EXPRESSIVE TEXTILE ARTS AND FASHION-BASED INTERVENTION FOR YOUTH WITH EMOTIONAL DISTRESS

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Expressive Textile Arts and Fashion-based Intervention for Youth with Emotional Distress

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Certificate of Originality

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Abstract

Background: In recent years, there has been an increasing interest in early intervention and the avoidance of youth mental health problems. Positive emotional experiences are a fundamental aspect of the overall well-being of young people. Textile arts intervention provides early tactile experience to shape and characterize youths' emotional, relational, cognitive, and neural functioning, helping them face emotional difficulties.

Purpose: The present study attempted to perform a scientific evidence-based evaluation of the beneficial effects on personal well-being and social interaction of youth with emotional distress through a mixed method randomized controlled trial (RCT) by expressive textile arts and fashion-based (ETAFB) intervention. The ETAFB intervention framework was integrated with the person-centred expressive arts theory, expressive therapies continuum (ETC), and a codesign model developed for facilitating scientific evidence-based evaluation.

Methods: A randomized, single-blind study with a pretest and posttest design was conducted among youths with emotional distress. All the participants were subjected to a 4-week intervention. Pre- and post-assessments, including the Personal Wellbeing Index – School Children (PWI-SC), 12-item General Health Questionnaire (GHQ-12), Social Interaction Anxiety Scale (SIAS), Self-Expression and Emotion Regulation in Art Therapy Scale (SERATS), and the in-depth interview were conducted.

Results: This study showed positive results that support the hypothesis that after the 4-week ETAFB intervention, participants will show improved personal well-being, general health, and social interaction, as evidenced by the pre-and posttest scores of the clinical measurements and in-depth interviews employed. The findings supported that the ETAFB intervention is feasible and acceptable for youth facing emotional distress.

Significance: Therefore, the ETAFB intervention needs to be designed for and applied to youth with emotional distress. This study provides the groundwork for further investigating the effect of the ETAFB intervention on the relationship between youth well-being and facilitators.

Publications Arising from The Thesis

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Chapter 1 – Introduction

1.1 Background and Rationale

Chapter 1 provides an overview of the study's background. Initially, the article discusses the prevalence, symptoms, and challenges of youth experiencing emotional distress. Secondly, various supportive interventions for youth facing emotional difficulties are discussed. The third section presents the ETAFB intervention and its possible impact on youth, followed by the aims and objectives of this study endeavor. The concluding section of this thesis offers a comprehensive summary of the study's significance and outlines.

1.2 Problem Statement

A healthy mental status for youth is particularly important for establishing foundations for health essential to their well-being as adults. Most mental illness diagnosed in adulthood begins in early or midadolescence (Kessler et al., 2005). Particularly, higher stress levels and subsequent stress assessments can cause individuals to suffer emotional distress, it might be referred to as emotional problems, symptoms, or challenges if they feel unequipped to address their difficulties (Maslach & Leiter, 2016). The term “emotional distress” refers to various affective, cognitive, and somatic symptoms of depression (Radloff, 1977).

Youth encounter a range of daily pressures throughout this phase of their development, including physical and sexual changes associated with puberty, school demands (Owens et al., 2008), problems Establishing and sustaining friendships and romantic relationships, career choices, the start of their working lives, and gradual separation from their parents. Additionally, Certain youths may need to manage atypical

pressures that may be associated with their family (abuse of drugs or alcohol, bodily or psychological illnesses, deaths of a cherished person, split parents, or divorce; Elizur et al., 2007), societal issues (like violence and poverty), and personal difficulties (such as adolescent pregnancy, acute sickness, academic failure, and abuse in various forms; Krapić, 2015). Various stressful experiences have been associated with emotional distress. That distress may be linked to mental health issues like depression (Van den et al., 2008).

According to O'Neill et al. (2021), most youth suffering from mental health difficulties are experiencing emotional distress. Youth mental health problems are increasing. In a recent study, Leung and Mu (2021) reported that 503 Hong Kong youth aged 17–25 and 649 mainland Chinese youth aged 13–20 suffered from severe anxiety, depression, and stress due to COVID-19. Both Hong Kong and mainland China samples indicated that structural formula modelling revealed that personal, and spiritual health's environmental dimensions were strongly linked to each of the three types of mental distress. (Leung & Mu, 2021). According to the World Health Organization, 10%–20% of youth worldwide suffer from mental disorders (2023). In Hong Kong, a recent study found high rates of symptoms of depression (48%), anxiety (51%), and stressful relationships with parents (70%) among secondary school students (Baptist Oi Kwan Social Service, 2022). Save the Children Hong Kong conducted another large research project, indicating that 39% of Hong Kong's school-aged children may suffer from mental health disorders. More than half of pupils in secondary schools experience some symptoms of depression; 34% report difficulty staying focused, 30% feel anxious, and 26% report difficulty sleeping (Save the Children Hong Kong, 2020). Due to the wide variety of child and youth mental disorders, it is essential to address the emotional distress concerns of youth, Considering the widespread occurrence of mental illness and the

potential consequences it might have on individuals' lives in adulthood if not addressed.

Emotional distress is among the critical indicators of youth mental health. Studies have revealed a correlation between higher levels of emotional well-being in youths and their likelihood of achieving exceptional academic accomplishments. (Eccles et al., 1997; Kerr et al., 2004). Poor mental health is associated with several adverse outcomes during adolescence, including higher suicide rates (Bould, 2019) and increased risk of mental health concerns later in life (Johnson, 2018). Due to poor emotional well-being, youth are likely to experience an increased risk of delinquency, lower self-esteem, social withdrawal, academic failure, and a reduced likelihood of attending university (Fergusson & Woodward, 2002; Sawyer et al., 2001). Several adverse outcomes and statistics and a significant community burden associated with mental wellbeing difficulties (World Health Organization, 2021) emphasize how important early detection and prevention are (Radez, 2020).

While emotional distress can be difficult for youth generally, it can be particularly challenging for youth with developmental disabilities, including autism spectrum disorders (ASDs), cerebral palsy (CP), intellectual disabilities (IDs), attention deficit hyperactivity disorder (ADHD), and learning disabilities (Developmental disabilities, 2021, Hitomi, 2022, Mazzucchelli & Sanders, 2011; Morie, 2019). According to Laurent and Gorman (2017), children with ASDs are highly probable to encounter negative emotional distress since they cannot recognize and manage emotions, inhibit emotional reactions, defer gratification, or cope with transitions.

Due to this highly unusual phenomenon, the international community and Hong Kong society are paying closer attention to youth mental health problems (Cheng, 2018). Youth's emotional struggles have implications for adult mental diseases. (Chok et al., 2022). Consequently, it is essential to provide youth with primary assistance and

attention to foster a positive attitude towards emotions. Effective interventions that target psychosocial difficulties among children and teenagers can decrease the chances of long-term impairment. This, in turn, reduces the impact of mental health disorders on individuals, households, health systems, and communities, both in terms of burden and expense (Cho & Shin, 2013).

1.3 Overview of expressive textile arts and fashion-based intervention

Craft-based interventions were explicitly established to decrease the mental distress and improve the well-being of participants from all sectors of society (Browne & Rhodes 2011; Desmarais 2016; Setterington & Millar 2018; Shercliff 2014). Fashion has the ability to alter an individual's emotional state, boost confidence, and express their personal interpretation of their physical image through appropriate clothing behaviour, providing a therapeutic meaning to overcome depressive mood (Dubler & Gurel, 1984; Kim & Lee, 1999). The present study proposes a novel intervention in which textile arts and fashion-based techniques are incorporated into art. The ETAFB intervention has been systematically evaluated for its effects on reducing positive emotional distress, improving general health, and reducing social anxiety in youth.

