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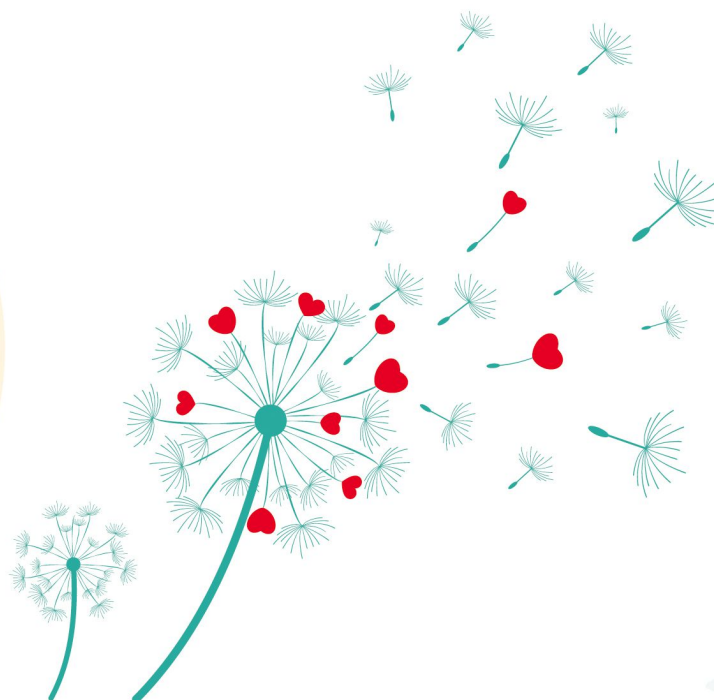


香港賽馬會慈善信託基金  
The Hong Kong Jockey Club Charities Trust

## Jockey Club "Sunny Nature" Family Wellness Project 賽馬會「家家自然好心晴」計劃

### Research Report on A Study on the Effects of Nature-based Mindfulness Intervention Programme for Promoting Mental Health of Family Caregivers

### 「自然為本靜觀課程」 對促進家庭照顧者的精神健康 研究報告



Commissioned to 委託：



THE HONG KONG  
POLYTECHNIC UNIVERSITY  
香港理工大學



應用社會科學系  
Department of Applied Social Sciences



專業實踐及評估中心 香港理工大學應用社會科學系  
Professional Practice & Assessment Centre  
The Hong Kong Polytechnic University | Department of Applied Social Sciences

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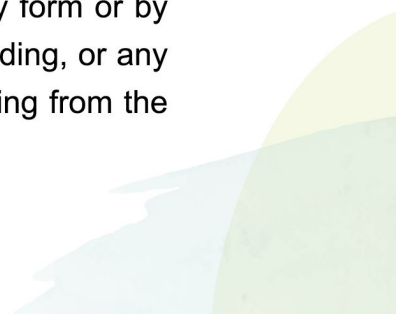
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## Acknowledgment

Hong Kong Family Welfare Society (HKFWS) takes a family-centred perspective, and is committed to providing high quality and professional services to help people improve their lives, strengthen and support family wellbeing, and foster a caring community. For decades, we have been concerned about welfare of families. Apart from rendering a range of family direct services, we recognize the importance of providing a respite for families to facilitate family relationship and new learning of managing stress. Thus, with the collective effort of HKFWS and some generous local donors, the Zonta White House-Family Retreat Centre (ZWH), also known as White House, has been revitalised and set up in 1999 as the first Retreat Centre for the family in Hong Kong. Its unique architectural features and style can inspire the wisdom of life when staying there. It provides a peaceful resting place in nature for families and individuals to ease their stress and enhance family relationship.

From our experience, family carers are often fully engaged in caring tasks of either children or elders, which can easily cause physical and mental fatigue, affecting their effectiveness of caring function and family relationships. In recent years, carers' prone to higher risk of burnout under excessive and prolonged caring stress has been raised the public concern. In view of an increasing need of supportive services for caregiver-oriented family intervention programme, promoting their wellbeing and taking a break for self-care, we take an initiative to design the nature-based mindfulness intervention programme, integrating ZWH's natural, tranquil home-like environment as an innovative approach to address their mental health for sustainable caring and self-care.

In attempts to explore this innovative approach on the effect of the nature-based mindfulness intervention programme for promoting carers' mental health, with the sponsorships by Hong Kong Jockey Club Charities Trust (The Trust), a 3-year "Sunny Nature" Family Wellness Project (thereafter "Service Project") has been launched at ZWH from April 2021 to June 2024. We commissioned the research team of the Department of Applied Social Sciences, The Hong Kong Polytechnic University to conduct this study. On behalf of HKFWS, I could express our gratitude and respect to the research team and Dr. Herman Lo for his professional and insightful recommendations on this study.

Besides, we would like to extend sincere thanks to The Trust for funding this study which is successfully conducted in Hong Kong as the first evidence-based study on the nature-based mindfulness programme for family carers. Our gratitude and appreciation have to show to our parents and caregivers of older adults who have participated in the study. Last but not the least, I have to thank to my team of devoted staff for their commitment in the service and carrying out this study. The findings and recommendation derived from the study would hopefully provide valuable information to provide direction for the services and to address the mental wellbeing of the family carers, as well as the service development of supporting carers and their families in Hong Kong.

Kitty Chau Shuk-king  
Chief Executive

Hong Kong Family Welfare Society



# Executive Summary

## ***Introduction***

1. Mindfulness is the process of regulating attention in order to bring a quality awareness to one's current experience and develop a quality of relating to that experience with openness and acceptance. Many parents and caregivers find it difficult to invest time and effort in a mindfulness-based programme. In addition, the outcomes may be limited by a lack of regular mindfulness practice at home. Therefore, innovative approaches should be designed specifically for parents under stress and caregivers of older adults who experience care fatigue and have pre-occupied care responsibilities. Meditation retreats have been well-received in traditional spiritual practices. In recent years, studies have investigated the benefits of using natural environments to enhance the outcomes of mindfulness-based programmes. The Zonta White House-Family Retreat Centre (also known as the White House) offers advantages in terms of a natural tranquil home-like environment and facilities that are ideal for mindfulness-based programmes. Its favourable geographical location allows participants to travel to the venue within a short time and enjoy the benefits of being connected to the nature.
2. With the sponsorships by Hong Kong Jockey Club Charities Trust (The Trust), the 3-year "Sunny Nature" Family Wellness Project (April 2021-June 2024) has been launched at White House for enhancing family carers' mental health, positive family relationship, releasing their stress through the nature-based mindfulness programme. The Trust also funded this research study. Hong Kong Family Welfare Society (HKFWS) commissioned The Hong Kong Polytechnic University, Department of Social Sciences to conduct this study. With the support of the Hong Kong Polytechnic University Dr. Herman Lo, a local scholar who is specialized in mindfulness-based programme, HKFWS has designed a Nature-Based Mindfulness Programme for caregivers of older adults and parents under stress. A mixed methods study is being conducted to evaluate the outcomes and processes of this innovative programme.

## ***Research Objectives & Design***

3. Objectives of this research study are: (3.1) examine the effects of Nature-based Mindfulness Intervention Programme for family carers with medium to high levels of caring-related stress. (3.2) explore the role of nature in promoting the outcome of the programme. This project has two major targets: (3.3) Caregivers of older adults with dementia and frailty, and (3.4) parents having young children under stress.



4. The Nature-based Mindfulness Intervention programme includes 4 sessions with a total of 8-hour contact time. According to the participants' condition, the time spent in the White House and collaborative service units is jointly determined by the project worker and the social worker of district partners such as Integrated Family Service Centres (IFSCs) or Neighbourhood Elderly Centres (NECs). Participants are openly recruited by these service units. In total, 10 groups were organized and 95 participants, including 40 caregivers of older adults and 55 parents under stress, participated the programme during the project period.
5. In quantitative study, all participants are invited to complete the same set of questionnaires in four time-points, based on a repeated measure design: one month before programme, pre-programme, post-programme, and three-month follow-up. The study investigates outcomes, including depression, anxiety, stress, physical distress, daily functioning, well-being, family functioning, family conflicts, and connectedness with nature, using self-reported, standardized, and validated measured. A total of 95 participants have completed the questionnaire.
6. In the qualitative study, focus groups were conducted to collect participants' experiences and benefits of nature-based mindfulness courses.

## **Overall Results /Key Findings**

### ***Quantitative Study***

7. For caregivers of older adults, significant improvements are found in almost all outcome measures, including depression, anxiety, stress, physical distress, daily functioning, and well-being, when comparing pre-test and post-test results. Further improvements in family functioning and connectedness with nature are also found between pre-test and three-month follow-up.
8. For parents under stress, significant improvements are found in stress, physical distress, daily functioning, and self-compassion between pre-test and post-test. Further improvements in anxiety and all subscales in family conflicts (psychological aggression, corporal punishment, and physical maltreatment) are found between pre-test and three-month follow-up. A marginal improvement is also found in depression. In hierarchical regression analysis, connection with nature played a significant predicting the programme effect in depression.

## ***Quantitative Study***

9. Total of 10 focus groups were organized with 34 participants. Among them, 14 are caregivers of older adults, while 20 of them are parents under stress. Transcriptions of the participants' subjective experiences are collected to demonstrate the perceived benefits of the nature-based mindfulness programme.

It was consistent with the Attention Restoration Theory, three dimensions of the benefits are identified:

(9.1) Being away and experiencing soft fascination: visiting the White House allows participants to physically distance themselves from day-to-day environment. They appreciate that the programme and the nature environment offer them a space to free themselves from caregiver stress and burden.

(9.2) Extent: Participants experience a sense of relatedness, being able to associate their experiences in nature environments with own parenting and caregiver experiences. They felt relaxed and enjoyed the programme offered at the White House, with nurturing provided by the natural environment and mindfulness practices.

(9.3) Compatibility: It suggests the natural environments are well-suited to one's preference or purpose in parenting and family caregiving. It offers support to parents and caregivers and promote their adaptive coping.

## **Recommendations**

### ***Service Development Level***

10. Based on these encouraging results, we strongly recommend continuing this initiative and organizing regular nature-based mindfulness programmes for parents and caregivers at the White House.



11. Alternative structures of nature-based mindfulness courses and activities may be considered, and more mindfulness activities that incorporate nature elements should be encouraged in the design of services or activities, so as to promote carers' continuous self-care and physical and mental health and enhance their coping to stress, such as a one-day mini-mindfulness retreats for the basic program graduates, an intensive program similar to the standard eight-week mindfulness program, or parallel program for parent-child (or caregiver-cared) can be considered. A short-term diversified nature-based mindfulness program to meet the needs and time of carers.

### ***Government and Corporate Level***

12. There is a need for all sectors to work together to support family caregivers; The Government may provide venues for the natural environment and facilities of the community or subsidize social welfare organizations to organize nature-based mindfulness courses/activities on a regular basis, so that parents or elderly carers in need can participate “ Nature-based mindfulness Programme” in nearby community, to take a break and increase the physical and mental health of individuals and their families.
13. In the business sector, employers may arrange/encourage their employees to participate in the nature-based mindfulness courses and activities in a timely manner, with a view to providing more self-care space for employees as carers to enhance their mental health.

