the app. While the UAT workshop was useful in understanding app usability, there remained clear gaps in understanding how friendship groups would engage with and share the app. What followed was the young people exploring the app and sharing their ideas about how the design, content, navigation and language could be enhanced. Key insights for usability and navigation included:

- **Navigation:** the navigation was viewed as confusing at first, but then easy to use after a while. Users suggested presenting the instructions at the beginning (so that people don't get confused or annoyed).
- **Content/toolbox:** Participants liked the range of challenges (from fun to serious) and viewed the links as useful and relevant. For the longer term, they suggested affordances for customising challenges, varying challenges according to the age of the person receiving the challenges, and to notify users of new challenges as they arise. They viewed increasing the scope of challenges as enhancing engagement through customisation, age-relevant challenges and updated challenges.
- **Icons:** Participants liked the design of the help button but sometimes found the swiping repetitive; a suggestion was to have one page which showed all the choices and would keep users more engaged.
- **Visual style:** Participants viewed the approval rating options as unclear. They suggested making the approval rating options more distinct and being able to customise the Goalzie character.
- **Language:** Some participants viewed slang, such as LoLz as being off-putting. While there were no suggestions for alternatives, they said that slang integration might put some users off.

- **Bugs:** There was a significant lag/delay after choosing and selecting a challenge which needed to be fixed
- **Interaction:** Participants liked shaking the phone for a random challenge. Some indicated they would not show ‘proof’ on social media.
- **Sign in:** Young people viewed that in the longer term incorporating more than one social media sign in was necessary to engage young people. This was viewed as key to attracting a wider user base.
- **Devices:** Young people viewed it as a drawback that the app could only be used on the latest phone devices. Some participants suggested making it so that older phone devices could use the app as well – and this group of participants stated how most young people don’t have the latest phone devices.

Comments from participants in this UAT workshop (Table 2) show the affordances of the app for: promoting help-seeking; nudging communication; providing support; and being easy and simple to use. This corresponds to research which highlights “Research has begun to document a number of powerful potential benefits from digital media play, including positive social growth (more peer interaction around common interests), cognition (greater motivation to read and solve problems), and health (better understanding of the importance of healthy behaviors, improved self-care skills, more self-confidence and drive to carry out those skills) (Thai et al 2009, p 24).

Table 2 Comments from UAT Workshop, 14 Sept 2015, 4 males aged 13-16

Affordance	Supporting comment
Promotes help-seeking	<i>“To me it seemed that the application was promoting help-seeking from my POV”</i> <i>“Because it influences kids to use the Internet and go seeing someone for help”</i>
Nudges communication	<i>“It changes because you are actually communicating with your friends and gain a stronger communication”</i>
Provides support	<i>“The game is average but will help a lot of kids going thru stress”</i>
Engages users	<i>“This app is very easy and simple to use with a nice user interface just have to fix the lag between swipes and the amount of customisation”</i>

Six young people also completed a MARS assessment of the Goalzie app. The MARS is a “simple, objective and reliable tool for classifying and assessing the quality of mobile health apps. It can also be used to provide a checklist for the design and development of new high quality health apps” (Hides et al, 2014 p 5). Five males and one female aged between 14 and 18 years old completed the MARS for Goalzie. The MARS results suggest that the Goalzie app received sound ‘engagement’ scores – median 3.30 (range, 2.40 - 4.20), though customisability was rated as poor. It was well rated for ‘aesthetics’ – median 3.67 (range, 3.67 - 4.67); information ‘quality’ – median 3.75 (range, 2.50 - 4.75), indicating that the app was pleasing to use and contained relevant information for the participants. The Goalzie app had sound ‘functionality’ levels, median score 3.37 (range, 2.75 – 4.00), with the lowest scores found on the performance item suggesting the app lacked some accuracy and speed. Participants indicated they would use the Goalzie app between 3 and 10 times and gave it a rating of three out of five stars. They were unlikely to pay for the app, however, all participants indicated they would possibly recommend it to others. The overall MARS-AU score for the Goalzie app was 3.84 (range 3.19 – 4.06). These findings were also reinforced in additional comments provided by respondents. For example, a 14 year old male described that *“[t]his game is average but will help a lot of kids going thru [sic] stress”*. This suggests that, while it might not compete with other games on the market, Goalzie has the potential to engage young people and help them through times of difficulty. Another respondent, a 17 year old male, liked the usability and navigation, but noticed a lag between swipes and would have liked more affordances for customisation: *“This app is very easy and simple to use with a nice user interphase [sic] just have to fix the lag between swipes and the amount of customisation”*. Another male thought the Facebook connection worked well in terms of connecting young people with the app, saying *“Facebook serves as a positive link for the app”* and with regards to engaging them, said *“[a]ppropriate and useful for all ages!”*. This same respondent did note that it *“[it]ook a while to learn how to use it”* plus indicated that the size *“29.4 MB – quite large!”* might be an obstacle.

Overall, the app was viewed as being in line with the campaign goal, engaging, easy to use, providing relevant information, but lacking in customisation. The MARS data and UAT workshop findings highlight the challenges and opportunities related to the apps usability and future use.

THE CAMPAIGN: MAKING HELP-SEEKING A GOAL

OVERVIEW

The resulting app-based campaign was *Goalzie*: designed to encourage peer-to-peer interactions and goal-setting by giving players the opportunity to challenge friends and be challenged by them (Figure 5).



Figure 5 **Goalzie Challenge Hub, Choose a category and Challenge Incomplete**

Goalzie allows users to track their own challenge as well as the progress of their mates. In a fun and engaging way *Goalzie* aims to encourage young people to set challenges and identify actions and sources of help to achieve their goals as a part of being health and well.

PUBLIC CAMPAIGN

The campaign was first tested with the project cohort (see following section) and was publicly launched on 5 February 2016 at public high school in Western Sydney. The public campaign goals were reach and engagement, as measured by indicators in Table 3.

Table 3 Measure of reach and engagement

Attract	Engage	Convert	Recognise & Delight
Reach – Digital Media Buy	SEM activity	SEM activity	Social Media Engagement
Reach – PR	iOS & Android App Page visits	iOS and Android App Downloads	<p>App Engagement</p> <ul style="list-style-type: none">• Challenges created• Consequences created• Challenges completed• Consequence completed
SEM research	Facebook Page Visits	Facebook Page likes	

Whilst young people are prolific users of the web and social media, the digital environment for them is often fragmented and difficult to fully target due to age based restrictions from the network. It was important when developing the strategy that we identified key areas where young people did participate and leveraged the behaviour already being exhibited. As a result, a mixed channel approach was used across paid social (Facebook), paid search, display and content outreach (email (eDM) + articles).

Key content partners used included:

- Blis Media – programmatic advertising platform that enables targeted mobile display. For this campaign it was used to specifically target high schools
- Student Edge – the largest member-based organisation of high school, TAFE, VET and university students in Australia, with more than 800,000 members nationally.

Activity included:

- eDM (email) to 46k 14–15 year olds
- 1 x integrated e-magazine article
- Quiz campaign over 4 weeks to the target audience
- Facebook promoted post on Student Edge page to all fans (260k+)

CAMPAIGN RESULTS

A range of marketing strategies were employed to promote the *Goalzie* app with \$45,000 media spend over an eight week campaign period. *Goalzie* was promoted via StudentEdge, which contributed considerably to positive results with regard to reach. In particular, a competition quiz promoting *Goalzie* was conducted with StudentEdge members and this achieved close to 100% entry rate. An Email Direct Marketing approach (eDM) also was successful, achieving a high Open Rate of 26.7%, this constitutes the number of opens expressed as a percentage of the number of emails delivered. A Facebook post by StudentEdge also delivered promising results with strong engagement at 103 likes, comments and shares. Overall, Facebook performed the best with 779 likes, 16 comments and 4 shares achieved organically. With regard to traffic driven by the *Goalzie* app advertising itself, the key creative message of “Challenging your friends” achieved the best results delivering 79% of all *Goalzie* downloads/installations. Examination of user engagement revealed 862 *Goalzie* users, with 1,033 challenges issued and 801 consequences set. Further details regarding the nature and extent of user engagement is provided in Sub-study 4.

Further examination of reach statistics, revealed that over 4.2 million impressions were achieved. This is indicative of the total audience reach, with 1,706 unique visitors to the site across 2,561 sessions. Whilst new visitors to the site accounted for 77% of all traffic, those who returned, spent considerable time engaging with *Goalzie* at 4.19 minutes/return visit. The *Goalzie* app was downloaded a total of 1,339 times: 347 downloads on Android devices and from 4,411 iOS App Store views, 992 were actually downloaded. Android was the best performer with an overall Click Through Rate (CTR) of 0.54%. The CTR is a measure of reach and represents the number of people who clicked on the *Goalzie* link. In relation to the awareness campaign, *Goalzie* exceeded industry averages for CTR (0.10%) achieving a rate of 0.54%, and similarly exceeded industry averages during the engagement campaign, achieving 0.41% CTR. Significant media coverage also was achieved via The Huffington Post, Triple J, ABC News Network, blogs with The Big Smoke, PeakCare, The Westies and Science Meets Business.

Evaluating a goal-setting campaign to promote positive attitudes towards help-seeking for wellbeing (Sub-study 3)

AIM

Sub-study 3 aimed to:

- 1) Contextualise the campaign through reporting young people's health, wellbeing and online behaviours
- 2) Determine the efficacy of a social marketing campaign, underpinned by respect for self and others, to deliver attitudinal and behavioural change to promote peer-to-peer interactions, goal setting and help-seeking for wellbeing, health-supporting behaviours.

METHOD

SURVEYS AND MEASURES

Measures related to youth health and wellbeing and online experiences were employed to provide a context for the campaign delivery and were refined as necessary to align with the Campaign 4 theme of 'goal setting for help-seeking'. They included the following; Internet use and practices, social respect ($\alpha = .90$), respect as an outcome variable at Time 2 (4 items, $\alpha = .93$), experiences of cyberbullying (Cross et al. 2009), and constructs related to the MGB (Perugini & Bagozzi, 2001). The DASS 21 (Lovibond & Lovibond, 1995) examined the constructs of; Depression, (7 items, $\alpha = .96$); Anxiety (7 items, $\alpha = .95$); Stress (7 items, $\alpha = .93$). The Social Connectedness Scale (adapted from Lee et al., 2008; Lee et al., 2001) examined belonging and inter-personal associations and connections with others in their online (15 items, $\alpha = .88$); and offline (15 items, $\alpha = .91$) social environments. Help-seeking (adapted from Rickwood et al., 2005), examined future intentions to seek help in off and online settings (items, $\alpha = .78$). In addition, young people were asked about their attitudes and behaviours towards seeking help and goal setting and their thoughts about the Goalzie campaign. 'Text Entry' questions also were included in the survey to collect open-ended, descriptive and explanatory text-based responses from young people on a small number of focus areas such as collecting descriptive insights into young people's perceptions of Goalzie. E.g. what they liked or disliked about Goalzie, what 'being online' means, etc. A content analysis was then conducted to examine core themes evident in the responses.

RECRUITMENT

The primary recruitment method was via the new parent company (Survey Sampling International (SSI)) of a previously employed online research panel provider (My Opinions: Campaigns 2 & 3) who again facilitated access to the required student sample via informed parental consent processes. This resulted in 1,106 participants (pre-survey). Only those who completed the pre-survey were invited to the post-survey, which consisted of 618 participants. Specifically, SSI distributed an invitation to parent/carer panel members who met parameters specified by the researchers. Parents then indicated if they consented to their child's participation within the screening section of the survey. Detailed information regarding the requirements of the study, including the need for parents/carers to be able to download Goalzie onto a mobile device and researchers' contact details, were provided at the beginning of the survey and specific download/installation instructions for parents/carers were included within the pre-survey.

SURVEY DATA COLLECTION AND ANALYSIS

Both passive and survey data collection methods were employed, involving multiple parties and platforms, and including a bespoke database to collect analytics on the creative. Staged testing was employed to ensure all data were being recorded appropriately and was critical to the successful collection process. Data were cleaned and matched to registration and analytics data, and participants' pre and post survey data were assembled and merged using a Unique ID and passcode. The key findings listed here are supported by statistical analyses conducted with IBM SPSS Statistics for Windows, Version 22.0 (IBM Corp. 2010) and AMOS Graphics Version 22.0 (IBM Corp. 2010).

FULL CAMPAIGN COHORT RESEARCH PROCESS

Figure 6 details the cohort research process and sample numbers from both the survey and interview data.

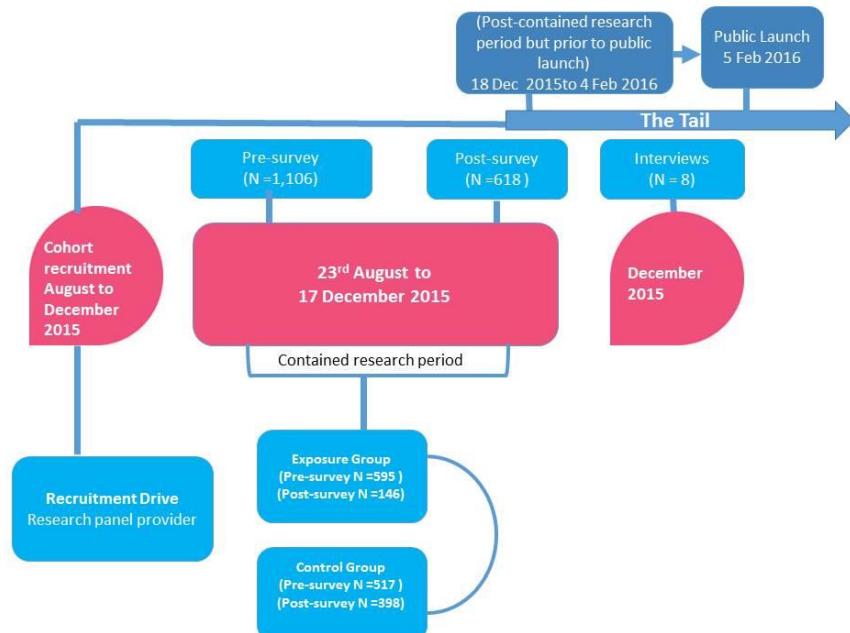


Figure 6 The cohort research process²

RESULTS

A: CONTEXT – SAMPLE DEMOGRAPHICS

Of the total pre-survey sample ($n = 1,106$), there was a relatively even distribution of males (50.1%; $n = 554$) and females (49.9%; $n = 552$), with the following demographic characteristics reflecting national figures: 5.0% ($n = 55$) reported a disability (7% nationally for 0–17: ABS, 2014); 3.4% ($n = 38$) identified as Aboriginal or Torres Strait Islanders (2.5% nationally: ABS, 2011) and 14.1% ($n = 156$) indicated they spoke a language other than English (19% nationally: ABS, 2013). Over 40 different languages were identified, the most common included Mandarin, Cantonese, Greek, Hindi, Italian, French, Vietnamese and Indonesian. Table 4 details the distribution of the pre-survey sample by Australian states/territories in comparison to the parent population and Campaign 2 and 3 data.

Table 4 Campaign 4 pre-survey sample by States/Territories compared to parent population and Campaigns 2 & 3

Australian State/Territory	Campaign 4 Safe and Well Online study ($N = 1,106$)	Campaign 3 Safe and Well Online study ($N = 1,695$)	Campaign 2 Safe and Well Online study ($N = 2,212$)	Parent population (ABS, 2014)
New South Wales	33.27%	31.64%	24.4%	32.04%
Victoria	26.94%	26.09%	34.1%	24.95%
Queensland	18.81%	21.43%	19.0%	20.10%
South Australia	8.68%	9.73%	11.4%	7.15%
Western Australia	7.78%	6.75%	5.5%	10.91%
Tasmania	2.53%	2.45%	3.1%	2.18%
Northern Territory	0.54%	0.24%	0.5%	1.03%
Australian Capital Territory	1.45%	1.67%	2.0%	1.64%
	100.0%	100.0%	100.0%	100.0%

² 74 participants indicated they could not recall if they had downloaded the Goalzie app and were subsequently not included in the exposure or control groups

Distribution of the sample by age (years) revealed 13 (20.98%) and 16 year olds (18.99%) were the most highly represented, followed by 17 year olds (17.81%), 14 year olds (16.82%), 15 year olds (15.91%) and 18 year olds (9.49%). It is important to note that whilst previous rounds of data collection included 12 year olds, given that access to *Goalzie* occurred via Facebook, 12 year olds were not invited to participate in this Campaign 4 study. Where effect sizes are reported, the following guidelines are applied: for Cohen's *d*, .30 is small; .50 is medium and .80 is large (Cohen, 1992), and for Cramer's *V* and eta squared η^2 , .01 is small; .06 medium; and .14 large (Cohen, 1988).

B: CONTEXT – HEALTH AND WELLBEING

Key Results: Mental health and Social Connectedness

- Majority of young people studied fall within the normal range for depression anxiety and stress
- Social connectedness for young people meant being connected with others holistically across technology facilitated connections, 'real' face-to-face connections, and connections to the local and global community. However, it was evident that being connected offline was still of greater importance for some young people
- Majority of young people felt socially connected both off- and online
- Young people who sleep less than 6 hours/night on Friday and Saturday nights (which for the purpose of this study is considered the "weekend") were less socially connected offline than those who get more than 7 hours sleep
- Young people who sleep less than 4 hours from Sunday through to Thursday nights (which for the purpose of this study is considered "weeknights") were less socially connected online than those who get more than 7 hours sleep
- Cyberbully-victims were a vulnerable subgroup in relation to their social connectedness off- and online
- Victims of cyberbullying were also less likely to be socially connected off- and online than those with no experience of cyberbullying

Social connectedness

As a core underpinning of the *Goalzie* campaign and acknowledging the potential for behaviours to transcend and extend offline environments, young people were asked '*What does being socially connected mean to you?*' Key themes identified from the responses included an holistic view encompassing: technology mediated connections with friends and family; 'real' connections (face-to-face) with family and friends; forming close relationships with family and friends; local and global connections in relation to an awareness of the world around them and a connection with information. Being socially connected for young people traversed the boundaries of offline and online environments, supporting the extension from offline to online, and many young people viewed connecting online and through social media positively, providing them 24/7 communication access to people they knew locally, but also others around the world.