An RCT and single-blind pilot study with a pretest and posttest design was conducted among 18 youth with emotional distress referred from a local NGO before the main study. A total of 18 consenting youth experiencing emotional distress were referred to the study by their social workers. The EG (n = 18) attended four 4-hour sessions of expressive textile arts and fashion-based (ETAFB) intervention over 4 weeks. All the participants were subjected to a preintervention test and 4-week postintervention test using a. The Personal Wellbeing Index – School Children (PWI-SC), b. 12-item General Health Questionnaire (GHQ-12), and c. Social Interaction

Anxiety Scale (SIAS). In the preliminary findings, the ETAFB intervention was associated with significant improvements in achievement in life, personal relationships, feeling part of the community and future security domains of the PWI-SC, and the general health total scores of the GHQ-12. The pilot study's findings confirm the hypothesis that the ETAFB intervention is feasible and acceptable for youth facing emotional distress. The preliminary results indicated that the ETAFB intervention is effective in enhancing youth well-being and general health.

The purpose of this study is to examine at the beneficial impacts of the ETAFB intervention as a treatment for youth with emotional distress in community settings. A structured ETAFB intervention framework was integrated with the person-centred expressive arts theory, expressive therapies continuum (ETC), and a codesign model developed for facilitating scientific evidence-based evaluation. A main study with broader and diverse sampling was proposed with a control group (CG) to increase the study’s generalizability. The main study will also offer qualitative and quantitative data, allowing enhanced comprehension of how youth perceive and feel about textile art and fashion-based activities. This information provides the groundwork for a further study to investigate the effect of the ETAFB intervention on the relationship between youth with emotional distress and facility.

1.4 Aim and hypotheses

The purpose of this study is to evaluate the benefits of the ETAFB intervention as a treatment for youth with emotional distress in community settings. The outcomes include measures of personal wellbeing using the PWI-SC; an improvement in general health, which will be measured with the GHQ-12; and reduced social interaction anxiety, measured with the SIAS. A structured ETAFB intervention framework integrated with the theory of person-centered expressive arts therapy, expressive therapies continuum, and a codesign model was developed to facilitate scientific evidence-based assessment. It is hypothesized that after the 4-week ETAFB intervention, participants will show improved personal well-being and general health outcomes and reduced social interaction anxiety as evidenced by the pre- and posttest scores of the measurements employed.

1.5 Significance

Art therapy emphasizes changes in participants' personal values rather than symptom reduction; these are regarded as the benefits and major therapeutic value in art-based therapeutic processes (Levitt et al., 2006). Additionally, Rankanen (2016) disclosed that art therapy conducted in groups has therapeutic impacts during the observation and sharing of artworks since it adds more layers of interaction to the process. Hanevik et al. (2013) added that art-based intervention strengthens participants' positive interaction in a group; they interact in a supportive way and thus feel a sense of safety. Similarly, the codesign practice of intervention with fashion and textile elements is categorized as an art-based programme and is predicted to effect vulnerable groups and society. Therapeutic advantages and potential efficacy of art therapy in helping people with major depressive disorders were highlighted by Nan and Ho (2014); thus, it

is strongly recommended that mental health services in Hong Kong incorporate art therapy into their clinical settings as a standard of care.

The study significance is detailed below:

a. The proposed study will extend the existing theoretical knowledge of art-based therapeutic processes. A unique aspect of this research is the implied mixed research methodology involving using validated clinical measurements to investigate changes in youth personal well-being, general health, and social interaction anxiety with ETAFB intervention. Thus, the research conducted will enable future inquiries into alternative interventions in Hong Kong and worldwide. Moreover, the structured expressive textile arts and fashion intervention framework integrated with the theory of person-centred expressive arts therapy, expressive therapies continuum, and a codesign process model on a multimodal media approach is distinctive and innovative within the scope of this research.

b. The period of youth and emerging adulthood is a crucial stage for development and the formation of independence. However, numerous obstacles restrict the use of expressive arts treatment throughout this period. A prior comprehensive analysis that specifically examined the perspectives of youths discovered that the primary reasons for refusing to seek assistance are the presence of stigma, feelings of humiliation, difficulties with recognizing their problems, and a preference for independently resolving their troubles. (Gulliver, 2010; Radez, 2020). Emphasis is increasing on making mental health care for young people “youth-friendly” and promoting a positive attitude among young people seeking help. The World Health Organization (WHO) has taken steps to make health services more youth-focused and has emphasized the value of youth friendly in health services globally. (World Health Organization, 2012). Their suggestions include the need for services to be efficient, secure, community-based, confidential, and easily

reachable. By enhancing the youth-friendliness of services, it is anticipated that youths will demonstrate a higher propensity to utilize these services, actively participate in them, and experience a greater level of satisfaction with the services they receive (McIntyre, 2002). However, limited studies have evaluated the efficacy of community-based ETAFB intervention and the associated changes in the personal well-being, general health, and social interaction anxiety of youth through clinical measurements

c. Furthermore, raised expectations for specialized services, limited available provision, and lengthy waiting lists present major obstacles to accessing youth mental services (Moore, 2018). Therefore, expressive arts as a daily exercise that is easily accessible and affordable that promotes self-care and healthy outlets for heightened emotions is essential (Braus & Moton, 2020). The ETAFB intervention is expected to serve as an early intervention regarding attainable community outreach can lessen the risk of relapse and hospitalization of youth with mental impairment.

d. Finally, this study is expected to reduce emotional distress among youth in Hong Kong and influence future government policy and resource allocation regarding mental health. Therefore, the study's benefits are fully integrated with the needs of Hong Kong. Limited evidence-based studies on arts engagement have been conducted in Hong Kong. As expected, current approaches to evaluating art-based intervention are limited. Arts inclusion projects must be encouraged, first by the government and then by NGOs (Chan et al., 2018).

1.6 Thesis Structure

This proposal has seven chapters which include this introductory chapter. Chapter 2 examines the current literature about art and expressive arts therapy. It discusses youth experiencing emotional distress and various interventions and identifies

the research gaps requiring further exploration. The method and data analysis plan of this RCT are discussed in Chapter 3. An exposition of the methods and development of the ETAFB protocol is also provided in this chapter. The pilot study's results and discussion are presented in Chapter 4. The main study's results and discussion are presented in Chapter 5. Study result analysis is discussed in Chapter 6. Finally, the implications and conclusions for this study are discuss in Chapter 7.

Chapter 2 – Literature Review

2.1 Introduction

This chapter reviews the literature on defining and applying art, expressive arts, and textile therapy for youth with emotional difficulties. The foundation for the ETAFB intervention includes the person-centred expressive arts theory, the expressive therapies continuum (ETC), and a codesign methodology that is further discussed.

2.2 Theoretical Foundations of Art and Textile Therapy

2.2.1 Art therapy

Art is among the earliest forms of communication, dating back to Paleolithic cave art (Roberts et al., 2013). In art therapy, expressive therapy originates from psychoanalysis (Edwards, 2014; Malchiodi, 2012). As a nonpharmacological medical complementary and alternative therapy, Art therapy is now widely acknowledged as advantageous and efficacious in addressing various mental and physical disorders. Art therapy utilizes nonverbal methods that encourage emotional exploration, regulate mood, manage behavior, enhance self-awareness, build social skills, reduce anxiety, and cultivate self-esteem. (American Art Therapy Association, 2013).

Through artistic materials, practitioners strive to facilitate clients' personal growth and change (British Association of Art Therapists, 2022). This involves active artmaking, the creative process, psychological theory, and human experience within a psychotherapeutic relationship enhancing the lives of individuals, families, and communities (American Art Therapy Association, 2017). The practice has gradually

gained recognition as a form of spiritual support and complementary therapy (Faller & Schmidt, 2004; Nainis et al., 2006). Art therapists may use various art materials during therapy. Among these, drawings and paintings have historically been recognized as the most valuable therapeutic tool in psychiatric and psychological settings (British Association of Art Therapists, 2022). Numerous studies have demonstrated that art therapy can benefit patients with various health issues. Furthermore, art has been viewed as a form of middle-class entertainment or the preservation of idealists and intellectuals. Art therapy can improve communication, visualize aspects beyond language, produce creative ideas to improve the world, and illuminate anyone with a mental illness.

