Case Study

Institute for Minority Entrepreneurship

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Ailim Healing

Thomas M. Cooney
Technological University Dublin, thomas.cooney@tudublin.ie

Martina Brophy
Technological University Dublin, martina.brophy@tudublin.ie

CASE STUDY – Ailim Healing

by
Thomas M. Cooney and Martina Brophy
Technological University Dublin (Ireland)

Introduction

Niamh Malone was busily preparing a business proposal to share with a major potential customer. Her new business, which offered an educational and self-management tool for sufferers of chronic neurological conditions, was called Ailim Healing and it had sparked the interest of an Irish-based healthcare organisation. Her initial target audience was people who suffered a stroke or a neurological condition and live with social anxiety disorder. Niamh was confident in her offering, with her preliminary research showing that such a product could improve the lives of thousands of people and have considerable cost savings for the national health service. However, there were still many unknowns associated with Niamh's business model that she needed to tease out. Firstly, how would she be able to fund her ambitious plans? Secondly, how would she acquire the expertise she urgently needed to develop the business to the next stage? Thirdly, should she be focusing on healthcare organisations in Ireland and the UK as her only route to market? Fourthly, was it too ambitious to target the UK and European markets before establishing a foothold in the domestic Irish market? Niamh had to find answers to these questions before she could submit her business proposal to her prospective client in a month's time. However, one of the biggest challenges that Niamh would face had nothing to do with her business, but the impact that being disabled would have on her ability to secure funding. She had once read that people from minority communities faced additional and distinctive challenges when starting a business in comparison to the mainstream population, but she never expected it to affect her.

Niamh's Background

Niamh worked for many years as a clinical nurse specialist in stroke rehabilitation. She had trained as a nurse in the Mater Hospital in Dublin before taking a career break to move to Galway where her daughter was born and she worked for some time in a health food shop. She then completed a higher diploma in the National University of Ireland Galway where she qualified as a clinical nurse specialist. She returned to Dublin where she completed a one-year course in practice development at the Royal College of Surgeons. Thereafter, she worked as a Clinical Nurse Manager Grade I in the Mater Hospital. She played a key role in shaping policies and practices in the Acute Stroke Unit and was requested to lead the establishment of the Isolde Stroke Rehabilitation Unit in St. Mary's Hospital (Dublin). The 10-bed unit was established for short-stay hospital visits and catered to patients undergoing stroke rehabilitation. Her career was hugely fulfilling and she had built a good reputation amongst her colleagues.

One day in 2013, whilst working at the unit, Niamh began to feel unwell. She left work early and arrived home where she suddenly suffered a stroke. She was admitted to Beaumont Hospital and remained hospitalised for over a month. She was allowed home, but shortly afterwards she returned to hospital again due to over-exertion. After some time, Niamh was admitted as an out-patient of the National Rehabilitation Hospital (Dublin). Niamh suffered with the post-stroke conditions of chronic fatigue and Aphasia, an impairment to the language processing centres of the brain. Due to the nature of Niamh's disability, she could not return to her previous job and so she relies on an invalidity pension from the state, as well as a small pension from her previous employer, as her only forms of income.

Due to her expertise in the area, Niamh was able to self-manage much of her own rehabilitation and so she established a motivational programme to aid her recovery. Given the benefits that the

motivational programme brought to Niamh's recovery, she fervently believed that it could also be of assistance to others in her position and so she developed an app based on her recovery programme, known as 'Recovery After Brain Injury'. With limited resources, and the promotion of the app undertaken mostly through word-of-mouth, Niamh secured 400 downloads. Through feedback from the users of her service, Niamh learned that there was a greater need for the management of chronic fatigue, which is a debilitating follow-up symptom to suffering a stroke. This led Niamh to identify a new business opportunity – a digital platform for self-management of chronic fatigue for people with neurological conditions – which created the impetus for her first major entrepreneurial endeavour.