To explore these relationships further, the construct of social connectedness was interrogated across *both* settings, to account for the whole range of social connection experiences. Firstly, how socially connected young people were, and secondly how important it was for them to be socially connected for specific purposes such as homework and maintaining friendships. This was important to our understanding of the relationships between these settings, as whilst young people may seamlessly shift from one to the other, there may be opportunities for intervention in one, to support intervention in the other. Knowing which setting has greater importance for young people and under what circumstances, may determine where the best avenue for future interventions/social campaigns should be. The mean score for the total sample across both online and offline environments is consistent: offline ($M = 65.26$, $SD = 15.66$, $N = 1,106$) and online ($M = 64.56$, $SD = 14.12$, $N = 1,106$), range 15 to 90, and is also consistent with findings from Campaign 3, suggesting the majority of young people felt equally socially connected both on and offline. Analysis of offline and online social connectedness by gender revealed no significant differences between males and females.

Importance of social connectedness to young people

Whilst young people felt socially connected in both settings, to measure how important it was for young people to be connected in each setting in relation to certain aspects of their social lives, two separate scales, representing off and online contexts, with 10 items in each, were used. Five of the ten items included in each of the social connectedness importance scales were scrutinised more closely below, given their alignment with Campaign 4, namely goal setting, connectedness and help-seeking. An aggregate of each scale also was created, with findings revealing that whilst being socially connected in both offline ($M = 38.65$, $SD = 6.72$, $n = 618$) and online contexts ($M = 33.85$, $SD = 8.02$, $n = 618$) was important for young people, it was significantly more important for young people to be connected offline than online $t(617) = 14.44$, $p = .000$, $d = .65$.

Table 5 Importance of social connectedness offline and online

Selection of items from social connectedness importance scales (off and online)	Importance offline (n =618)	Importance online (n =618)	Cohen's d	t values
Maintaining friendships	M = 4.02 (.843)	M = 3.52 (1.00)	d = .54	t = 11.37; p < .001
Making new friends	M = 3.83 (.874)	M = 3.26 (1.03)	d = .60	t = 12.37; p < .001
Maintaining family relationships	M = 4.05 (.881)	M = 3.24 (1.1.3)	d = .80	t = 16.07 ; p < .001
Getting help when I need it	M = 3.93 (.805)	M = 3.46 (.981)	d = .52	t = 10.99; p < .001
Helping me to achieve my goals	M = 3.90 (.807)	M = 3.42 (.979)	d = .54	t = 11.22; p < .001

With the majority of young people indicating they felt socially connected across off and online settings, the findings detailed in Table 5 highlight the need to explore ways of leveraging the benefits and experiences of offline connections for application and extension to online environments.

Sleep and Social connectedness

Examination of social connectedness by the number of hours young people sleep on average on weekends revealed significant differences for offline social connectedness ($F(3,1102) = 17.17$, $p = .000$, $\eta^2 = .04$), and online social connectedness ($F(3,1102) = 17.142$, $p = .000$, $\eta^2 = .04$), with young people who:

- Sleep less than 4 hours on weekends significantly:
 - less socially connected offline ($M = 58.21$, $SD = 12.86$, $n = 62$) than those:
 - who sleep for 7 to 9 hours ($M = 67.44$, $SD = 15.27$, $n = 648$), $p = .000$, $d = .65$ and
 - who sleep more than 10 hours ($M = 66.74$, $SD = 16.38$, $n = 145$), $p = .002$, $d = .58$
- Sleep between 4 to 6 hours on weekends also significantly less socially connected offline ($M = 60.52$, $SD = 15.41$, $n = 251$) than those who sleep for 7 to 9 hours $p = .001$, $d = .45$ and who sleep more than 10 hours $p = .001$, $d = .39$.

With regard to social connectedness online, those who

- Sleep less than 4 hours on weekends significantly:
 - less socially connected online ($M = 58.16$, $SD = 12.16$, $n = 62$) than those:
 - who sleep for 7 to 9 hours ($M = 66.80$, $SD = 13.76$, $n = 648$), $p = .000$, $d = .67$ and
 - who sleep more than 10 hours ($M = 64.26$, $SD = 15.23$, $n = 145$), $p = .002$, $d = .44$
- Sleep between 4 to 6 hours also were significantly less socially connected online ($M = 60.55$, $SD = 13.50$, $n = 251$) than those who sleep for 7 to 9 hours $p = .000$, $d = .46$

Examination of social connectedness online by number of hours young people sleep on average on weeknights also revealed significant differences for offline social connectedness ($F(3,1102) = 24.44, p = .000, \eta^2 = .06$), and online social connectedness $F(3,1102) = 21.96, p = .000, \eta^2 = .06$, with young people who:

- Sleep less than 4 hours on weeknights significantly:
 - less socially connected offline ($M = 57.50, SD = 13.05, n = 60$) than those:
 - who sleep for 7 to 9 hours ($M = 67.58, SD = 15.37, n = 760$), $p = .000, d = .71$ and
 - who sleep more than 10 hours ($M = 66.59, SD = 17.02, n = 71$), $p = .004, d = .60$
- Sleep between 4 to 6 hours on weekends also significantly less socially connected offline ($M = 58.77, SD = 14.43, n = 215$) than those who sleep for 7 to 9 hours, $p = .000, d = .59$ and who sleep more than 10 hours $p = .001, d = .50$.
- Sleep less than 4 hours on weeknights significantly:
 - less socially connected online ($M = 56.95, SD = 11.67, n = 60$) than those:
 - who sleep for 7 to 9 hours ($M = 66.68, SD = 13.99, n = 760$), $p = .000, d = .76$ and
 - who sleep more than 10 hours ($M = 63.61, SD = 14.81, n = 71$), $p = .035, d = .50$
- Sleep between 4 to 6 hours on weekends also significantly less socially connected online ($M = 59.52, SD = 12.95, n = 215$) than those who sleep for 7 to 9 hours, $p = .000, d = .53$.

Sleep and social connectedness are recognised important components of wellbeing, and whilst findings revealed the amount of sleep a young person averages is an indicator of social connectedness, the intricacies of this relationship warrant further investigation.

Depression, anxiety, stress and social connectedness

Whilst the majority of the total sample of young people fall within the normal range for depression (62.4%), anxiety (63.6%) and stress (70.9%), and consistent with findings from previous campaigns, response patterns showed there is a concerning percentage of young people experiencing severe or extremely severe depression (17.5%), anxiety (22.6%) and stress (12.8%). A bivariate correlation was conducted to examine the association between social connectedness and depression, anxiety and stress. Caution is advised when interpreting results in Table 6, given that the Shapiro-Wilk Test for each of the variables were less than 0.05, which as anticipated, indicated the data significantly deviated from a normal distribution reflecting what is found in naturalistic contexts. Whilst this violates the assumption, the findings provide insights which warrant further investigations.

Table 6 Social connectedness by stress, depression and anxiety

	Variable	1	2	3	4	5
1	Social connectedness offline	-			*	
2	Social connectedness online	.78**	-			
3	Stress	-.57**	-.49**	-		
4	Depression	-.64**	-.56**	.91**	-	
5	Anxiety	-.58**	-.51**	.91**	.90**	-

**. Correlation is significant at the 0.01 level (2-tailed).

The relationship between key aspects of wellbeing, namely, social connectedness off- and online, and the DASS constructs were examined (Figures 7, 8, 9).

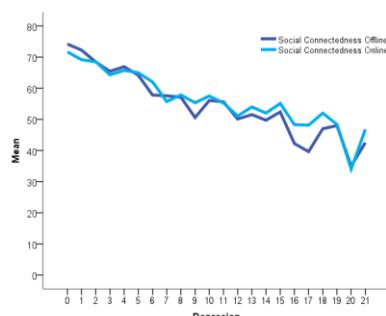


Figure 7 Social connectedness by depression

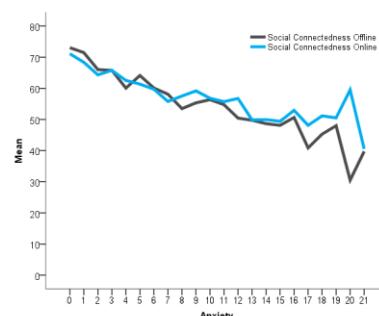


Figure 8 Social connectedness by anxiety

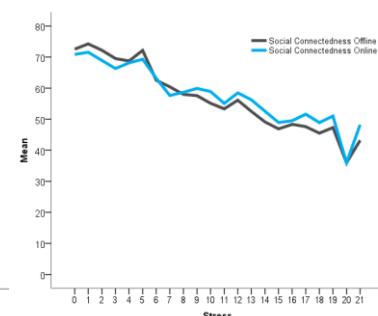


Figure 9 Social connectedness by stress

Findings revealed that, generally, as depression, anxiety and stress increased, social connectedness both off- and online decreased. However, whilst social connectedness offline decreased for young people with higher levels of anxiety, results indicated that they are socially connected online, suggesting that for young people with anxiety, connecting online may be an important social strategy.

Cyberbullying and social connectedness

To better understand social connectedness across various subgroups in the sample, an ANOVA was conducted to determine if there was a significant effect of cyberbullying. Categories of cyberbullying status, using a criterion of an experience occurring once or more often (Frisén et al., 2013; Spears et al 2015a b) were calculated. Findings revealed cyberbully-victims were a potentially vulnerable subgroup, ($M = 55.09$, $SD = 12.38$, $n = 252$), and significantly less likely, ($F(3,1102) = 60.09$, $p = .000$, $\eta^2 = .14$), to be socially connected offline than:

- those non-involved ($M = 69.53$, $SD = 14.65$, $n = 649$), $p = .000$, $d = 1.06$
- cybervictims ($M = 64.20$, $SD = 16.50$, $n = 192$), $p = .000$, $d = .62$

Similarly, cyberbully-victims, also were significantly less likely ($F(3,1102) = 51.00$, $p = .000$, $\eta^2 = .12$) to be socially connected online, ($M = 55.80$, $SD = 11.49$, $n = 252$), than:

- those non-involved ($M = 67.95$, $SD = 13.40$, $n = 649$), $p = .000$, $d = .97$
- cybervictims ($M = 64.48$, $SD = 14.92$, $n = 192$), $p = .000$, $d = .65$
- cyberbullies ($M = 66.54$, $SD = 12.97$, $n = 13$), $p = .027$, $d = .88$

Cybervictims also were significantly less likely to be socially connected offline than those non-involved $p = .000$, $d = .34$ and less connected online than those non-involved $p = .009$, $d = .24$, suggesting that cyberbully-victims and cybervictims are at risk in terms of the protective factors that social connectedness provide.

C: CONTEXT – ONLINE PRACTICES

Key Results

- For many young people, being online centred around being connected with friends and family and accessing information
- Young people also thought being online for adults differed, and meant facilitating processes e.g. banking, shopping; connecting with friends and family, but felt adults also perceived being online as a negative, e.g. waste of time, anti-social

What does 'being online' mean?

To examine interpretations of what *being online* means, young people were asked, *what 'being online' meant to them* and what they thought it *meant to adults*. Young people perceived *being online* as: being connected with friends and family through various social media platforms, accessing information for researching areas of interest or for school, or generally keeping up to date with what is occurring around the world. For a minority, being online provided a safe space and represented a form of escape from problems or an opportunity to switch off from other things. Entertainment, gaming and media consumption also constituted 'being online' for young people.

When asked what they thought *being online* meant for adults, responses suggested it was related to planning and organisation, such as banking, shopping and sourcing professional services. It also was seen as connecting with friends and family through social media, and sending emails. They also felt that adults perceived being online as negative, a waste of time, potentially dangerous, anti-social, and further used it to surveille their children.

Internet use across time and days

The relationship between social connectedness and Internet use during weekdays and weekends was examined (Figures 10 & 11). Consistent with findings from Campaign 3 findings, whilst there was a downward trend of social connectedness (both off- and online) with increased Internet use, the decrease is not monotonic, with findings suggesting that moderate, as opposed to excessive Internet use, potentially may support social connections among some young people.

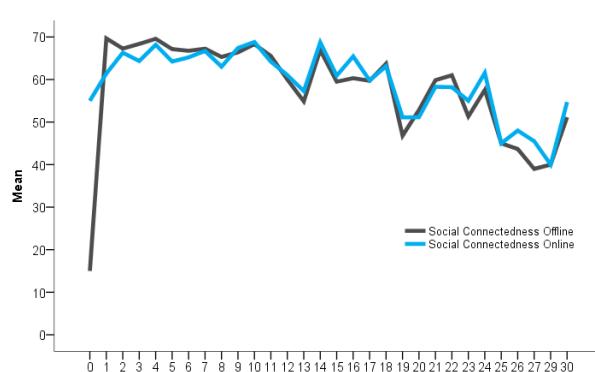


Figure 10 Social connectedness off and online by Internet use during weekdays

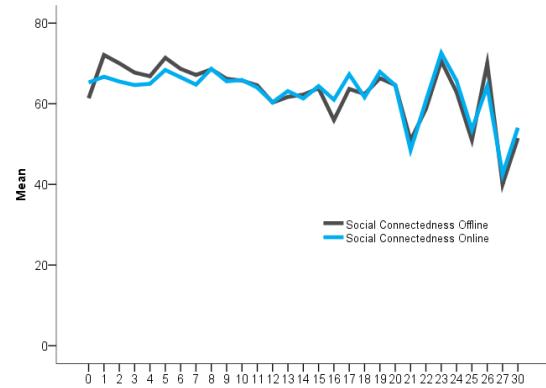


Figure 11 Social connectedness off and online by Internet use on weekends

D: CONTEXT - RESPONSES TO GOALZIE

Key Results

- At the time of the first exposure to *Goalzie*, 62.9% of young people reported they liked the app
- 54.1% indicated they would potentially use *Goalzie*
- The intended purposes of *Goalzie* - Goal setting; help-seeking and support, challenging others, and connecting with others - was clearly evident to most young people
- 64.1% used *Goalzie* at least once after downloading, with 16.7% using it once or twice a week
- Approximately a quarter of young people had sent and received a challenge
- 46.6% thought *Goalzie* could help prompt young people to seek help and achieve their goals

Goalzie usage

Users can select a friend and challenge them to complete a task from a variety of categories (Figure 12). Users then customise the task with their nominated time frame for completion, and a fun consequence for their friend if they didn't complete the challenge in time.

The “Challenge A Mate” button reveals all the users’ network of friends on Facebook by profile photo and name.

There is a five-step process to complete the challenges assigned:

1. Select your friend
2. Select the category for your challenge
3. Select the consequence for your challenge
4. Select the timeframe for your challenge to be completed within
5. Submit your challenge to your friend

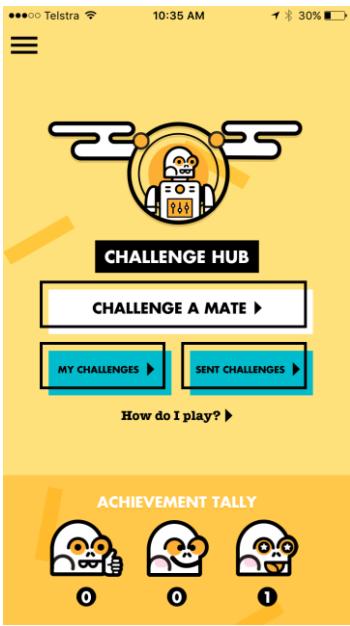


Figure 12 Goalzie Reward Icons

- The Challenge and Consequence categories include; Fun, Self-regulation, Get social, Money, Get physical, Healthy living, Create, Study, Mental wellbeing, Sleep, Work it, Environment and community, Learn something.
- Once the user has submitted their challenge to their friend, they are presented with the option to support their friend in their challenge completion by referring them to the Help Toolbox, a collection of health and wellbeing apps endorsed by professionals and reviewed by people under 25 years of age. The Toolbox is designed to help work out how to achieve goals and track progress of the goals.
- When a Challenge is completed, the app will notify the originating user of the completed challenge and the user then has the ability to rate and reward their friend. The reward is an icon of the *Goalzie* app, with three options for reward icons which are all positive, together with the option to 'share' their success on Facebook.
- To ensure users aren't 'flooded' with challenge requests, the app will allow a maximum of five challenges per person, and only one challenge at a time from a single friend.

Achieving an adequate sample of young people who were successfully able to access and engage with *Goalzie* in a naturalistic online setting was challenging, particularly given that this study; engaged minors, utilised a third party social media platform (Facebook) to facilitate access to the app, employed a research panel (SSI) to access a sample, contained the research in the online environment to limit bias, and still required peer-to-peer interactions online. Importantly, the restriction of some features of *Goalzie* during the contained survey period, to meet ethical requirements, impacted on young people's access to and experience of the app, and ultimately the potential for *Goalzie* to successfully nudge attitudes and behaviours towards goal setting and help-seeking.