Since the recent widespread recognition of the psychotherapeutic effects of visual art (Liu & Miller, 2008), art has been considered an outlier in the scientific community. Through verbal and nonverbal treatment methods in art therapy (Nan & Ho, 2014), individuals can retrieve, comprehend, and experience staggering emotions. They can also express sophisticated feelings and gain insight into other internal cognitive processes (e.g., ideas, memories, or motives; Nan & Ho, 2014). In art therapy, various art media and materials are used to facilitate the adjustment of psychophysiological interactions, allowing the client to become more fully embodied in their own emotions and behaviours (Hinz, 2020; Siegel, 2009). Youth can experience artmaking as a form of empowerment by exercising their choice and creating (Moon, 2012). Among youth with behavioural-emotional issues, art therapy has been found to reduce stress levels (Irvin, 2014), anxiety (Sandmire et al., 2012), and depression symptoms (Bell & Robbins, 2007).

2.2.2 Expressive arts therapy

Art media used in clinical with supervision was adapted in expressive arts therapy in the late 1990s and early 2000s to facilitate a more profound process. Specifically, Mollon (1989) explained how arts media allow supervises to grow professionally and personally by giving them a deeper understanding of using the arts in therapy. Creative expression is used as a therapeutic tool to help initiate change in the expressive arts (The International Expressive Arts Therapy Association®, 2022). Expressive arts can foster human growth, development, and healing by integrating imagery, storytelling, dance, music, drama, poetry, writing, movement, dream work, and visual arts (Atkins, 2002). Art therapy and expressive arts therapy are distinct in that traditional single-modality treatments, such as dance therapy, music therapy, theater therapy, art therapy, and poetry therapy, concentrate on a single modality. In expressive arts therapy, all the modalities are integrated and embraced, sometimes layered together. This emphasizes the healing power of the artistic experience and the capacity of human beings to shape and form ideas, emotions, and life experiences (Oakesrl, 2022). Expressive arts therapy is a multimodal approach relying on healing processes within the artist (Expressive Arts San Diego, 2018). In practice, expressive arts therapies evoke shared experiences, such as by creating a safe therapeutic space for creativity to flourish, using nonverbal communication, facilitating a therapeutic alliance between the client and therapist, and employing metaphor and symbolism (Karkou & Sanderson, 2006).

Expressive arts therapy has been incorporated into psychotherapy to enhance self-awareness and self-expression. Expressive arts therapy has been researched by various art therapists and researchers; its advantages encompass enhanced self-awareness, improved conceptualization skills, and effective processing of countertransference. (Turry, 2001). Self-care and stress reduction also provide benefits (Deaver & Shiflett,

2011), such as improved supervisory relationships (Scheiby, 2001), self-awareness (Austin & Dvorkin, 2001), and empowerment (Proctor et al., 2008). Creating art positively affects mental health. Although it has been scientifically proven as a valuable and effective intervention for mental illness, it is still labelled as a medical form. It is characterized as a daily, standard, and healthy way to relieve emotional stress and express oneself.

2.2.3 Textile art therapy

Textile crafting and fashion design are distinct art forms. Due to their unique malleability, they can be shaped into various unique styles and three-dimensional prototypes. With a codesigned creation, participants could express their unique values and potential while connecting with the community and using fashion and textiles as a common medium to express themselves. The literature indicates that textile crafting can be used as a tool for power, self-expression, and identity for individuals, partners, families, and groups.

Crafting empowers the crafter by giving them pride in their skills and accomplishments (Corkhill et al., 2014; Maidment & Macfarlane, 2011) as well as providing continuity and support during life changes (Kenning, 2015). Self-esteem may be improved when the maker and object interact (Fisher, 1995; Burt & Atkinson, 2011; Schofield- Tomschlin & Littrell, 2001). Leisure activities contribute to the positive development and well-being of people of all ages (Collier, 2011; Burt & Atkinson, 2011; Bailey & Fernando, 2012). Positive mental health and problem behaviour are also promoted by leisure activities (Casey et al., 2005). Incorporating crafts as a leisure activity into social media has provided a channel for community-building, mutual

support, recognition, idea sharing, and inspiration (Orton-Johnson, 2012). Crafting enables individuals to empower themselves through the fabrication and designing process. Gardner (1990) describes crafting as intuitive learning achieved through evaluating materials and skill acquisition during the crafting process. By handling and assembling raw materials, individuals realize they can control their lives by developing self-determination.

Earlier studies have also shown that intensive participation in leisure activities is associated with positive developmental outcomes and acquiring new skills (Reynolds, 2010; Verbakel, 2012). Burns and Van Der Meer (2020) used a similar approach to Corkhill et al. (2014) and Riley et al. (2013) in their studies on crochet. According to their international online survey, crocheting led to themes of creativity, relaxation, and a feeling of accomplishment. Additionally, participants reported using crochet to manage physical and mental health concerns, including depression, anxiety, eating disorders, drinking, smoking, and chronic pain. Knitting has been reported to improve well-being, self-esteem, and emotional regulation among patients suffering from various mental health challenges, including anorexia nervosa (Clave-Brule et al., 2009) and substance abuse (Duffy, 2007). A study by Iso-Ahola and Mannell (2004) concluded that participating in self-selected leisure activities increases well-being and life satisfaction and reduces psychological distress, depression, and anxiety. Through the process of crafting, individuals can empower themselves. Gardner (1990) describes craft as a method of intuitive learning achieved through evaluating and acquiring skills during crafting. An individual's emotional well-being may be improved by achieving success in a specific activity, according to Tubbs et al. (2017).

People can positively influence and own their lives by handling and assembling raw materials. A textile art and craft goal can assist individuals in achieving personal life

and health goals and empower them (Diener, 2000). Furthermore, studies have shown that leisure activities provide opportunities for creative expression and social interaction (Gibson, 1997; Gabriel & Bowling, 2004; Iwasaki, 2006). Schofield- Tomschlin and Littrell (2001) argue that women who make textiles experience enjoyment, self-actualization, and empowerment due to the crafting process's therapeutic effects. Textile arts have been associated with various benefits, such as cognitive, physical, social, and emotional.

2.3 Art, expressive arts, and textile art and youth with emotional distress

It has recently been shown that art therapy results in beneficial outcomes for children and youth with emotional distress. Cohen-Yatziv and Regev (2019) published a review on art therapy for children and youth and found positive emotional effects in children including individuals who have experienced trauma or have medical issues, juvenile offenders, and children enrolled in special education programs or with impairments.

Moon (2012) observed in his clinical work with youth that many clients did not wish to obtain insight-focused verbal psychotherapy from an authorized adult; however, they eventually participated in his art-making sessions with him. As a therapeutic intervention, responsive art-making involves creating artwork in response to youth art. It provides an alternative way to form a relationship with a client without using words by providing therapeutic empathy and engaging in imaginative dialogue (Moon, 2012). In a safe and controlled environment, the expressive language of art is a means of exploring and communicating youths' emotional worlds. A large urban trauma centre evaluated by Chapman et al. (2001) reported success with art therapy. A total of 85 children aged 7 to

17 who had been admitted to a level I trauma centre with traumatic injuries participated in the Chapman art therapy treatment intervention. Children may be able to discuss and process their traumatic experiences through the intervention, which has effectively reduced acute and emotional distress symptoms.