## 引言

1. 靜觀是一個調節注意力的過程，有意識地經驗當下，並以開放和接納的態度來與該經驗建立關聯。許多父母和照顧者發現很難投入時間和精力在靜觀課程。此外，由於種種照顧責任及缺乏時間在家定期進行練習，其效果可能受到限制。因此，創新的靜觀課程方法應該針對經歷照顧疲勞並擔負照顧責任的父母和照顧者而設。在各種的靈修傳統中，在野外進行靜修廣受歡迎。近年來，不少研究也探討利用自然環境增強靜觀課程的效果。崇德家福軒 - 家庭退修中心，又簡稱「白屋」擁有自然恬靜的環境和設施的優勢，非常適合進行靜觀課程。其有利的地理位置能讓參與者可以在短時間內到達場地，享受與大自然連繫帶來的好處。
2. 香港家庭福利會（簡稱：家福會）於 2021 年起獲香港賽馬會慈善信託基金捐助，於「白屋」推行為期三年的賽馬會「家家自然好心晴」計劃，旨在提升家庭照顧者關顧自身的需要及身心健康，透過融合大自然元素的靜觀活動紓解照顧者的壓力。家福會亦委託香港理工大學應用社會科學系為此計劃進行全港首個「自然為本靜觀課程」研究，並與專門從事靜觀研究的香港理工大學盧希皿博士合作，設計了一個面向長者照顧者和經歷壓力的家長的自然為本靜觀課程，並為此計劃進行一項混合方法研究，以評估課程的效益。

## 研究目標及內容

3. 是次研究的目標：(3.1) 檢討大自然靜觀課程對經驗中至高度照顧壓力的家庭照顧者的成效。(3.2) 探討大自然在促進該項目成效中的作用。對象包括：(3.3) 照顧有認知障礙和體弱長者的照顧者。(3.4) 養育幼兒且處於壓力中的父母。
4. 這是 4 節，共 8 小時的大自然靜觀課程。按參加者的情況，在「白屋」或在協作服務單位進行的課程時數由「白屋」的社工和協作服務單位（綜合家庭服務中心或地區長者中心）的社工共同訂定，並透過協作的服務單位公開招募參加者。在整個項目期間，共進行了 10 個課程，共有 95 名參與者，其中包括 40 名長者照顧者和 55 名壓力下的父母。
5. 在量化研究中，參與者被邀在四個時間點上完成問卷調查，根據重複測量設計：包括計劃前一個月、計劃前、計劃後和三個月後的追蹤。研究調查的變項包括抑鬱、焦慮、壓力、身體癥狀、日常功能、幸福感、家庭功能、家庭衝突和與自然聯繫。共有 95 名照顧者和參與者完成了問卷調查。

6. 在質性研究中，透過焦點小組收集參加者主觀經驗的轉錄，以展示自然為本靜觀課程的經驗及益處。

## 整體研究結果

### 量化研究

7. 對於長者照顧者，與前測和後測結果比較，接近所有指標都有顯著改善，包括抑鬱、焦慮、壓力、身體不適、日常功能和幸福感。在前測和三個月後的追蹤之間，家庭功能和與大自然聯繫也得到進一步改善。
8. 對於壓力下的父母，與前測和後測相比，壓力、身體癥狀、日常功能和自我慈悲之間有顯著改善。在前測和三個月後的追蹤之間，焦慮和家庭衝突的所有子量表（心理侵害、體罰和身體虐待）也有顯著改善。抑鬱也略有改善。層級回歸分析更顯示照顧者的自然連繫水平顯著地預測了他們在靜觀課程後抑鬱的變化。

### 質性研究

9. 在質性研究中，共舉辦了 10 個焦點小組，共有 34 名參與者。其中，有 14 位是長者照顧者，而 20 位是經歷壓力的父母。參加者表示於自然環境中參與靜觀課程讓他們能夠達至三大效果，與「注意力恢復理論」的三個的向度一致：

(9.1) 遠離照顧壓力，注意力被自然的美吸引及被轉移：

參與「白屋」的活動讓參與者能夠暫時讓身體遠離日常的照顧壓力及生活環境，並感受到自然環境為他們提供了一個擺脫照顧壓力和負擔的空間。

(9.2) 體驗延伸，在自然環境中覺察到個人身心與轉化：

參與者感受到一種相關性，能夠將自己在自然環境中的經歷聯繫到育兒和照顧經歷當中，讓他們感到放鬆，享受在「白屋」的活動，同時感受到自然環境和靜觀練習中帶來身心內在的更新和轉化（滋養）。白屋的體驗亦讓參加者學習以新角度面對壓力，愛惜自己，將正能量帶到現實中。

(9.3) 大自然促進情緒及身體的調適：

這表明自然環境非常適合於育兒和家庭照顧中的需求或目的。自然環境容易讓參加者放鬆心情，也為他們提供情緒上支援，同時促進他們自身的調適，提升處理壓力和情緒的能力。

## 建議

### 服務展層面

10. 基於這些令人鼓舞的結果，繼續這項創新課程，服務上持續在「白屋」定期舉辦「自然為本」靜觀活動課程及活動。
11. 同時可考慮其他形式的「自然為本」靜觀課程及活動，在服務或活動設計時，鼓勵加入更多融合大自然元素的靜觀活動，促進照顧者持續的自我照顧身心健康，增加抗壓能力，例如為那些完成上述計劃基本課程人士舉辦的一日精要靜觀的退修、標準八週靜觀課程，或融合親子（或照顧者和被照顧者）配對的平行靜觀活動、短期多元化「自然為本」靜觀課題，配合照顧者的需要和時間。

### 政策層面

12. 支援家庭照顧者方面，需要各界攜手合作，政府可提供社區大自然環及場地或資助社福機構定期舉辦「自然為本」靜觀課程 / 活動，讓有需要的家長或長者照顧者，在就近的社區可以參加「融合大自然元素」靜觀活動，歇息一刻，促進個人及家人的身心健康。
13. 在商界方面，僱主可適時安排 / 鼓勵僱員參加「自然為本靜觀」課程及活動，冀望為作為照顧者的僱員提供更多喘息空間，提升心理健康。





# 1. Introduction

- 1.1 With the sponsorships by Hong Kong Jockey Club Charities Trust (The Trust), the 3-year "Sunny Nature" Family Wellness Project (April 2021-June 2024) has been launched at White House for enhancing family carers' mental health, positive family relationship, releasing their stress through the nature-based mindfulness programme. The Trust also funded this research study and Hong Kong Family Welfare Society (HKFWS) commissioned The Hong Kong Polytechnic University, Department of Social Sciences to conduct this study. With the support of the Hong Kong Polytechnic University Dr. Herman Lo, a local scholar who is specialized in mindfulness-based programme, HKFWS has designed a Nature-Based Mindfulness Programme for caregivers of older adults and parents under stress is designed.
- 1.2 Mindfulness originates from Eastern traditions and refers to the practice of maintaining awareness and directing attention to attention to present moment. Jon Kabat-Zinn introduced the Mindfulness-Based Stress Reduction (MBSR) programme at the University of Massachusetts Medical School in 1979 (Kabat-Zinn, 2013). The programme aimed to incorporate meditation and yoga into the healthcare without religious terminology, making it more widely applicable. MBSR was specifically designed to help individuals coping with stress caused by pain or illness. The programme consists of an 8-week course, with weekly meetings for 2 - 2.5 hours, where participants learn meditation skills, engage in inquiry and psychoeducation, and develop a regular practice by homework assignments. Additionally, there is a full-day intensive mindfulness session. Studies of MBSR have shown significant improvements in psychological distress and mental health symptoms for individuals with chronic health conditions (Bohlmeijer et al., 2010) and stress management among healthy individuals (Chiesa & Serretti, 2010).
- 1.3 Researchers later explored a new form of cognitive behavioral therapy called Mindfulness-based Cognitive Therapy (MBCT) to prevent relapse in major depression (Kuyken et al., 2016; Segal et al., 2013) and in many other mental health conditions and health care contexts (Demarzo et al., 2015). MBSR and MBCT have paved the way for the development of Mindfulness-Based Programs (MBPs) for diverse populations and clinical conditions. A recent systematic review investigated the empirical status of MBPs (Goldberg et al., 2022). MBPs were found to have not only outperformed passive controls but they also demonstrated better outcomes than active controls in certain populations and clinical problems, including depression, substance use, smoking, and psychiatric symptoms.

1.4 Overall, MBPs aim to provide a scientifically-grounded, educationally-informed approach to managing mental and physical well-being and promote overall health. Various adaptations have led to the formulation of diverse curricula for MBPs (Crane et al., 2017). Key elements of MBPs (Crane et al, 2017; Loucks et al., 2022) include:

- (i) MBPs are informed by theories and practices of contemplative meditative traditions, scientific research, and models from medicine, psychology, and education.
- (ii) MBPs are grounded in a stress model and emphasize the cultivation of awareness through continued mindfulness practice to improve mental health and well-being (Kabat-Zinn, 2013; Segal et al., 2013).
- (iii) MBPs foster a present-focused and decentering approach, encouraging individuals to observe thoughts and feelings and fostering attentional, emotional, and behavioral self-regulation, and a willingness to approach difficulties and distress.
- (iv) MBPs promote the positive qualities, including compassion, wisdom, and equanimity. These capacities stem from an intention to understand that pain is an inevitable part of human existence.
- (v) Instructors engage participants in intensive mindfulness practice, facilitate awareness and insights, and encourage formal and informal practice. Formal mindfulness practices, such as body scan, mindful movement, and sitting meditation, are taught in class and encouraged for regular practice at home. Inquiry, a dialogue between instructors and participants, deepens awareness of direct experiences, habitual patterns, and their implications. MBPs also include psychoeducation activities to explore pleasant and unpleasant moments and develop alternative responses.

1.5 The above characteristics help distinguish MBPs from other intervention approaches. Participants are encouraged to transfer these skills to everyday activities through informal practice (Kabat-Zinn, 2013; Segal et al., 2013).



## 2. Research Study

### 2.1 Literature Review: Application of Mindfulness in Parents and Caregivers

2.1.1 Many models of parenting have been rooted in social learning theory (Bornstein, 2005; Sanders & Morawska, 2018). Numerous parent support and education programs have focused on enhancing parents' knowledge and skills, utilizing universal principles of behavioral approaches to improve child behavior management and address related problems. In contrast, mindful parenting places emphasis on cultivating a mindful and conscious relationship between parents and children, characterized by mutual love and discovery (Kabat-Zinn & Kabat-Zinn, 2021). The primary intention of mindful parenting is not to strive for a better child or parent, but rather to foster awareness and non-instrumental mindfulness practices within family interactions. This distinctive approach highlights the value of providing quality attention and unconditional care to promote children's growth and development.

2.1.2 It is important to acknowledge that both social care practice and mindfulness training are knowledge-based practices and social workers should acquire this knowledge so that they can translate different theories into practice (Trevithick 2008). Many social workers are familiar with the problem-solving approach, which involves defining the problem, designing the intervention and evaluating the outcomes. However, as suggested by the social work objective of an empowering approach and the principles of mindfulness, implementing an MBP requires a different mindset than delivering a program based on problem-solving approach such as parent behaviour training (Lo, 2023). Instructors of MBPs for parents do not offer specific child discipline techniques (Bögels and Restifo 2014). Instead, an MBP instructor lead a program for parents by being present as parents who struggle to parent well and do not have the answers in parenting issues. Parents are supported to observe their own limits and to bring awareness and acceptance to themselves, not to react emotionally but to respond to their children with conscious choices (Bögels and Restifo 2014).

2.1.3 The concept of mindful parenting was first introduced by Myla Kabat-Zinn and Jon Kabat-Zinn (1998). It encompasses the intentional and nonjudgmental ability to be fully present in the parent–child relationship, paying attention to children and parenting. Mindful parenting is an ongoing process that involves developing a heightened awareness of children's unique qualities, emotions, and needs, as well as an enhanced capacity to be fully present. Through



mindfulness practice, parents learn to accept things as they are, without judgment, whether the experiences are pleasant or unpleasant. This practice also helps parents recognize their own reactive impulses and respond to their children with clarity and kindness (Kabat-Zinn & Kabat-Zinn, 2021). Mindful parenting views raising a child as a practice of mindfulness in daily life. Parenting becomes an opportunity for parents to observe themselves, engaging in both an interpersonal process of relating to their child and an intrapersonal process of self-reflection. It involves consciously seeking lessons in every situation and making choices based on awareness to nurture the inner growth of both children and parents (Kabat-Zinn & Kabat-Zinn, 1998).

2.1.4 As a prominent researcher in the field, Bögels and Restifo (2014) has integrated the key concepts from MBCT, including stress, coping, and automatic pilot, with parenting (Bögels & Restifo, 2014). From an evolutionary perspective, parenting has become increasingly stressful in contemporary societies. The duration of parental roles and responsibilities has extended to 18 years or longer, especially when adult children continue to live with their parents in certain societies. Additionally, many parents no longer have extensive support from extended family and kinship networks. Consequently, parents often find themselves multitasking and experiencing exhaustion while solving problems for their children and families. This leads to more frequent activation of fight-flight-freeze responses and automatic parenting, resulting in decreased sensitivity to their children's needs. Mindfulness training provides an opportunity for parents to become more aware of moments when they are parenting on automatic pilots. By paying attention to their bodily sensations, feelings, and thoughts under stress, parents can experience differences in the quality of their interactions when they parent more mindfully.