Access to *Goalzie* was passcode protected to help ensure the research was conducted within a contained online environment. This login process could have deterred young people from engaging with *Goalzie*. Additionally, only participants who had parent/carer consent and who also had assented to take part in the study were provided with a passcode in the pre-survey. When using digital distribution platforms such as app stores that are in the public domain, requiring passcode login helps to contain access to participants only, and enables ethical requirements to be met. This did, however, compromise the full experience of *Goalzie*, in that peer-to-peer connections, specifically the functionality related to inviting friends, sending and accepting challenges from friends was not able to be fully experienced unless both individuals were participants in the study.

Despite these challenges, results from the pre-survey revealed that 53.6% ($n = 593$) of young people had parental/carer consent and were able to successfully download *Goalzie*. 62.9% ($n = 373$) reported they liked the app and 54.1% indicated they would potentially use *Goalzie* in the future. Across the total sample, reasons young people provided for liking *Goalzie* included; goals and challenges were fun, it was easy to use, helpful and useful, and it enabled communication with peers, goal setting and facilitated achievement. Conversely, some young people did not like *Goalzie* and felt it was not relevant for them or too childish whilst others reported they preferred 'dealing with people personally'. Others suggested clearer instructions on how to use *Goalzie* were needed, whilst some found it boring or didn't like apps in general. Accessing *Goalzie* was problematic for some participants, either because they did not have Facebook or had issues loading the app. The sharing of information (logging into *Goalzie* with Facebook and then inviting friends) raised concerns for some young people, who were mindful of privacy and security of data.

To help ascertain if the overall purpose of *Goalzie* was apparent, young people were asked what they thought was the main purpose of *Goalzie*. Goal setting, help-seeking and support, challenging others and connecting with others were the core themes identified, which suggests that the purpose of *Goalzie* was evident to most young people. Participants also were asked if they thought *Goalzie* could prompt young people to seek help and achieve their goals. Of those who had successfully downloaded the app 46.6% ($n = 68$) said yes, 21.2% ($n = 31$) did not think it would and 32.2% ($n = 47$) were unsure.

In order to fully access *Goalzie* and to enable tracking of young people's engagement with the app at the unique ID level, a passcode was required as part of the login process. For crosschecking purposes and as part of validating the number of participants who were exposed to *Goalzie*, young people were asked in the post-survey if they had been able to successfully download *Goalzie*: 39.6% (n = 245) reported they had, 30.4% (n = 188) could not recall and 29.9% (n = 185) said no. Additionally, 60.3% (n = 146) indicated they had typed in the passcode to complete the download process, whilst there is a minor discrepancy between actual *Goalzie* records (see passive analytics Sub-study 4) this is consistent with numbers recorded on the bespoke passive data collection mechanism of 136 passcodes collected. The 10 not recorded may not have engaged with the app beyond initial login with the passcode (see Sub-study 4). Whilst there 30.6% (n = 74) couldn't recall and 9.1% (n = 22) indicated they did not type in the passcode. When asked if they used *Goalzie* since they had downloaded it, 35.9% (n = 88) did not use it, 42.9% (n = 105) used it only once, 16.7% (n = 41) used it once or twice a week, 4.1% (n = 10) used it daily and 0.4% (n = 1) used it several times a day.

Young people who had completed a pre- and post-survey and successfully completed the download process were asked in the post-survey if they liked *Goalzie*, given that responses may have changed after having a period of approximately two weeks to engage with the app: 65.8% (n = 50) indicated they still liked it and 34.2% (n = 96) reported they did not.

Constraints associated with containing the research period, and the requirement for informed parental/carer consent before allowing young people to engage with *Goalzie*, presented some challenges for participants in fully utilising all the functionality in *Goalzie* with their peers. This was particularly relevant for the peer-to-peer challenges, which were fundamental to the app. Those friends on Facebook, who engaged with the study participants, could not be included in the data collection process as they did not have informed parental/carer consent to be part of the study. This resulted in only a small proportion of the total participants being able to challenge friends, who also were required to be part of the sample (see Sub-study 4); with 24.7% (n = 36) of participants who typed in the passcode to complete the download process, reporting they sent friend/s challenges, 8.2% (n = 12) could not recall and 67.1% (n = 98) did not send any challenges. With regard to receiving challenges from friends, 25.3% (n = 37) recorded they had received a challenge, 8.2% (n = 12) could not recall, and 66.4% (n = 97) had not received any challenges. It is evident that trying to collect data in a live, naturalistic online setting, ethically and responsibly, is extremely complex, and has significant limitations.

E: CONTEXT - RESPECT FOR SELF AND OTHERS

Key Results

- Most young people felt they behaved respectfully across various contexts and settings
- Young people who did not seek help to achieve goals had lower social respect scores than those who did seek help

Across the total sample, most young people thought they were socially respectful ($M = 15.63; SD = 2.64$), and consistent with Campaign 3 findings, there was no significant effect of gender or age. Mean analysis of the Respect outcome index from the Pre-survey data ($M = 15.56, SD = 3.23, n = 618$), suggested the majority of young people felt they behaved respectfully across various contexts and settings. The relationship between respect for self and others and help-seeking was examined, with significant findings revealing that young people who don't seek help to achieve goals had significantly lower social respect scores ($M = 14.75, SD = 2.89, n = 293$), than those who do seek help, ($M = 16.03, SD = 3.04, n = 813$), $t(1104) = .6.78, p = .000$.

F: CONTEXT - HELP-SEEKING

Key Highlights

- Conducting a google search to help them achieve a goal or using an online resource featured highly as help-seeking strategies for young people
- Parents/carers provide a primary and daily source of support for young people
- Young people who indicated they did not seek help to achieve their goals were significantly less socially connected offline and online than those who did seek help to achieve their goals
- The more likely a young person is to engage in online help-seeking, the less socially connected that young person may be, but the more likely they are to consider online social connectedness to be important

Young people's general preferences in relation to seeking help off and online were examined in both the pre and post-surveys. Results revealed similar response patterns across both time points, with almost half of all participants reporting they were more likely to seek help offline than online: Time 1: 47.9% (n = 220); and Time 2: 49.2% (n = 132). A number of participants were, however, unsure: 32.2% (n = 356) at Time 1; and 29.4% (n = 182) at Time 2. There was no effect of gender or age on preferences at either Time 1 or Time 2. To ascertain if young people's help-seeking practices differed depending on the purpose or reason for seeking help, survey items examined help-seeking practices: to support achieving goals; and for personal or emotional problems.

Help-seeking practices to support achieving goals

Young people were asked to indicate if they had any of the following goals over the previous two weeks, and if so, how often they sought help in trying to achieve them. Do they; make good decisions for myself, make responsible decisions about the environment and my community, improve my spending habits, improve my job prospects, become more social, improve my study habits, have more fun, improve my mental health, live a more healthy lifestyle, be more creative, get more sleep, learn something new, and get more exercise. These goals were aligned with those in *Goalzie*. Response options included; I didn't have this goal, I never sought help even though I had this goal, Once a fortnight, Once or twice a week, Daily, or Several times a day.

The help-seeking practices of young people who indicated they had a least one of the goals were examined with pre-survey data. Results in Figure 13 revealed that whilst over a third of young people did not use an app to help them achieve their goal/s, 39.6% conducted a Google search to help them achieve a goal and 37.7% used an online resource on at least a daily basis. Consistent with findings from the previous campaigns, parents/carers continue to be considered (38.9%) a primary source of support for young people on a daily basis.

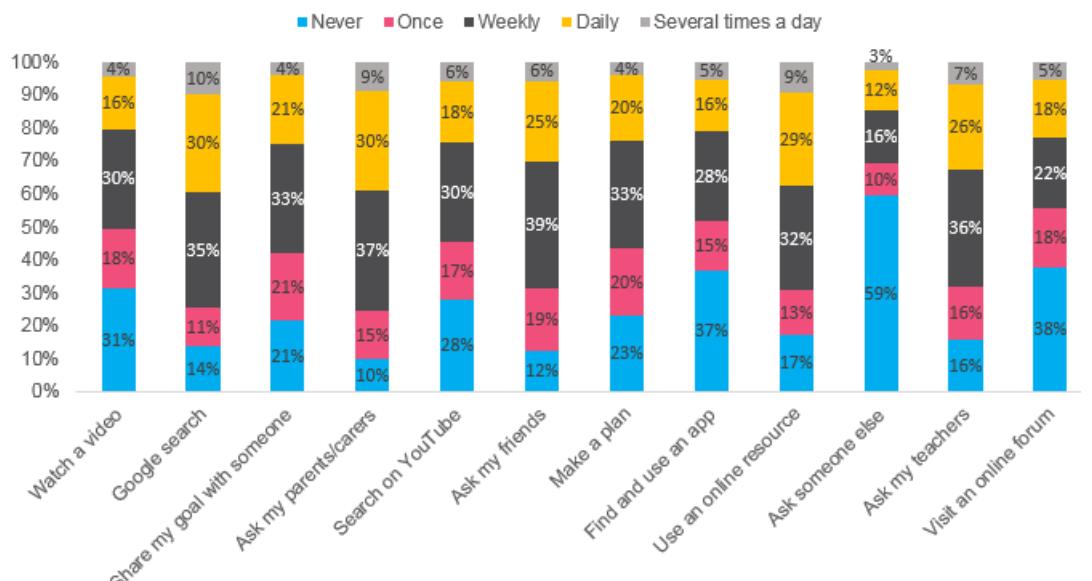


Figure 13 Help-seekingpractices for achieving goals by frequency

Help-seeking practices for personal or emotional problems

Young people also were asked from whom they would seek help for personal or emotional problems. The help-seeking sources presented in the pre-survey represented two overarching categories; offline and online sources of help (Figure 14). Offline help from professionals and non-professionals are sources young people are either likely or highly likely to seek help from. Investigations by gender revealed no significant differences in help-seeking practices for personal or emotional problems. However, a small, but significant effect of age as determined by one-way ANOVA was evident for seeking help from a self-help app ($F(5,1100) = 3.68, p = .003, \eta^2 = .016$); online from a professional ($F(5,1100) = 5.17, p = .003, \eta^2 = .023$); and online from a non-professional ($F(5,1100) = 3.84, p = .002, \eta^2 = .017$).

A Bonferroni post-hoc test revealed that 15 year olds were more likely to use a self-help app ($M = 2.49, SD = 1.16, n = 176$), compared to 13 year olds ($M = 2.49, SD = 1.13, n = 232$), or 14 year olds ($M = 2.06, SD = 1.08, n = 186$). With regard to help online from a professional, 15 year olds had significantly higher scores than ($M = 2.74, SD = 1.15, n = 176$), compared to 13 year olds ($M = 2.38, SD = 1.19, n = 232$), or 14 year olds ($M = 2.20, SD = 1.08, n = 186$) and 16 year olds ($M = 2.40, SD = 1.05, n = 210$). Additionally, 17 year olds were more likely to seek help online from a professional ($M = 2.59, SD = 1.19, n = 197$) than 14 year olds. Findings further showed that 15 year olds were more likely ($M = 2.77, SD = 1.15, n = 176$), than 14 year olds to seek online help from a non-professional ($M = 2.31, SD = 1.09, n = 186$). These results suggest that generally 15 year olds are the most likely to seek help online.

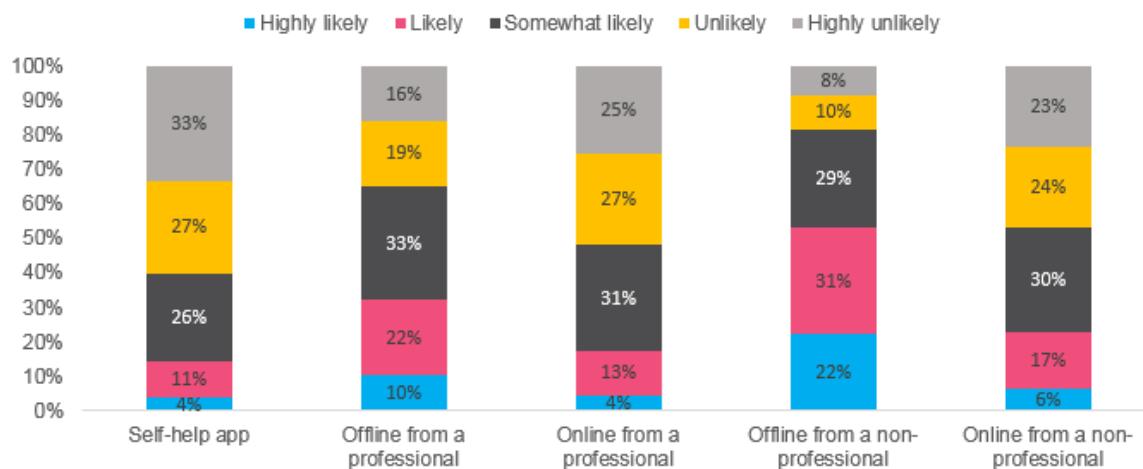


Figure 14 Help-seekingpractices for personal or emotional problems

Seeking help to achieve their goals and helping others to achieve their goals was examined as an outcome variable (Time 2, Range 4 to 20). Findings revealed young people generally: sought help to achieve their goals ($M = 13.35, SD = 3.70, n = 618$); and helped others to achieve their goals (Range 4 to 20), ($M = 13.33, SD = 3.91, n = 618$).

Google searches and online resources were key support sources. For personal or emotional problems, young people indicated they would be more likely to seek offline help from professionals and non-professionals. The findings suggest that young people align their help-seeking strategies and needs with the type of problem they are experiencing and possibly indicates a level of self-efficacy in determining which sources are most useful for particular problems or challenges.

Help-seeking practices and social connectedness

Correlations between the various help-seeking practices and social connectedness were examined (Table 7). Seeking help from a self-help app, online from a professional, and online from a non-professional negatively correlated with social connectedness off- and online, but positively correlated with the importance of being socially connected online. This suggests that the less socially connected a young person may be overall, the more likely they are to utilise online help sources.

Table 7 Bivariate correlations between help-seeking practices by social connectedness

Variables	1	2	3	4	5	6	7	8	9
1. from a self-help app	-								
2. offline from a professional (doctor, school counsellor)	.373**	-							
3. online from a professional (web counselling, Kids Helpline)	.742**	.481**	-						
4. offline from a non-professional (friend or family)	.099**	.419**	.170**	-					
5. online from a non-professional (friend, vlogger)	.649**	.309**	.645**	.254**	-				
6. Social connectedness offline	-.309**	.016	-.226**	.280**	-.126**	-			
7. Social connectedness online	-.244**	.025	-.176**	.223**	-.082**	.781**	-		
8. Importance of social connectedness offline	.012	.179**	.072	.240**	.096*	.154**	.174**	-	
9. Importance of social connectedness online	.208**	.176**	.252**	.105**	.234**	-.048	.034	.383**	-

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Young people also were asked whether or not they seek help to achieve their goals. An independent samples *t*-test analysis revealed a significant effect of Help-seeking for achieving goals on social connectedness offline $t(1,104) = 5.26, p = .000, d = .35$ and online $t(1,104) = 3.86, p = .000, d = .26$. Those who indicated they did not seek help to achieve their goals were significantly less socially connected offline ($M = 61.18, SD = 16.12, n = 293$), and online ($M = 61.85, SD = 13.95, n = 293$), than those who did seek help to achieve their goals, ($M = 66.73, SD = 15.24, n = 813$), and ($M = 65.54, SD = 14.06, n = 813$) respectively.

Findings in this section highlight the vulnerability of those not connected off or online, as a subgroup who are unlikely to seek help for wellbeing. Importantly, however, online resources appear to be particularly important for those who are not socially connected.

G: MODEL OF GOAL DIRECTED BEHAVIOUR

Key Results

- In relation to help-seeking/giving for self and others, young people generally:
 - had positive attitudes
 - demonstrated positive social norms
 - would experience positive anticipated emotions
 - would experience negative anticipated emotions if they were to not seek help or help others
 - felt they had the control, desire and intent to seek help for goal setting for self and others

Constructs of the Model of Goal Directed Behaviour

Building on the theory of planned behaviour, Perugini & Bagozzi (2001) propose that the MGB constructs of *attitudes*, *anticipated emotions*, *social norms*, *perceived behavioural control* are mediated by the *desire* to perform a particular behaviour; which in turn is a determinant of *intentions*, *with frequency* and *recency* of past behaviour contributing either directly or indirectly to determining the behaviour. Prior to applying the constructs in path modelling, the psychometric properties and descriptives of each of these constructs in relation to the two themes - *seeking help to achieve goals for myself*; and *helping others to achieve their goals* - were examined. Whilst descriptives draw on the total sample ($n = 1,106$), investigations specific to the Structural Equation Modelling with the MGB draw on smaller sample numbers ($n = 618$) as participants only were included if they had completed the pre- and post- surveys. Results from investigations into gender and age by model constructs are only reported when significant. For detailed results, please contact the research team.