The Art Room, a structured biweekly arts engagement programme offered in school settings for a minimum of 10 weeks, was evaluated by Cortina and Fazel (2015). In a "Calming atmosphere within the school but away from the classroom and other school stresses," children (typically identified by teachers as experiencing difficulties) can express themselves and listen to others. A significant improvement was found in emotional and behavioural outcomes, with a reduction in clinical-level difficulties by 41% and an improvement in moods and feelings by 87.5% postintervention (Cortina & Fazel, 2015). Kim et al. (2014) investigated the effects of group art therapy and mindfulness-based breathwork on the subjective well-being of depressed and anxious youth. Through art activities, the subconscious can be expressed naturally, and painful emotions and thoughts can be revealed without verbal communication. Group sessions were carried out according to the comfort levels of the participants. Strong bonds were formed, and difficult emotions were processed by allowing participants to interact and take the class at their own speed. A statistically significant decrease in symptoms of depression and anxiety was reported in the study (Kim et al., 2014). The findings of this study are consistent with the findings of Greco et al. (2008) and Livheim et al. (2014). A study conducted by Hayes and Rowse (2008) discovered that the implementation of art in the classroom resulted in reduced stress and anxiety levels among 14-year-olds participating in a group program.

Various benefits have been associated with art and expressive arts, with emotional benefits among youth (Chapman et al., 2001; Cortina & Fazel, 2015; Cohen-Yatziv &

Regev, 2019; Greco et al., 2008; Hayes, 2008; Kim et al., 2014; Livheim et al., 2014; Moon, 2012). Moreover, most previous studies examined the effects of textile craft art therapy involving knitting and crocheting. Limited research has been conducted on textiles and fashion involving designing an outfit, patternmaking, sewing, screen printing, fitting, and styling as an intervention for youth facing emotional distress. The present study proposed a multimodal media approach intervention, which integrates expressive textile art and fashion design with art. To the best of the authors' knowledge, this is the first systematic analysis of the effects of the ETAFB intervention in reducing emotional distress among youth.

2.4 The ETAFB Framework: Foundations and Components

The practice of fashion and textile design was often used in art therapy sessions with individuals, spouses, partners, families, or groups. Children, youth, adults, and the elderly may be included in the target group, and therapy may be initiated by either the client or the therapist. This chapter explores how textile arts and fashion design elements that initially require a particular skill set may gradually transform into a valuable and practical intervention. Several commonly used techniques are also covered, along with the role of fashion and textile design in the therapeutic process. The study discussed textile arts and fashion-based elements regarding person-centred expressive arts therapy, Lusebrink’s expressive therapies continuum (ETC), and a codesign approach.

2.4.1 Person-Centred Expressive Arts Therapy

Natalie Rogers (2000, 2001), the founder of person-centred expressive arts therapy, is the daughter of Carl Rogers (1942). who created person-centred theory and therapy.

According to her, Expressive arts therapy is a comprehensive form of therapy that combines several modes of expression that emphasizes the healing effects of creativity. Movement, sketching, painting, sculpture, sound, music, writing, and improvisation are utilized to experience and express emotions in a supportive and client-centered environment. The process of creating art from a place of emotional depth leads to self-discovery and insight. By creating outer forms, people express their inner feelings. Art serves as a method of sharing deep and inner truths when people express these feelings in visible form (Rogers, 2001). Natalie Rogers (2000, 2001) indicates that the creative spirit can be stimulated by recognizing and articulating profound, hidden emotions within a client's psyche. Through expressive modalities in therapy, the client may be able to communicate emotions more easily through a language of nonverbal communication.

During person-centred therapy, emphasis is placed on the client's ability to direct their own life (Rogers, 1951). Rogers asserts that the therapist has a high capacity for listening and communicating a clear understanding of the client's inner world to the client. Empathic listening creates a safe psychological climate, which facilitates healing. The client, rather than the therapist, described the experience after the expressive activity. According to Rogers (2001), the therapist listened intently and encouraged the client to explore themselves.

While the research did not incorporate media forms like music, dance, and movement, the ETAFB intervention originated in the fundamental concepts of person-centred expressive arts therapy as proposed by Natalie Rogers (2000, 2001). The ETAFB sessions were mainly nondirective, allowing clients to express their emotional feelings and thoughts through various textile media such as paints, beads, fabric, embroideries, and trims. Person-centred AT does not require artistic skill since expressing one's thoughts and emotions is considered more important than the results

obtained.

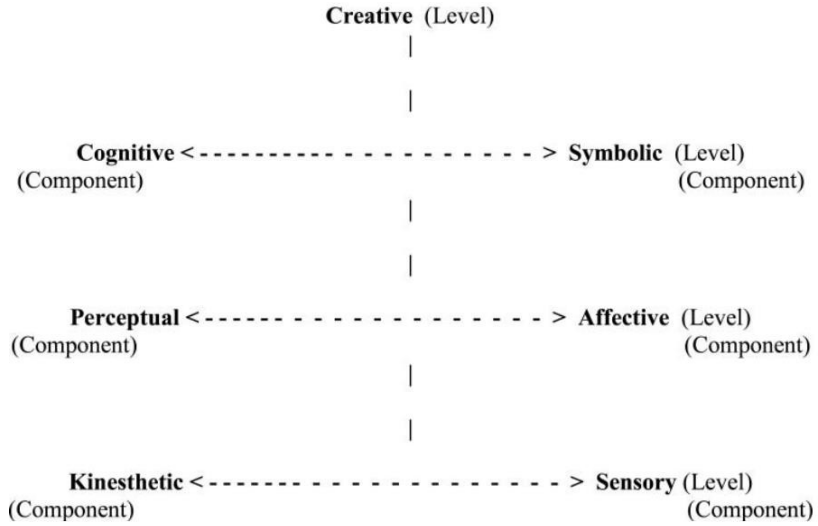
2.4.2 Lusebrink's Expressive Therapies Continuum Framework

The expressive treatments continuum (ETC) is a fundamental concept in art therapy. Kagin and Lusebrink (1978) formulated the ETC, this explains how individuals process information and create images using art materials. Lusebrink (1990, 1991, 2004) developed it further. ETC is a transtheoretical organizational framework providing a common language for communication between diverse art therapy approaches. When a common language exists, it is easier to understand, respect, and share differences in therapeutic methods and effects (Hinz, 2009). Figure 1 illustrates a schematic illustration of the ETC. A component positioned on the left side of the diagram might relate to the sequential, language-oriented, and logical functions typically associated with the left hemisphere of the brain. Intuition, visual- spatial ability, emotional capacity, and spirituality are the functions associated with the right side of the brain. ETC is based on a developmental model comprising three bipolar or complementary levels progressing from the simplest to the most complex. In order of complexity, the levels are kinesthetic/sensory (K/S), perceptual/affective (P/A), and cognitive/symbolic (C/Sy). The fourth level is the creative level, which may exist at any or all the previous levels or combine elements of all levels.

By comprehending the ETC, art therapists can establish a point of starting for therapy, goals for treatment, and pathways for transformation (Lusebrink, 2010). During the initial art therapy sessions, it is possible to determine which ETC components the client prefers to use through an assessment phase allowing the client to freely access art materials and tasks. This study integrates fashion and textile elements into the ETC framework in a group intervention setting. The ETC serves as a platform for various

creative arts therapy approaches and professionals to effectively convey their therapeutic objectives, techniques, and outcomes using a shared language.

Figure 1. Expressive Therapies Continuum



Below is a summary of three bipolar or complementary levels of the ETC and how ETAFB intervention might relate to each:

a. Bottom level: Kinesthetic and sensory components

Kinesthetic and sensory (K/S), the first level of the ETC, movement parallels sensory exploration, as explained by Hinz (2015). The focus was on nonverbal, sensory, rhythmic, and movement feedback rather than on the creative product. As part of the kinesthetic component of psychological healing, movement experiences are based on resistive arts mediums, such as pencil, pen, hard clay, stone, or wood carving, are used in small quantities (Kagin & Lusebrink, 1978), with defined boundaries, and in a manner free from reflective distance. The kinesthetic goal resulted in Relaxation and the preservation of energy (Hinz, 2015). In textile crafting, only hand- operated machines

were used to design and fabricate textile items, and most processes were manual (Gardner, 1990). A holistic approach to crafts involved conceptualization, design, creation, preparation, and assessment of the finished product (Pöllänen, 2009). Engaging in craft-based textile activities such as embroidery, also quilting, knitting, and crocheting can enhance creativity, foster community involvement, facilitate cross-cultural communication, and provide both physical and mental stimulation for people of all age groups (Fontichiaro, 2018; Pöllänen, 2015).