2.1.5 Bögels and Emerson (2019) highlight that most MBPs primarily target individuals themselves. However, there is growing evidence supporting the notion that individual mindfulness can improve relational functioning. This sheds light on how mindfulness in parents can positively impact child outcomes, potentially through enhancing self-regulation within family relationships. Thus, an MBP designed for parents can benefit not only the parent's physical and psychological well-being but also the entire family system, including other family members and their relationships. Mindful parenting has been associated with reduced parenting stress, improved mental health, higher levels of positive



parenting practices, and enhanced collaborative parenting for parents (Bögels & Restifo, 2014; Gouveia et al., 2016). For children, mindful parenting is linked to greater well-being encompassing physical, emotional, mental, and social aspects, as well as improved self-regulation skills and reduced behavior problems (Geurtzen et al., 2015; Parent et al., 2016; Turpyn & Chaplin, 2016).

2.1.6 MBPs should be culturally sensitive and tailored to the specific needs of the population they are serving. Many families in Hong Kong and other East Asian societies encounter caregiver burden when living with an older adult, particularly with those with cognitive impairment and frailty. Studies reported that family caregivers had worse health profile, more medical consultations, anxiety and depression, weight loss, and lower quality of life (Ho et al., 2009). They consistently reported that perceived burden and depressive symptoms of caregivers associated with severe impairment of care recipients, and adult children living together as caregivers experiencing role conflicts reported highest level of burden (Chan & Chui, 2011; Mello et al., 2017). It is more alarming that abusive behaviours towards older adults with dementia were predicted by anxiety and depression of caregivers, as such association was mediated by extended hours of care and caregiving burden (Cooper et al., 2010). In the context of East Asian societies, where filial piety is highly valued, it is crucial to address the cultural expectations and challenges faced by adult children caring for their aging parents (Chan et al., 2012). Difficulties encountered by adult children often burdened by a lack of accessible and feasible community care services and this disjoint between ideal expectation and feasibility of performance can result in feelings of shame and guilt, blame by family and community (Canda, 2013). Older caregivers may experience additional stress due to their deteriorations in health and mental health conditions (Limpswattana et al., 2013), demanding support that can mutate their stress and burden in caregiving.

2.1.7 MBPs can provide valuable support and coping strategies for caregivers of older adults experiencing caregiver burden. By cultivating mindfulness and integrating caregiving-specific psychoeducation, these programs empower caregivers to manage their stress, enhance their well-being, and improve their caregiving experience (Lo et al., 2022).

## 2.2 Research Background: Why “Nature” can be an Add-value to Mindfulness-based Programmes?

2.2.1 As mentioned, mindfulness and MBPs originated from traditional spiritual practices across religions that often take place in remote and rural areas. Such geographical locations provide opportunities for restoration, transformation, and personal reflections (Farb, 2014; Gill et al., 2019; Surinrut et al., 2016). Engaging an extended meditation retreat can lead to benefits by focusing on their spiritual practice by temporarily disconnecting from stressors in daily living and immersing themselves in a unique environment.

2.2.2 However, in contemporary societies, MBPs are often organized in secular contexts such as hospitals and clinics, and other social care service units. These programmes are often offered in a brief format and require participants to travel to attend. The advantage of organizing MBPs in these venues is their proximity and convenience in terms of geographical location. One potential direction for advancing and innovating MBPs is to integrate nature in the programmes to maximize the outcomes in mental health and well-being. Careful programme planning is required to ensure the potential benefits of a natural setting, as transportation logistics can become burdensome for participants and organizers. The White House, located strategically within a reasonable distance from the Taipo MTR station, would be an ideal option as it provides a peaceful resting place for programme participants to engage in a nature-based mindfulness programme with multiple sessions.

2.2.3 Nature can be defined as areas containing elements of living systems that include plants and animals across a range of scales and degrees of human management, from a small urban park through relatively ‘pristine wilderness (Kaplan, 1995). Spending time in nature promotes health, prevents mental health problems such as stress, depression and anxiety, and improves interpersonal functioning. Attention restoration theory can be applied to explain the benefits of nature and its application to nature-based mindfulness programmes. According to this theory, directed attention is a limited attention but exposure to nature can support the restorative process. Natural settings are often physically distant from one’s stressful daily life, allowing for effortless attention to be drawn to fascinating objects (Kaplan, 1995).

2.2.4 Learning and practicing mindfulness require a regular practice to observe one's experiences, mostly starting from internal physical sensation, feelings, and thoughts. It would be easier for meditators to tune into a "being" mode for meditation that facilitates attention regulation for managing stress and challenges. A study supported the idea that arranging a mindfulness programme in the nature reduced dropout and improved homework completion. It implies that nature-based mindfulness programme can maximize the benefits of the programme (Lymeus et al., 2019). While several studies on outcome of nature-based mindfulness programmes have been published in the past decade, most of them are based on university student (e.g. Choe et al., 2020 at United Kingdom; Lymeus et al., 2018 at Sweden; Nisbet et al., 2019 at Canada). The significance of this project will be its focus on a sample of parents and caregivers. Participants in this project, who may experience high levels of stress arising from taking care of their children with special needs or older adults with chronic conditions, are examined to investigate the benefits of the parents and caregivers and explore if such outcome can attributed to attention restoration.

2.2.5 Based on information processing theory, Kaplan (1995) develops the Attention Restoration Theory which may explain how the outcomes of MBPs can be enhanced when organized in nature. The process of attention restoration can be divided into three aspects:

- (i) Being away and soft fascination: nature allows individuals to distance from their day-to-day environment and mental activity, promoting both physical and conceptual transformations. A different environment can be helpful in changing perspectives and facilitating the necessary conceptual shifts for change. Nature offers a stream of stimuli, such as trees, clouds, sunsets, rivers, that are both fascinating and different from the usual. It engages the mind and helps individuals see, experience, and feel, that capturing attention, restoring focus and mental capacity, and reduces fatigue.
- (ii) Extent: Nature provides a new environment that is rich and coherent enough to form a sense of relatedness, where one's perceptions are part of a larger whole.



- 2.2.6 (iii) Compatibility: the new environment is compatible with the purposes and intentions of MBPs and the participants themselves. It aligns with what individuals are trying to do and to achieve. Many participants face challenges in practicing mindfulness as they are occupied with thoughts and emotions. A nature environment provides support, making it easier for participants to shift their attention to mindfulness exercises with self-care and self-compassion.

### 3. Research Design & Objectives

- 3.1 The Nature-based mindfulness programme is designed as an innovative approach to reduce caregiving stress of parents and caregivers of older adults.
- 3.2 The innovative programme in this project is based on a low-intensity MBP consisting of four weekly sessions, with a total contact time of 8 hours. The MBP protocol has been validated in six local studies, including parents of preschool children with developmental disabilities (Lo et al., 2017), parents of children with attention deficit/hyperactivity symptomology (Lo et al., 2020), caregivers of young adults with early psychosis (Zhang et al., 2023), parents of adolescents after social unrest (Lo et al., 2022a), parents from economically disadvantaged families (Lo et al., 2019), and caregivers of frail older adults (Lo et al., 2022b). All of these outcome studies are based on brief mindfulness programmes lasting for 9 to 12 hours.
- 3.3 The nature sessions are organized at the White House of Hong Kong Family Welfare Society. Participants are openly recruited through the collaborative service units of integrated family service centres and elderly service units. Since the White House is located at Tai Po and requires additional travel time, the project social worker and social workers from the recruitment units collaboratively determine the scheduling of the sessions at the White House and maintain some of the sessions in the original service units with flexibility.

The programme is designed by Dr. Herman Lo, the principal investigator of the previous six studies on low intensity MBPs. Additional nature-based mindfulness activities are integrated into the mindfulness exercises, psychoeducation about stress and reactivity, instructor-led inquiry, and sharing of insights. The themes and mindfulness practice of four weekly session, with total 8 hours nature-based mindfulness programme is shown as Table 1.

**Table 1 The Session Plans of Nature-based Mindfulness Programme**

Themes	Mindfulness practice	Possible nature-based activities
Session 1 Stepping out of automatic mode	Mindful eating ; Body scan	Mindfulness of five senses
Session 2 Reacting vs responding	Three-minute breathing Mindfulness of breathing	Mindful stretching
Session 3 Creating an inner space	Mindfulness of body and breath	Mindful walking Mountain meditation
Session 4 Bringing compassion to life (self-care and taking care of family members )	Body scan; Mindful sitting; Befriending exercise	

### 3.4 Study Objectives:

The objectives of this study are to:

- 3.4.1 examine the effects of nature-based mindfulness intervention programme to family caregivers who have experienced high levels of caregiving stress.
- 3.4.2 examine the effectiveness of programme in enhancing caregiver's capacities in stress reduction, emotional regulation, sense of self-efficacy, and mindset change in self-care.
- 3.4.3 explore the role of nature in promoting the outcome of MBPs.
- 3.4.4 provide recommendations for service delivery model and development.

### 3.5 Study Methods

- 3.5.1 A mixed methods study is conducted to address the research objectives. A quantitative study was conducted and aims to investigate the outcomes of the nature-based mindfulness programme, and the impact of nature in enhancing the programme outcome. A qualitative study was conducted to explore the participants' experiences and their perceived benefits of the programme.
- 3.5.2 In order to investigate the outcome and maintenance of the programme, all participants are invited to complete the same set of questionnaires in five domains (stress, emotion regulation, self-efficacy and self-care, mental health, and family relationship) across four time-points, based on a repeated measure design: one month before programme (T0), pre-programme (T1), post-programme (T2), and three-month follow-up (T3). The selected outcome measures over time are observed. All selected scales have been validated in Chinese samples. The total number of the time spent in the questionnaires is within 30 minutes.
- 3.5.3 In the qualitative study, focus groups were conducted to collect participants' experiences and benefits of nature-based mindfulness courses.

## 4. Variables and Measures in the Quantitative Study

**4.1 Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977).** The 10-item version of CES-D is used to measure affective symptoms of depression. Example sentences include “I felt everything I did was an effort” and “My sleep was restless”. Parents rated the items on a 4-point Likert scale from none of the time (0) to most of the time (3).

**4.2 Subscales of Anxiety and Stress in Depression Anxiety Stress Scale (DASS-A, and DASS-S; Henry & Crawford, 2005).** DASS is a conventional set of instruments designed to measure depression, anxiety, and stress. In this study, the anxiety and stress subscales of the short version DASS-21 are used. Anxiety (7 items) refers to distinct characteristics such as autonomic arousal and subjective experience of anxious affect (“I was worried about situations in which I might panic and make a fool of myself”); and stress (7 items) is sensitive to chronic non-specific arousal (“I tend to over-react to the situations”).

**4.3 Physical Distress and Daily Functioning in the Body-Mind-Spirit Well-Being Inventory (BMSWBI; Ng et al., 2005).** The physical distress subscale has 14 items that is rated on an 11-point Likert scale designed to assess symptoms of physical distress, such as headache, chest pain, and fatigue. A score of 0 represents no distress, and a score of 10 represents in extreme distress. Scores of the 14 items were added to calculate the score for physical distress. The daily functioning subscale has 10 items that measures the participants’ evaluation of their daily functioning during the previous week. It consists of items that pertain to physical functions (e.g., “energy level”), cognitive functions (e.g., “concentration”), and motivational functions (e.g., “work motivation”). Based on 11-point Likert scale, a score of 0 represents poor functioning and a score of 10 represents good functioning.