Origin of the Business Idea

Niamh founded her business Brainey App in 2014. Her app 'Fatigue Friend' aimed to provide chronic fatigue sufferers with an individualised solution to manage their energy levels more effectively. The platform consisted of a webpage and mobile application that would allow users to undertake self-guided sessions on managing fatigue and record their progress. An acquaintance of Niamh had developed a basic prototype of the app, but she needed a technologist on board to develop it for the market. Little progress was made for a couple of years, but in 2018, Niamh's company Brainey App was one of ten digital health start-ups chosen to partake in the European Institute for Innovation and Technology (EIT) Health Validator Programme. This incubator programme, hosted by Trinity College Dublin, enabled early stage entrepreneurs to validate their ideas and identify appropriate markets for their products. The programme included intensive validation and mentoring activities, which culminated in requests for Niamh to develop the app with additional and more dynamic features. However, Niamh was concerned that the costs of developing these add-ons were spiralling out of control. She also knew that those with brain injury would respond better to app displays that were simple and less visually stimulating. Furthermore, due to limited funds, she could not manage to hire a technologist to build the app. Niamh was advised to bring on board a co-founder who could double up as a Chief Technology Officer or Chief Operating Officer, but her attempts to secure such an individual failed. Niamh felt as though she had hit a brick wall. Then the Covid-19 pandemic struck, and the business was discontinued.

During lockdown, Niamh wrote her memoir entitled 'The Choices We Made', which detailed a tumultuous relationship with a family member and her lifelong struggle with social anxiety disorder. Niamh's social anxiety disorder worsened in the aftermath of her stroke and she felt that her family's lack of real understanding around stroke recovery only exacerbated her anxiety. Niamh was a member of online support groups for stroke survivors and she had found anecdotally that others had similar experiences with their families. Niamh also noticed the lack of professional emotional supports available to stroke survivors in Ireland, especially six months post-stroke. According to Burns et al. (2022), those seeking care for strokes during Covid were younger and had more severe neurological effects from stroke, while the response was exacerbated by the limited availability of caregivers (particularly those specialising in stroke rehabilitation). By this time, Niamh had qualified as a Cognitive Behavioural Therapist and obtained a Diploma in Positive Psychology and Colour Psychology. As she read about the struggles that people were experiencing with social anxiety, she shared her insights into the coping strategies she had developed to manage her own anxiety over the years. People responded positively to Niamh's insights and suggested that she run online workshops where her coping strategies could be more widely disseminated.

Niamh decided to pursue this idea and during the summer of 2021 undertook a short course on Udemy about delivering webinars. She conducted some basic search engine marketing to determine the keywords associated with webinars related to the topic of social anxiety disorder. From this, she was able to identify initially the demand (i.e. number of webinar hits) for her proposed offering. In September 2021, Niamh was offered a place on a customised Start Your Own Business (SYOB)

Programme for people with disabilities in Technological University Dublin (TU Dublin). Over an intensive 12-week period, Niamh formed a business model for her idea to develop an educational and self-management e-learning platform for the self-management of social anxiety disorder. Niamh then engaged in preliminary discussions with a neurotechnology company in the US to collaborate with her by building neurotechnology therapy plugins for her app. Following the completion of the SYOB programme, Niamh contacted the university incubator, TU Dublin Hothouse, which agreed to support the creation of the app and the subscription to the hosting site where Niamh could develop a minimum viable product of her e-learning platform.

As the business idea developed, Niamh reverted to her original focus on people with chronic neurological conditions. Her self-management / educational platform is now being targeted towards people with chronic neurological disorders to manage their social, cognitive, mental and emotional needs. This platform amalgamates her previous business, *Brainey App* (the self-management tool for chronic fatigue), her motivational recovery programme, *Recovery After Brain Injur*y, with her social anxiety coping strategies. At the outset, Niamh will focus on developing the self-management content for social anxiety disorder. This was decided after Niamh conducted market research with 20 stroke patients who reported a preference for this area to be developed first. Niamh has called her platform, Ailim Healing, after the Irish Celtic symbol Ailim, which symbolises healing of the inner soul, strength and resilience.