Model Constructs: Psychometrics

Investigations revealed good psychometric properties (George & Mallery, 2003), with measures demonstrating good internal consistency (see Cronbach's alphas reported below):

- Attitudes to help-seeking for self: (3 items, $\alpha = .93$); Attitudes to helping others: (3 items, $\alpha = .94$)
- Control for self (2 items, $\alpha = .86$); Control for others (2 items, $\alpha = .73$)
- Social norms for self (6 items, $\alpha = .92$); Social norms for others (6 items, $\alpha = .94$)
- Anticipated positive emotion self (2 items, $\alpha = .93$); Anticipated positive emotion others: (2 items, $\alpha = .94$)
- Anticipated negative emotion self (2 items, $\alpha = .93$); Anticipated negative emotion others: (2 items, $\alpha = .94$)
- Desire for self (2 items, $\alpha = .93$); Desire for others (2 items, $\alpha = .93$)
- Intent for self (2 items, $\alpha = .91$); Intent for others (2 items, $\alpha = .93$)
- Recency/Frequency (13 items, $\alpha = .90$)
- Outcome: I Seek help to achieve my goals: (Time 1³: 4 items, $\alpha = .89$); I help others to achieve their goals: (Time 1: 4 items, $\alpha = .91$)

Table 8 Mean and standard deviations of the MGB constructs

Construct	Sub-construct	M (SD)
Attitudes	Towards seeking help to achieve my goals	202.92 (62.05)
	Towards Helping others to achieve their goals	215.00 (58.21)
Social Norms	Related to seeking help to achieve my goals	24.82 (3.99)
	Related to helping others to achieve their goals	24.83 (4.10)
Negative Anticipated Emotions	Towards seeking help to achieve my goals	6.35 (1.86)
	Towards Helping others to achieve their goals	6.50 (1.85)
Positive Anticipated Emotions	Towards seeking help to achieve my goals	7.54 (1.61)
	Towards Helping others to achieve their goals	8.00 (1.45)
Perceived Control	Towards seeking help to achieve my goals	156.98 (35.76)
	Towards Helping others to achieve their goals	150.83 (35.12)
Desires	Towards seeking help to achieve my goals	139.39 (42.21)
	Towards Helping others to achieve their goals	144.10 (38.92)
Intentions	Towards seeking help to achieve my goals	131.76 (45.22)
	Towards Helping others to achieve their goals	132.95 (43.61)

³ Time 1 refers to pre-exposure survey, and Time 2 refers to post-exposure survey

Young people generally had positive attitudes towards seeking help to achieve their own goals and helping others to achieve their goals (Table 8). With regard to helping others to achieve their goals, (Range 0 to 300), $t(1,104) = 3.05$, $p = .002$, $d = .18$, females ($M = 220.32$, $SD = 56.21$, $n = 552$), reported more positive attitudes towards helping others to achieve their goals than males ($M = 209.70$, $SD = 59.72$, $n = 554$). The construct of *social norms* was examined by asking young people what they thought the parents/carers, teachers and friends would think about them if they: 1) sought help to achieve goals, (Range 6 to 30), 2) helped others to achieve their goals (Range 6 to 30). Young people demonstrated strong positive social norms around seeking help to achieve their own goals and helping others to achieve their goals. Young people reported generally positive anticipated emotions, (Range 2 - 10) measured by the items: 'If I were to seek help to achieve my goal, I would feel... happy; proud; and if I were to help others achieve their goals I would feel... happy; proud. Findings also indicated that young people would generally experience negative anticipated emotions if they were to not seek help to achieve a goal, or if they were not to help others to achieve their goals (Range 2 - 10) as measured by the items, 'If I were to not seek help to achieve a goal, I would feel... disappointed, worried; and if I were to not help others to achieve their goals I would feel disappointed; worried.

ANOVA results revealed a significant effect of age on young people's perceived control to seek help to achieve their own goals, $F(5,1100) = 3.77$, $p = .002$. Bonferroni Post Hoc analysis revealed 15 year olds were less likely to seek help to achieve their own goals ($M = 150.43$, $SD = 33.34$, $n=176$), in comparison to 17 year olds ($M = 163.19$, $SD = 34.31$, $n = 197$), $p = .008$, $d = .38$ and 18 year olds ($M = 163.70$, $SD = 33.42$, $n = 105$) $p = .038$, $d = .40$. Examination of the Desire construct (Range 0 to 200) revealed a significant effect was evident in relation to desire to help others to achieve their goals, $t(1,104) = 2.97$, $p = .003$, $d = .18$, with females ($M = 147.57$, $SD = 38.69$, $n=552$), reporting a greater desire to help others achieve their goals than males ($M = 140.65$, $SD = 38.88$, $n=554$). ANOVA results revealed a significant effect of age on young people's intentions to seek help to achieve their own goals, $F(5,1100) = 4.23$, $p = .001$. Bonferroni Post Hoc analysis revealed 14 year olds were less likely to seek help to achieve their own goals ($M = 122.30$, $SD = 53.47$, $n=186$), in comparison to 16 year olds ($M = 137.56$, $SD = 44.13$, $n = 210$), $p = .011$, $d = .31$, and 17 year olds ($M = 140.28$, $SD = 45.56$, $n = 197$), $p = .001$, $d = .36$.

Model Assessment

Model investigations examine the predictive relationships between MGB constructs and other variables considered theoretically relevant to help-seeking behaviours. Two themes were examined with Campaign 4 survey data in the path modelling investigations to align with the help-seeking options available in the *Goalzie* app: *I seek help to achieve my goals*; and *I help others to achieve their goals*. Model investigations consider both these themes, with findings presented below. Model 1a and 2a (Figures 12 & 14) represent the theory of MGB as proposed by Perugini & Bagozzi (2001). *Attitudes, Control; Social Norms; Positive Anticipated Emotions; Negative Anticipated Emotions; Desires and Intention* data are from Time 1 (pre-survey) and are aggregates. In Model 1a these variables align with Theme 1: *I seek help to achieve my goals* and in Model 2a they align with Theme 2: *I help others to achieve their goals*. The proposed outcome variable in Model 1a is from Time 2 (post-survey) and is an aggregate of four manifest variables: '*I seek help to achieve my goals... at home; at school; online and; wherever I can*.' The proposed outcome in Model 2a is also from Time 2 (post-survey) and is an aggregate of: '*I help others to achieve their goals... at home; at school; online and; wherever I can*'.

Initial MGB Theme 1: Model 1a and 1b Predicting outcome 'I seek help to achieve my goals'

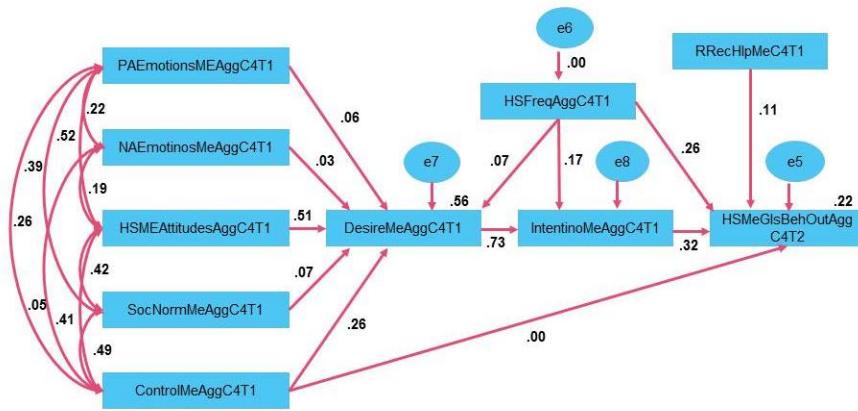


Figure 15 Model 1a Initial MGB: Predicting outcome 'I seek help to achieve my goals'

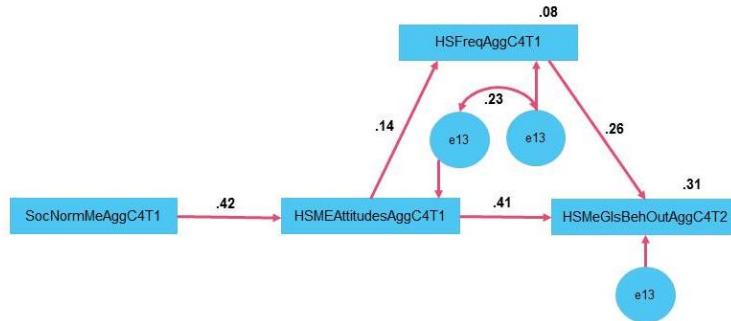


Figure 16 Model 1b Respecified MGB: Predicting outcome 'I seek help to achieve my goals'

Theme 1 Model 1b Respecified MGB: Predicting outcome I seek help to achieve my goals

Review of Model 1a (Figure 15) revealed a number of insignificant paths and poor model fit. The removal of the non-significant paths and consideration of modification indices improved the model and an acceptable fit was achieved (Model 1b: Figure 16). Additionally, consistent with data from the previous three Safe and Well Online campaigns, the constructs of Desires and Intentions were problematic. Analyses once again suggested that the two constructs of desire and intent, may not be interpreted as mutually exclusive constructs and further may not be relevant to goal directed behaviours of the age group in our sample. Model 1b accounts for 31% of the variance with good fit indices, $\chi^2(1) = 3.158; p = .076; CMIN/DF = 3.158; CFI = .995; GFI = .997; RMSEA = .059$.

Initial MGB Theme 2a: Model 2 Predicting outcome I help others to achieve their goals

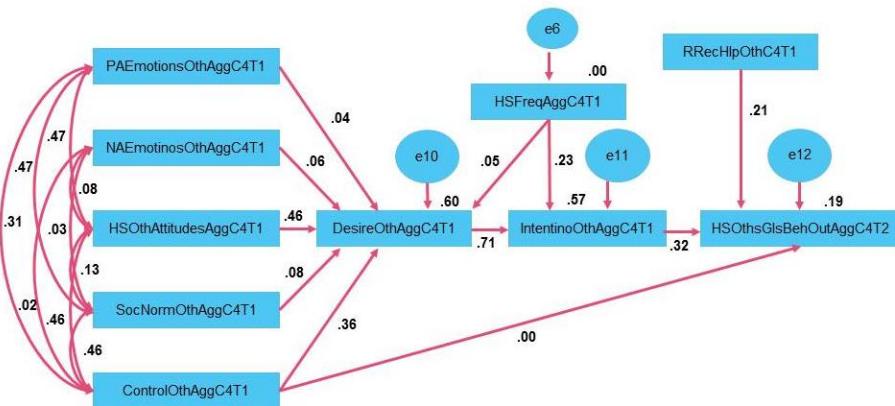


Figure 17 Model 2a Initial MGB: Predicting I help others to achieve their goals

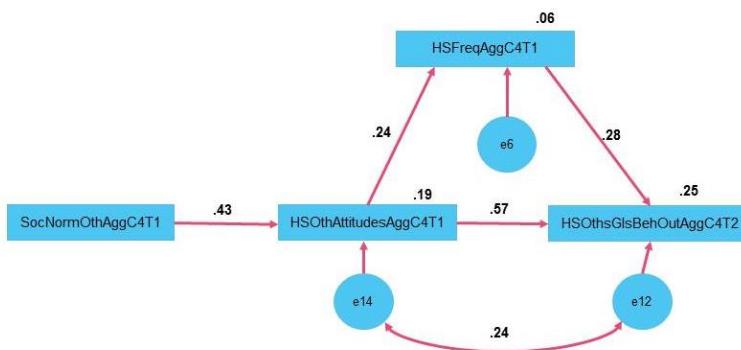


Figure 18 Model 2b Respecified MGB: Predicting I help others to achieve their goals

Theme 2 Model 2b Respecified MGB: Predicting outcome I help others to achieve their goals

Review of Model 2a (Figure 17) again revealed a number of paths were not significant and poor fit indices. Acceptable fit was achieved with the respecified model (Figure 18). Model 2b accounts for 25% of the variance with reasonable fit indices, $\chi^2(1) = 3.387; p = .066; CMIN/DF 3.387; CFI = .997; GFI = .994; RMSEA = .062$.

Model 3a (Figure 19) examines Internet frequency as a predictor of social connectedness offline and social connectedness online with the outcome 'I seek help to achieve my goals'. Internet frequency demonstrated significant negative paths with both social connectedness offline and social connectedness online, suggesting that for young people '*being online*' is not necessarily a predictor of '*being socially connected*', and could be an indicator of '*social disconnection*'. Interpretation of Models 3a and 3b should be considered in conjunction with Figures 10 and 11 which charted Internet use by social connectedness, and showed that the relationship between the two constructs is not necessarily monotonic. This is an area that warrants further investigations. Model 3b accounts for 31% of the variance with reasonable fit indices, $\chi^2(10) = 26.586; p = .003; CMIN/DF 2.659; CFI = .986; GFI = .988; RMSEA = .052$.

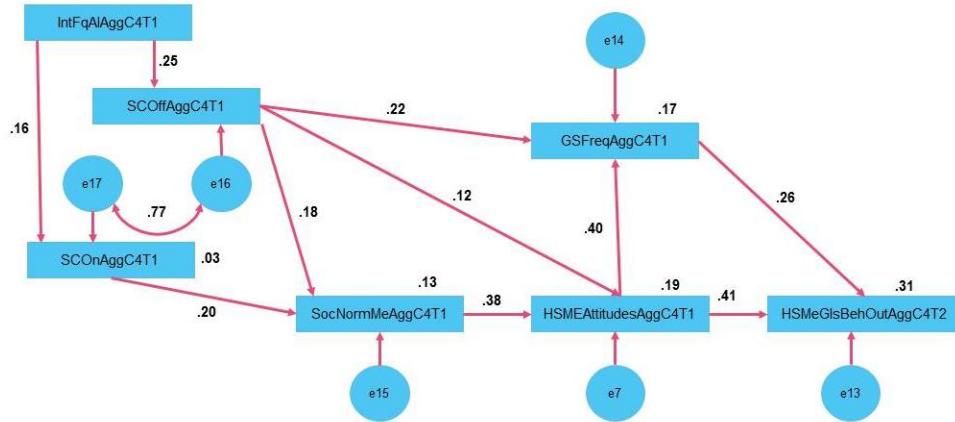


Figure 19 Model 3a Examining Internet frequency and social connectedness in predicting outcome I seek help to achieve my goals

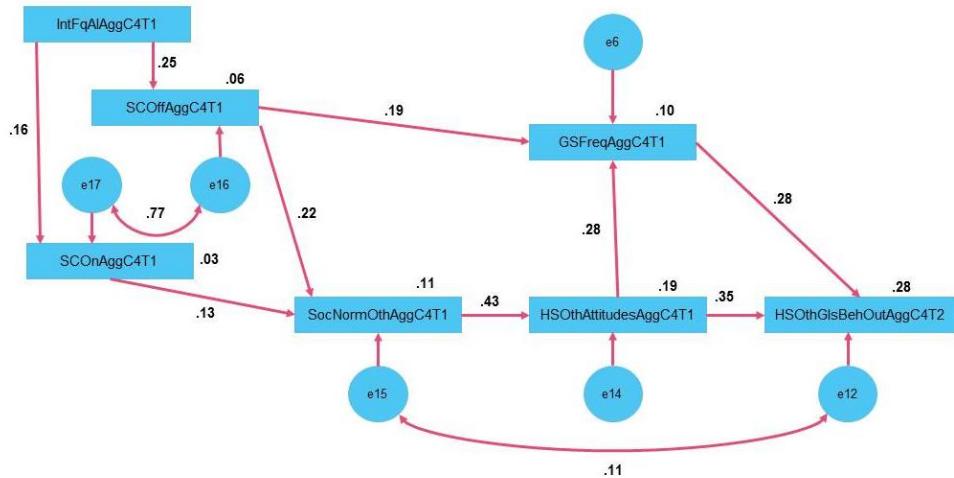


Figure 20 Model 3b Examining Internet frequency and social connectedness in predicting outcome I help others to achieve their goals

Model 3b (Figure 20) examines Internet frequency as a predictor of social connectedness offline and social connectedness online with the outcome variable *I help others to achieve their goals*. Consistent with Model 3a, good fit indices were evident, $\chi^2(10) = 22.900$; $p = .011$; $CMIN/DF = 2.290$; $CFI = .988$; $GF = .990$; $RMSEA = .046$, with the model accounting for 31% of the variance.

In order to establish if attitudinal or behavioural change had occurred after exposure with the *Goalzie* app, three measures of app engagement, namely: 1) time spent on app; 2) number of sessions/visits 3) number of events were introduced into the models predicting the outcome variables of *I seek help to achieve my goals* and *I help others to achieve their goals*. Specifically, investigations were conducted to examine if any of the three engagement measures mediated the relationship between: Desires/Intentions at Time 1 and Outcome variables at Time 2; Attitudes at Time 1 and Attitudes at Time 2; and Social Norms at Time 1 and Social Norms at Time 2 No significant paths were evident.

Please contact the researchers for additional detailed information regarding these results.

Mapping online engagement via digital tracking (Sub-study 4)

AIMS

Sub-study 4 aimed to:

- a. Evolve online tracking and passive data methods and subsequent data analysis
- b. Examine help-seeking and engagement through *Goalzie* both in the contained survey period (pre-public release) and in the “wild” (post public release)
- c. Investigate the impact of using online social networks in engagement with help-seeking

METHODS

Passive data is obtained through real-time collection of data from users as they engage with devices, web sites or Apps. Passive data has supplemented actively collected data (surveys) and continued to be a critical aspect of the quantitative component of the fourth campaign of the Safe and Well Online project. In previous campaigns passive data collection was severely constrained by the dependence on the type of data that various proprietary systems provided (e.g. Google analytics) and the inability to examine the behaviour of individuals in their use of the creative. Whilst ways around these constraints were developed for the contained research period, the ‘in the wild’ (post public release) data analysis was limited. Campaign 4 evolves data collection considerably by implementing a bespoke data collection mechanism. Essentially, all actions by cohort participants when engaging with the *Goalzie* App were collected and time stamped. Events were recorded by seconds, and with their respective internal ID. Case studies which profile and illustrate prolific users’ engagement were constructed from the data, to highlight the diverse ways in which young people have interacted with the creative. Pseudonyms have been allocated.