- 4.4 World Health Organization Well-Being Index (WHO-5; Heun et al., 1999).** It includes five items that measure the subjective psychological well-being. It is a short and generic global rating scale and each of the five items is scored from 5 (all of the time) to 0 (none of the time).
- 4.5 The Family Adaptation, Partnership, Growth, Affection, Resolve Scale Family functioning (APGAR; Smilkstein et al., 1982)** is a common self-reported measure of family functioning. The Family APGAR Scale includes 5 items that assess the parent's satisfaction of family functions across five domains (adaptation, partnership, growth, affection, resolve) using a 3-point response scale, where 0 = hardly ever and 2 = almost always.
- 4.6 Modified Conflict Tactics Scale (CTS2; Straus, 1979).** Family conflict is assessed by a self-report measure of behavioral assault or psychological aggression among family members. The scale includes subscales in verbal aggression and physical conflict, which are common indicators of psychological and physical abuses. Participants will be invited to use 0 (never happen) to 4 (happened more than 10 times in the past six months) to indicate the frequency of such behaviors. Two versions of CTS2 are developed for conflicts for parent-child relationship and caregiver-cared relationship.
- 4.7 Self-Compassion Scale-Short Form (SCS-SF; Raes et al., 2011).** Self-compassion is measured by SCS-SF that measures the extent to which one usually treat themselves during difficult times. Participants are required to score on a five-point scale from 1 (almost never) to 5 (almost always) to measure self-soothing attitude and self-defeating attitude.
- 4.8 Connectedness to Nature Scale (CNS; Mayer & Frantz, 2004).** It has 14 items and is in the form of a 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree). The scale has been translated by Cheung et al. (2020). CNS will be used to investigate whether participants experience more connectedness with nature after the programme and whether they receive additional benefits from this specific factor.

**Table 2. A Mapping of Studied Variables and Measurement Scales**

	DASS	BMSWBI	WHO-5	APGAR	CTS	SCS
Stress	V	V	V			
Emotional regulation					V	V
Self-efficacy and self-care		V				V
Mental health	V	V	V			
Family relationship			V	V		

DASS: Depression Anxiety and Stress Scale; BMSWBI: Body-Mind-Spirit Well-Being Inventory; WHO-5: World Health Organization Well-Being Index; APGAR: The Family Adaptation, Partnership, Growth, Affection, Resolve Scale; CTS: Conflict Tactics Scale; SCS: Self-Compassion Scale

## 5. Basic Data of the Quantitative Study

### 5.1 Participants' Profile

At the end of the program implementation, the research team received 95 sets of questionnaires. 40 of them are caregivers of older adults, and 55 of them are parents of children.

The majority of the participants are female and married, currently living with their family members including their children or the individuals they provide care for. More than half of the participants do not have a religious background. Among the caregiver group, approximately half of them is taking care of an older adult with dementia. In contrast, about half of the participants in the parent groups have a child with ADHD. It shown in Table 3.

**Table 3. Participants' Profile**

	Caregivers (n=40)	Parents (n=55)	Total (N=95)
Gender			
Male	5 (12.5%)	3 (5.5%)	8 (8.4%)
Female	35 (87.5%)	52 (94.5%)	87 (91.6%)
Age			
Below 40	0 (0.0%)	19 (34.5%)	19 (20.0%)
40-49	2 (5.0%)	26 (47.3%)	28 (29.5%)
50-59	5 (12.5%)	7 (12.7%)	12 (12.6%)
60-69	14 (35.0%)	3 (5.5%)	17 (17.9%)
Over 70	19 (47.5%)	0 (0.0%)	19 (20.0%)
Education			
Below primary	2 (5.0%)	0 (0.0%)	2 (2.1%)
Primary	5 (12.5%)	9 (16.4%)	14 (14.7%)
Secondary	14 (35.0%)	37 (67.3%)	51 (53.7%)
Tertiary	19 (47.5%)	8 (14.5%)	27 (28.4%)
Missing	0 (0.0%)	1 (1.8%)	1 (1.1%)
Marital status			
Single	8 (20.0%)	1 (1.8%)	9 (9.5%)
Married	28 (70.0%)	42 (76.4%)	70 (73.7%)
Divorced/Separated	1 (2.5%)	10 (18.2%)	11 (11.6%)
Widowed	3 (7.5%)	1 (1.8%)	4 (4.2%)
Missing	0 (0.0%)	1 (1.8%)	1 (1.1%)
Religion			
1 Christianity	9 (22.5%)	9 (16.4%)	18 (18.9%)
2 Catholic	2 (5.0%)	4 (7.3%)	6 (6.3%)
3 Buddhist	3 (7.5%)	8 (14.6%)	11 (11.6%)
4 Taoist	0 (0.0%)	2 (3.6%)	2 (2.1%)
5 No religion	21 (52.5%)	31 (56.4%)	52 (54.7%)
Missing	5 (12.5%)	1 (1.8%)	6 (6.3%)
Work status			
Unemployed	4 (10.0%)	39 (70.9%)	43 (45.3%)
Retired	32 (80.0%)	5 (9.1%)	37 (38.9%)
Part-time	3 (7.5%)	7 (12.7%)	10 (10.5%)
Full-time	1 (2.5%)	3 (5.5%)	4 (4.2%)
Missing	0 (0.0%)	1 (1.8%)	1 (1.1%)

Living arrangement			
Living with cared	24 (60.0%)	35 (63.6%)	59 (62.1%)
Living with other family members	10 (25.0%)	14 (25.5%)	24 (25.3%)
Living alone	3 (7.5%)	1 (1.8%)	4 (4.2%)
Living in residential care home	3 (7.5%)	1 (1.8%)	4 (4.2%)
Missing	0 (0.0%)	4 (7.27%)	29 (30.5%)
No of hours providing care in weekday			
0-5	21 (52.5%)	8 (14.5%)	29 (30.5%)
6-10	8 (20.0%)	7 (12.7%)	15 (15.8%)
11-15	2 (5.0%)	12 (21.8%)	14 (14.7%)
Over 16	9 (22.5%)	22 (40%)	31 (32.6%)
Missing	0 (0.0%)	6 (10.9%)	6 (6.3%)
No of hours providing care in weekend			
0-5	24 (60.0%)	4 (7.3%)	28 (29.5%)
6-10	7 (17.5%)	6 (10.9%)	13 (13.7%)
11-15	1 (2.5%)	10 (18.2%)	11 (11.6%)
Over 16	8 (20.0%)	29 (52.7%)	37 (38.9%)
Missing	0 (0.0%)	6 (10.9%)	6 (6.3%)
Aged of the cared			
0-5	0 (0.0%)	25 (45.5%)	25 (26.3%)
6-10	0 (0.0%)	21 (38.2%)	21 (22.1%)
11-18	0 (0.0%)	6 (10.9%)	6 (6.3%)
60-69	6 (15.0%)	0 (0.0%)	6 (6.3%)
70-79	10 (25.0%)	0 (0.0%)	10 (10.5%)
80-89	15 (37.5%)	0 (0.0%)	15 (15.8%)
Over 90	7 (17.5%)	0 (0.0%)	7 (7.4%)
Missing	2 (5.0%)	3 (5.5%)	5 (5.3%)
Diagnoses of the cared (multiple entries allowed)			
Dementia	22		
Parkinson's disease	2		
Stroke	2		
Diabetes	5		
Cardiovascular diseases	7		
Depression	4		
Other diagnoses	11		



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## Diagnoses of the cared

(multiple entries allowed)

Attention-deficit / hyperactivity disorder (ADHD)	27
Autism Spectrum Disorder (ASD)	9
Learning disability	17
Intellectual disability	2
Mental disorders	2
Other diagnoses	10

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## 6. Basic Data of the Qualitative Study

- 6.1 The research team invited all participants who have participated in two or more sessions of the programme to join a focus group interview. In the focus group, participants were invited to share their experience in the nature-based mindfulness programme.
- 6.2 The focus groups are conducted three months after the end of programme. Based on a semi-structured protocol that was originally designed for programme evaluation, the research team adapted the interviewing guide and conducted focus group interviews for data relating to participant's subjective experiences and perceptions.
- 6.3 A total of 10 focus groups were organized and 34 participants joined one of these groups. There are 14 caregivers of older adults and 20 parents.

## 7. Methods of Data Analysis

- 7.1 Using a mixed methods approach, the research team conducted analysis on the quantitative and qualitative data. Descriptive analysis is used to understand the participant's profile. Pair-sample t-tests are used to investigate whether there are significant changes during the comparison period (from T0 to T1), intervention period (from T1 to T2), and maintenance period (T2 to T3). We further conduct regression analysis to explore if connectedness with nature and related variables can predict outcomes of the programme. SPSS 24.0 is used to conduct the statistical analyses.

- 7.2 It follows with the qualitative analysis using general inductive approach (Thomas, 2006). Interviews are transcribed by research assistant and analyzed using grounded theory analysis (Strauss & Corbin, 1998). The researcher constantly moves between knowledge of therapeutic process and understanding client's experiences of changes. Analysis is focused on the participant's experience in personal changes and benefits after programme, particularly in relating the dimensions of attention restoration theory and connectedness with nature.
- 7.3 The application of mixed methods allows the use of qualitative findings to explain the quantitative results and to seek for integration, clarification, and convergence of quantitative and qualitative data (Creswell & Creswell, 2018).

## 8. Results of the Study

### 8.1 Attendance

Compared with the parent group, caregiver group of older adults has a lower attendance rate but they spent more time in activities involving in nature (i.e. the White House). Based on the experience in this project, social workers found caregivers were relatively more flexible and more sessions of the programme were scheduled in the White House for the caregiver group of older adults. On the contrary, due to the engagements in care and other household responsibilities, the parent group spent more time in the original service units, and less time in the White House. The attendance and time involved in nature-based activities is shown as table 4.

**Table 4. Attendance and Time Involved in Nature-based Activities**

	Caregivers of older adults (n=40) mean (SD)	Parents (n=55) mean (SD)	Total (N=95) mean (SD)
Attendance of the programme (hours)	5.49 (3.06)	6.19 (2.19)	5.89 (2.60)
Attendance of the sessions in nature	4.51 (3.10)	4.28 (2.18)	4.38 (2.59)

## 8.2 Results and Findings of the Quantitative Study

### 8.2.1 Outcomes and Effect Sizes

(i) Changes from T0 to T1 in most outcome measures are statistically insignificant (all  $p > .05$ ). There are significant increases in physical distress, and significant decreases in family conflict and self-compassion from T0 to T1. However, other major mental health outcomes including depression, anxiety, well-being do not show significant changes.

(ii) **In the caregiver group of older adults**, significant improvements are observed in various outcome measures, including depression, anxiety, stress, physical distress, daily functioning, and well-being, during the intervention period. It is shown in table 5 & 5.1 and figure 1 & 2. Further improvements in family functioning and connectedness with nature are found in the maintenance period, and significant improvements are found from pre-test to follow-up.

(iii) The effect size of improvement for caregivers of older adults in depression is moderate ( $d = .656$ ), while other effect sizes ranged from small to moderate (anxiety, stress, physical distress, daily functioning, well-being, connectedness with nature, family functioning) ranging from .388 to .532. It is included in Table 5.1.

(iv) **In the parent group**, significant improvements were found in stress, physical distress, daily functioning, and self-compassion during the intervention period. Further improvements in anxiety and all subscales in family conflicts (psychological aggression, corporate punishment, and physical maltreatment) are observed in maintenance period and significant improvements are found from pre-test to follow-up, as shown in Table 6. There is also a marginal improvement in depression. It is shown in Table 6 & 6.1, figures 3 & 4.

(v) The effect size of improvement for parent groups in corporate punishment is moderate ( $d = .647$ ), while other outcomes (physical distress, anxiety, stress, psychological aggression, and physical maltreatment) showed small to moderate effect sizes ( $d$  ranging from .435 to .590). The effect sizes of improvement in daily functioning and self-compassion ( $d = .369$  and .387) are small and did not maintain at follow-up. It is shown in Table 6.1.