Key Market Considerations

Initially, Niamh had identified her target market as 21 to 35-year olds suffering from social anxiety disorder. However, this was based on assumptions she had determined from preliminary market research conducted on Twitter. Niamh approached universities, having identified one of her main customer segments as students suffering with social anxiety disorder, but there was uncertainty regarding how this service could be rolled out in a university setting and so she moved away from this customer segment. She then reached out to a key person in an Irish-based healthcare organisation whom she had met through her previous business and he invited her to a meeting with him and a senior colleague who was the organisation's Digital Innovation Manager. This meeting was pivotal for Niamh in identifying the target market and route to market for her e-learning app. Given Niamh's expertise in this area, they suggested she change her target market to people who are six months post-stroke and are living with social anxiety disorder. Later, this could then be widened out to a broader market of those living with chronic neurological conditions and those with neurodiverse conditions (e.g., ADHD, Autism) who experience social anxiety disorder. They also suggested that the best route to market was through General Practitioners (GPs), where a GP can refer anyone living with social anxiety disorder to Niamh's self-management app as they wait to be seen by a therapist. Following these developments, Niamh decided to licence her e-learning platform/app to a national healthcare organisation in Ireland and another one in the UK. The licences can then be distributed to the GPs who will pass the service onto the end user, the patient.

Niamh's original intention was to target only Ireland and the UK, but she now has the ambition to break into further international markets. Her target audience comprises those who suffered a stroke or a neurological condition and live with social anxiety disorder. The most common mental disorder across EU countries is anxiety disorder with an estimated 25 million people (or 5.4% of the population) living with the condition (European Commission, 2018). Social Anxiety Disorder is the "fear of negative evaluation from others – the fear of being judged and criticised" (Anxiety UK, 2012). Social anxiety is the third most prevalent psychiatric disorder in the world (Kessler et al., 1994). It affects approximately 2% of the population at any time, although it is believed that 90% of people with social anxiety are misdiagnosed and the statistics could be much higher (Anxiety UK, 2012). Social anxiety disorder is

believed to impact approximately 13.7% of adults in Ireland, which is one in eight people (socialanxietyireland.com).

A stroke is a neurological disorder and it is the largest cause of disease burden in terms of Disability-Adjusted Life Years[1] (European Commission, 2018). There are an estimated 60,000 stroke survivors living in Ireland (Irish Heart Foundation, 2022). Up to 50% of stroke survivors may experience mental health difficulties such as depression and anxiety, which can occur at any stage in recovery, but are most common between three- and six- months post stroke (Irish Heart Foundation, 2018). The EU reports that comorbid physical conditions are common among people with mental health problems and physical conditions increase the risk of poor mental health (European Commission, 2018). It is therefore recognised that comorbidity of mental and physical health problems is an important factor to consider in developing effective actions to reduce the burden of non-communicable diseases such as stroke (European Commission, 2018). Niamh believes that the creation of mental health self-management platforms, such as the one she is seeking to develop, could represent significant cost savings for national health services and national exchequers. An indication of the potential market size is outlined in the Table 1 below.

Table 1 - Statistics relating to potential market size (please note that the numbers regarding potential market size are inferences only based on available estimates)

Country/Region	Prevalence of Social Anxiety Disorder (SAD) (approx.)	No. of Stroke Survivors (approx.)	Prevalence of mental health difficulties amongst stroke survivors (approx.)
Ireland	13.7% of adults i.e. approx. 561,604[2] (socialanxietyireland.com; CSO, 2022)	60,000 survivors (Irish Heart Foundation, 2022).	Up to 50% of survivors may experience mental health difficulties (Irish Heart Foundation, 2018) i.e. 30,000 people
UK	13.3% of the general population (Social Anxiety UK)	1.3 million survivors (stroke.org.uk, n.d.)	Approx. 25% of stroke survivors will experience anxiety within the first 5 years (stroke.org.uk, n.d.) i.e. 325,000 people
Europe	7% of general population with lifetime prevalence of SAD (Lecrubier et al., 2000)	9.53 million survivors in the EU (Wafa et al., 2020)	Data not available.
USA	15 million American adults approx. (ADAA, n.d.)	5.4 - 6.6 million survivors (Skolarus et al., 2016)	Anxiety affects about 20% of survivors (American Stroke Association, 2018) i.e. approx.. 1.3 million people

