

A chiropractor's dream: the Teen Summit and the Green Hub Project for Teens

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ABSTRACT

Inspired by a chiropractor and conceived initially as the Teen Summit, the Green Hub Project for Teens is a local community project that focuses on the improvement of teenagers' (13-18 year olds) mental health. It resides in Milford, Surrey, UK, in a tranquil, walled garden, designed to support the wellbeing of teenagers' mental health by providing a safe and welcoming environment in which they can engage in social and therapeutic horticulture.

In partnership with the NHS (National Health Services), the Green Hub Project has been designed to provide a resource for local healthcare providers to refer emotionally challenged teenagers to enjoy nature while gardening alongside and interacting with skilled volunteers and others of their own age.

The design of the project was to achieve positive, measurable goals and outcomes for teens' mental wellbeing including encouraging self-acceptance, active lifestyles, positive social interaction, inclusion and respect for diversity, and the development and application of a range of learned life skills (teamwork, responsibility, planning and follow through, creativity, problem solving, affirming and supporting others and conflict resolution).

Key words: Horticulture therapy, Adolescent Mental Health, Teen Summit, Green Hub Project for Teens, Pediatric Chiropractic.

Introduction

Mental health problems have been shown to be on the rise among children and adolescents (Box 1). In a fast-paced world of constant demands, peer pressure and political chaos (even before the immediate and long-term ramifications of the COVID-19 pandemic lockdown have been calculated), stress has taken a toll on teenagers' mental health and has negatively impacted their lives and in some cases, ended in tragedy.

Key findings of an NHS report looking at the mental health of children and young people in England in July 2020, and changes since 2017.

- Rates of probable mental disorder have increased since 2017. In 2020, one in six (16.0%) children aged 5 to 16 years were identified as having a probable mental disorder, increasing from one in nine (10.8%) in 2017. The increase was evident in both boys and girls
- The likelihood of a probable mental disorder increased with age with a noticeable difference in gender for the older age group (17 to 22 years); 27.2% of young women and 13.3% of young men were identified as having a probable mental disorder in 2020.¹

Box 1. Mental Health of Children and Young People in England, 2020 Wave 1 follow up to the 2017 survey.¹

In Great Britain, the NHS mental health services for teenagers and children, despite being staffed by dedicated public servants, students and volunteers, has been strained to provide intervention for all the expressed needs during the pandemic.² The waiting lists for services are now months long, leaving struggling teenagers and their parents with nowhere to turn. An interim support solution was critical.

Where it all began: The Surrey Teen Summit

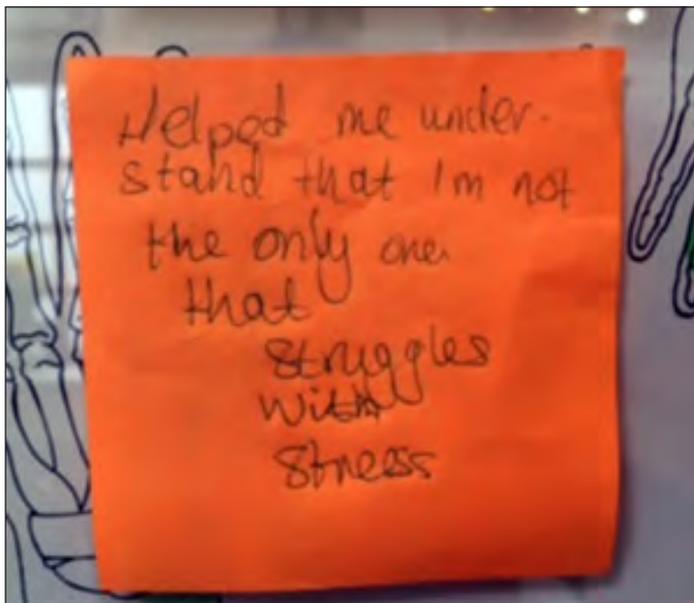
In clinical practice, chiropractors frequently observe how the body-mind connection is intrinsically linked, and that pain, stress and anxiety can translate into tension in the physical body causing familiar symptoms such as headaches, back and neck pain, as well as translating into disrupted sleep, inability to attend or focus on schoolwork or depression.^{3,4} Providing chiropractic and other manual therapies to teenagers not only provides physical relief and interrupts the pain cycle^{5,6,7} but can support them in building self-awareness ("feeling more in tune with their bodies") and empower them to "take charge" of their health and wellbeing.⁸