**Table 5. Outcomes Over Time for Caregivers of Older Adults (n = 40)**

Scales	T0 M (SD)	T1 M (SD)	T2 M (SD)	T3 M (SD)	T0 vs T1			T1 vs T2			T1 vs T3		
					t	p	d	t	p	d	t	p	d
Depression	1.04 (0.56)	1.14 (0.50)	0.87 (0.49)	0.84 (0.41)	-1.31	0.197	/	3.49	0.001*	0.545	4.07	0.000*	0.656
Anxiety	0.53 (0.64)	0.71 (0.59)	0.46 (0.46)	0.45 (0.45)	-1.97	0.056	/	3.27	0.002*	0.473	3.42	0.001*	0.496
Stress	0.92 (0.84)	1.15 (0.76)	0.80 (0.55)	0.82 (0.51)	-1.82	0.076	/	3.29	0.002*	0.023	3.04	0.004*	0.510
Physical distress	2.02 (1.88)	1.86 (1.74)	1.17 (0.92)	1.29 (1.03)	0.63	0.531	/	2.81	0.008*	0.496	2.39	0.022*	0.399
Daily functioning	5.92 (2.05)	5.74 (1.83)	6.32 (1.65)	6.48 (1.70)	0.59	0.562	/	-2.61	0.013*	0.333	-2.76	0.009*	0.419
Well-being	2.61 (0.95)	2.67 (1.06)	3.17 (1.04)	3.25 (1.12)	-0.38	0.708	/	-3.92	0.000*	0.476	-3.32	0.003*	0.532
Family functioning	1.08 (0.64)	1.16 (0.54)	1.20 (0.48)	1.36 (0.49)	-0.97	0.337	/	-0.65	0.522	/	-2.29	0.027*	0.388
Psychological abuse	0.71 (0.57)	0.64 (0.57)	0.67 (0.46)	0.52 (0.47)	1.04	0.30	/	-0.31	0.758	/	1.43	0.162	/
Physical abuse	0.15 (0.28)	0.16 (0.34)	0.36 (0.54)	0.19 (0.37)	-0.19	0.85	/	-2.13	0.039*	0.057	1.43	0.162	/
Self-compassion	3.16 (0.43)	3.08 (0.39)	3.19 (0.38)	3.19 (0.44)	1.08	0.286	/	-1.68	0.101	/	-1.69	0.099	/
Connectedness to nature	3.44 (0.78)	3.38 (0.63)	3.44 (0.58)	3.67 (0.57)	0.60	0.549	/	-0.73	0.469	/	-3.29	0.002*	0.483

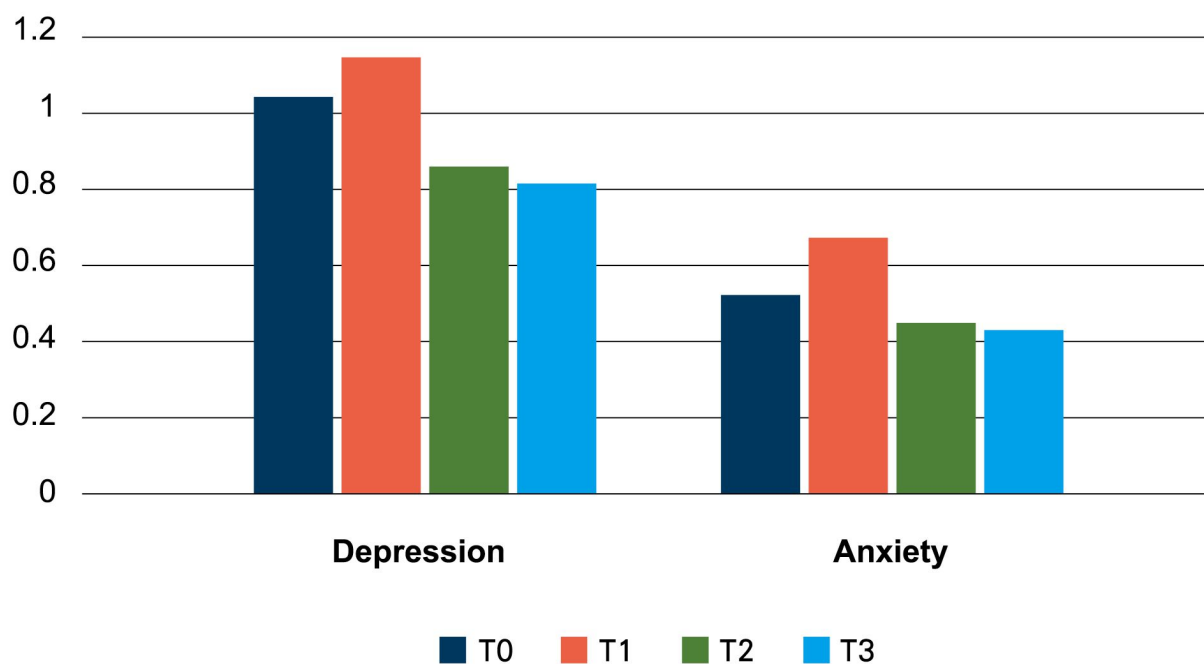
\*significant

**Table 5.1 The Effects of Variables for Caregivers of Older Adults**

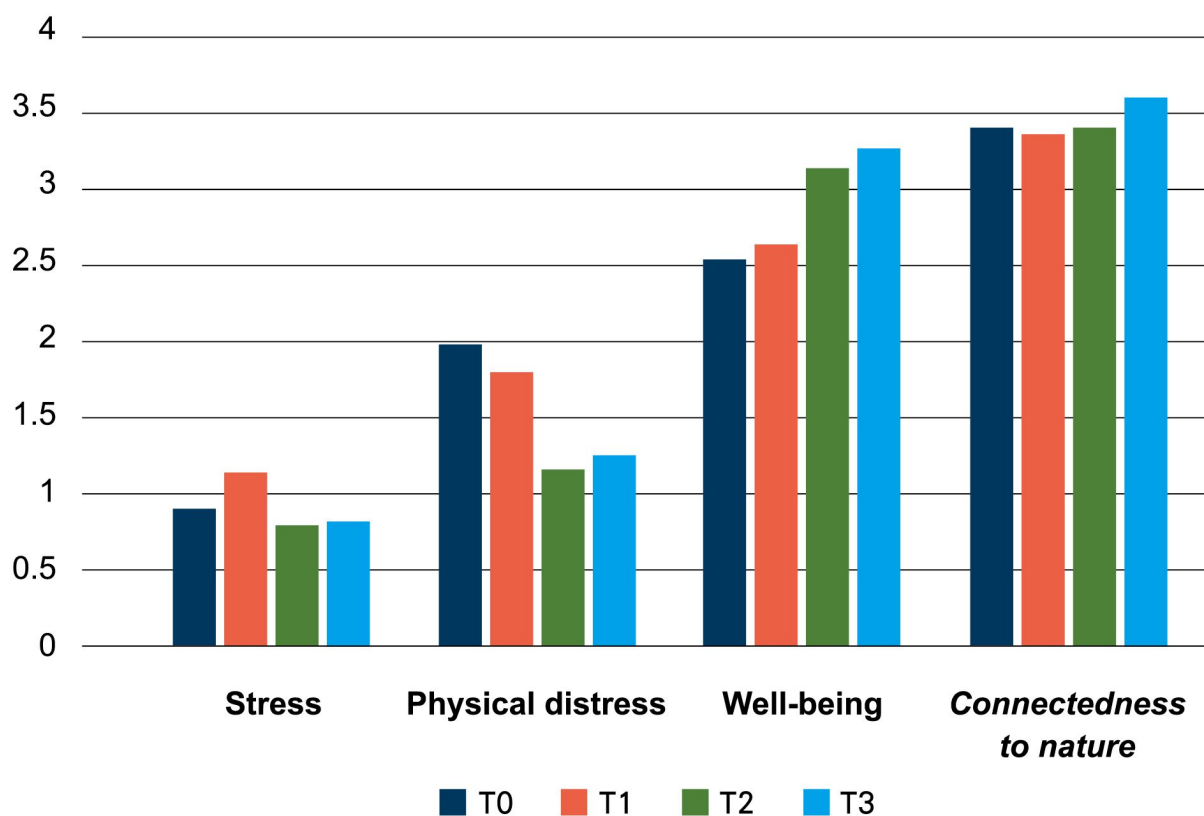
	T1 vs T2	T1 vs T3
Depression	0.545	0.656
Anxiety	0.473	0.496
Stress	0.528	0.510
Physical distress	0.496	0.399
Daily functioning	0.333	0.419
Well-being	0.476	0.532
Family functioning	/	0.388
Physical abuse	0.057	/
Connectedness to nature	/	0.483



**Figure 1 : Results of Caregivers of Older Adults (1)**



**Figure 2: Results of Caregivers of Older Adults (2)**



**Table 6. Outcomes Over Time for Parents (n = 55)**

Scale	T0 M (SD)	T1 M(SD)	T2 M(SD)	T3 M(SD)	T0 vs T1			T1 vs T2			T1 vs T3		
					t	p	d	t	p	d	t	p	d
Depression	1.48 (0.66)	1.46 (0.67)	1.38 (0.50)	1.31(0.54)	0.20	0.844	/	1.08	0.285	/	1.98	0.053	/
Anxiety	1.18 (0.74)	1.13 (0.67)	1.05 (0.55)	0.80 (0.60)	0.60	0.552	/	1.02	0.311	/	3.50	0.001	0.519
Stress	1.68 (0.77)	1.71 (0.77)	1.49 (0.60)	1.27 (0.72)	-0.54	0.591	/	2.39	0.020*	0.319	4.45	<0.001	0.590
Physical distress	3.42 (1.81)	3.91 (2.15)	3.31 (1.65)	3.03 (1.89)	-2.2	0.032*	0.247	2.24	0.029*	0.313	3.31	0.002*	0.435
Daily functioning	4.98 (1.69)	4.71 (1.65)	5.32 (1.66)	5.22 (1.53)	1.51	0.137	/	-2.39	0.020*	0.369	-2.34	0.023	0.321
Wellbeing	2.51 (1.32)	2.36 (1.41)	2.83 (1.21)	2.36 (1.04)	0.65	0.519	/	-1.67	0.104	/	-0.04	0.964	/
Family functioning	1.23 (0.92)	1.18 (0.93)	1.29 (0.76)	1.00 (0.45)	0.80	0.425	/	-1.11	0.273	/	1.64	0.107	/
Psychological aggression	1.47 (0.89)	1.35 (0.81)	1.24 (0.75)	0.98 (0.67)	1.669	0.101	/	1.463	0.149	/	3.882	<0.001	0.498
Corporal punishment	1.11 (0.76)	0.98 (0.72)	0.96 (0.59)	0.58 (0.50)	2.098	0.041	0.173	0.253	0.801	/	4.305	<0.001	0.647
Physical maltreatment	0.69 (0.72)	0.63 (0.67)	0.66 (0.53)	0.33 (0.43)	1.037	0.304	/	-0.386	0.701	/	3.953	<0.001	0.530
Self-compassion	3.11 (0.53)	3.00 (0.49)	3.18 (0.44)	3.12 (0.41)	2.01	0.049*	0.216	-2.82	0.007*	0.387	-1.85	.070	/
Connectedness to nature	3.19 (0.64)	3.23 (0.61)	3.30 (0.57)	3.27 (0.53)	-0.45	0.652	/	-1.01	0.32	/	-0.59	.555	/

\*significant

**Table 6.1 The Effects of Variables for Parents**

	T1 vs T2	T1 vs T3
Depression	/	0.247
Anxiety	/	0.519
Stress	0.319	0.590
Physical distress	0.313	0.435
Daily functioning	0.369	0.321
Psychological aggression	/	0.498
Corporal punishment	/	0.647
Physical maltreatment	/	0.530
Self-compassion	0.387	/

Figure 3 : Results of Parents under Stress (1)