Competitors

Niamh's direct competitors are mobile mental health applications. This is a huge and growing market with the global spending on mobile mental health applications predicted to reach close to $500 (USD) million in 2022 (Deloitte Insights, 2021). There has been a proliferation in the number of entrants in recent years, and it is estimated that there could be up to or above 20,000 mental health apps that exist in the market today (Deloitte Insights, 2021). Apps can be used to self-manage mental health conditions

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[1] "The overall burden of disease is assessed using the disability-adjusted life year (DALY), a time-based measure that combines years of life lost due to premature mortality (YLLs) and years of life lost due to time lived in states of less than full health, or years of healthy life lost due to disability (YLDs)." (Source: WHO, https://www.who.int/data/gho/indicator-metadata-registry/imr-details/158)

[2] Based on 2022 population estimates for age group 15 years and older.

or in tandem with traditional talking therapies via connections with mental health professionals over live chat, phone or video. Many of these apps are free or low cost to use. Following some research, Niamh identified SilverCloud as a key competitor because it has a similar business model to the one she is developing. Niamh also identified two mental health apps (that allow for online therapy) as competitors, namely BetterHelp and Calm, which are amongst the most popular wellbeing and meditation apps on the open market.

SilverCloud

SilverCloud is an e-health platform that offers its users a suite of evidence-based digital mental health and wellbeing programmes. This Dublin start-up was founded in 2012 and among its customers are the Health Service Executive, which it partnered with in 2021 to roll out digital therapy programmes in Ireland, and the National Health Service in Britain. SilverCloud offers both supported and self-guided programmes, of which the latter allows users to work through programmes in their own time and at their own pace. SilverCloud has developed 30+ programmes that are available 24/7 from any smartphone, tablet or computer. SilverCloud offers programmes targeting mental health conditions, including Social Anxiety, as well as programmes focused on the mental health impact of living with a chronic condition, which is limited currently to CHD, COPD (and other lung conditions), Diabetes and Chronic Pain. Therapies run between eight to ten weeks and are broken down into modules in order to observe a user's progress. The evidence basis for these programmes stems from nearly two decades of clinical research on the effective digital delivery of mental and behavioural health interventions. SilverCloud's user subscription is only made available to individuals through certain healthcare plans, GPs and universities. Users receive an access code from their organisation which they can then use to log into their account via a mobile application or web browser. Their three main customers are healthcare providers, corporates and higher education providers. SilverCloud provides services to more than one million people globally and was acquired in 2021 by the leading American telehealth company, Amwell.

BetterHelp

BetterHelp is the world's largest online therapy platform. It aims to provide professional therapy that is accessible, affordable and convenient. BetterHelp offers its users access to licensed, trained and accredited psychologists through a computer, tablet or smartphone. Users sign up via an application form and are then matched with an available therapist within a few hours to a few days. The service can offer users therapists who specialise in specific areas such as stress, anxiety and depression. The cost of therapy ranges from €50-€70 per week and it is based on your location, preferences and therapist availability. Users have access to their therapists in four ways: (1) exchanging messages; (2) live chat sessions; (3) live phone sessions; and (4) live video sessions. The duration of therapy depends on the individual who decides when they have gotten the most value from the service. BetterHelp targets their services at direct users, as well as organisations such as employers and universities with mental health programmes for their members. BetterHelp operates in over 200 countries and has nearly two million clients worldwide.

Calm

Calm is the world's number one app for meditation and sleep. As of 2022, Calm has 4 million paid subscribers (Time.com, 2022). Calm has over 100 million downloads and in excess of 700,000 5-star reviews (Healthline.com, 2022). It is available for IOS, Android and desktop. The app provides users with hundreds of guided meditations, breathing techniques and sleep stories to induce relaxation. Calm is based on the freemium business model where users can either access a 7-day free trial or download

the free version of the app without gaining access to the premium content. Users can subscribe to premium content annually at a cost of $69.99 or forever at a cost of $399.99. Calm is known especially for its meditations which are categorised to target specific issues such as anxiety. Calm provides ease of access and use for novices and enthusiasts of meditation.