RESULTS

The App allowed participants (challengers) to choose ‘challengees’ from their Facebook friends. Due to ethical and consent constraints, however, there was no opportunity in the survey period for the challengee to download *Goalzie* and challenge back (see Sub-study 3, Section D: Responses to *Goalzie*). In the ‘wild’ (during post-public release), any Facebook friend receiving a *Goalzie* challenge was able to download the *Goalzie* App and return a challenge. As a result, some fifty thousand time-stamped events were collected during the public phase by the date of April 12, 2016. Filemaker 11 was used to build participant records of engagement with the *Goalzie* App by unique ID; each participant record contained frequency and duration data. Subsequent analysis was done in SPSS 21, Excel and AMOS. Table 9 below shows the number of participants at each stage of the research.

Table 9 Number of events and participants in the survey and in the wild periods

Surveys	Participants		
Pre-Survey	1106 participants		
Post Survey	618 participants		
Research Period	Bespoke Data Collection	User Experiences Reconstructed	User Experiences Matched to Surveys
<i>Goalzie</i> Survey Period 09.11.15 – 06.12.15	3719 events, 136 participants	136 reconstructed user experiences with passcodes	126 matched to pre-survey 59 matched to post-survey
<i>Goalzie</i> In the Wild including Media Campaign and Tail Period 14.1.16 - 12.04.16	45,797 events, 862 participants	862 reconstructed user experiences with User IDs	none

The bespoke data collection functionality of *Goalzie* provided a clear account of activity within the App. Figure 21 below shows the number of raw events recorded for *Goalzie* from the beginning of the survey period on November 9, 2015 through the campaign and the beginning of the tail, to April 12, 2016. Days are counted from Nov. 9 2015.

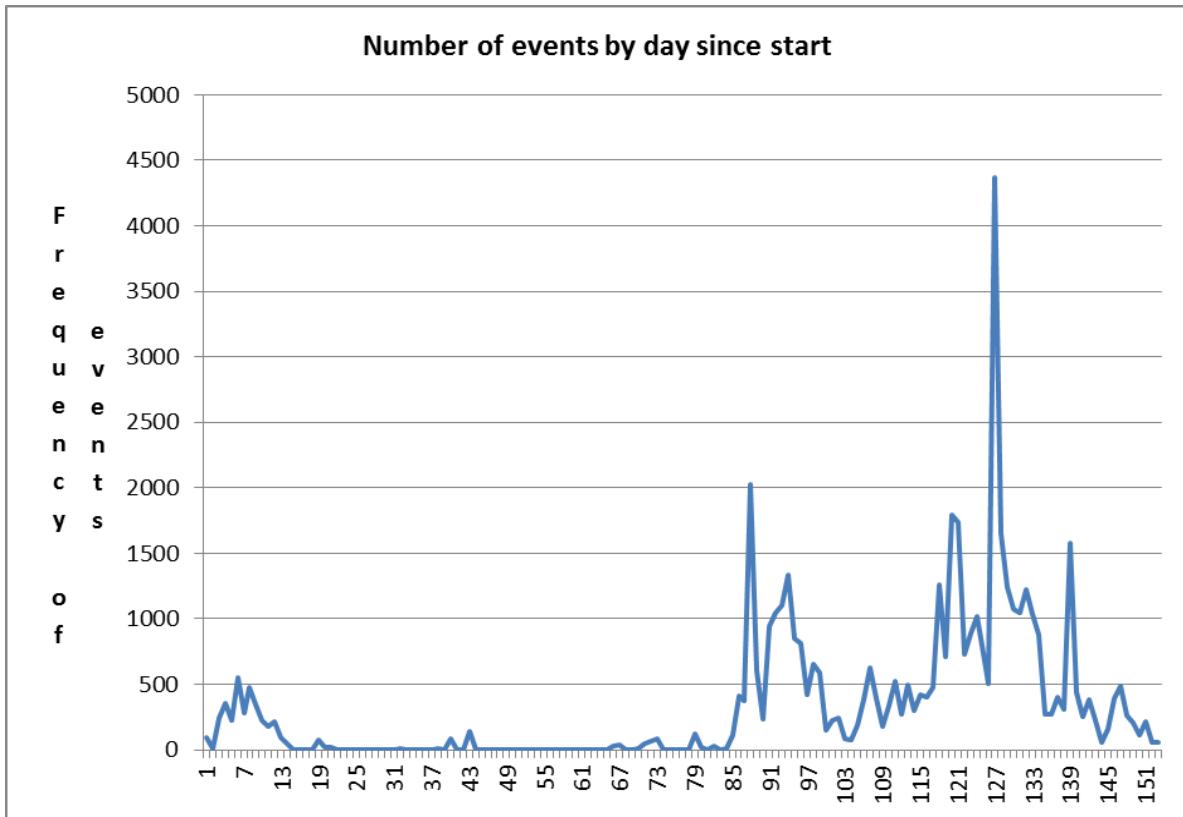


Figure 21 Number of daily events recorded by *Goalzie* through the survey, and ‘in the wild’ periods

CASE STUDIES

It was possible to construct typical user engagement from the data and to present these as case studies.

(A) Top *Goalzie* users in the contained survey period: *Jenny, Joan and Joy*. (See Table 9)

Jenny, Joan and Joy are the top *Goalzie* users in the survey period and the only ones with more than 5 sessions, averaging around 8 sessions. They come from three states: Queensland, New South Wales and Western Australia respectively and are all in year 8. They are well above the mean in social connectedness in both offline and online contexts. They are also well below the mean for cyberbullying, stress and depression. However Joy has been a victim of cyberbullying. All three are close to the mean level of anxiousness. The three girls are issuing three to four challenges each. Joy's challenges are all in the “Fun” category whereas the other girls vary across categories. Joy continues to use *Goalzie* for a month, the other girls use it for less than two weeks. Joan and Joy spend around 2 hours engaging with *Goalzie* while Jenny engaged for just under 1 hour.

(B) Prolific *Goalzie* user in the ‘wild’ (Post Public release): *Karen*. (See Table 9)

Karen starts using *Goalzie* after he/she receives a challenge on the morning of the 10th of February 2016, some 104 days after the pre-survey date. In the next month Karen visits *Goalzie* on 38 separate occasions, issuing some 10 challenges and setting 11 consequences. Six of the challenges are in the “Get Social” category, with two of the challenges being “...respond to text messages... with emojis”. Two challenges are in the “Work It” category, one is “Fun” namely “Give someone a random compliment” and one is in the “Mental Health Category” namely “Make your phone background a positive quote”. Karen receives some 8 challenges from two different *Goalzie* users. Three of the challenges Karen receives are in the Self-Regulation category, three are in the Get Social category and two in the Fun category including a challenge to “Give someone a random compliment”. This last challenge is received from a participant after being issued to that same participant the day before. Over a period of one month Karen spent some 3 hours and 10 minutes in *Goalzie* initiating some 801 events. Karen stops using *Goalzie* on March 12.

TOUCH POINTS

The passive *Goalzie* data provides a rich picture of the engagement of nearly one thousand participants. Table 10 shows significant touch points of participant experience and comparative data for the survey and in the wild periods. Participation rates are calculated by dividing the number of participants engaging with a specific touch point by the total number of *Goalzie* participants for the relevant period.

Table 10 details the key touch points in the *Goalzie* App. The “No.” columns list the number of times a particular touch point was engaged with. The “Participants Involved” columns list the number of individuals who engage with that touch point.

Table 10 Key touch points by number of occurrences

Touch Point/Action	Survey Period n=136			In the Wild Period n=862		
	No.	Participants Involved	Participation Rate	No.	Participants Involved	Participation Rate
Category Chosen	124	57	42%	2071	610	71%
Challenge Issued	83	54	40%	1033	542	63%
Consequence Set	80	52	38%	801	435	50%

A common participant experience would be to choose a friend to be challenged (from a Facebook list), choose a category of challenge, choose the challenge, set a consequence, and issue the challenge. A category has to be chosen before a challenge can be issued. Not all participants complete the process, as the participation rates indicated. In the wild (Table 10), participants are choosing challenges at a rate of approximately one and half times (71%) more often than participants in the survey period (42%). Table 11 displays the frequencies and percentages of categories of challenge chosen by participants for the two periods of the survey and in the wild. The three most chosen categories are the same for each period; Self-Regulation, Fun, and Money, accounting for a similar proportion of the total categories chosen (some 50% in the wild and some 60% in the survey period). The rest of category choices are spread broadly evenly across the categories. Indeed the survey period is a good predictor of some ‘in the wild’ category choices as shown by a significant Pearson correlation of $R = .78$, $p = .02$ and $n = 13$.

Table 11 Categories of challenges chosen for the survey period and the “in the wild” period

Category	Survey Period		In the Wild Period	
	Frequency	Percent	Frequency	Percent
Create	5	4.0	109	5.3
Environment and community	3	2.4	83	4.0
Fun	17	13.7	380	18.3
Get physical	5	4.0	105	5.1
Get social	4	3.2	173	8.4
Healthy living	6	4.8	89	4.3
Learn something	7	5.6	59	2.8
Mental wellbeing	3	2.4	101	4.9
Money	12	9.7	269	13.0
Self-regulation	45	36.3	358	17.3
Sleep	4	3.2	96	4.6
Study	7	5.6	117	5.6
Work it	6	4.8	132	6.4
Total	124	100.0	2071	100.0

The distribution of in the 'wild' challenges is shown in Table 12. Challenges are being issued at about 2 per involved participant, while in the survey period, challenges were being issued at about 1.5 per involved participant. It would appear that once a category is chosen, challenges are issued in the 'wild' about three times as much as in the survey period. Challenges issued in the 'wild' are more distributed across the options than in the survey period. The survey period is a good predictor of some in the 'wild' challenges as shown by a significant Pearson correlation of $R = .87$ $p < .001$ and $n = 32$.

Table 12 Top 21 challenges chosen from survey and 'in the wild'

Challenge	Survey Period		In the Wild Period	
	Frequency	Percent	Frequency	Percent
Don't check Facebook for a day	27	32.5	162	15.7
Film an MTV cribs video of your home			69	6.7
Take a selfie with a family member while they're sleeping	2	2.4	62	6.0
Film yourself saying hello in 25 different languages.	2	2.4	50	4.8
Do not buy anything for 24 hours (not even a cheeky Freddo)	2	2.4	40	3.9
Get a selfie with your teacher	1	1.2	36	3.5
Give someone a random compliment	1	1.2	27	2.6
Don't take a selfie for a day	2	2.4	25	2.4
Write a poem for your maths teacher			25	2.4
Win a staring competition	4	4.8	23	2.2
Listen to an album that you have never heard before	2	2.4	20	1.9
Include a heart emoji in every text for a day			18	1.7
Do a bit of your homework before school	2	2.4	17	1.6
Do 30 sit-ups	2	2.4	16	1.5
Go 'screen free' for a day (TV, phone, laptop)	3	3.6	15	1.5
Respond to every text for the day only in emojis	1	1.2	15	1.5
Take an epic sunset shot			14	1.4
Hand in an assignment three days early	3	3.6	13	1.3
Draw a portrait of your challenger with your opposite hand	1	1.2	13	1.3
Get more than six hours sleep	1	1.2	13	1.3
Do a household chore to earn some extra pocket money	6	7.2	12	1.2
Other challenges	21	25.3	348	33.7
Total	83	100	1033	100

The distribution of consequences is shown in Table 13 In the 'wild', consequences are being set at about 1.5 per involved participant, while in the survey period, consequences are being set at about 1.8 per involved participant. It would appear that once a challenge is chosen, consequences are set in the wild are about 20% as much as in the survey period. Consequences set in the wild are more distributed across the options than in the survey period. The survey period is a good predictor of some in the wild consequences as shown by a significant Pearson correlation of $R = .90$, $p < .001$ and $n = 26$.

Table 13 Top 21 Top consequences chosen for survey and 'in the wild'

Consequence	Survey Period		In the Wild Period	
	Frequency	Percent	Frequency	Percent
Post a stupid selfie as your profile picture and keep it there for a day	34	42.5	211	26.3
Record yourself singing and dancing to Beyonce Single Lady	3	3.8	97	12.1
Make a video explaining why your challenger is the best			53	6.6
Use yolo and swag seriously for a week	2	2.5	51	6.4
Don't eat chocolate for two weeks	3	3.8	47	5.9
Write two hundred words explaining why the sky is blue	5	6.3	34	4.2
Comment on one of your Facebook posts from a year ago	2	2.5	32	4.0
Don't watch your favourite TV show or YouTuber for an entire week			28	3.5
Take out your family's bin for a month	2	2.5	27	3.4
Write a poem and post it on Facebook			18	2.2
Watch a Barbie movie from start to finish	2	2.5	14	1.7
Make a post on Facebook explaining why you love Justin Bieber	1	1.3	12	1.5
Read a book of your challenger's choice in a week	1	1.3	12	1.5
Don't use your phone at home after school and for the whole weekend	1	1.3	11	1.4
Film yourself explaining why you love One Direction			11	1.4
Like every one of Justin Bieber's Facebook posts in the past month			11	1.4
Do you hair different for one day	3	3.8	10	1.2
Make One Direction your Facebook cover photo	1	1.3	9	1.1
Take a video of yourself dancing like Beyonce and send it to the challenger	1	1.3	8	1.0
Hand in your homework 2 days early			8	1.0
Wear your hair to school in two high pigtails			8	1.0
Other Consequences(25)	19	23.8	89	11.1
Total	80	100	801	100

The distribution of touch points in the research period seems to be a good predictor of the distribution of touch points in the wild, although engagement levels with those touch points are higher. One might conclude that the way Goalzie's touch points tap into the motivations of young people in the wild is similar to that in the research period.

PEER TO PEER VIRALITY AND SOCIALITY IN GOALZIE

Goalzie is designed to encourage engagement with peers, in particular with Facebook “friends”. In the contained research period of the surveys, the friends that a *Goalzie* participant challenged could not download *Goalzie*. This restriction was lifted in the wild period, and those challenged (the challengees) could freely download *Goalzie* themselves and subsequently become challengers, completing the peer-to-peer circle of challenges and consequences, as originally designed. Of 542 participants who issued challenges, 119 of these were previously challenged. This indicates that when challenged by their peers these participants are motivated to download *Goalzie* and issue challenges to others. The rate of recruitment to *Goalzie* through the challenge mechanism is around 20%. Only a rate of recruitment of over 100% would be considered as viral but nonetheless recruitment is substantial.

Once the campaign was released through various media channels, 423 individuals were recorded as engaging with *Goalzie*. Those individuals through the peer-to-peer mechanism (Challengers, Challengees), subsequently involved a further 119 individuals (during the period from 9th November, 2015 to April 12, 2016). Given that the tail as of April 12 may have a long way to run, this measure of virality may be an underestimate. There is anecdotal evidence of multiple social exchanges between Facebook “friends” through the *Goalzie* App. Some participants are first challenged by others, and many “friends” used the same challenges back. In a dense social networking space like Facebook, the goal setting and help-seeking experience may be more about setting a particular challenge for a friend with an expectation or desire for the same challenge to be returned and set for them. Indirectly setting goals for others then can become a reciprocal experience, which socially activates or nudges goal setting behaviours for both parties.

Qualitative insights: Goalzie (Sub-study 5)

AIMS

A qualitative investigation with a sub-sample of cohort participants was conducted, approximately one month after participants had engaged with the campaign. The aim was to explore, in-depth, young people's views and experiences of the *Goalzie* campaign and their attitudes towards, and influences on, help-seeking in on- and offline contexts. The aim of the qualitative interviews was to increase our understanding of the help-seeking and social processes in terms of the impact on youth wellbeing. Key questions focused on:

- What is young people's assessment of the *Goalize* app?
- What are young people's attitudes towards, understanding of and engagement in help-seeking?
- What are young people's attitudes towards, understanding of and engagement in goal-setting?
- What are young people's opinions about online and offline contexts?
- What are young people's understandings of peer influence/social comparison?

METHOD

All 44 (24 girls and 20 boys) participants who had indicated via the SSI Campaign 4 survey that they would be willing to take part in a follow up telephone interview were initially emailed to thank them for their participation and to provide them with a reminder of the *Goalzie* app and passcode. Follow-up contact with all participants who had consented, occurred via though 3 modes: email, SMS and telephone call. Efforts to contact participants occurred on a number of occasions between 21st –23rd December 2015 and 4th–13th January 2016.

Of the 44 young people who consented, contact details for 12 were incorrect, 8 declined to be interviewed and others were unavailable. Despite the recruitment efforts of researchers, and possibly due to the timing of the interview recruitment which occurred during the holiday period, only eight young people were interviewed. This demonstrates the importance of timing of the campaigns and recruitment to follow-up interviews, and the persistence needed by researchers when timing clashes with major holiday periods and the end of the school year.

Semi-structured telephone interviews were conducted with five girls aged 13-15 years and three boys aged 13-17 years. Two researchers from the University of South Australia conducted the interviews which had an average duration of 30 minutes. The semi-structured format of the interviews allowed participants freedom to share their own opinions and understandings as well as respond to key questions, which addressed; participants' evaluation and engagement with the *Goalzie* app, help-seeking, goal setting, peer influence/social comparison, and online/offline contexts. In addition, core elements of the MGB were included in the interviews including; attitudes, perceived behavioural control, social norms, and anticipated emotions, and desires. Interviews were audio recorded and fully transcribed. Qualitative analysis involved looking for patterns and themes (Miles and Huberman, 1994). Themes were identified by adopting apriori themes, together with an inductive approach where issues of interest or relevance emerged from the interview data.