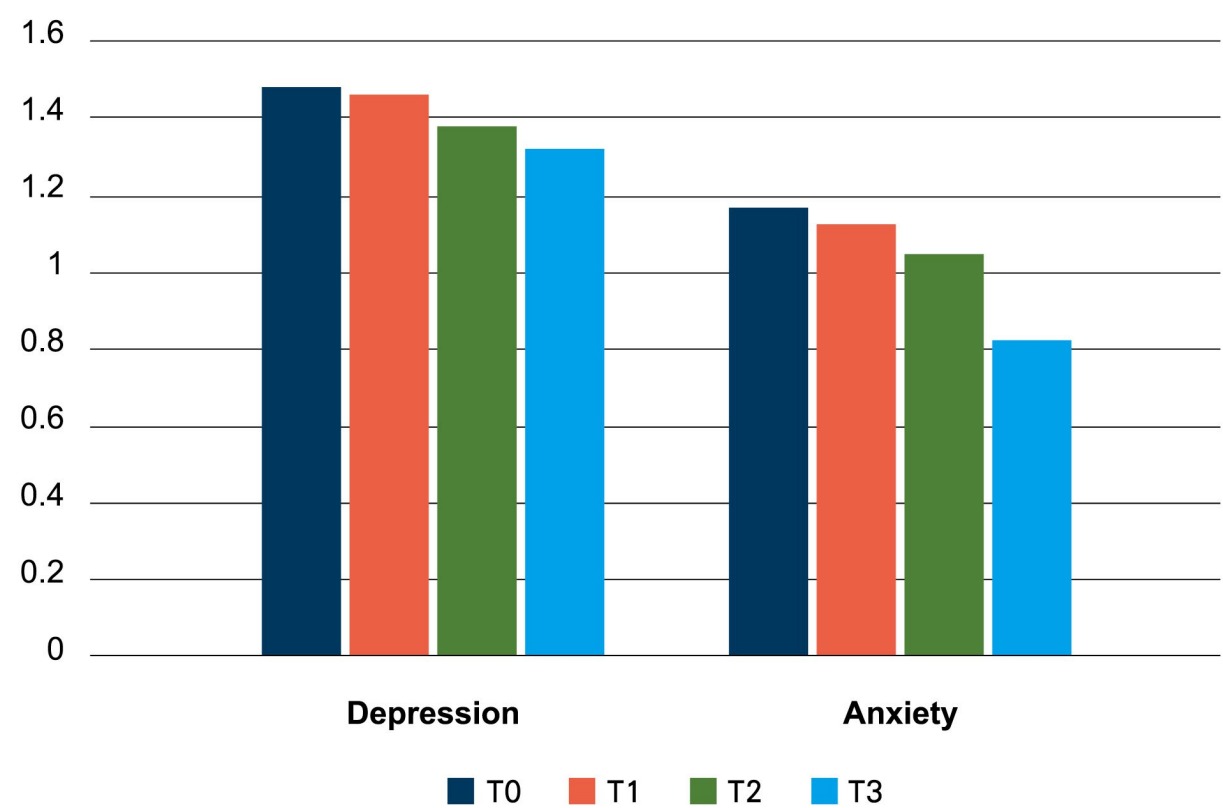
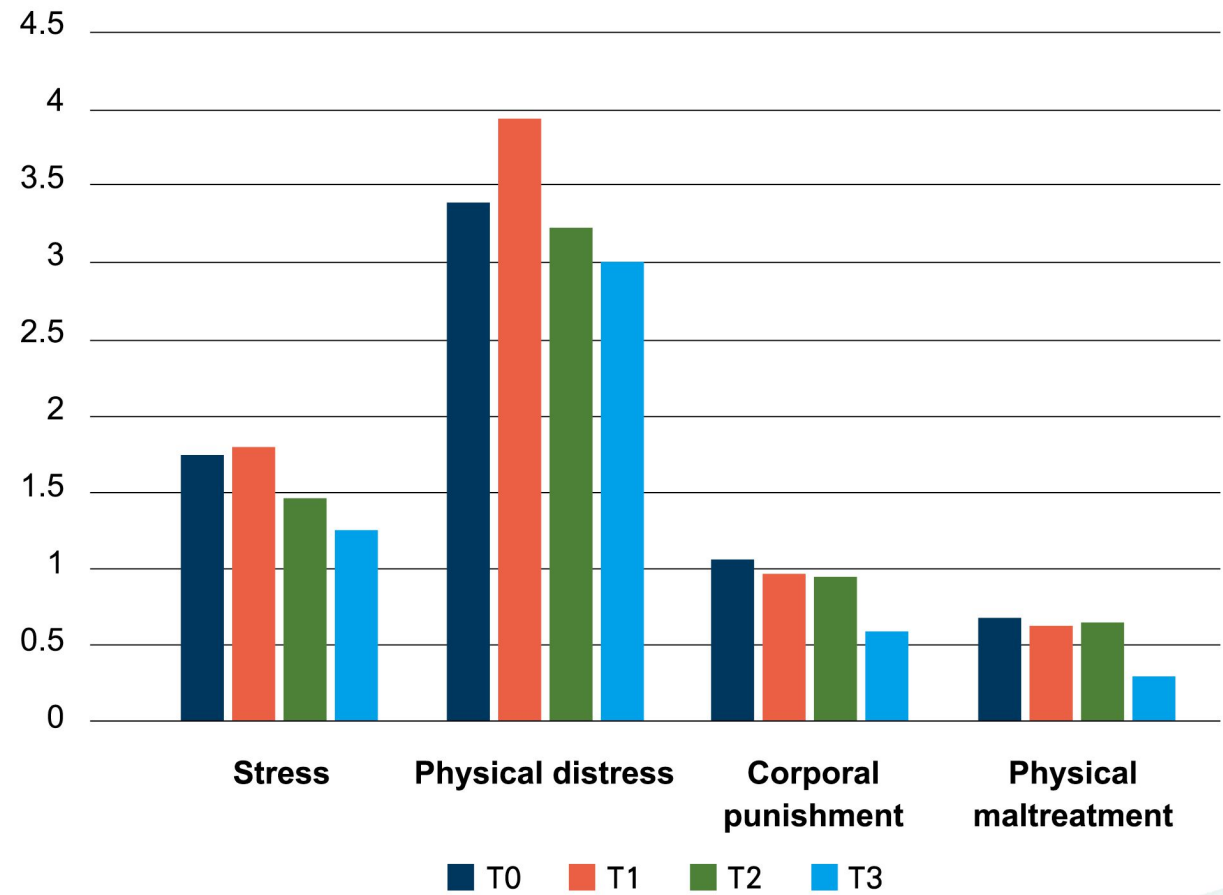


Figure 4 : Results of Parents under Stress (2)



### 8.2.2 Additional Analysis on the Role of Nature

(i) According to the outcomes over time, analysis was conducted to investigate the role of nature in the programme outcomes, using hierarchical regression analysis. After controlling the basic information of caregivers and their primary outcome of depression at T2, connection with nature and hours in white house explained 46.1% of the variance of changes in their depression, 20.3% of the variance of family functioning, and 30.6% of the variance of family conflicts at post-test. Connection with nature significant predict the variance of changes in depression at T2 ( $\beta=-0.285$ ,  $t=-3.205$ ,  $p=0.002$ ).

(ii) After controlling the basic information of caregivers and their primary outcome of depression at T3, Connection with nature and hours in white house explained 47.8% of the variance of changes in depression, 30.5% of the variance of family functioning, and 36.6% of the variance of family conflicts. Connection with nature significantly predict the variance of changes in depression ( $\beta=-0.236$ ,  $t=-2.721$ ,  $p=0.008$ ) and family functioning ( $\beta=0.442$ ,  $t=4.421$ ,  $p<0.001$ ) at T2. The effect of hours spending in white house were analyzed and no significant result was found.

## 8.3 Results and Findings of the Qualitative Analysis

8.3.1 After reading the participant's transcriptions for several times, the qualitative data has been analyzed based on three major dimensions of Kaplan's attention restoration theory, including being away and soft fascination, extent, and compatibility.

(i) **Being Away and Soft Fascination:** A visit to the White House allows a physical distancing from day-to-day environment. Many parents and caregivers appreciate that the programme and the nature environment offer them a space that can free themselves from caregiver stress and burden. Participant's focus and mental capacity are restored and fatigue is reduced after their attention is engaged by the nature and its aesthetics.



*“Take your time eating, there's no rush at all. The pace is slow, very slow, and comfortable. Everything slows down, slowly savoring the fruits. I brought along those delicious tuna sandwiches myself. I've never had tuna that tastes so good before... Even when I've had it in the past, it didn't seem as delicious. That day, it felt exceptionally tasty... It was all so comfortable, so sweet. That's how I remember enjoying that journey...”*

慢慢咁樣食嘢呀，一啲都唔急嘅，步伐好慢好慢好舒服，咩都慢翻落嚟，慢慢品嚐啲生果，自己帶嚟啲吞拿魚包，我從來未食過吞拿魚咁好食嘅，…以前食過都未覺得佢好食，嗰日特別覺得好食㗎…都好好舒服，好甜甜地咁樣，咁我記得係好享受嗰次嘅旅程… (script from Group 2, Caregiver, L)”

*“I used to have a lot of pain in my hand, and I couldn't carry the food when I visited the market properly. But after I learned to relax, I realized that maybe I had been tensing my muscles too tightly. Learning to relax actually made the pain less intense. At least now I don't experience pain all the time... and even my headaches have changed. In the past, my headaches would make my head feel like it was about to explode, but now they're less severe... I used to rely on headache medication, taking two pills every night and day just to relieve the pain and get some sleep. But now, I need them less frequently. I don't have to take as much headache medication anymore.”*

我以前隻手好痛，成日攞唔到鑊，當我學曉咗放鬆之後，我可能我條筋拉得太緊要，學曉放鬆其實冇咁痛，…起碼我平時唔會無端端會痛，…同埋頭痛都有改變，我以前痛到個頭就嚟爆炸，而家痛少咗，…我要食頭痛藥，係晚晚日日都要啲兩粒，先可以止到個頭痛，可以瞓到覺，而家就係少咗，唔使食咁多頭痛藥咯 (script from Group 4, Parent, Y)”

*“Arriving at that environment indeed helps people relax. When you enter a peaceful place, the White House, it changes the mood... The visual experience is different, you know. It feels very comforting... Especially when i take a leisurely walk in the garden, taking small steps and enjoying the surroundings.*

去到嗰個環境都令到人鬆啲㗎，去到白屋，個心情都唔同，… 視覺都唔同呀嘛，…咪好舒暢囉，…尤其是係花園慢慢行啊，度吓步 (script from Group 1, Caregiver of older adult, H)”

*“When I enter that environment, I feel so comfortable, as if I've immersed myself in nature. Being surrounded by flowers and plants, when we go for a walk in the flower garden and get to know different types of flora, seeing various flowers displayed together, it brings a sense of tranquility. Sitting on a bench, I feel like closing my eyes and practicing mindfulness, taking in the scent of nature, feeling the air and the gentle breeze brushing against me.*

…我去到個環境就好舒服咯，好似入咗個大自然咁樣，其實對住啲花花草草，當我哋去行嗰個花園嘅時候，去認識唔同嘅花花草草，睇到唔同品種嘅花擺埋一齊，個人好舒服，… 坐喺嗰張凳度都好想眯埋眼去做下靜觀啦，聞下大自然氣味，感受下個空氣同埋風吹過嚟個啲感受 (script from Group 4, Parent, Y)”

*“The serene environment of the White House, filled with the sounds of birds and the fragrance of flowers, made me pay more attention to the subtle details around me. ... I cannot say for certain that I have lost those experiences... It is possible that others may have had similar experiences. However, I am certain that the experience of being in the White House is truly worth cherishing. It is highly valuable indeed....*

因為白屋個環境好好，鳥語花香，令到我多咗去留意返一啲遠一啲咩…所以我唔敢肯定有咗佢，…會唔會有同樣嘅經驗，但我好肯定白屋嗰個係一個好值得擁有嘅經驗咯，好值得… (script from Group 6, Parent, 1)”

*“Being in the White House feels like completely detaching from everything in the present moment. It provides a space for me to catch my breath and feel more comfortable. There are multiple spots where I can take a deep breath. Sometimes, I even realize that I forget to breathe in certain situations. Participating in this activity helps me find the root causes of certain issues. In the white room, I have found a breathing space. The reason for bringing back a flower is to evoke the feeling of being in that space. It's a feeling where I can let go of everything, not needing to think about anything, and completely focus on myself.*

去白屋嗰度好似完全脫離咗而家所有嘢嘅一個空間，有一個叫做喘息嘅空間，可以俾我舒服啲，…多個位可以啲啲氣，其實我有陣時覺得自己唔係好記得呼吸呢樣嘢。我有陣時會僵硬嘅時候呢，會首先心口痛先，然後全身就硬曬軟。…會越嚟越了解多咗自己嘅身體，開始對自己嘅狀況會明白多少少，我會覺得接受，…唔好話我，醫生都有畀到答案我，既然係咁咪接受佢咯，…你做到咪做咯，同佢共存咯，…我多咗一個心靈上嘅一個啲氣位。  
(script from Group 7, parent, M)”

(ii) **Extent:** Parents and caregivers experience a sense of relatedness that they can associate their experiences in nature environments with own parenting and caregiver experiences. They felt relaxed and enjoyed in the programme offered in the White House, with the nurturing by the natural environment and mindfulness practices.