Quite recently, Niamh has also become aware of a new category of competitor (i.e., funded research programmes and groups) and has identified an Irish research group called *StrokeCog* that is aiming to develop an intervention programme in the area of post-stroke cognitive impairment. This programme will be targeted at the same demographic market that Niamh will be addressing with her self-management platform for people living with social anxiety disorder post-stroke. Furthermore, in addition to the thousands of apps available online, people can also avail of traditional support channels through counsellors and therapists who either provide in-person or online therapy. These providers might be considered as indirect competition to Niamh's business activity.

Niamh's Offering

Similar to SilverCloud, Niamh will create an e-learning platform that will include both a standalone app and subscribed user programmes. As part of the offering for the Irish-based healthcare organisation, Niamh intends to build a personal digital record of patients so that summaries of progress can be shared with their GP. Furthermore, the data protection practices of the hosting site that Niamh is using to build her e-learning platform is not aligned with the data protection policy of the Irish-based healthcare organisation. This means that a new hosting site will need to be purpose built for this potential client and discussions are ongoing regarding who will cover the costs. Niamh has also structured the content so that there will be a series of asynchronous modules that users complete (see Image 1), followed by a live workshop with Niamh who will provide feedback on users' progress. Niamh intends to cater to a niche market (i.e. those with stroke or neurological conditions who suffer with social anxiety disorder) with the intention to serve this customer base better than mass market competitors like SilverCloud. Her offering also differs to the plethora of free to low cost mobile mental health applications as her primary route to market will be through GP referrals. Her main customers will be healthcare organisations that purchase subscription to her platform for GPs who then provide the access code to patients. Once Niamh has established her market in Ireland and the UK, she will attempt to target healthcare organisations across Europe. She will also consider the possibility of expanding her customer base to universities, and possibly offering a business-to-customer (B2C) option by targeting individual subscribers. The unique selling point for Niamh's offering is the underlying approach to mental health recovery, which differs from traditional approaches, and is informed by the coping strategies developed by Niamh and the neurotechnology therapy strategies developed by a neurotechnology company in the US with whom she has had initial discussions concerning potential collaboration.

Image 1 - The tile display of modules that users can avail of on ailimhealing.com
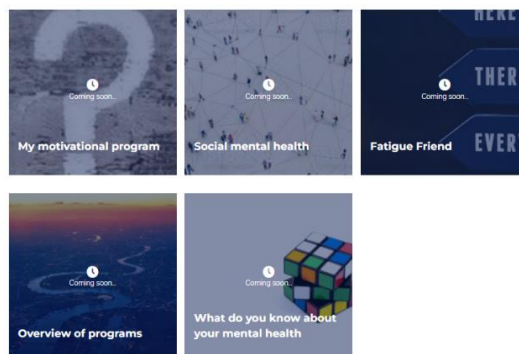
Financing the Start-up

Niamh has struggled to secure investment and funding for both her original and current business ideas. For her original business (i.e. the self-management application for chronic fatigue), Niamh had approached multiple investors, including an investment company that specialises in lending to entrepreneurs with disabilities, and was unsuccessful in securing funding. For her current business, she approached TU Dublin Hothouse, a university incubator, where she secured initial funding to create the app and develop the minimum viable product (MVP) of her e-learning platform in return for a percentage of the business. Niamh has researched funding options available through her Local Enterprise Office (a government agency), as she was specifically interested in the Priming and Business Expansion Grant which offers a maximum amount of €80,000. However, this grant will not cover the major expenses Niamh now faces if she will pursue the potential collaboration with the neurotechnology company in the US. Niamh estimates that she will need approximately €250,000 to fund the appointment of a Chief Operating Offer and to cover the costs of app development. Unsure of where to turn to next, Niamh sought guidance from the Business Innovation Centre in Dublin where she was told that her collaboration with the neurotechnology company, and the licenced patent that she had secured for her idea, were huge advantages to seeking external investment. She was advised to position the business as a High Potential Start-Up and seek investment from the Halo Business Angel Network (HBAN). HBAN is Ireland's largest network of business angels and syndicates. To be considered applicable for investment, start-ups should be market ready, have exit potential, have an identifiable market opportunity, a team with domain expertise and comprehensive documentation (such as a business plan and 3-year P&L projections). Niamh is currently in the process of determining the exact funding requirements and developing the application for HBAN.