RESULTS

Top level findings are reported below, but please contact the researchers for more detailed information.

RESPONSES TO 'GOALZIE CAMPAIGN'

All the young people interviewed who had interacted with the app (n=8) liked the *Goalzie* app and said they would recommend it to their friends.

Yeah I would recommend it to a friend, because it's like good for setting goals and all that stuff (girl 15 years).

I think I would (recommend it), it's pretty cool. (girl 14 years)

When asked about the purpose of the app young people identified goal setting and peer interaction as the aim of the app and many liked the link with Facebook so that they could connect with their friends.

I use Facebook a lot so I think that was a very good thing for me and it made it a lot easier to use (boy 17 years)

Well I thought, at first I thought it was kind of a social media kind of thing, it was like a way to challenge your friends and interact with your friends, it was pretty good how, it was also doing goals and stuff (boy 17 years)

Probably to set you up sort of for life, and ... sort of minor goals. But then you can know how to set yourself up for your own goals. (girl 14 years)

Despite not being able to use the app to its full extent (see discussion below) young people found it easy to use, enjoyed the challenges and thought the challenges were appropriate to their peer groups.

I like how you basically challenge people and some of them are really funny. I remember yeah the selfie one was really good because, I mean some of my friends are just, they're so obsessed with taking selfies ... (Laughing). We just do stuff like that and I think it's really good because people kind of connect to that. (boy 17 years)

Oh yes, because I was looking through the things that you can do, as for like challenges and things, and I saw the lock screen on your phone where you put like an inspirational quote. And that's probably going to really open my eyes a bit, because seeing that every day, and reading it, and taking it all in, and just thinking like oh yes, I could do that, or yes, that is really important (girl 15 years).

Modifications of the app were suggested by some young people to improve its appeal. Suggestions included being able to personalise the challenges, using an interface other than Facebook and being able to challenge yourself.

I don't know if it would be a long term kind of usage thing because it's, I mean if it was updated a lot there'd be a lot of challenges or, I don't know. I think it would be, if it would give you a customised ability kind of option to it which would be really good. Some people they have sort of inside jokes with their friends or they could set each other goals that they know would be tailored to them- I know some of my friends are really, really into academics. I'd set them personal goals like trying to achieve a B plus on maths or something like that and another one I'd do is sport because I know a lot of my friends the really sporty side and say to them try and beat your time running the 300 meters (boy 17 years)

HELP-SEEKING

Participants discussed how the type of problem influenced how they seek help. Personal problems, particularly embarrassing issues, were 'hidden' or tended to be investigated by young people alone online. Using this latter approach, young people aimed to solve the problem themselves. Minor problems could be ignored but major problems tended to involve multiple methods of help-seeking.

If I do find a problem I usually either depending what situation I'm in, I either talk to my parents about how I'm feeling or if I'm at school I'll go either to my coordinators or to, we have a help system where we're able to go to youth workers and talk to them anonymously (15 year old girl)

If it was a sort of like a big problem that you – that I could look it up, like on the Internet, I would probably actually use the Internet first. And if I couldn't find an answer there, then I would probably go and seek help from like my parents or somebody else that knew more about it (14 year old girl)

All participants said they did seek help for their problems and many expressed an attitude that it was the 'right' thing to do and that talking to people was the way to resolution of the problem.

Well I just think that there's always someone there for you and you're not by yourself, and I think a lot of people think that they're by themselves. But there's a lot of help out there, and you don't want to be alone, you need to express your feelings and tell someone before it kind of gets out of hand. (girl, 15 years)

GOAL SETTING

A number of those interviewed talked about the importance of setting goals and highlighted it as one of the main way towards achievement. Despite this, many did not tend to explicitly set goals or, if they did, it tended to be a long term goal, such as getting into university.

I think it would be very important to set goals and I think an app like this would make it casual, it would make it easier to set goals. I know that nowadays a lot of my friends and a lot of people I know they, we wouldn't really set goals because we're just spontaneous people. But I guess as time goes on goals are really important and they would be a really good way to set goals in a casual sort of way because most people they don't sit down and get a sheet of paper and write down their goals really and there's no real way to have them in front of them in an easy kind of way to do that and I think this app would be a pretty good idea because it would allow them to have that option in front of them, and combine that with the social media and everything like that I think would be a pretty solid idea. (boy, 17 years)

Although many young people were aware of the difficulty of sticking to goals, they acknowledged that they didn't have the full understanding of making goals or strategies to achieve them. Some of those interviewed talked of having formal instruction at school on goals but, despite it being viewed as worthwhile, admitted to not putting the guidance into practice.

Oh yes, because I was looking through the things that you can do, as for like challenges and things, and I saw the lock screen on your phone where you put like an inspirational quote. And that's probably going to really open my eyes a bit, because seeing that every day, and reading it, and taking it all in, and just thinking like oh yes, I could do that, or yes, that is really important. To really get me motivated to do something, you'd have to get me 100%, like get my full attention. Because sometimes I might get a bit you know, side-tracked and not really focused on it. So if you get me, if you were getting me to do something, you'd have to get me fully on-board. (girl 15 years)

ONLINE/OFFLINE

The young people interviewed felt they had more connections with people online but didn't think the connection was a strong as those they have offline. Young people discussed strong relationships with friends they see face to face and on the whole preferred to talk to people offline about problems rather than going online, as one 13 year old girl put it:

"people can see my facial expressions and the way I'm acting".

That being said, participants discussed using both online and offline with different interfaces being used for different things. For example, embarrassing or personal problems where young people wanted to ask questions anonymously or in private tended to be investigated online.

The practical usage of the app was noted by one boy who said that the Goalzie app would make him more connected to people online:

"the people that I'm with on Facebook if I used something like this app it would actually be, it would let me be more connected to the people online as well because it would be, it wouldn't just be Facebook and the usual Facebook stuff but it would be setting goals for each other that we can sort of relate too and connect that way (boy, 17 years)

PEER INFLUENCE/SOCIAL COMPARISON

Influence of peers was evident throughout the young people's conversations with many of those interviewed including asking friends as a main way of seeking help for problems. Family was also mentioned often by young people as a way to seek help, but for some, there was a tension between these two social groups. For example one 15 year girl said:

I do believe that family effects more towards the confidence side than your friends. Your friends, you do tend to find that your friends all start to dress the same, talk the same, pretty much practically look the same but then. So when you get back home and your family supporting you and saying, "Oh be yourself, be happy, be you." And then when you get into your social group they're just like, "Oh do this way." It's like a conflicting situation where you don't know where you should be but if you, if you know what you want and if you're confident enough to portray that then by all means then that's the best way to go but it's definitely hard.

Social comparison appeared to be a way some young people judged the severity of their problems with the conversations focused on whether their problems were the same, worse or better than the problems other people faced. It appears that this judgement may influence the decision as to whether to seek help or not. Forums were used by a few of those interviewed as a way to find information about other people's problems. This allowed for social comparison. Others were more cautious about Internet usage.

Just reading other people's stories about what they've gone through and how they've dealt with things you can definitely see what might happen towards you (girl, 15 years)

I personally wouldn't go online in a forum to express how I'm feeling, certainly because people tend to forget nowadays that everything that you put online it's traceable even if you delete it. (girl, 15 years)

Discussion

THE RELATIONSHIP BETWEEN WELLBEING, RESPECT, SOCIAL CONNECTEDNESS AND HELP-SEEKING AND THE ROLE GOAL-SETTING CAN PLAY

Most young people indicated a satisfactory level of wellbeing, exhibiting ranges of depression, anxiety and stress within normal levels. This finding is consistent with the previous studies in this project over five years (Spears et al., 2015; 2016) suggesting that the majority of young people in this age group in Australia are experiencing good mental health. Social connectedness, as an important protective factor for wellbeing (Jose, Ryan, & Pryor, 2012) was realised through peer-to-peer interactions as a fundamental aspect of *Goalzie*, and was examined as a context for this study in some detail. As the original scale (Lee & Robbins, 1995) was developed before the advent of the digital environment, it has been modified by this project to enable the exploration of the relationships between young people's perceptions of their social connectedness and belonging across and within online and offline settings.

Consistent with extant studies (eg. boyd 2014; Third et al 2014), the majority of young people in this study were socially connected and considered this to be inclusive of offline and online connections.

However, the analysis suggests that connecting online is related but not the same as connecting offline – particularly in relation to Help-seeking. Young people believe that adults use the Internet in ways that are different to that of their peers. As such, the kinds of online affordance that can support help-seeking behaviours may be different depending on whether the source of help is a peer or adult. This study extends on similar research reporting on the relationships – and differences – between social connectedness via and external from online social network platforms such as Facebook (Grieve, 2013; 2015).

Examination of sleep patterns and social connectedness indicated a complex relationship, with young people who generally sleep fewer than six hours a night also less socially connected than those who generally sleep more than 7 hours. Whilst links between young people's sleep patterns and mental health are commonly reported (Owens et al., 2014), this new finding extends the evidence base regarding the importance of the sleep-social connectedness relationship, and is worthy of future research. There also were clear links between vulnerability associated with being a cyberbully-victim and their level of social connectedness, supporting previous studies (Spears et al., 2015c) and indicating that those who did not seek help were less socially connected holistically. Interventions aimed at improving help-seeking behaviours of young people who are *not* seeking help, must therefore consider social connectedness as a key issue. Teaching young people the pragmatics of setting and practising goals, through a campaign such as *Goalzie*, would not be effective if there were no relationships or social connections they felt they belonged to or could call upon.

Designing campaigns, services and an eco-system of support in conjunction with this knowledge and these practices are also necessary. *Goalzie* did embed interactions amongst peers within help-seeking in a gamified way. However, given that social connectedness overall is an important key indicator of both vulnerability and positive wellbeing (Roffey, 2013), ongoing investigations are warranted to examine; ways to help young people to connect with others, how the development and strengthening of relationships and personal support networks can be facilitated, and how online relationships can be utilised as part of help-seeking processes.

Additionally, the relationship between respectful behaviours, a core underlying theme of this study, and help-seeking, showed that whilst the majority of young people felt they behaved respectfully across most settings, those who did not seek help to achieve goals were less socially respectful than those who did seek help. An underlying construct in the Social Respect Scale, developed for this project, was the level of respect young people have for the opinions of others. The negative association between help-seeking and respect for others could be related to a young person's lack of trust or confidence in the capacity of others to be able to help.

Help-seeking is defined in terms of *actively* engaging with others, and as a *progressive* process. It enables the problem to be addressed and not ignored, through a sequence of: awareness of needing help; expressing the problem; identifying how they might be helped; recognising the availability of that help; and the willingness of the person to express why they need help (Rickwood et al., 2005). Aligning with findings from a number of studies, the primary sources of help accessed by young people included parents/carers, friends (Rickwood et al., 2005) and more recently Google (Burns et al., 2010; Fergie, Hilton, & Hunt, 2015; Rennis, 2015). While these studies conceptualise help-seeking in the context of a problem, the participatory design process for the *Goalzie* campaign demonstrated that help-seeking can also be reframed as a strength to help grasp opportunities. Young people identified peers and family as key sources of likely support to achieve their goals, suggesting a broader continuum of help-seeking – from opportunities – to problems. A continuum view that reframes help-seeking in this way offers potential to encourage and build skills and positive attitudes that could help young people cope better when facing adversity.

However, the importance of social connectedness highlights a potential vulnerability for young people who do not seek help to achieve goals, as they were less likely to be socially connected, and demonstrated a lack of respect or trust in others to provide the support and help needed. As such, whilst the premise of basing the *Goalzie* campaign on peer-to-peer connections was sound, it may not necessarily be enabling for this vulnerable sub-set of young people who reported feeling socially isolated. Lonely individuals are socially disconnected, and social and emotional loneliness are significant predictors of depression and suicidality (Flood, 2005). Moody (2001) found, for example, that high levels of Internet use were associated with low levels of social loneliness but high levels of emotional loneliness. In support of these findings, young people in this study indicated that *quantity* of online connections was not necessarily an indicator of '*quality*' relationships. Moreover, offline relationships with friends and family considered stronger and more important for young people than only those connections online. Engagement with *Goalzie* required an existing friendship network on the Facebook platform and a level of trust and self-confidence to send and accept challenges. Nevertheless, managing the risk of failure and potential *loss of face* in a public domain is an important consideration for young people who may have limited networks. The findings highlight an imperative for investing in strategies for vulnerable youth that facilitate, in the first instance, the development of trusting, respectful connections with others, as a way of building support structures for young people who are disconnected. These findings further evidence the need to ensure that adults, and services for adults (including parents and professionals) develop capacities that warrant and foster trust. Services and resources must be similarly developed from the perspective of young people, especially those who may be vulnerable or feel alone. Campaigns and other resources should be respectful and reflect young people's needs and aspirations and connect with young people through an eco-system of support.

YOUNG PEOPLE'S PERCEPTIONS OF THE GOALZIE CAMPAIGN AND THE NATURE OF THEIR ENGAGEMENT WITH THE CONTENT

The participatory design, alongside learnings from Campaign 3 (Spears et al., 2016), highlighted the need to promote help-seeking among young people in ways which were goal-oriented, meaningful, holistic, achievable, engaging and social. The focus of *Goalzie* stemmed from a 'strengths-based perspective' (Hammond & Zimmerman, 2012) of help-seeking, whereby seeking help was incorporated as part of enabling proactive goal setting and connecting behaviours. This was a key shift away from a unidirectional, deficit-based approach, in which help-seeking is often positioned as a reactive response and further perceived by young people to be a sign of weakness.

Across the participatory design and cohort studies, young people viewed *Goalzie* favourably. The MARS rating was '3.84', with a clear recommendation to increase customisability and user-generated content. Nearly two thirds of cohort respondents reported they liked *Goalzie* at the time of the first exposure, indicating the app had immediate appeal to those who used it. Additionally, the intended purpose of *Goalzie* was clearly evident to most and nearly half perceived that it could prompt young people to seek help to achieve their goals in a fun way. Furthermore, over a half of those indicated they would not be averse to using *Goalzie* in the short term, with interview conversations indicating that users would recommend it to friends. The generally positive comments about the app suggested that *Goalzie* resonated well with its intended audience.

While young people who participated in the PD for *Goalzie* and in-depth interviews were broadly enthusiastic about the *Goalzie* campaign, the extent of actual peer-to-peer engagement with *Goalzie* (setting and receiving challenges) during the survey period was restricted in order to meet ethical requirements. Specifically, only those participants who had parental/carer consent were able to download *Goalzie*. However, their Facebook friends, unless they were already members of the cohort, were not able to participate in the study without informed consent, and the access that enabled peer-to-peer interactions was severely limited during the cohort data collection period. This highlighted the importance of following the naturalistic use of *Goalzie* “in the wild” (post public release), where anyone could set and receive challenges, as designed. Engagement with *Goalzie* in the wild is considerably stronger than in the survey period. *Goalzie* successfully deploys peer-to-peer interactions and mechanisms in a way that enhances goal setting and help-seeking. Setting goals for others can become a reciprocal experience, which socially activates or nudges goal setting for all.

VALUE AND ROLE OF THE MODEL OF GOAL DIRECTED BEHAVIOUR (PERUGINI & BAGOZZI, 2001)

The theory of the MGB (Perugini & Bagozzi, 2001) was applied to help establish if the model could, firstly, be used to predict behaviour and attitudinal change with young people in online settings, and secondly, if *Goalzie* impacted on the relationships between key constructs of the model, including the relationship between intention to seek help and actual help-seeking behaviours for goal setting. Consistent with data from previous campaigns, the MGB constructs, in particular, *attitudes*, *anticipated emotions*, *social norms and control* demonstrated sound reliability and validity. Furthermore, they were useful for application in online research with young people to examine their help-seeking behaviour and decision-making processes. Investigations revealed that *attitudes* was a stronger predictor of the two outcome variables. I.e. seeking help to achieve my goals and helping others to achieve their goals, as opposed to desires mediated by intentions or as a combined desires/intentions construct, examined in previous studies of this project (Spears et al, 2015).

The refined and adapted MGB presented in this study also revealed that *social norms* predicted young people’s attitudes, suggesting there may be some considerations regarding temporal (time) sequence when designing programs that aim to nudge attitudes and behaviours. Additionally, where young people aged 13–18 years are concerned, there may be merit in focusing on the development of positive social norms as a precursor to changing attitudes towards help-seeking and goal setting, rather than addressing them simultaneously as represented in the MGB (Perugini & Bagozzi, 2001) and should be studied further.

An important innovation of this study, which demonstrates sound promise, is the inclusion of passive analytic data as potential mediating variables between key model constructs. In particular, findings indicated the traditional application of the MGB can be extended to incorporate both self-reported data and matched analytics data from innovative digital data collection methods. The successful application of data from both methods to the MGB, suggested that whilst some adaptions were required, and new iterations have been presented in this study, the MGB is encouraging as a theoretical framework for online research with young people to measure attitudinal and behavioural change and to inform key points of intersection when developing and designing online campaigns .