These observations and clinical experiences of a chiropractor with an active family practice led to the Surrey Teen Summit in 2015.⁹ The Summit was led by a multidisciplinary group of local professionals who together, created and organized

a series of workshops for teenagers. The first session had 22 attendees (one traveling from as far away as Sweden). Through surveying the attendees, they related that the experience was transformative in several ways. Teenagers became more self-assured and confident as they developed independent skills as well as exploring their ability to function as a member of a team. For the next five years, the Summit was convened and workshops conducted as diverse as yoga and mindfulness, craft and creativity, exercising in nature, study strategies and how to create an Olympic mindset.

What is this Olympic mindset? Olympians demonstrate mental dexterity and resilience; these traits are not necessarily inborn but are cultivated over time. Mental dexterity and resilience along with their individual skill sets separate Olympians from their peers in accomplishing their goals.

Each workshop had a different theme promoting reflection and self-awareness, inviting the participants to listen to their bodies, and explore strategies to build resilience. The collective learning experience drew the individual teenager out of their sense of isolation gaining confidence as they learn from each other. They learned, by sharing, that they were not the only ones experiencing challenges.



Finding tranquility in an anxious world

After several years of developing a network of healthcare professionals, educators, parents and teenagers and holding successful Teen Summits, the Green Hub Project for Teens was the chiropractor's next undertaking. Based on the chiropractor's experience in private practice and her extensive community service with adolescents, she was alarmed by the steadily declining mental health of the nation's teenagers. This concern was echoed by many of her

colleagues, healthcare providers who worked in the field of mental health, specifically with young people in this age group and their perplexed and anxious parents (Tellefsen Hughes 2021).¹⁰



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The growing community eventually organized under the title of The Green Hub Project for Teens. It was designed as a platform for running workshops to help young people, ages 13-18, find the best strategies and resources to overcome life hurdles they may face.



The plan for the Green Hub Project for Teens platform was to offer life skills workshops in the community, for teenagers with an aim to "Empower, Inspire and Engage". A wide range of topic included but were not be limited to:

- Emotional intelligence
- Emotional resilience
- How diet (food and nutrition) may affect mood
- Developing boundaries
- Planning and problem solving
- Teamwork and conflict resolution
- Study strategies
- The physiological benefit of exercise, sleep, water and food.

- How learning can be empowering and improve your self-confidence.
- Dealing with difficult or toxic friendships
- Social media management
- Sleep and settling the brain
- Strategies to manage being overwhelmed or unwanted thoughts.
- Relationship of posture and self-worth
- How to find your coping strategies in unprecedented times

Life skills workshops from the Green Hub Project for Teens

Size and structure: Mentored workshops were designed to consist of 15-20 students with the curriculum built around the aforementioned subjects to stimulate group conversation, reflection and feedback in a respectful and organized manner. The group agreement would be to create a safe environment for everyone within which to learn and share.



In the previously held Surrey Teen Summit, when given the opportunity to give feedback, the teenagers expressed appreciation that they were each given space and time to give feedback. The feedback mechanism was deemed invaluable to the organizers and mentors to critically evaluate the needs and interests of the attendees. The sessions were then adapted accordingly. Within each session, opportunities were crafted to encourage the attendees to identify their own goals to work on after each session was completed

Workshop leaders: The session leaders would be professionals who worked with teenagers on a daily basis in their professional practices. They would include, but not be limited to, a diverse assortment of both physical and mental health practitioners, educators, life coaches, business professionals and horticulture specialists. They would be chosen for their ability to engage and inspire others as well as connecting with this unique population.