Influence of Disability on her Entrepreneurial Journey

Niamh had established the business with the same ambitions as any entrepreneur. However, during her entrepreneurial journey she began to realise that having a disability created additional and distinctive barriers that she had not recognised previously. Niamh reflected upon the many different ways in which her disability had impacted her entrepreneurial journey to date, particularly relating to the difficulty with securing funding. Niamh's disposable income (based on a small pension and social welfare payments) is limited, especially after factoring in her constant medical expenses. Niamh has invested as much as she can afford into the business, but she has found that funding agencies will not accept her level of personal investment in the business. Niamh says the issue is that she is being compared to the standard non-disabled entrepreneur who has higher earnings and accrued greater savings, and that her level of personal investment in the business should be assessed in proportion to her income.

She also believes that the reticence of investors was due to concerns over her disability, specifically her chronic fatigue, and how that would affect her stamina in running the business. As mentioned, Niamh had tried to grow her team and bring in a Chief Operating Officer and Technologist, but these efforts were not successful. Niamh's advisor in the Business Innovation Centre assured her that she did not need a COO, but should instead seek a project manager who could split their time between developing the business for the Irish healthcare organisation and the UK healthcare organisation. He told Niamh to defer the acquisition of a technologist as her MVP will suffice for now. He also encouraged Niamh to prioritise her physical and mental health needs and work the business hours that make the most sense for the management of her condition.

Niamh also encountered the welfare trap, a situation where the perceived or actual loss of income from social welfare payments deters an individual from engaging in employment or self-employment.

She found that the business grant for which she could apply may cover the cost of her salary for one year, but thereafter she would struggle to secure any supports. The underlying assumption of government policy is that those who are starting businesses have already accrued sufficient savings from previous employment to cover their own salary, but this is not the case for people with disabilities who are frequently unemployed and reliant on social welfare. Furthermore, Niamh was concerned that she would risk losing her invalidity pension and medical card if she was in receipt of such funds, despite not being able to draw down a salary. Niamh enquired about the Back to Work Enterprise Allowance Scheme offered by the government, which was established to encourage people on social welfare payments to become self-employed. The self-employed person may keep a percentage of their social welfare payment for up to 2 years, but Niamh is concerned that she may not be eligible for this scheme.

Another challenge that Niamh encountered was in filling out application forms and business plan documents due to her acquired Aphasia. She can struggle with writing and in conveying accurately what she means to say. She has asked for special dispensation from programme and grant awarding bodies to present her business idea in an alternative format (e.g. powerpoint presentation), but she has been told that this would give her an unfair advantage over the other applicants. Another post-stroke symptom that Niamh suffers from are vestibular migraines. Niamh finds that spending an excessive period of time on social media can trigger these migraines and as a result she must carefully manage her time on Twitter and Instagram, which are her primary social media channels for marketing her business.

Finally, Niamh returned to the west coast of Ireland a couple of years ago and her living location in rural Ireland has proven challenging in terms of travel to business meetings and events, which are generally located many hours away in Dublin. The exhaustion she experiences from these trips is exacerbated by the fatigue that she suffers as a result of her stroke and so it may take her a few days to recover from travel, which is valued time she loses in developing her business. As a result, Niamh has decided to relocate next year to a more central location that will enable her to develop and grow the business.

Challenges that Lie Ahead

Niamh had much to consider before she could submit her business proposal to the Irish healthcare organisation in just one month's time. If successful, Niamh will secure her first customer. The prospect of this major milestone filled Niamh with both excitement and concern. Acquiring the Irish and UK healthcare organisations as customers will require lengthy negotiations to match her offering to their requirements. She wonders if or how this will impact the momentum of the business. If her business proposal is accepted by the Irish healthcare organisation, the next steps will be to set-up a steering committee and recruit a project manager who can develop the business, which will include building out the e-learning platform from scratch in order to comply with its data protection policy. She is also in preliminary discussions with the UK national healthcare organisation about the development of her e-learning platform for their specific purposes. She must also continue developing the educational content for her e-learning platform, which is temporarily hosted on her website (ailimhealing.com), maintain her collaboration with the USA-based neurotechnology company, and continue to build out the app.