*"I feel like it was helpful during that period of time, my mood relaxed a lot. The environment, the air, and engaging in those activities, listening to mindfulness music, made me feel much more comfortable. But after some time, it seemed to fade away, and I feel like I've become lazy again."*

我覺得好似嗰段時間有幫助到，自己個心情放鬆咗好多，個環境同埋啲空氣，安排啲活動呀，聽吓啲靜觀嘅音樂，心情係舒服好多，但隔咗一段時間之後冇咗呢，好似自己又疏懶咗啦喎 (script from Group 1, Caregiver of older adult, L)"

*"It seems like you felt a strong connection with nature and that it had a positive impact on your mindset. Being in tune with nature can indeed help to relax and uplift one's spirits. When you are burdened with worries or feeling down, immersing yourself in that environment can truly have a positive effect on your well-being. Looking at the surroundings and being in touch with nature can be incredibly uplifting."*

當中感覺到我哋同大自然嗰個關係，好密切，同埋個心態都放鬆咗，個人都開朗呀，即係其實當你有好多嘅憂鬱呀，或者心情唔好呀，當你一入到嗰度個時間，你望個環境真係令到人哋好 (script from Group 9, Caregiver of older adult, 8)"

*"Before participating, there were times when I would forget to breathe and even experience a sense of emotional numbness. It's like feeling disconnected and suddenly bursting into tears without any apparent reason. Perhaps there were suppressed emotions that I wasn't aware of. During the process of participation, I was able to gain some insights into the issues ..."*

參加前，我可能有陣時會唔記得呼吸，…甚至係會有啲情緒麻木。即係個個人好似冇感覺呀，然後又無端端會喊，…可能有太多抑壓嘅情緒係自己唔知，…參加過程當中都有一啲嘢去睇到個問題嘅。包括睇到我原來我老公都係我一個好大嘅壓力來源㗎，… (script from Group 7, Parent, M)"



*“Indeed, personally connecting with nature and practicing mindfulness in that setting can be highly effective. Nature has its unique sounds, such as birds singing, and one can experience the presence of trees while breathing in the refreshing air. When one participates in mindfulness activities in the White House, it can complement the experience by aligning with the theme.*

親身去接觸大自然去做靜觀咁有效嘅，因為即係大自然真係會有啲啲聲音係雀仔唱歌呀，有樹呀，即係你會聞到大自然嘅氣息咯。咁就好似如果係白屋參加就會相得益彰咯，即係同個主題會切合囉。(script from Group 10, Parent, 4)”

(iii) **Compatibility:** It suggests the natural environments are well suited to one’s preferences or purposes in parenting and family caregiving. The integration of the natural environments with mindfulness practices can provide support to parents and caregivers and enhance their adaptive coping.

*“I picked up the falling leaves, some were yellow, some were green, but they all ended up on the ground. It’s like life itself. Every action we take is akin to cultivating and nurturing, starting from a state of unfamiliarity and gradually adapting and becoming familiar. It’s as if changes in life instill a sense of belief in us.*

我執咗飄落嚟啲樹葉，…有一塊係好黃嘅，有一塊好綠嘅咁但係都係全部都係地跌咗落嚟，…好似人生咁，…即係做每一件事，好似靜心靜養咁啦，就由唔識慢慢去適應，跟住到去熟悉，即係好似個變化都係令到我哋都會信呢一樣嘢呢 (script from Group 4, Parent, Y)”

*"It's important to relax and take care of yourself first. If you feel too tense, it can be challenging to manage everything. Additionally, it's essential not to let your own emotions dictate how you care for your children. Avoid putting too much pressure on yourself and learn not to accommodate all of their demands. In the past, you may have felt the need to constantly accommodate them, but now it's crucial to prioritize self-care and not solely rely on being their mother to fulfill their every need."*

放鬆自己，照顧好自己先，我繃得緊咯，…，同埋我自己都帶住啲情緒去照顧啲子女咯，但而家唔會話繃得太緊，放鬆自己，同埋唔好遷就佢哋，…以前我覺得太遷就佢哋，佢就覺得係阿媽做呢啲應該…我自己要做下靜心，坐喺度靜半個鐘頭都好過真係頻頻撲撲好高興做曬啲嘢，…越放鬆，我個人精神越好，先可以做其他嘢 (script from Group 4, parent-W)”

*"If there is an activity I can participate in, it would feel like finding a hiding place where I can take a break. It's something I wouldn't normally pay attention to, but it's a way to divert my attention and prevent myself from obsessing over things. It's important not to get fixated and to avoid getting worked up over minor issues. I believe this kind of activity can bring significant benefits to me."*

有一個活動我可以參加到，咁可以比我其實似一個係逃避，有個窿我可以入匿一匿嗰咁樣，…平時唔會留意嘅，…有少少似係轉移返個注意力出嚟啦咁樣，唔好轉牛角尖啦，我覺得呢樣嘢係幾大嘅得著囉對於我。(script from Group 5, Parent, M)”

*“When we went to the White House, because we didn't bring the children along, I felt truly amazing. The previous activities, I did them with my child, and it felt different. It was so relaxing. When I walked out to the garden and breathed in the free air, it felt so liberating. That's when I realized that I must give myself more opportunities to de-stress. When we went that day, we were incredibly happy, breathing in the free air. The difference I felt was that I could slow down my pace and appreciate myself more, and be grateful to myself. There are many things that I need to learn to let go. My child has grown up, today was their first day of middle school, and compared to before, I feel the need to take care of myself more. Don't spend too much time focusing solely on the children.*

我哋去到白屋呢，因為果日冇帶小朋友去，…我就覺得，真係正到不得了，…之前啲活動，我帶埋我個仔係唔同㗎，兩個感覺。…輕鬆到呢，…我行出去花園呼吸自由嘅空氣，即係好自由呀。…咁我就覺得，我一定要俾我自己多啲去減壓，…我哋嗰日去到，開心到不得了，即係呼吸緊自由嘅空氣，…我覺得個分別就係——我可以放慢咗我自己個步伐去欣賞下自己，去多謝自己。我覺得有好多野，真係唔需要太過執著，…我個仔又大咗，今日返中學第一日，感覺上比之前，更加多啲去關顧自己多啲，…唔好擺太多時間喺個小朋友度啦 (script from Group 7, Parent, 3)”

*“Sometimes, when I feel tense, it first manifests as a pain in my chest, and then my whole body becomes stiff. Over time, I have come to understand my body better, and I have started to have a better understanding of my condition. I have learned to accept it. Even if doctors couldn't provide me with an answer, if that's the case, then I accept it. You have to work with it and coexist with it. It has given me a new perspective in terms of my mental and emotional well-being.*

去白屋嗰度好似完全脫離咗而家所有嘢嘅一個空間，有一個叫做喘息嘅空間，可以俾我舒服啲，…多個位可以啲啲氣，其實我有陣時覺得自己唔係好記得呼吸呢樣嘢。我有陣時會僵硬嘅時候呢，會首先心口痛先，然後全身就硬曬軟。…會越嚟越了解多咗自己嘅身體，開始對自己嘅狀況會明白多少少，我會覺得接受，…唔好話我，醫生都有畀到答案我，既然係咁咪接受佢咯，…你做到咪做咯，同佢共存咯，…我多咗一個心靈上嘅一個啲氣位。(script from Group 7, M,parent)”



*“I have learned that through mindful walking, we can truly appreciate nature. Many things go unnoticed in our daily lives, but when we walk slowly and mindfully, our hearts become calm. When we're in a hurry, we tend to walk fast, even taking less than five steps before picking up the pace again. However, when you walk slowly and mindfully, you realize that it is actually very comfortable. It teaches us not to rush and to take our time.*

我學習到，原來我哋靜觀慢慢行俾我哋可以欣賞大自然，好多嘅嘢係平時裏邊無留意，慢慢行嘅時候，心會靜，好急嘅時候，慢慢行，唔夠五步又行翻快，但係你慢慢行嘅時候咧，第二次慢慢行，原來慢慢行係好舒服，即係學習唔好咁急。(script from Group 9, Caregiver of older adult, 3)”

## 9. Discussion and Recommendations

### 9.1 Implications to Service Development

(i) Many parents and caregivers have reported experiencing mild to moderate levels of mental health symptoms, including depression and anxiety, which puts them at risk for negative mental health outcomes. These symptoms strongly impact family functioning and often lead to serious conflicts within these families. Mindfulness is an innovative approach that can support parents and caregivers by promoting self-care and self-regulation, especially in situations where problem-solving may not be effective, particularly when dealing with chronic conditions. Mindfulness cultivates acceptance, which can be more helpful in addressing issues related to older adults and children with special needs.

(ii) Some parents and caregivers face challenges when it comes to learning and practicing mindfulness due to their stressful daily lives and responsibilities of caregiving. An environment immersed in nature can offer significant benefits to participants, as it helps restore attention fatigue and allows for cultivating mindful awareness in a nature-based mindfulness programme. In this evaluation study, we have found preliminary evidence suggesting that nature can enhance the effects of a typical mindfulness-based programme. Parents and caregivers of older adults can benefit from a brief and “upgraded” programme in the White House.



(iii) Based on these encouraging results, we strongly recommend continuing this initiative and organizing regular nature-based mindfulness programme for parents and caregivers at the White House. In addition to the four-session programme format, project social worker may also consider alternative structures, such as one-day mini-mindfulness retreats for programme graduates, and a more intensive programme similar to the standard eight-week mindfulness-based programme for interested participants to consolidate their learning and practice.

(iv) In spite of the overall positive results, it is unexpected that the parent group has a smaller effect size in depression, when comparing with those for caregivers of older adults. Consistent with the connectedness to nature, parents reported smaller effect of positive change in this outcome when comparing with the caregivers of older adults. The association between changes in depression and connectedness with nature is positive, as shown in the hierarchical linear regression analysis. Based on this preliminary analysis, project social worker should consider more strategies in encouraging the parent and their social workers to provide support for them to have more sessions in the nature and maximize the programme outcome. At the same time, it is encouraging that parents report moderate effects in reduction of family conflicts, particularly in the use of corporal punishment. It suggests that mindfulness can promote the emotional awareness and self-regulation so that parents are enabled to manage their impulsive and reactive parenting behavior. It is reasonable that the changes in family conflict is not significant due to the low base line.

(v) Furthermore, a parallel programme for parent-child or caregiver-cared pairs can be considered at the White House. Previous studies have shown that children with ADHD and their parents, as well as other disadvantaged families have benefited from participating in a parallel family-based mindfulness programme. After experiencing the benefits of individual mindfulness exercises, parents and caregivers of older adults may further improve through joint practice with their family members. In addition, offering short-time care support for children and older adults can allow parents and caregivers to have temporary respite in a nature setting, relieving them from care responsibility and enabling more individuals to participate in the programme. Overall, more attempts should be made to integrate mindfulness practice with nature to enhance the mental health and wellbeing of parents and caregivers.

## 9.2 Implications to Policy

The project team recommends the government, corporates, non-government organizations, and stakeholders to collaborate and promote "nature-based" mindfulness activities in the community. The Government should provide venues for the natural environment and facilities of the community or subsidize social welfare organizations to organize nature-based mindfulness courses/activities on a regular basis, so that parents or elderly carers in need can participate "Nature-based mindfulness Programme" in nearby community. It can enhance connectedness with nature, promote physical and mental health, strengthen family and human bonding. It also facilitates them to take a break for self-care.

In the corporate sector, employers may arrange or encourage their employees to participate in the nature-based mindfulness courses and activities as a work-related supportive measures, with a view to providing more self-care space for employees as carers to enhance their mental health.

## 10. Limitations of the Study

- 10.1 In spite of the encouraging results, the research team acknowledge the following limitations of the study and they also provide directions for further study. First, the study did not include a control group. Although the design includes a comparison period (from one month before the programme to pre-programme), further studies should consider the inclusion of the control group, to verify the programme effect and the effect of connectedness to nature.
- 10.2 Second, the study applies self-reported measures only. Further studies may consider other objective measures to strengthen the evidence of nature-based mindfulness programme.
- 10.3 Lastly, the study did not include booster and further mindfulness programmes after the sessions. In focus group interviews, one participant raised a concern that she was not able to maintain regular mindfulness practice after the programme. It shows a demand for the parents and caregivers of older adults to receive more support so that their programme effect is sustainable.