Feedback previously elicited from the attendees of the Surrey Teen Summit that had been shared with the workshop leaders over the past five years would help them assess what had been effective and implement additional ways to communicate. As with the Surrey Teen Summit, all leaders would be volunteers and any profits accrued after expenses from the tuition for the workshops would be applied towards the community project to further the Green Hub Project for Teens.

Young Ambassadors: Young ambassadors, previous attendees from the Surrey Teen Summits, had been invited to share their own unique experience in life. These have been some of the most popular and powerful of the sessions. Listening to someone's story about how adversity affected them personally or how they had overcome a challenge had been a powerful and supportive tool in reaching other teens. One of the goals was to highlight young peoples' stories in TED-style-talks. Videoing these presentations also had the potential for further positive outreach through social media. Continued inclusion of the Young Ambassadors in future seminars was planned.

The Garden Phase

The next or "garden phase" of the Green Hub Project for Teens was implemented to provide a resource for families using horticultural therapy (also known as 'social and therapeutic horticulture') to encourage and sustain personal development that are associated with horticulture. These activities include cultivating and caring for plants, gardening and landscaping or visiting and exploring natural environments like gardens, parks or forests to engender a feeling of well-being, improve physical health and encourage social interaction.¹¹

A meta-analysis of research examining the effects of gardening, including horticultural therapy, on health, provided robust evidence for the positive effects of gardening on health. They concluded that in order to achieve optimal health outcomes, further research is needed to determine the frequency and duration of gardening which is sufficient to attain particular outcomes. To quote the authors, "A regular dose of gardening can improve public health."¹²

The Green Hub Project for Teens would provide a safe haven of peace and tranquility where anxious, stressed, overwhelmed teenagers could retreat. Being outdoors in a natural setting has been shown to support recovery of stress and mental fatigue.¹³ Working in the garden could potentially support structural health by changing the chronic posture of teenagers looking down at cell phones or computers slouched on the couch to building muscle strength, developing new large and small motor skills and increasing flexibility. At the same time, the teenagers who

participate could be part of a worthwhile project which would promote a sense of accomplishment.

Non-judgmental, compassionate listening

The volunteers (many of whom already work with teenagers in some capacity) are on hand to provide gardening advice and, when needed, non-judgmental, compassionate listening. Being outdoors in a natural environment is therapy in itself and entering the gate of this walled garden where teenagers and volunteers work side by side has a great deal to offer.

The Green Hub Project for Teens is designed to be a place for teenagers to gather to learn gardening, how to cultivate flowers and vegetables, orchard management or to work on a landscaping project. Teens will have places to sit, reflect or meditate to ground and calm themselves. They will be outdoors and will be encouraged to “turn off” the ever-present technology of today’s world and to leave their worries at the gate.

The Green Hub Project for Teens was not designed to offer targeted therapy sessions or medical solutions. Its sole mission was to hold the space for teenagers to take a break from life, give them a chance to be present to themselves to breathe and engage them in the present moment. To provide somewhere positive and supportive to retreat was one of the goals. The strategy was and is to provide additional support to promote the mental health of the teenagers who arrive at the garden, creating an oasis where they can find peace and hope and be empowered in the understanding that being outdoors can be a potent form of self-care to help modulate their moods and lower their anxiety. The focus was and will continue to be on creative ways to alleviate, reframe or shift stress, even if momentarily. A practice can create a habit and a habit may become a life skill.