To enable all this to continue, Niamh needs continued investment. With no personal finance to inject into the business, Niamh has turned to private investors, incubators, and government enterprise agencies. The investment she had secured from a university incubator is tied-up in developing her app and e-learning platform, and she will need more funding to enable the collaboration with the neurotechnology company (although she is having increased concerns about working with this company). Niamh has found that she is locked out of government supports as she is either ineligible for support or cannot be guaranteed funds to draw down a salary. Her experience to date with seeking private investment has been unsuccessful due to her lack of a managerial team with relevant expertise. However, Niamh now has expertise from the neurotechnology company to tap into and a licenced patent

for her idea which she believes will boost her chances of success in gaining investment from HBAN, Ireland's business angel network.

Niamh's post-stroke symptoms (i.e. chronic fatigue, aphasia), which she believes are a concern to investors, is an additional strain but she argues that she also has an excellent self-care routine and can be highly productive when she is given the flexibility to schedule her working hours around the management of her disability. Niamh also has great difficulty in securing a bank loan as she has a poor financial history in recent years due to being unable to work and having significant health expenses. These are major challenges that people without disability do not experience, and Niamh argues that the additional and distinctive challenges faced by people with disabilities in starting a business are not recognised. Given the significant financial requirements needed for the business, and the personal challenges Niamh faces, how can she secure funding for her ambitious plans?

As Niamh reflected on her plans for business development, she thought of the types of expertise she urgently required. Niamh, whose managerial experience is specific to the healthcare sector, will need technical, financial and marketing expertise to drive the business forward. Her previous unsuccessful attempts to secure a Chief Operating Officer or Technologist had left Niamh feeling deflated and unwilling to reengage in this process. However, if the proposal to the Irish healthcare organisation is accepted, Niamh will need operational support and a technologist to bring the app and e-learning platform to a level that is market ready (there is the possibility that the Irish healthcare organisation will fund the development of the platform for their specific purposes). She also needs to establish the cost structure and revenue streams of her business model, and determine the level of investment needed to launch and grow the business. Niamh was provided with some initial marketing support from the university incubator, but will need a marketing budget and an individual who can offer the time and expertise to deliver this function for her business as it begins to grow. How she will find the funds for such expertise, and attract such individuals to her business, weighs heavily on Niamh's mind.

Niamh was also grappling with the decision to licence her technology to healthcare organisations rather than selling direct to users through the open market. With the open market, the barriers to entry are low as she can develop a standalone app and launch quickly. However, the mental health apps market is saturated with many low-cost competitors. Through her licensing model, Niamh must develop a custom-made offering for her healthcare clients which will be expensive and require a long lead-in time to launch. The risk is that Niamh will run out of time, money, and most critically, motivation. However, if successful, this will provide Niamh with a working model that she can then scale nationally and internationally (across other organisations including health services, universities and corporates) to tap into a potentially massive market. Is it worth pursuing healthcare organisations for their business or should Niamh consider other, less regulated and quicker routes to market?

As it all begins to feel insurmountable, Niamh reminds herself of the people that will be helped through the development of this e-learning platform. Her initial target market has evolved from 21 to 35-year olds living with social anxiety disorder (SAD) to anyone living with SAD and also experiencing chronic neurological and neurodiverse conditions. Niamh, whose expertise lies in social anxiety disorder and stroke rehabilitation, will attempt to target individuals living with the full range of neurological and neurodiverse conditions, including dementia, epilepsy, multiple sclerosis and learning difficulties. Niamh's geographical focus has also expanded beyond the Irish market to the UK and European markets. Should Niamh maintain her current target market or refocus on those whose needs she understands intimately? Should she pursue international growth in the first instance or begin by establishing the demand and value of her product within the domestic market?