The sensory component was located on the right side of the The first level of ETC was centered on activating the senses of touch, smell, hearing, and taste. The ETAFB workshop participants were introduced to patternmaking, fabric cutting and sewing, and handicraft activities, including embroidery, screen printing, beading, and stitching. Materials for the ETAFB intervention included fabric swatches, yarns, beads, sewing materials, knitting needles, crochet hooks, and fabric paint. Through the textile art and craft activities in the ETAFB workshops, tactile and sensory functions were stimulated by various texture materials, and relaxation and calmness were enhanced.

b. Middle level: Perceptual and affective components

The second level of the ETC is known as perceptual and affective (P/A). P/A level was located at the centre of the ETC, Supporting the client's comprehension bilaterally and connecting creative work at various levels (Hinz, 2020). In her research papers, Hinz (2009) stated that individuals must use images in visual form to convey their experiences that are carried out internally. Visual elements such as lines, geometric figures, and colours comprised the perceptual component. Perceptual states opposed overly emotional states through order and structure (Hinz, 2015). At this level,

participants were guided to design unique outfits, focusing on form and structure characteristics, with inspiration drawn from their memories and experiences (Gaudion et al., 2015). The visual expression was enhanced by incorporating formal elements such as fabric, trims, and embroidery.

The affective component, on the other hand, neutralised the rigid quality of perception by immersing it in feelings and emotions. As stated in Hinz's (2009) research papers, clients were required to use images in visual form to represent their internal experiences as part of the perceptual component. As the name implies, the affective component referred to expressing emotions while interacting with art media. Through peer support and problem-solving, participants could connect emotionally with others (Kouprie & Visser, 2009). Each participant presented their creative work in the final session; participants demonstrated their creativity and confidence through the process. By engaging in the act of sharing and celebrating one's work with others and seeking support from a community, an individual might have a subjective sense of empowerment and increased self-confidence (Mayne, 2016, 2020).

c. Top level: Cognitive and symbolic components

The third level of the ETC, known as cognitive and symbolic (C/S), involves verbal and linguistic processing, study of past and future timeframes, abstract thinking (Kagin & Lusebrink, 1978), and anticipatory discovery (Hinz, 2015). These aspects differ from the preceding levels. This evaluation measured the individual's executive functioning, problem-solving abilities, ability to defer gratification, awareness of cause-and-effect relationships, decision-making skills, ability to generate abstract concepts, sequencing of events, and the process of reorganizing previously held beliefs and knowledge. Collier

(2011) indicates that textile crafts encourage makers to take a fresh look at issues, allowing them to clarify problems and attain their goals. Crafting involves planning, controlling, and executing voluntary motor functions, which are highly represented in the brain and motor cortex (Hari, 2011). Numerous studies such as Corkhill et al. (2014) and Riley et al. (2013) have demonstrated that knitting enhances thinking, the abilities of problem-solving, memory, and concentration have been studied. Crafting activities facilitate and promote the cognitive component, as Hinz (2015, 2020) describes the cognitive component can be defined as the domain where information is systematically and progressively analyzed, independent of personal experiences.

Through integrating self-discovered elements via intuitive or idiosyncratic thought processes, the symbolic component embodies the external processing of thoughts, emotions, and events that are distinctive to each client by incorporating self-discovery. The incorporation of the shadow-self involves the utilization of various forms of symbolism, including multidimensional symbolism, as well as the integration of faith systems, religious beliefs, mythology, fairy tales, folk stories, and metaphors, all of which contribute to the overall understanding and practice of spirituality (Hinz, 2015, 2020; Kagin & Lusebrink, 1978). The participants were allowed to participate in the discussion; reflect; provide feedback; consolidate their learning; and clarify, understand, and explore ideas and concepts at the end of the ETAFB workshop, which included verbal and linguistic processing, fulfilling the symbolic level (Enu et al., 2015).

d. Creative level

Creativity is the final level, intersecting or transcending the previous three levels. At this level, the individual achieves a sense of joy, enthusiasm, or well-being through participation in the creative process and expressing themself (Hinz, 2020). The creative

level was facilitated and enhanced using fashion and textile craft elements directly in the creation process. As an alternative to traditional talk therapy, Textile craft activities may be beneficial for youths due to the inclusion of creative and enjoyable activities. (Degges-White & Colon, 2014; Hartz & Thick, 2005).

Various therapeutically relevant effects are associated with fashion and textile craft design. The ETC provided a framework for observing the art form's various processing levels. The third level—cognition and symbolic components—was most successfully supported and encouraged by the direct use of fashion and textile craft aspects in this setting. Different art forms must be used to facilitate the manifestation of these components on the other two levels. The emphasis was effectively redirected from the evaluation of standardized penmanship to the acceptance and exploration of creative self-discovery by including a fashion and textile element in the ETC framework. The ETAFB intervention suggested using textile arts and fashion-based techniques as a holistic personal development approach.

2.4.3 Codesign Framework

The principle of the codesign process, as noted by Steen et al. (2011), was the collaborative effort that occurred during the design process and the delivery and utilization of the intervention. This promotes interactions among participants, improves idea generation, enhances intervention management, and generates an effective intervention model that better fits participants' needs. A codesign approach facilitates patients' emotional journeys by exploring the care pathway in a health care context (Boyd, 2012). Thabrew et al. (2017) indicated that psychological problems reduce the quality of life associated with health and that the codesign approach improves

participants' quality of life and fosters social engagement by facilitating the development of close relationships between clinical teams and patients' families. In a recent study by Keller et al. (2017), the effectiveness of Let's Talk, an intervention program, was evaluated. This program involved organizing theatre workshops where students openly discussed their encounters with suicide and depression. The students then collaborated to create a play inspired by their own experiences. These workshops took place every two weeks in a group setting. Peers and audience members performed as part of the intervention, and then mental health professionals led discussions that promoted interactive learning about suicide, loss, and prevention (Keller et al., 2017). Through the performance, participants expressed greater awareness of prevention resources, a perception of susceptibility to suicide and depression, and a sense of self-efficacy concerning obtaining assistance and supporting others.

2.5 Summary

Research was conducted on why crafting is particularly beneficial. In addition to youth emotional development, it is established that textile arts are beneficial to all areas of development. Growing evidence indicates that textile arts perform a critical role in the promotion of positive mental health and preventing problematic behaviour (Burns & Van Der Meer, 2020; Burt & Atkinson, 2011; Casey et al., 2005; Collier, 2011; Corkhill et al., 2014; Riley et al., 2013; Warner-Smith et al., 2002). Still, the existing approaches to investigating textile art and fashion-based intervention could be much more extensive in scope. Consequently, these limitations highlighted the need to adopt the ETAFB intervention to effectively support youth with emotional distress.

Chapter 3 – Research Method

3.1 Introduction

Chapter 3 is to describe methods used in the main study to analyze the effect of the ETAFB intervention on emotional distress among youth. A conceptual framework has been identified based on the literature review (Chapter 2) to explain the mechanisms underlying the effects of the ETAFB intervention on youth emotional distress, which has guided the study's design. The effectiveness of the ETAFB intervention for youth has been hypothesized to be mediated by the level of art practised and new skills obtained. As a starting point, an outline of the research design is provided in this chapter. Study hypotheses, setting and sample, recruitment procedures, and randomization. Following these are the ethical considerations and measurements of outcomes. Finally, data management and data analysis are discussed.