Nature, gardening and young people’s health and wellbeing

Engaging with nature benefits human health and wellbeing. Walking in nature, gardening, sitting on a park bench and even watching nature through a window have all been shown to be beneficial.¹⁴ Engaging with nature can help reduce stress and anxiety, improve cognitive functioning, build self-esteem and confidence and improve physical health.^{15,16}

Young people and nature

Engaging with nature benefits adults as well as children and young people. Young people who spent more time in and near natural environments have been shown to be in better mental health. For instance, Li and colleagues (2018) tracked the movements and mood of 155 adolescents using GPS systems and found a significant positive correlation between the amount of green space the adolescents were



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exposed to and the extent to which they reported being in a positive mood. These effects were independent of socio-economic status and gender.¹⁷

In a similar way Wells et al (2003) found that children (aged 8 to 12) coped better with stressful life events when they lived near natural spaces.¹⁸ Other studies have demonstrated that moving to greener urban areas is associated with sustained mental health improvements,¹⁹ suggesting that environmental policies to increase urban green space may have sustainable public health benefits.

Even short-term exposure to nature can benefit young people’s wellbeing. Greenwood & Gatersleben (2016) asked 120 late teens, 16-18 year old individuals, to conduct a range of stressor tasks and then randomly allocated them to rest (either alone, with their phone or with a friend) in a classroom (indoors) or in a green courtyard. Stress recovery was significantly greater outdoors than indoors, especially when young people were with a friend.²⁰

Walking in nature

Active engagement with nature such as walking through natural environments or gardening are particularly beneficial. Olafsdottir et al (2020) randomly allocated University students to either walk in nature, walk indoors (in a gym) or passively view a nature film on television and found that walking in nature resulted in significantly greater improvements in physiological and mental wellbeing than walking indoors or watching a nature film. These benefits were particularly prominent during stressful times (exam periods).²¹

The benefits of walking in nature have been shown to benefit healthy populations as well as people suffering from a range of mental health issues. For example, Berman and colleagues (2012) asked 20 adults suffering from major depressive disorders to take a 50-minute walk either in a natural or a landscaped environment and found that a walk in nature was significantly more beneficial in supporting

improvements in working memory and positive affect.¹³ These observed results may extrapolate into the teenage population and can be potentially studied in the garden environment utilizing questionnaires filled out by the participants who are visiting the garden. An example of a questionnaire would be the WHO-5 Well Being Index. The WHO-5 is a short questionnaire consisting of five simple and non-invasive questions assessing the subjective well-being of the respondents. The scale has demonstrated adequate validity both as a screening tool for depression and as an outcome measure in other clinical trials across a wide range of study fields.²²

Gardening

Soga, et al (2017) and Cipriani et al (2017) wrote about the benefits of gardening including reducing depression and anxiety, promoting recovery from stress and helping people to develop social relationships.^{12,23} Gardening can offer these benefits by providing a distraction from everyday stressors and demands, by immersing people in nature, promoting physical activity, encouraging social interactions, and providing a sense of purpose and meaning. Therapeutic gardening activities exercise the body and the mind encouraging not only neuromuscular development through activity and repetitive exercise but by engaging the brain in problem solving, learning and increasing sensory awareness as the hands touch and “play” in the earth. The engagement of all their senses in their endeavors promotes a sense of calm by modulating the autonomic nervous system. This outdoor environment provides a rich sensory diet: the nose smells the dirt and the flowers, the eyes see the broad palate of nature’s colorful transformation of the world around them, the ears hear the wind rustling the leaves of the trees and sounds of birds and bees, their hands play in the dirt, make mudpies, gently place the young plants or pick the tender fruits, and ultimately, they can taste the bountiful harvest of their efforts.²⁴