KEY CONSIDERATIONS FOR ONLINE SOCIAL MARKETING CAMPAIGNS TO PROMOTE HELP-SEEKING FOR WELLBEING

The insights from the participatory design activities and learning from this project's previous Campaign 3 (Spears et al., 2016), highlighted how the campaign needed to promote help-seeking among young people in ways which were goal-oriented, meaningful, holistic, achievable, engaging and social. Some key examples of how *Goalzie* integrated these dimensions included:

- **Games, Play and Goal-setting:** The catchphrase '*Challenge a mate*' crystallised Campaign 4's aim of promoting help-seeking among young males and females specifically those aged 15-17, through competitively playful mechanisms. The word 'challenge' in the phrase 'Challenge a Mate' inferred the goal-setting and friendly competition that the app seeks to motivate in users.
- **Peer to Peer Interactions and Social Connections:** The word 'mate' in the catchphrase 'Challenge a Mate' highlights the peer-to-peer interactions viewed as key to this campaign (which also builds on insights from previous campaigns and research). The app motivates young people to communicate with their peers in a fun and engaging ways, through sharing the ups and downs of the rewards of meeting challenges, and the consequences of not doing so!
- **Youth Wayfinding and Networked Ecosystems:** The design of *Goalzie* supported 'youth wayfinding' by providing a user-friendly interface which highlighted fun and motivating choices and opportunities for young people to submit and respond to challenges and relevant support. A 'networked ecosystem' was integrated in terms of a database which provided links to resources (apps, websites and videos) which could support young people achieving their challenges. This recognised the range of places, people and technology which can support young people's wellbeing journeys.

This has demonstrated how the experience of a 'service ecology': the relationships and interactions between the stakeholders and the available help-seeking services, applications, information/resources, and the context within which they operate, with relevance and benefits to young people, can be incorporated into an app-based campaign. This relies on designing campaigns from the perspective of young people's needs, rather than those of individual services.

While Facebook was an accessible platform for the target age group on which to base such a campaign, young people indicated it is critical for campaigns to reflect and be designed around current youth social practices, relations and challenges. This highlights the need to explore campaigns in this context that leverage, but are not dependent on, 'platforms' or particular technologies. Moreover, campaigns such as *Goalzie* need to be sustainable, to allow easy updating and user generated content in order to maximise the social relations that underpins a contemporary 'eco-system' of support.

Whilst young people's receptiveness to *Goalzie*, is an indication of the potential for social marketing campaigns to facilitate positive attitudinal and behavioural change, path modelling investigations revealed that young people's attitudes and behaviours did not change within the contained research period after exposure to *Goalzie*. This was not unsurprising given the timeframe and complexities associated with making the app available to the cohort and their peers. Insights from the cohort component revealed young people involved in the study started from a strong base, as they reported generally positive attitudes towards help-seeking and low levels of stigma. Although, within the constraints of the research (pre-public release), findings revealed that *Goalzie* did not shift young people's attitudes and behaviours, there are considerations required concerning the difference between a structured research period and what occurs organically and naturally. Authentic engagement with apps most often occurs in the public domain (naturally), and as such conducting research in contained periods (pre-public release) in order to meet ethical requirements can impact on evaluations of online campaigns. Whilst achieving true organic app engagement with young people is challenging in contained research periods due to complex consent and duty of care processes, it does highlight the importance of extending research, in particular tracking, beyond this period to incorporate engagement 'in the wild' (post-public release) beyond the research period. This is critical if evaluations are to accurately capture the impact of social marketing campaigns delivered in online environments.

However, addressing the receptiveness to the tracking of minors in naturalistic settings will require new ways of understanding and managing digital research. Specifically, conversations amongst stakeholders about ethical protocols for employing tracking of minors in bona fide research are urgently needed. This could be supported by an education/information campaign that directly communicates to the public the need for, and benefit of tracking mechanisms as part of research that aims to benefit young people. With the advent of self-monitoring health-related apps, such as Fitbits, it should become easier for parents in the future to understand how mapping user engagement can be used in positive ways that enhance health and wellbeing outcomes for individuals and further contribute to evidence based health innovations that draw on theoretical frameworks. The triangulation of mapping Unique IDs via digital tracking and self-report data was an exciting step forwards and demonstrated that bespoke passive data collection platforms and analytics have merit and should be investigated and trialled further.

CHARACTERISING THE COMPLEX RELATIONSHIPS BETWEEN ONLINE/OFFLINE ACTIVITIES, WELLBEING AND HELP-SEEKING

The relationship between Internet use and social connectedness is complex. Consistent with Campaign 3, the relationship was non-linear in nature and findings indicated that moderate Internet use can support social connections amongst some young people. However, with increasing ubiquitous connectivity, compartmentalising online and offline activities becomes problematic and what constitutes *moderate* use needs further interrogation.

Despite the blurring of off- and online boundaries for young people, particularly with regard to the way they connect, socialise and learn, there are nuances associated with youth help-seeking behaviours. For example, young people considered the nature of their problem and then aligned it with their help-seeking strategy. They further differentiated off- and online avenues of help, noting there were advantages and disadvantages associated with each environment, such as privacy afforded in the online space for problems of a personal nature. Better understanding factors that influence youth decision-making processes when seeking help, and mapping engagement with help sources for extended periods, both in research contained and public domains, can help to connect youth with help-seeking responses that are 'fit for purpose', and which further utilise the most appropriate avenues and environments for connecting youth with support.

Of particular importance are findings which suggested the more a young person engaged in online help-seeking, the less socially connected they were. This reinforces the critical role of online help-seeking services and resources in facilitating sustainable, meaningful social connections for young people both as part of the help-seeking process and as part of preventative measures to promote wellbeing. This was an inherent aim of *Goalzie*, which speaks to the strengths of the research design of this study, which; incorporated gamification, built on themes via a spiral curriculum design (Bruner, 1961), built on learnings from preceding campaigns of this project, and which was supported by the framework and tools of a PD approach that helps to maintain a direction and focus, while still being open to intergenerational knowledge and diverse expertise. While participatory design is by no means a seamless approach (Collin & Swist, 2016), it offered a way to grapple with the fast-paced changes in knowledge, technology and culture so that interventions are relevant, mindful and equitable.

What is evident is the need for young people to develop skills and strategies for goal setting for wellbeing across all settings: informally in conjunction with parents and friends as well as more formal off- and online support networks and self-help apps such as *Goalzie*. Understanding the intricate relationships between online/offline activities, wellbeing and help-seeking, also requires consideration of the role of parents/carers and peers who often have firsthand insight into their child/friend's wellbeing and who often provide primary and daily sources of support for young people in offline environments. Investigating ways to leverage these relationships in ways that are not restricted to off- or online environments, and qualifying what 'quality' online connections looks like for young people are proposed as next steps in supporting young people to: connect meaningfully with others; navigate their way around a networked ecosystem of help that transcends off- and online environments.

STRENGTHS AND LIMITATIONS

There are a number of strengths of this study. The level of engagement by young people and stakeholders, across the development and evaluation components of the study, resulted in a campaign that resonated well with young people, reflected current youth digital practices (gamification), and provided a platform for nudging them towards goal setting for help-seeking. Participatory design is an important component of any future social marketing campaign aimed at young people.

In terms of methodology, employing an online research panel, who were receptive to trialing innovative data collection methods, was a strength. It enabled the project to achieve a nationally representative sample of young people aged 12 - 18 with informed parental/carer consent in an online setting.

The MGB provided a promising theoretical basis for investigating attitudinal and behavioural change in online social marketing strategies to promote youth wellbeing and for identifying future points of entry for initiatives and interventions with young people.

Additionally, the complex but successful data collection process was a particular achievement of this study and involved the tracking and collection of campaign engagement data in the following ways:

- at the individual level by unique ID;
- across data touch points customised by researchers and developers;
- in a bespoke backend database; and
- which was then mapped to self-reported survey data

This unique method was developed through progressive refinement in conjunction with software developers and the research panel provider across the three campaigns, culminating in this unique method. Through this data collection process, engagement beyond the contained period (pre-public release) to the naturalistic setting provided important insights.

Interdisciplinary approaches to research are often touted as best practice and in reality present multiple challenges and successes. Challenges arise in terms of the layered understanding of the cross disciplinary fields and the need to find common languages and appreciations of the different approaches. In this project, the strength and success lay in the willingness and receptiveness of all parties to work through the multiple aspects of the project driven by an overriding respect for the unique contributions of each discipline and a common commitment to benefit young people's wellbeing.

There were also, however, a number of limitations, which spanned sub-studies 2-5.

Firstly, Sub-study 2 was limited to working with young people mainly from urban centres (Sydney, Western Sydney and Melbourne). While these lived experiences richly contributed toward young people in defining, positioning and creating a campaign – future studies would benefit from integrating the views of young people from rural and remote areas. To fit in with the schedules and deadlines of the project and busy school calendars, recruitment of some young people was undertaken via a recruitment agency, which has the potential for self-selection bias, but simultaneously offers opportunities for accessing a diverse sample. While the campaigns were co-developed with young people and received good assessments and engagement, this campaign did not allow for extensive user-generated content and community building, which are widely considered important to maximise engagement and sustainability. Additionally, while Facebook is practically the largest, and therefore most logical, social network platform on which to build the campaign, not all young people will want to use it for this purpose. Many young people do not have or want a Facebook account and the study identified that this could present a barrier to use by this population.

Furthermore, ethical requirements meant that the full functionality of *Goalzie* (P2P interaction) in the contained (pre-public release) period were restricted and access to *Goalzie* was limited to only those participants who had assented and whose parents/carers had consented to their child participating in the study. The individual passcode required for downloading *Goalzie* which was distributed via the pre-survey was integral to meeting the ethical requirement, but as a result, participants' friends outside the sample group, and within the contained research period, were not able to engage with *Goalzie*. Whilst this did impact on the organic uptake and engagement of the app, it highlights: the challenges and opportunities of marrying the development of the campaign with evaluation design in parallel to capture the full engagement experience. This limitation suggests the value of adopting bespoke evaluation strategies for online campaigns and simultaneously raises questions concerning the application of 'gold standard' approaches to online settings. In practice, this is restricted by the dynamic nature of the environment, time and resource constraints, but highlights the importance of extending data collection beyond the contained research period to map naturalistic engagement in the wild (post-public release) and demonstrates the contribution of this study.

Project Conclusions

Collectively, the five sub-studies undertaken, highlight important learnings about: youth wellbeing; youth involvement in participatory design processes; online research methodologies; young people's safety, wellbeing and interactions; and the value and potential of social marketing campaigns for promoting: goal setting, help-seeking and peer-to-peer connections.

This fourth and final campaign of the project, underpinned by respect for self and others, builds thematically and logically on the focus themes of the previous campaigns: *Keep It Tame*; *Appreciate A Mate* and *Is Something Haunting You?*. Importantly, input from stakeholders along with comprehensive and regular youth participation processes employed throughout the design and testing phases and stakeholder input, contributed greatly to the relevancy and appeal of *Goalzie*.

To support future research, an innovative, collaborative, interdisciplinary and cross-sectoral approach is required. Co-creating opportunities to support a range of intergenerational knowledge and expertise to enhance youth wellbeing is both an exciting opportunity and a complex challenge. The only certainty about how the interrelationships between youth, technology and wellbeing interventions will unfold, is that there will be many surprising and unexpected changes. The journey we have articulated for *Goalzie* – as in previous campaigns – has been supported by the framework and tools of a PD approach which helps to maintain a direction and focus, while still being open to intergenerational knowledge and diverse expertise:

"From a political standpoint, the commitment of Participatory Design to participation by users is an assertion of the rights of young people to define their own wellbeing goals and participate in their own care. It is an approach that seeks to effect social change, and builds more equitable relationships between health professionals and young people as key partners in the design process" (Hagen et al 2012, p. 6)

While participatory design is by no means a seamless approach, it does offer a way to grapple with the fast-paced changes in knowledge, technology and culture so that interventions are mindful and equitable. An important consideration is the ongoing iterative engagement with young people to ensure relevancy and currency of any youth focused social marketing campaigns.

Goalzie provided an eco-system of support by facilitating peer-to-peer interactions and access to sources of help for positive wellbeing, by providing a platform where young people could set goals and challenge others in a fun and motivating way that enhanced and encouraged help-seeking practices as normalised behaviours.

This study has highlighted the importance of social connectedness in the help-seeking process, and for wellbeing generally. In the dynamic online environment, there continues to be opportunities and challenges for conducting research online with minors, particularly in relation to ethics and online research methodologies. An online research panel and stringent consent protocols were employed in Campaign 4, successfully achieving national representation across 13 to 18 year olds. Additionally, incorporating contained research as a way of generating benchmarks for engagement with campaigns once released in the wild/public domain provided useful comparative data for informing the evaluation of *Goalzie*. It is proposed that tracking campaign engagement at the unique ID level and mapping across self-reported and analytics data, across contained and in the wild research periods, along with participatory design processes, can provide considerable validity and rigor to the co-design and evaluation of social marketing campaigns.

References

- Ahn, J. (2011). The effect of social network sites on adolescents' social and academic development: Current theories and controversies. *Journal of the American Society for Information Science and Technology*, 62(8), 1435-1445. doi: 10.1002/asi.21540
- AIHW. (2015). Australia's welfare 2015-in brief. Australia's welfare no. 12. Cat. No. Aus 193. Canberra: AIHW.
- Australian Bureau of Statistics. (2011). Australian bureau of statistics population and housing - counts of aboriginal and torres strait islander australians, cat. No. 2075.0. cat. no. 2075.0. 2075.0 Retrieved 15 August 2014, from <http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/2075.0main+features32011>
- Australian Bureau of Statistics. (2013). Australian bureau of statistics - reflecting a nation: Stories from the 2011 census, 2012–2013, cat. No. 2071.0. Retrieved 15 August 2014
- Australian Bureau of Statistics. (2014). Australian demographic statistics cat. No. 3101.0. Retrieved 15 August, 2014, from <http://www.abs.gov.au/ausstats/abs@.nsf/mf/3101.0>
- Australian Government Department of Health. (2015). Australian government response to contributing lives, thriving communities - review of mental health programmes and services. Retrieved 12 June 2016, from <http://www.health.gov.au/Internet/main/publishing.nsf/Content/mental-review-response>
- Baumeister, R. F., & Bushman, B. J. (2008). *Social psychology and human nature (annotated instructor's edition)*. Belmont, CA: Thomson Wadsworth.
- Boyd, D. (2014). *It's complicated: The social lives of networked teens*. New Haven: Yale University Press.
- Bruner, J. S. (1961). The act of discovery. *Harvard educational review*.
- Burns, J. M., Davenport, T. A., Durkin, L. A., Luscombe, G. M., & Hickie, I. B. (2010). The Internet as a setting for mental health service utilisation by young people. *Medical Journal of Australia*, 192(11), 22-26.
- Burns, J. R., & Rapee, R. M. (2006). Adolescent mental health literacy: Young people's knowledge of depression and help-seeking. *Journal of Adolescence*, 29(2), 225-239. doi: <http://dx.doi.org/10.1016/j.adolescence.2005.05.004>
- Centifanti, L. C. M., Modecki, K. L., MacLellan, S., & Gowling, H. (2014). Driving under the influence of risky peers: An experimental study of adolescent risk taking. *Journal of Research on Adolescence*.
- Clement, S., Schauman, O., Graham, T., Maggioni, F., Evans-Lacko, S., Bezborodovs, N., Morgan, C., Rüsch, N., Brown, J., & Thornicroft, G. (2015). What is the impact of mental health-related stigma on help-seeking? A systematic review of quantitative and qualitative studies. *Psychological Medicine*, 1-17.
- Cohen, J. (1988). *Statistical power analysis for the social sciences*. New York, NY: Routledge Academic.
- Cohen, J. (1992). A power primer. *Psychological bulletin*, 112(1), 155.
- Collin, P., Rahilly, K., Richardson, I., & Third, A. (2011). The benefits of social networking services.
- Collin, P., & Swist, T. (2016). From products to publics? The potential of participatory design for research on youth, safety and well-being. *Journal of Youth Studies*, 19(3), 305-318.
- Collin, P. J., Metcalf, A. T., Stephens-Reicher, J. C., Blanchard, M. E., Herrman, H. E., Rahilly, K., & Burns, J. M. (2011). Reachout. Com: The role of an online service for promoting help-seeking in young people. *Advances in Mental Health*, 10(1), 39-51.
- Cross, D., Shaw, T., Hearn, L., Epstein, M., Monks, H., Lester, L., & Thomas, L. (2009). Australian covert bullying prevalence study (acbps). Edith Cowan University, Perth: Child Health Promotion Research Centre.
- Dibb, S., & Carrigan, M. (2013). Social marketing transformed. *European Journal of Marketing*, 47(9), 1376-1398. doi: doi:10.1108/EJM-05-2013-0248
- Donath, J. (2007). Signals in social supernets. *Journal of Computer-Mediated Communication*, 13(1), 231-251.