3.2 Methods

3.2.1 Study Design

A prospective, single-blind, mixed methods RCT will be employed to test the hypotheses and compare the immediate effects between the EG receiving ETAFB workshops and the CG receiving non-therapeutic usual activities. As part of the ETAFB intervention, four sessions will comprise different textile arts and fashion-based activities and peer sharing. The RCT is considered a scientific investigation or evaluation aiming to reduce bias when testing an intervention for effectiveness (Grove et al., 2013). Randomizing two study groups in the main study enables

unbiased comparison of the treatment's effects against the CG. Keeping participants and outcome assessors blind is also crucial in the design. By manipulating the subjects' and researchers' preferences, the risk of bias can be reduced (Grove et al., 2013). Blinding the participants is difficult because of the intervention's nature. A mixed methods study combines qualitative (nonclinical scales) and quantitative (in-depth interview) methods. Mixed research is a methodology that integrates several methods and procedures to leverage their respective strengths and minimize their limitations, resulting in a complementary and nonoverlapping approach (Tashakkori & Teddlie, 2003).

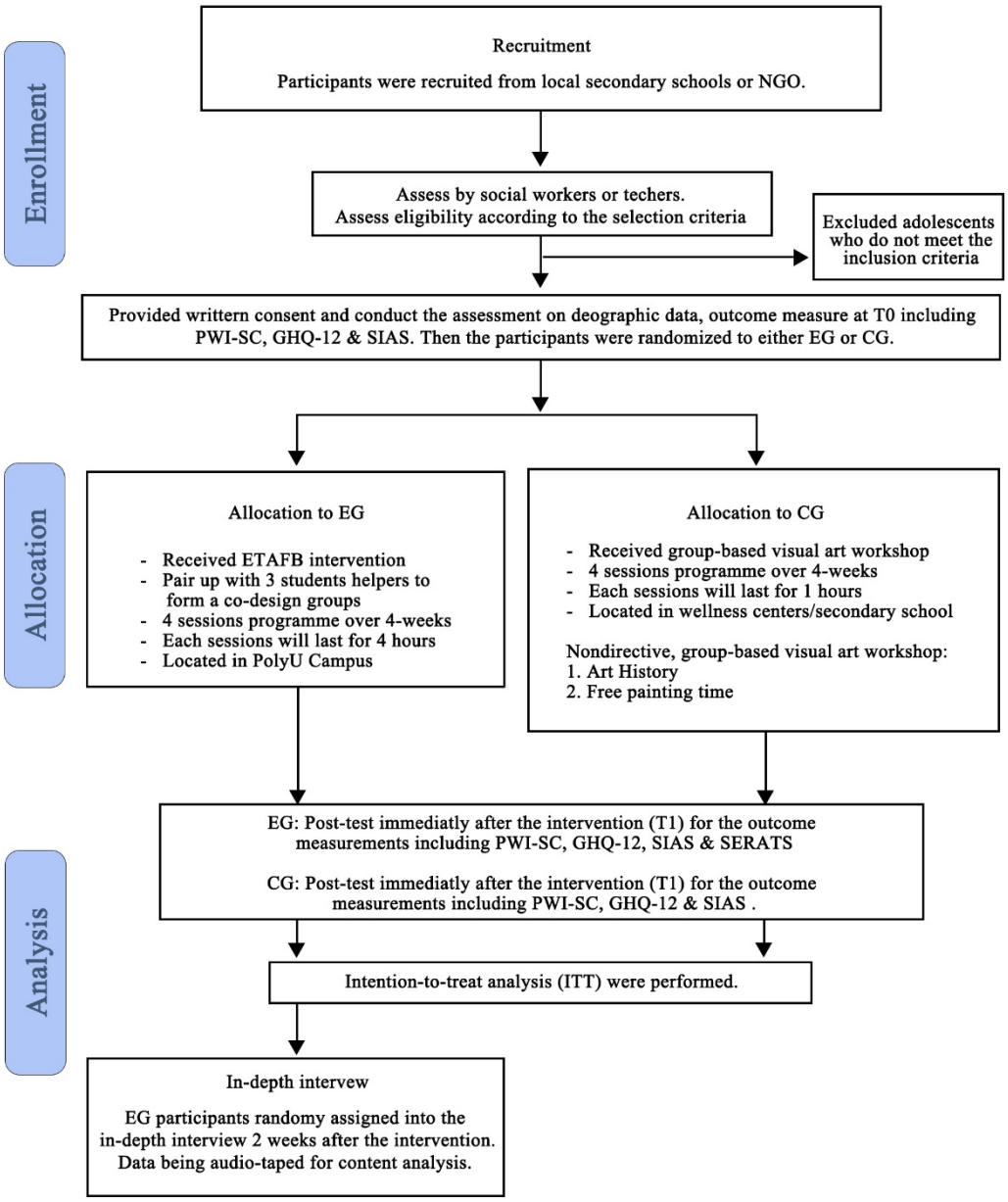
3.2.2 Research hypotheses

The objective of this study is to investigate the impacts of an ETAFB intervention on youth with mental distress in Hong Kong over 4 weeks. Following the four-session, 4-hour ETAFB intervention, it was hypothesized that participants in the EG would show better improvements than those in the CG immediately after the intervention (T1). In terms of the hypotheses, significant improvement in PWI-SC (Appendix III), GHQ-12 (Appendix IV), and SIAS (Appendix V) were experienced following the workshops. The CONSORT flow diagram depicting the ETAFB intervention is presented in Figure 2.

Youth recruited will differ in terms of their education level, income, age group, and social class to obtain diverse samples. Following the Human Subjects Research Ethics Sub-Committee of the University's ethics approval, invitation letters will be sent to the collaborative NGO and secondary schools in the main study. Participating NGOs and schools will then recruit, identify, and refer youth with mental distress. According to the

sample selection criteria (Section 3.2.4), the study's principal investigator (PI) will screen potential participants for eligibility for the study. Upon recruitment, the research assistants, social workers, and schoolteachers would approach the participants to provide a clear explanation of the goal, procedures, potential advantages, and possible negative effects of the interventions. Information sheets and written consent (Appendix I and Appendix II) will then be obtained. Participants will be reminded that participation is voluntary and that they can stop attending workshops at any time. A consent agreement describing the format, and potential risks and benefits of participation will be signed by all participants aged 18 or older. All participants aged under 18 at the beginning of the study must submit a signed consent form from their parents or guardians. The Hong Kong Polytechnic University's Human Subjects Ethics Sub-Committee approved the pilot study protocol. The interventions and outcomes measurement will occur in the campus on the secondary school and the Hong Kong Polytechnic University campus in a nonclinical context.

Figure 2. CONSORT flow diagram



3.2.3 Sample selection criteria

The target population of this study will be youth facing emotional difficulties. The criteria for participant inclusion are as follows:

a. Youth from Forms 3–6 aged 14–19 in Hong Kong.

b. Identified by social workers and schoolteachers as having mental distress.

c. Able to read and write (to understand all teaching materials and instructions); and

d. Be independently assessable and willing to provide data for research purposes.

Students are excluded if they have:

a. Practised or recently learned art therapy in the last 6 months.

b. Been diagnosed with a severe mental disorder such as bipolar disorder, schizophrenia, or depression in an acute phase.

c. Identified with self-reported suicidal thoughts or drug abuse in the last 6 months; and

d. A lack of willingness to provide data for research purposes.

3.2.4 Randomization and allocation

This study will use permuted block randomization and allocation concealment in the main study. When assigning participants to the EG, allocation concealment will be used to conceal the allocation sequence from those assigning them to those groups. This method can prevent the PI from (unconsciously or otherwise) selecting participants for an assigned EG. An independent research assistant (RA) will utilize an oonline randomization tool for computerized sequence, generating a randomly generated list of the permuted block sequence of the two group designations (1 = EG, 2 = CG) (www.randomizer.org). From a list of eligible participants, the person in charge of the random list, who will be blind to the collective labels, will randomly assign participants to two groups. RAs must know the sequence in which the group allocation labels (1 or 2) are placed inside opaque sealed envelopes. After completing the baseline assessments and submitting written consent on the first day of the intervention, participants will be notified of their group allocation through opaque sealed envelopes.