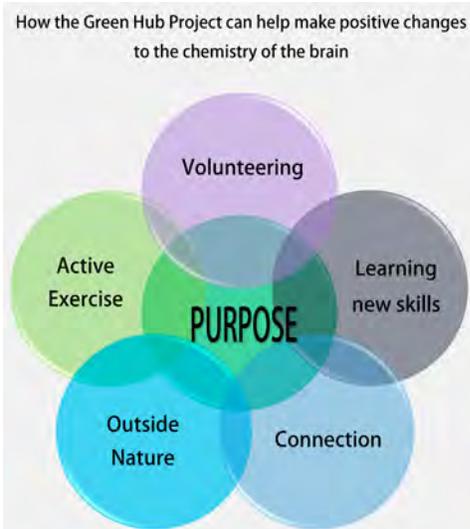
Van Lier et al (2016) conducted a survey among 8,500 secondary school children in New Zealand and found that those involved in gardening at home were of better physical and mental health and had more positive family relationships.²⁵ Frequent gardening is clearly beneficial but even relatively short gardening sessions have a positive impact. Van den Berg et al (2011), randomly allocated 30 gardeners to either spend 30 minutes attending to their allotments or to 30 minutes of reading on their own allotment plot. Continuous monitoring of cortisol levels and self-reported mood showed that gardening was significantly more effective in improving mood and reducing stress than reading.²⁶

Longer term gardening interventions have been shown to benefit health and wellbeing well after the intervention has finished. Gonzales et al (2010), for instance, found significant improvements in mental wellbeing among 29 participants with clinical depression who participated in a 12-week horticultural intervention. These positive effects were still present 3 months after the intervention.²⁷

Researchers from Bristol University and University College London discovered using laboratory mice, that a “friendly” bacteria commonly found in soil activated brain cells to produce the brain chemical, serotonin, and altered the mice’s behavior in a similar way to antidepressants. Teenagers inhaling deeply in this natural environment holds the promise of improving mood by stimulating the release of this “happy hormone,” serotonin.²⁸ Therapeutic gardening activities exercise your body and mind. It keeps your mind active because it uses different brain functions such as problem solving, learning and sensory awareness. And the potential of eliciting other supportive neurotransmitters is hypothesized, like eliciting the release of dopamine (seeking and reward behavior) to motivate teenagers to participate and accomplish their goal of harvesting a basket of fruit or a bouquet of flowers.²⁹

A garden to support the mental health of young people

Mental health can broadly be defined as “the capacity of each of us to feel, think, and act in ways that enhance our



ability to enjoy life and deal with the challenges we face.” Being in good mental health means that people thrive and fulfill their potential. In the UK, around a quarter of adults experience at least one mental health problem in any given year.³⁰ Almost half of these mental health problems have been established by the age of 14 and three quarters before adulthood.³¹

Mental health problems among young people are associated with a range of problems including bullying, social and exam pressure, obesity, substance abuse, inequality as well as worries about global issues such as Covid-19 or climate change. Providing young people with a break from these pressures, allowing them to temporarily escape, boosting their resilience and supporting stress recovery is extremely important. The opportunity to actively engage with gardening activities either alone or with others or to simply sit in garden and watch the flowers or listen to the birds may hugely benefit their mental wellbeing.

Goals for the Future

The Green Hub Project for Teens will continue to build on these existing experiences, structure and set of activities. It will expand on the natural environment experiences and will include additional planned focused talks and workshops to empower teens to take control of their own wellbeing as well as a variety of other offerings to educate and support their parents, teaching them skills to better understand and communicate with and guide their teenage children.

These programs could eventually provide an outreach to a wider audience than those participating in the Green Hub Project for Teens but at this time the teenagers and their parents are the focus. This venue would also allow for the design of the collection of data pertaining to this population through field research utilizing an appropriately validated assessment tool.

Over time the vision is to enable this project to be emulated in the UK. The organization has thus been structured to include business plan and curriculum, software and CRM system so that it can easily be reproduced creating the potential and the groundwork to support and mentor similar charities interested in using the Green Hub Project for Teens as the blueprint to expand the services available or our youth.

Conclusion

Mental health problems have been shown to be on the rise among children and adolescents. The stress of the current state of affairs in the world has taken a toll on teenagers' mental health and has negatively impacted their lives. The Green Hub Project for Teens is a creative template for a community project of willing and able adult volunteers to fill the void of available mental health care services for teens in an overtaxed national health care system.

The Teen Garden:



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