- Dooris, M., Poland, B., Kolbe, L., De Leeuw, E., McCall, D. S., & Wharf-Higgins, J. (2007). Healthy settings: Building evidence for the effectiveness of whole system health promotion – challenges and future directions. In D. V. McQueen & C. M. Jones (Eds.), *Global perspectives on health promotion effectiveness* (pp. 327-352): Springer.
- Dunlop, S., Freeman, B., & Jones, S. C. (2016). Marketing to youth in the digital age: The promotion of unhealthy products and health promoting behaviours on social media. *Media and Communication*, 4(3).
- Feldman, B. (2011). Mobile, social and fun games for health: Mobile health news research.
- Fergie, G., Hilton, S., & Hunt, K. (2015). Young adults' experiences of seeking online information about diabetes and mental health in the age of social media. *Health Expectations*, DOI: 10.1111/hex.12430.
- Flood, M. (2005). Mapping loneliness in australia. Discussion paper number 76: Australia Institute.
- Frisén, A., Berne, S., Schultz-Krumbholz, A., Scheithauer, H., Naruskov, K., Piret, L., Katzer, C., Erentaite, R., Zukauskiene, R. (2013). Measurement issues. A systematic review of cyberbullying instruments. In: Smith P, Steffgen G (Eds.), *Cyberbullying through the new media: findings from an international network*. (pp 37–63). Psychology Press: London.
- George, D., & Mallery, M. (2003). Using spss for windows step by step: A simple guide and reference.
- Gould, M. S., Munfakh, J. L. H., Lubell, K., Kleinman, M., & Parker, S. (2002). Seeking help from the Internet during adolescence. *Journal of the American Academy of Child & Adolescent Psychiatry*, 41(10), 1182-1189.
- Grieve, R., Indian, M., Witteveen, K., Tolan, G. A., & Marrington, J. (2013). Face-to-face or facebook: Can social connectedness be derived online? *Computers in Human Behavior*, 29(3), 604-609.
- Grieve, R., & Kemp, N. (2015). Individual differences predicting social connectedness derived from facebook: Some unexpected findings. *Computers in Human Behavior*, 51, 239-243.
- Gulliver, A., Griffiths, K., & Christensen, H. (2010). Perceived barriers and facilitators to mental health help-seeking in young people: A systematic review. *BMC Psychiatry*, 10(1), 113.
- Gulliver, A., Griffiths, K. M., Christensen, H., & Brewer, J. L. (2012). A systematic review of help-seeking interventions for depression, anxiety and general psychological distress. *BMC Psychiatry*, 12, 81. doi: 10.1186/1471-244X-12-81
- Hagen, P., Collin, P., Metcalf, A., Nicholas, M., Rahilly, K., & Swainston, N. (2012). Participatory design of evidence-based online youth mental health promotion, intervention and treatment. Melbourne: Young and Well CRC.
- Hammond, W., & Zimmerman, R. (2012). A strengths-based perspective. A report for resiliency initiatives.
- Hargittai, E., & Young, H. (2012). Searching for a “plan b”: Young adults' strategies for finding information about emergency contraception online. *Policy & Internet*, 4(2), 1-23.
- Harkin, B., Webb, T. L., Chang, B. P., Prestwich, A., Conner, M., Kellar, I., Benn, Y., & Sheeran, P. (2015). Does monitoring goal progress promote goal attainment? A meta-analysis of the experimental evidence.
- Hartup, W. W. (1996). The company they keep: Friendships and their developmental significance. *Child Development*, 67(1), 1-13.
- Haslam, C., Cruwys, T., Haslam, S. A., & Jetten, J. (2015). Social connectedness and health. *Encyclopaedia of Geropsychology*, 46-41.
- Hides, L., Kavanagh, D., Stoyanov, S. R., Zelenko, O., Tjondronegoro, D., & Mani, M. (2014). The mobile application rating scale (mars): A new tool to measure the quality of health mobile applications. Melbourne, VIC: Young and Well Cooperative Research Centre.
- Jennifer, W. Y., Adams, S. H., Burns, J., Brindis, C. D., & Irwin, C. E. (2008). Use of mental health counseling as adolescents become young adults. *Journal of Adolescent Health*, 43(3), 268-276.
- Johnson, D., Jones, C., Scholes, L., & Carras, C. (2013). Videogames and wellbeing: A comprehensive review. Melbourne: Young and Well Cooperative Research Centre.
- Jorm, A. F., Wright, A., & Morgan, A. J. (2007). Where to seek help for a mental disorder? National survey of the beliefs of australian youth and their parents. *Medical Journal of Australia*, 187(10), 556-560.

- Jose, P. E., Ryan, N., & Pryor, J. (2012). Does social connectedness promote a greater sense of well-being in adolescence over time? *Journal of Research on Adolescence*, 22(2), 235-251.
- Korda, H., & Itani, Z. (2013). Harnessing social media for health promotion and behavior change. *Health Promotion Practice*, 14(1), 15-23. doi: 10.1177/1524839911405850
- Labouliere, C. D., Kleinman, M., & Gould, M. S. (2015). When self-reliance is not safe: Associations between reduced help-seeking and subsequent mental health symptoms in suicidal adolescents. *International journal of environmental research and public health*, 12(4), 3741-3755.
- Lee, R. M., Brooke, L. D., & Jung, K.-R. (2001). Social connectedness, extraversion, and subjective well-being: Testing a mediation model. *Personality and Individual Differences*, 45(5), 414-419.
- Lee, R. M., Draper, M., & Lee, S. (2001). Social connectedness, dysfunctional interpersonal behaviors, and psychological distress: Testing a mediator model. *Journal of counseling psychology*, 48(3), 310-318.
- Lee, R. M., & Robbins, S. B. (1995). Measuring belongingness: The social connectedness and social assurance scales. *Journal of counseling psychology*, 42(2), 232-241.
- Lister, C., West, J. H., Cannon, B., Sax, T., & Brodegaard, D. (2014). Just a fad? Gamification in health and fitness apps. *JMIR serious games*, 2(2), e9.
- Lovibond, S. H., & Lovibond, P. F. (1995). *Manual for the depression anxiety and stress scales* (2 ed.). Sydney: Psychology Foundation.
- Maher, C. A., Lewis, L. K., Ferrar, K., Marshall, S., De Bourdeaudhuij, I., & Vandelanotte, C. (2014). Are health behavior change interventions that use online social networks effective? A systematic review. *Journal of medical Internet research*, 16(2), e40.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. Thousand Oaks, CA: Sage Publications.
- Moody, E. J. (2001). Internet use and its relationship to loneliness. *CyberPsychology & Behavior*, 4(3), 393-401.
- Owens, J., Au, R., Carskadon, M., Millman, R., Wolfson, A., Braverman, P. K., Adelman, W. P., Breuner, C. C., Levine, D. A., & Marcell, A. V. (2014). Insufficient sleep in adolescents and young adults: An update on causes and consequences. *Pediatrics*, 134(3), e921-e932.
- Oxford Dictionaries. (2016). Gamification. Retrieved April 22, 2016, from <http://www.oxforddictionaries.com/definition/english/gamification>
- Park, N. (2004). The role of subjective well-being in positive youth development. *The Annals of the American Academy of Political and Social Science*, 591(1), 25-39.
- Parker, J. G., & Gottman, J. M. (1989). Social and emotional development in a relational context: Friendship interaction from early childhood to adolescence. In T. J. Berndt & G. W. Ladd (Eds.), *Peer relationships in child development* Oxford, UK: John Wiley & Sons.
- Perugini, & Bagozzi. (2001). The role of desires and anticipated emotions in goal-directed behaviours: Broadening and deepening the theory of planned behaviour. *British Journal of Social Psychology*, 40(1), 79-98.
- Prince, J. D. (2013). Gamification. *Journal of Electronic Resources in Medical Libraries*, 10(3), 162-169.
- Psychology Dictionary. (2016). What is automaticity? Retrieved April 16, 2016, from <http://psychologydictionary.org/automaticity/>
- Rennis, L., McNamara, G., Seidel, E., & Shneyderman, Y. (2015). Google it!: Urban community college students' use of the internet to obtain self-care and personal health information. *College Student Journal*, 49(3), 414-426.
- Rickwood, D., Deane, F., & Wilson, C. (2007). When and how do young people seek professional help for mental health problems? *Medical Journal of Australia*, 187(7), S35-39.
- Rickwood, D., Deane, F. P., Wilson, C. J., & Ciarrochi, J. (2005). Young people's help-seeking for mental health problems. *Australian e-Journal for the Advancement of Mental Health*, 4(3), 1-34.
- Rickwood, D. J., Mazzer, K. R., & Telford, N. R. (2015). Social influences on seeking help from mental health services, in-person and online, during adolescence and young adulthood. *BMC Psychiatry*, 15(1), 40.
- Roffey, S. (2013). Inclusive and exclusive belonging: The impact on individual and community wellbeing. *Educational & Child Psychology*, 30(1), 38-49.

- Schoech, D., Boyas, J. F., Black, B. M., & Elias-Lambert, N. (2013). Gamification for behavior change: Lessons from developing a social, multiuser, web-tablet based prevention game for youths. *Journal of Technology in Human Services*, 31(3), 197-217.
- Smith, W. A. (2006). Social marketing: An overview of approach and effects. *Injury prevention*, 12(suppl 1), i38-i43.
- Spears, B., Taddeo, C., Barnes, A., Collin, P., Swist, T., Drennan, J., Scrimgeour, M., & Razzell, M. (2015). 'Appreciate a mate' helping others to feel good about themselves. Safe and well online: A report on the development and evaluation of a positive messaging social marketing campaign for young people. Melbourne, VIC: Young and Well Cooperative Research Centre.
- Spears, B.A., Taddeo, C.M., Barnes, A., Collin, P., Swist, T., Webb-Williams, J., Brock, C., Kavanagh, P., Drennan, J., Razzell, M. & Borbone, V. (2016). *Something Haunting You? Reframing and promoting help-seeking for young men: The co-creation and evaluation of a social marketing campaign*. Young and Well Cooperative Research Centre, Melbourne.
- Spears, B., Taddeo, C., Barnes, A., Scrimgeour, M., Collin, P., Drennan, J., & Razzell, M. (2015). Keep it tame: Promoting respect online safe and well online pilot study: Evaluating the design, engagement and impact of a social marketing approach aimed at 12 to 18 year olds. Melbourne, VIC: Young and Well Cooperative Research Centre.
- Spears, B., Taddeo, C., Daly, A., Stretton, A., & Karklins, L. (2015). Cyberbullying, help-seeking and mental health in young australians: Implications for public health. *International Journal of Public Health*, 1-8. doi: 10.1007/s00038-014-0642-y
- Steinberg, L. (2008). A social neuroscience perspective on adolescent risk-taking. *Developmental Review*, 28(1), 78-106.
- Stoyanov, S. R., Hides, L., Kavanagh, D. J., Zelenko, O., Tjondronegoro, D., & Mani, M. (2015). Mobile app rating scale: A new tool for assessing the quality of health mobile apps. *JMIR mHealth and uHealth*, 3(1), e27.
- Swist, T., Collin, P., & McCormack, M. J. (2016). Social media and the wellbeing of children and young people: A literature review. *Report for the Western Australian Commissioner for Children & Young People. Institute for Culture and Society, University of Western Sydney, Sydney, Australia*.
- Thai, A., Lowenstein, D., Ching, D., & Rejeski, D. (2009). Game changer: Investing in digital play to advance children's learning and health. New York, NY: The Joan Ganz Cooney Center.
- Thaler, R. H., & Sunstein, C. R. (2008). Nudge: Improving decisions about health, wealth and happiness. New Haven, CT: Yale University Press.
- Third, A., Bellerose, D., Dawkins, U., Keltie, E., & Pihl, K. (2014). Children's rights in the digital age: A download from children around the world. Melbourne, VIC: Young and Well Cooperative Research Centre.
- Verplanken, B., & Aarts, H. (1999). Habit, attitude, and planned behaviour: Is habit an empty construct or an interesting case of goal-directed automaticity? *European review of social psychology*, 10(1), 101-134.
- Wantland, D. J., Portillo, C. J., Holzemer, W. L., Slaughter, R., & McGhee, E. M. (2004). The effectiveness of web-based vs. Non-web-based interventions: A meta-analysis of behavioral change outcomes. *Journal of medical Internet research*, 6(4), e40.
- Webb, M., Burns, J., & Collin, P. (2008). Providing online support for young people with mental health difficulties: Challenges and opportunities explored. *Early Intervention in Psychiatry*, 2(2), 108-113.
- World Health Organization. (1986). The ottawa charter for health promotion. Geneva, Switzerland: WHO.
- Yap, M. B. H., Reavley, N., & Jorm, A. F. (2013). Where would young people seek help for mental disorders and what stops them? Findings from an australian national survey. *Journal of Affective Disorders*, 147(1–3), 255-261. doi: <http://dx.doi.org/10.1016/j.jad.2012.11.014>

Appendices

Appendix 1: Findings from five phases of Participatory Design

Define and Position stage of campaign research and development

PD Phases	DEFINE & POSITION		
Key questions	How does the issue of help-seeking manifest in young people's everyday lives?	How can help-seeking be reframed in order to be meaningful to young people?	What is a successful campaign outcome from the point of view of young people?
Supporting Artefacts	Literature review, Sector Partner communications		
Activities	Paired interviews, co-design workshops and online discussions		
Findings	Diversity of help-seeking pathways: help-seeking manifests and unfolds in diverse ways in young people's everyday lives Socio-technical context: help-seeking is a practice which stems from the interrelationship between people, places and online tools Help-seeking obstacles and opportunities: identifying the range of barriers, bridges and strengths-based strategies which can constrain, or enable, young people locating help Role of gender: that young men often feel stigma around help-seeking, plus expectations they need to maintain male stereotypes	Nudge behaviour: reframing help-seeking as being strengths-based, or goal-oriented Provide multilayered content: diversity of information, integrates with existing resources, stories from young people are invaluable Help-seeking pathways: recognising diversity, plus signposting a range of support mechanisms Positive tone: needs to be welcoming and supportive, foster empathy and stay positive Support way-finding: helping to navigate young people's way through the density of online information (visually engaging, ease of access and navigation) Promote individual and peer-to-peer benefits: helping others to seek help, privacy affordances, being a hub, promoting wellbeing.	Humorous and relatable: The campaign will prompt young people to seek help in a fun and engaging way
Artefacts produced that inform next phases	Artefacts produced from the co-design workshops and online discussions: i) personas and scenarios (created by young people) ii) summaries of the activities and key insights (synthesised by the researcher), including: ● Proposition "A succinct vision for the intervention and the issue being addressed" (Hagen et al 2012, p. 17) ● User goals: "describe what the intervention needs to do to motivate young people to use it, and what they see as the benefits of using the intervention" (Hagen et al 2012, p. 17) ● Brand/design guidelines: "the tone of content and behaviour of the intervention that make it meaningful or relevant in the context of young people's lives" (Hagen et al 2012, p. 17)		

Concept and Create Phases Summary

PD Phases	CONCEPT & CREATE	
Key questions	How can the campaign be co-designed and improved to motivate early, informal help-seeking among young men, aged 15-17?	What do young people see as the benefits of engaging with this campaign?
Artefacts <u>utilised</u> in these phases	Creative concept briefs, mood-boards, scenarios, plus website paper prototypes	
Activities	Co-design workshops, brainstorming, scriptwriting, storyboarding, online discussions, drawing, photo-elicitation	
Findings	<p>Campaign visuals/comics should show the possibilities of autonomy, agency and empowerment (by letting young people take control of the zombie)</p> <p>Campaign visuals/comics need to reflect the non-linearity/different experiences of everyday challenges</p>	<p>Current/cool: taps into 'zombie hype' (potential for strong uptake with target audience, plus circulation within social media)</p> <p>Creative: represents everyday problems and solutions in a new way (innovative way of showing connection between issues and informal support)</p> <p>Relevant: zombie is a metaphor for everyday problems that follow/nag you (e.g. are mundane, bothersome, persistent)</p> <p>Funny: humour can help break stigma around everyday problems (to prompt reflection and call to action)</p>
Artefacts <u>produced</u> from these phases	<p>Artefacts produced from the co-design workshops and online discussions (which informed findings) included:</p> <ul style="list-style-type: none"> a)scripts and storyboards (created by young people). b)summaries of the activities and key insights (synthesised by the researcher) which informed: <ul style="list-style-type: none"> •brand/design guideline development •user goals development c)website prototype to inform the next phase of the PD process. 	

Use Phase Overview

PD Phase	USE
Key question	How can the usability of the website engage with young people's digital media practices?
Artefacts <u>utilised</u> in these phases	Campaign wireframes, or prototype
Activity	User-acceptance testing workshop
Findings	<p>Multimodal affordances to support 'wayfinding': develop multimodal interface design (e.g. foreground video, increase sound) to engage and guide the user on their interface journey</p> <p>Content diversity and design: 'Survival Guide' content needs to be diverse (to reflect range of challenges and possible tactics for tackling them), links need to be less repetitive, plus language needs to be more concise</p> <p>Participatory and peer-to-peer practices: Utilise user-generated and meme-like media promotion (e.g. promote via humour sites and social media)</p> <p>Nudge sharing affordances: Enhance motivations for sharing (needs to be funny and relatable, plus make sharing options more prominent)</p>
Artefacts <u>produced</u> from these phases	Artefacts produced from the co-design workshops and online discussions (which informed findings) included: <ul style="list-style-type: none"> a>User journeys (created by young people). b>Summaries of the activities and key insights (synthesised by the researcher) which informed finalisation of the campaign/campaign website

Appendix 2: Summary of insights from participatory design of Safe and Well Online Campaigns 1 - 3

Overview of Safe and Well Online campaigns

Purpose (Behaviour)	Artefacts (Products)	Social arrangements	Practices
Campaign 1 <i>Promoting respect and digital citizenship</i>	Keep it Tame (interactive online video)	Creating attachments that trigger respect for self and others	Engaging with ways to 'help', 'know' and 'act'
Campaign 2 <i>Promoting positive body-image, self-esteem and social connectedness</i>	Appreciate-a-mate app Inspirational messages to share	Creating attachments that trigger positive self-esteem and social connectedness	Engaging with ways to feel good about self, as well as make others feel good Sharing inspirational messages as ways of fostering self-esteem and social-connectedness
Campaign 3 <i>Promoting positive, informal help-seeking (with a focus on young men, aged 15-17)</i>	Zombie app and videos Humorous skits to share	Creating attachments that trigger self-reflection and positive, informal connections	Engaging in informal support for everyday challenges Sharing humorous videos to break stigma of addressing everyday problems