3.2.5 Blinding

Due to the different natures of the interventions in the two groups (EG vs CG), the participants cannot be blinded to the group assignment. However, until the entire analysis is completed, the PI and statistician will be blinded to the group label. The following measures will be taken to ensure blinding:

1. The EG and CG will use the same questionnaires by outcome assessors.
2. Both interventions will be conducted blindly in the same time slot for both groups.
3. The PI and RAs will be instructed not to disclose the participants' group allocations during the briefing sessions.

3.2.6 Interventions

3.2.6.1 Structure of the ETAFB intervention

The study will adopt a preintervention and postintervention survey design. This evaluates the effectiveness of the intervention on the participants by adopting measures of PWI-SC, GHQ-12, SIAS, and art workshop experiences (SERATS). Four structured sessions will be conducted as part of the ETAFB intervention. After participants are allocated to the EG, they will be grouped with one to two students to form a codesign team. The details of the ETAFB intervention are provided in Table 1. Art therapists will assist participants in experiencing, comprehending, and freely expressing their ideas and feelings through the process of creating embodied art using fashion and textile.

Session I: 4-hour intervention begins with a 30-minute self-contained pretest, including PWI-SC, GHQ-12, and SIAS assessments and sociodemographic questions. After collecting the completed surveys, a calming exercise (i.e., box breathing exercise applying a simple relaxation technique for recentring and improving concentration

through meditation) is performed, led by social workers or teachers, to engage all students and participants as a warm-up. Afterwards, the concepts, theories, and practices of expressive textile arts and fashion design are introduced. The purpose of this session is to provide a comprehensive description of fashion design theory. Participants can then apply this knowledge in designing their creative outfits. Students and the art therapists guide participants in developing their ideas and formulating their goals. Goal setting and striving for achievement are crucial for achieving personal fulfilment (Canfield, 1989). This session was designed to stimulate youth interest in textiles and fashion and facilitate relaxation and enjoyment.

Session II: Students and art therapists facilitate a codesign discussion (30 minutes) with the participants to develop a codesign development idea within a mutually support among others and create a secure environment. Patternmaking and sewing techniques are demonstrated afterwards. Instructed by the students and art therapists, The participants will develop practical, organizational, and problem-solving abilities. Using participant ideas and expectations as a basis, the codesign conversation aims to discover and specify design challenges and requirements. (LaBat & Sokolowski, 1999). This results in optimal clothing styles and functional design requirements being identified. Due of time limits, participants will design their outfits using readily accessible pieces, such as secondhand clothing, to deconstruct, add to, and create a new design.

Session III: Students and art therapists facilitate a codesign discussion (30 minutes). Participants modify the codesign prototypes after a fitting session. The demonstration showcases several techniques in textile arts and fashion design, such as printmaking, fabric collage, hand painting, and beading. Textile materials, such as fabric swatches, paint, yarns, beads, sewing materials, knitting needles, and crochet hooks, are available. Participants are given guidance on how to utilize crafting techniques in order to create

their prototypes. Engaging in textile arts and craft activities promotes the development of tactile and sensory functions while also fostering a sense of relaxation and peace in the participants. At the end of the session, each group prepares styling references and discusses their final photoshoot plan.

Session IV: Final designs are completed after fitting. A styling photoshoot is conducted with each group on campus. Participants style their hair and apply make- up for the photoshoot to demonstrate their creativity and confidence. This interactive photoshoot aims to allow participants to express insecurities and receive affirmation; consequently, their self-esteem will be enhanced, self-identity further developed, and experiences of personal accomplishment achieved (Hong et al., 2012). Each group then presents their creative work in this session. The PI, research assistants, student helpers, social workers, schoolteachers, and art therapists form the audience base. Participating in the sharing session allows participants to communicate with others and establish mutual understanding. This experience enables them to exchange skills and experiences, receive mutual support and validation (Leone, 2020), experience social contact (Riley et al., 2013), establish relationships, and foster a sense of belonging (Burt & Atkinson, 2011). Afterwards, participants keep their codesign prototypes. The participants complete a self-administered posttest, which includes PWI-SC, GHQ-12, SIAS and SERATS assessments, at the end of this session.

Table 1. ETAFB intervention

Session	Main theme	Contents	Led by
I	Orientation session	• Welcome & introduction speech • Introduction to ETAFB intervention • Pretest: PWI-SC, GHQ-12, SIAS, and sociodemographic questions • Exercise: Ice-breaking and trust-building activities • Codesign discussion • Size measurement • Sketch illustration • SERATS (main study)	PI; student helpers; art therapist
II	Design your style	• Codesign discussion • Sourcing • Practical knowledge lecture • Patternmaking and sewing	PI; student helpers
III	Hands-on textile workshop	• Codesign discussion • Fitting session • Textile art and craft task • Prepare styling references	PI; student helpers
IV	Photoshooting and sharing session	• Codesign discussion • Hair & make-up styling • Photoshooting • Sharing sessions • Posttest: PWI-SC, GHQ-12, SIAS • SERATS (main study)	PI; student helpers; art therapist

Note: PWI-SC = Personal Wellbeing Index – School Children; GHQ-12 = the 12-item General Health Questionnaire; SIAS = Social Interaction Anxiety Scale; SERATS = the Self-Expression and Emotion Regulation in Art Therapy Scale.

Table 2. Objectives of each ETAFB session

Session	Main themes	ETC model	
I	Orientation session	Cognitive/symbolic	•Establish a mutually supportive and safe group atmosphere (Leone, 2020) •Explore multidimensional experience •Imagine positive self-identity (Reynolds, 2000) •Foster communication between participants (Garlock, 2016)
II	Design your style	Kinesthetic/sensory perceptual/affective	• Support the problem-solving process (Kouprie & Visser, 2009) •Pursue excitement and pleasurable involvement •Improve problem-solving skills (Kouprie & Visser, 2009) •Catalyze relaxation and stress reduction (Utsch, 2007) •Stimulate tactile and sensory functions (Homer, 2015) •Reduce ruminative thinking (Futterman et al., 2016) •Develop positive self-image and self-perception (Kang et al., 2013) •Adopt rational and analytical steps (Rubin, 2005) •Manipulate organization skills
III	Hands-on textile workshop	Kinesthetic/sensory perceptual/affective	
IV	Photoshooting and sharing session	Perceptual/affective cognitive/symbolic	• Promote peer support (Kouprie & Visser, 2009) • Enable the externalization and visual communication of inner subjective experiences (Dunphy et al., 2019) • Facilitate personal achievement and fulfilment through creative output • Boost self-confidence • Encourage youth to explore and introduce themselves through the art (Kahn, 1999) •Increase self-awareness by exploring their issues (Kahn, 1999) • Set goals for change (Kahn, 1999)

3.2.6.2 Control group

In the main study, Participants in the CG will carry on with their regular extracurricular or school tutoring sessions during the intervention phase. In order to avoid any potential confounding variables throughout the intervention, participants will be instructed not to participate in any more psychotherapy sessions that could result in favorable or unfavorable impacts on the way they feel. Participants will be allocated to the CG and attend four 1-hour weekly sessions of nondirective workshops over the same 4- week interval that the EG receives the intervention. Each session will be facilitated by social workers or schoolteachers in wellness centres or secondary school campuses. The outlines of the four sessions are listed as follows:

Table 3. Nondirective, group-based visual art workshop for the CG

Session	Main Theme	Contents	Led by
I	Opening & Non-therapeutic activities	Welcome & introduction speech Pretest: PWI-SC, GHQ-12, SIAS, and sociodemographic questions SERATS (main study) Regular extracurricular /school tutoring session	Social workers, school teachers
II	Non-therapeutic activities	Regular extracurricular /school tutoring session	
III	Non-therapeutic activities	Regular extracurricular /school tutoring session	
IV	Closing & Non-therapeutic activities	Regular extracurricular /school tutoring session Posttest: PWI-SC, GHQ-12, SIAS SERATS (main study)	

Note: PWI-SC = Personal Wellbeing Index – School Children; GHQ-12 = the 12-item General Health Questionnaire; SIAS = Social Interaction Anxiety Scale; SERATS = the Self-Expression and Emotion Regulation in Art Therapy Scale.