Discussion Questions

1. What are the main challenges Niamh is facing and to what extent are these challenges related to her disabilities?
2. What were the key factors that resulted in Niamh setting up her own business? To what extent do you think she was motivated by necessity or opportunity?
3. What did Niamh need to do to establish legitimacy as an entrepreneur? How was this impacted by her disability?

References

ADAA (n.d.) *Social Anxiety Disorder* https://adaa.org/understanding-anxiety/social-anxiety-disorder

Anxiety UK (2012). *Social Phobia/ Social Anxiety Disorder* Social-PhobiaSocial-Anxiety-Fact-Sheet-instant-download.pdf

American Stroke Association (2018) *Post Stroke Mood Disorders* https://www.stroke.org/en/about-stroke/effects-of-stroke/emotional-effects-of-stroke/post-stroke-mood-disorders

BetterHelp https://www.betterhelp.com/

Burns, S. P., Fleming, T. K., Webb, S. S., Kam, A. S. H., Fielder, J. D., Kim, G. J., ... & Kringle, E. A. (2022). Stroke recovery during the COVID-19 pandemic: a position paper on recommendations for rehabilitation. Archives of physical medicine and rehabilitation, 103(9), 1874-1882.

CSO (2022) *Population and Migration Estimates, April 2022* https://www.cso.ie/en/releasesandpublications/ep/p-pme/populationandmigrationestimatesapril2022/keyfindings/

Deloitte Insights (2021). *Mental Health goes Mobile: The mental health app market will keep on growing.* https://www2.deloitte.com/xe/en/insights/industry/technology/technology-media-and-telecom-predictions/2022/mental-health-app-market.html

European Commission (2018) *Healthier Together. EU Non-Communicable Diseases Initiative.* https://op.europa.eu/en/publication-detail/-/publication/f47df35f-f5c5-11ec-b976-01aa75ed71a1/language-en/format-PDF/source-260304755

Healthline.com (2022). *2022 Calm App Review* https://www.healthline.com/health/mental-health/calm-app-reviews#what-it-is

Irish Heart Foundation (2022) https://irishheart.ie/your-health/learn-about-stroke/

Irish Heart Foundation (2018) https://irishheart.ie/news/many-stroke-survivors-struggle-with-mental-health-difficulties/

Kessler, R. C., McGonagle, K. A., Zhao, S., Nelson, C. B., Hughes, M., Eshleman, S., ... & Kendler, K. S. (1994). Lifetime and 12-month prevalence of DSM-III-R psychiatric disorders in the United States: results from the National Comorbidity Survey. *Archives of general psychiatry*, *51*(1), 8-19.

Lecrubier, Y., Wittchen, H. U., Faravelli, C., Bobes, J., Patel, A., & Knapp, M. (2000). A European perspective on social anxiety disorder. *European Psychiatry*, *15*(1), 5-16.

SilverCloud.com/UK https://www.silvercloudhealth.com/uk

Skolarus, L. E., Freedman, V. A., Feng, C., Wing, J. J., & Burke, J. F. (2016). Care received by elderly US stroke survivors may be underestimated. *Stroke*, *47*(8), 2090-2095.

Socialanxietyireland.com (n.d.) *How Common is it?* https://socialanxietyireland.com/social-anxiety/how-common-is-social-anxiety/

Social Anxiety UK (n.d.) https://social-anxiety.org.uk/

StrokeCog (2022). *About StrokeCog.* http://www.strokecog.ie/

Stroke.org.uk (n.d.) *Emotional Changes* https://www.stroke.org.uk/effects-of-stroke/emotional-changes#What%20kinds%20of%20problems%20can%20this%20cause?

Time.com (2022). *Calm: Mental Health at Hand.* https://time.com/collection/time100-companies-2022/6159416/calm/

Wafa, H. A., Wolfe, C. D., Emmett, E., Roth, G. A., Johnson, C. O., & Wang, Y. (2020). Burden of stroke in Europe: thirty-year projections of incidence, prevalence, deaths, and disability-adjusted life years. *Stroke*, *51*(8), 2418-2427.