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# Appendix

## Appendix 1 Questionnaire of the Study

### 第一部份 抑鬱狀況

以下句子描述一些自我感覺或行為。請圈出最接近您過去一週的狀況。

	很少或完全沒有 (少過 1 日)	有幾天 (持續 1-2 日)	間中或一半時間 (持續 3-4 日)	經常或近乎每天 (持續 5-7 日)
1. 我被一些平時不會困擾我的事情困擾	0	1	2	3
2. 我很難集中精神工作	0	1	2	3
3. 我覺得情緒低落	0	1	2	3
4. 我覺得我做每件事情都很吃力	0	1	2	3
5. 我對將來抱有希望	0	1	2	3
6. 我覺得恐懼	0	1	2	3
7. 我睡眠不安寧	0	1	2	3
8. 我很開心	0	1	2	3
9. 我覺得孤獨	0	1	2	3
10. 我提不起勁	0	1	2	3

### 第二部份 焦慮及壓力狀況

請小心閱讀以下每一個句子，並在其右方圈上一數字，表示「過往一個星期」如何適用於你。答案並無對錯之分。請不要花太多時間在某一句子上。

評估量表：

0 = 不適用

1 = 頗適用，或間中適用

2 = 很適用，或經常適用

3 = 最適用，或常常適用

### (A) 壓力狀況

1. 我覺得很難讓自己安靜下來	0	1	2	3
2. 我對事情往往作出過敏反應	0	1	2	3
3. 我覺得自己消耗很多精神	0	1	2	3
4. 我感到忐忑不安	0	1	2	3
5. 我感到很難放鬆自己	0	1	2	3
6. 我無法容忍任何阻礙我繼續工作的事情	0	1	2	3
7. 我覺得自己消耗很多精神	0	1	2	3

### (B) 焦慮狀況

1. 我感到口乾	0	1	2	3
2. 我感到呼吸困難 (例如不是做運動時也感到氣促或透不過氣來)	0	1	2	3
3. 我感到顫抖 (例如手震)	0	1	2	3
4. 我憂慮一些令自己恐慌或出醜的場合	0	1	2	3
5. 我感到快要恐慌了	0	1	2	3
6. 我察覺自己在沒有明顯的體力勞動時， 也感到心律不正常	0	1	2	3
7. 我覺得自己消耗很多精神	0	1	2	3



### 第三部份 身心靈健康

#### (A) 身體困擾

在過去一星期以下的症狀對您的困擾程度有多少？請圈出合適的數字。

(0 = 完全沒有困擾，10 = 非常大困擾)

#### 症狀出現時對您的困擾

	完 全 沒 有 困 擾	差 不 多 沒 有 困 擾										非 常 大 困 擾
1. 頭痛	0	1	2	3	4	5	6	7	8	9	10	
2. 頭暈	0	1	2	3	4	5	6	7	8	9	10	
3. 失眠	0	1	2	3	4	5	6	7	8	9	10	
4. 眼花	0	1	2	3	4	5	6	7	8	9	10	
5. 喉嚨痛聲沙	0	1	2	3	4	5	6	7	8	9	10	
6. 呼吸不暢	0	1	2	3	4	5	6	7	8	9	10	
7. 心跳 (心悸)	0	1	2	3	4	5	6	7	8	9	10	
8. 胸口痛	0	1	2	3	4	5	6	7	8	9	10	
9. 胃部不適	0	1	2	3	4	5	6	7	8	9	10	
10. 腹瀉	0	1	2	3	4	5	6	7	8	9	10	
11. 便秘	0	1	2	3	4	5	6	7	8	9	10	
12. 手足冰冷	0	1	2	3	4	5	6	7	8	9	10	
13. 腰酸背痛	0	1	2	3	4	5	6	7	8	9	10	
14. 疲倦	0	1	2	3	4	5	6	7	8	9	10	

## (B) 日常生活

此部份問卷目的是了解過去一星期內，你日常的生活狀況。請圈出最適合你情況的答案。

(1 = 十分差，10 = 十分好)

	十分差									十分好
1. 體力	1	2	3	4	5	6	7	8	9	10
2. 精神集中力	1	2	3	4	5	6	7	8	9	10
3. 睡眠	1	2	3	4	5	6	7	8	9	10
4. 食慾	1	2	3	4	5	6	7	8	9	10
5. 記憶力	1	2	3	4	5	6	7	8	9	10
6. 日常工作 / 做家务	1	2	3	4	5	6	7	8	9	10
7. 精力	1	2	3	4	5	6	7	8	9	10
8. 處理困難	1	2	3	4	5	6	7	8	9	10
9. 辦事動力	1	2	3	4	5	6	7	8	9	10
10. 起床時的感覺	1	2	3	4	5	6	7	8	9	10

## 第四部份 幸福感

請針對以下五個句子，選出在過去兩星期最接近您的生活情況。

答案並無對錯之分，請不用花太多時間在某句子上。

	所有時間	大部份時間	超過一半時間	少於一半時間	有時候	從未試過
1. 我感到情緒開朗且精神不錯。	5	4	3	2	1	0
2. 我感到心情平靜和放鬆。	5	4	3	2	1	0
3. 我感到有活力且精力充沛。	5	4	3	2	1	0
4. 我醒來感到清新並有充分休息。	5	4	3	2	1	0
5. 我的日常生活中充滿讓我感興趣的事物。	5	4	3	2	1	0

## 第五部份 家庭關係量表

以下五條問題係俾我地瞭解你同埋你既「屋企」，希望你能就真實既情形回答。呢度「屋企」係指同你一齊住既人。若你係自己一個人住，你既「屋企」指你既至親（包括親戚、朋友等）。

常常如是 = 2；有時如是 = 1；很少如是 = 0

	常常如是	有時如是	很少如是
1. 當你有有麻煩或煩惱既時候，您好滿意家人給你的幫忙。	2	1	0
2. 你好滿意家人同你談論事情同埋分擔問題既方式。	2	1	0
3. 當你想嘗試新事物或有新動向既時候，你好滿意家人對你既接受同埋支持	2	1	0
4. 當你有唔同既情緒（包括喜、怒、哀、樂）既時候，你好滿意家人對你表示既關懷。	2	1	0
5. 你好滿意家人同你分享時間及金錢的情況。	2	1	0

## 第六部份 關係衝突行為

不論照顧者與被照顧者之間相處得如何融洽，有時候也會意見不合、惱怒對方、彼此有不同的要求，或因心情欠佳、疲倦或其他原因而爭吵或打架。照顧者與被照顧者之間會用不同的方法去處理衝突，以下列舉的項目是當被照顧者不聽從醫生的指示或不去做你認為他們應該做的事情時有可能會發生的事情。

請以目前或最近你與他 / 她的相處，回答以下每條題目，並請固定以這位被照顧者為回答問題的參照。

以下適用於長者照顧者

	從來沒有	幾乎從不	有時	大多數時候	所有時候
1. 曾向對方喊叫或呼喝	0	1	2	3	4
2. 曾威嚇要送對方到養老院	0	1	2	3	4
3. 曾威嚇會向對方使用武力	0	1	2	3	4
4. 曾威嚇會遺棄對方	0	1	2	3	4
5. 曾向對方講難聽的說話，譬如嚴厲的語氣、侮辱、改綽號、或咒罵	0	1	2	3	4
6. 曾扣起食物	0	1	2	3	4
7. 曾打或掌摑對方	0	1	2	3	4
8. 曾用力搖對方	0	1	2	3	4
9. 曾粗魯地抓住對方	0	1	2	3	4
10. 擔心會打或傷害對方	0	1	2	3	4

以下適用於家長照顧者

	從來沒有	幾乎從不	有時	大多數時候	所有時候
1. 向孩子狂吼尖叫	0	1	2	3	4
2. 咒罵孩子或向他 / 她說髒話	0	1	2	3	4
3. 說要把孩子趕出家門	0	1	2	3	4
4. 威脅要打孩子屁股但並沒有真的實行	0	1	2	3	4
5. 罵孩子是笨蛋或懶蟲或其他類似的稱呼	0	1	2	3	4
6. 猛力搖晃孩子	0	1	2	3	4
7. 用皮帶、梳、棍、或其他硬物打孩子屁股	0	1	2	3	4
8. 用手打孩子屁股	0	1	2	3	4
9. 打孩子的手掌、手臂、或腳部	0	1	2	3	4
10. 擰 / 捏孩子	0	1	2	3	4
11. 對孩子拳打腳踢	0	1	2	3	4
12. 用皮帶、梳、棍、或其他硬物打孩子屁股以外的身體部位	0	1	2	3	4
13. 打孩子的手掌、手臂、或腳部	0	1	2	3	4



## Appendix 2

### Focus Group Interview Guide

多謝大家抽時間參加今日既焦點小組。我係呢個研究計劃團隊既成員，焦點小組既目的主要係希望大家係參加「靜養身心」和平照顧者小組既心路歷程，每位參加者可以輪流分享。

#### 1. 尋求幫助

- 1.1. 是什麼讓您加入這個計劃？在參加該計劃之前，您如何形容自己作為家長 / 照顧者的身份？
- 1.2. 自從感受情緒壓力或負擔以來，您一直在尋找什麼種類的服務？  
（包括自助、個別輔導、團體輔導、藥物治療）
- 1.3. 這些服務或項目（包括個人和團體輔導）對您有幫助嗎？

#### 2. 個人變化

- 2.1. 自從您參加白屋的家長 / 照顧者活動以來，您學到了什麼或經歷了哪些變化，您是否注意到自己的變化？  
（例如：您的行為、感受或思考是否與以前不同？您從該計劃中獲得了哪些具體的東西？）
- 2.2. 如果有的話，請最多分享三種自您加入該小組以來最重要的變化。

- 3. 有關此活動，那些對您造成了阻礙、無益、消極或失望？請舉例說明，一些具體的方面或具體的事件。程序中是否缺少任何內容？甚麼會使該計劃更有效或更有幫助？

#### 4. 建議

- 4.1 關於照顧者活動，您對我們有什麼建議嗎？你還有什麼想告訴我們嗎？

**Appendix 3**  
**Consent Form for the Research Study**



**參與研究資料卡**

**「靜養身心」和平照顧者小組**

你被邀請參與由香港理工大學應用社會科學系副教授盧希皿博士所開展的研究。

這研究的目的是幫助照顧者處理壓力，並促進身心健康及家庭關係。所有將獲邀請參與研究的照顧者需完成課程前後及三個月跟進問卷，每次需時約 20 至 30 分鐘。

完成課程後問卷可獲超市現金券 200 元；完成三個月跟進問卷可獲超市現金券 200 元。個別被邀請進行焦點小組訪問的參加者會額外獲得 200 元現金券。

我們會將課程內容進行錄音，以便用作檢討、訓練及研究用途。

研究不會造成過度的不適。所有有關你的資料將會嚴格保密，只有相關研究人員透過代碼而知道。

你有權在任何時間決定不參加或退出計劃而不受懲罰。

如果你想得到更多有關這研究的資料，請致電這項研究的負責人盧希皿博士（電郵：herman.lo@polyu.edu.hk），或與計劃研究助理廖先生（電話：6645 8872）聯絡。

謝謝你有興趣參與本研究。

香港理工大學應用社會科學系

副教授

盧希皿博士

2022 年 9 月 19 日

## 以家為本 Family Matters

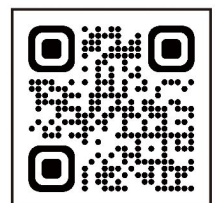
香港家庭福利會

HONG KONG FAMILY WELFARE SOCIETY

香港灣仔軒尼詩道130號修頓中心20樓2010室  
Room 2010, 20/F., Southorn Centre,  
130 Hennessy Road, Wanchai, Hong Kong

T: 2527 3171

E: [hoffice@hkfws.org.hk](mailto:hoffice@hkfws.org.hk)



[www.hkfws.org.hk](http://www.hkfws.org.hk)