3.2.7 Data collection procedure

Data collection will be performed at two time points, including the baseline preintervention (T0), postintervention (T1), and in-depth interview 2 weeks after the ETAFB intervention final session. After assessing the study criteria and obtaining written consent, the research student assistants will collect the demographic, PWI-SC, GHQ-12, SIAS and SERATS (T0) data in the first session of the intervention. After the 4-week intervention, the outcomes assessors will collect the T1 data, including all the outcome measures from all the participants.

Although the RCT is considered the gold standard for establishing the effectiveness of interventions, the effect sizes do not provide information about the participants' perspectives on the intervention or how the intervention is implemented, resulting in positive or negative results (Moore et al., 2015). Consequently, in-depth interviews will be conducted to evaluate the process. Evaluation of the process aims to determine the strengths and limitations of different therapeutic components and assess participants' perceptions of facing difficulties. Twelve youths will be selected from the EG for the main study after completing the ETAFB intervention. The RAs will conduct the in-depth interview 2 weeks after completing the intervention (Appendix VI). An interview guide with semi-structured questions will be prepared. The interview will be conducted in Cantonese and audiotaped for content analysis. It is anticipated that data collection will be complete when the amount of data reaches saturation, at which time no new

3.2.8 PI, student helpers, and art therapists training

The PI and student helpers will deliver the ETAFB sessions in this study to minimize variations in their implementation. The PI and student helpers will be fashion

design students experienced and qualified in textiles and fashion design. Art therapists familiar with the nature and characteristics of art therapy will present at the first and last sessions. To ensure that the intervention follows the session outline, the PI will discuss the changes and clarifications with the student helpers and art therapists over several training rounds. Training sessions will include lectures on expressive textile arts, craft-making techniques, and codesign process theory. Art therapists will also conduct a 3-hour seminar for the PI and student helpers, demonstrating the skills necessary to establish a therapeutic relationship with participants. These sessions aim to achieve a common understanding of the intervention model's theoretical and clinical fundamentals and develop the therapeutic knowledge required for the study.

3.2.9 Research assistants training

The RAs will be blinded to the group allocation and will collect the data. They will receive 2 hours of training regarding the study background, interview skills, and the researcher's use of the assessment instruments. All RAs will receive a manual on assessment tools. To ensure reliability, all RAs will assess the same youth during the training sessions, followed by a discussion session with the researcher. The training protocol for RAs will include the basic principles of the ETAFB intervention, characteristics of the participants, skills for communicating with youth, handling difficult interviews, etiquette, fidelity, and ethical considerations. The RAs will meet with the PI weekly to discuss any difficulties they are experiencing.

3.2.10 Ethical considerations and data confidentiality

Hong Kong Polytechnic University will provide ethical approval for this project. A

data monitoring committee will be formed to ensure the participants' safety and protection from harm resulting from any intervention. Participants will receive an information sheet, written consent, and a verbal explanation of the study. According to previous similar local and international studies, no harmful effects have been reported. Negative emotions could be triggered when youth share their personal experiences with the group. To minimize risks, all the RAs, student helpers, and art therapists will be trained to recognize and address emotional distress, including suicidal ideation in youth. Data monitoring by the art therapist will ensure the safety of the participants. Throughout the study, the art therapist will inform of the outcome measurements. The collected questionnaires will be anonymous, and codes will replace the names of the subjects. A lock-protected vault will be used to store the hardcopy questionnaires in the researcher's office. All soft copies, such as the SPSS file, will be encrypted. The RAs can only access the data. Data will be retained for 3 years and then destroyed.

3.2.11 Outcome measurement

Personal Wellbeing Index – School Children (PWI-SC)

The Personal Wellbeing Index – School Children (PWI-SC) is a unidimensional and multi-item instrument developed by Cummins and Lau (2005) for measuring personal well-being in school-aged children and youth. This instrument comprises seven items corresponding to satisfaction with the following life domains: standard of living, health, life achievements, personal relationships, personal safety, community connectedness, and future security, using an 11-point end-defined rating scale ranging from 0 (very sad) to 10 (very happy), with the midpoint at 5 (not happy or sad).

The 12-item General Health Questionnaire (GHQ-12)

Using a 4-point Likert-type scale, the 12-item General Health Questionnaire (GHQ-12; Goldberg & Williams, 1988) assesses the severity of a mental problem over the past few weeks. The total score ranges from 0 to 36 based on the score. Positive items are corrected from 0 (always) to 3 (never), and negative items from 3 (always) to 0 (never). The higher the score, the worse the health. The GHQ-12 was designed as a one-dimensional measure of psychological distress. Due to its brevity, it has become a popular tool for detecting psychological distress in nonclinical samples (Hankins, 2008; Tomás et al., 2017). The Chinese version translated by Ye (2009) was used.

Social Interaction Anxiety Scale (SIAS)

To measure the experience of social anxiety, participants were asked to complete the Social Interaction Anxiety Scale (SIAS; Mattick & Clarke, 1998) pre- and post-treatment. The SIAS is a self-report survey comprising 20 questions rated on a Likert-type scale from 0 (not at all) to 4 (extremely) regarding how much one experiences fear in social interactions. Total scores range from 0 to 80, with higher scores representing higher levels of social interaction anxiety. Items are self-statements describing one's representative reaction to situations involving social interaction in dyads or groups.

Self-Expression and Emotion Regulation in Art Therapy Scale (SERATS)

(Incorporated into the main study)

A validated scale focusing on self-expression and emotion regulation is necessary to design interventions to improve emotion regulation (in the short term), mood regulation

(in the midterm), and mental health regulation (in the long term) to understand how art therapy is received. The SERATS was used to measure the specific effects of art therapy (Haeyen, 2017). On a 5-point Likert scale running from never true (1) to almost always true (5), nine items were scored (e.g., “I can depict my feelings in art therapy.” and “I make art as a way to express myself.”). In terms of reliability, it is excellent, with a Cronbach’s alpha of .94 and a test-retest reliability of .96. Change affects the SERATS. According to Haeyen (2017), the scale showed discriminant but not convergent validity. (Appendix VII)

3.2.12 Data analysis

The data will be analyzed using SPSS version 22.0. The demographic information of the participants will be examined using descriptive statistics, specifically percentages, means, and standard deviations (SDs). The association between the pretest and posttest variables will be examined using a paired sample t-test. The effect size was determined using the Cohen's d statistic (Cohen, 1988). According to Cohen’s d, small, medium, and large effect sizes are categorized as 0.20, 0.50, and 0.80, respectively. A descriptive summary measure will be used to summarize the sociodemographic data, and percentages will be presented for categorical variables. Data analysis will be performed with a significance level of $p < .05$. To prevent missing data, the outcomes assessors will carefully examine all questionnaires returned by participants. The ETAFB intervention will be analyzed using intention-to-treat (ITT) analysis, so any dropout would result in missing values, causing the total score to be miscalculated. All participants who enroll and are randomly assigned to treatment will be included in the data analysis, allowing unbiased comparisons between the treatment groups and avoiding crossover and dropout

effects that may break the random assignment to treatment groups (Gupta, 2011). Using mean imputation, missing data are replaced with mean of that variable for all other cases, which does not change the sample mean.

The main study will include qualitative data. The in-depth interviews will be digitally recorded and transcribed word for word for content analysis. Nvivo is utilized for content analysis. The decision to utilize Nvivo for the qualitative analysis of interviews in this study is grounded in various crucial factors. To begin with, Nvivo facilitates the effective organizing and administration of significant amounts of interview data. Given the presence of twelve participants and the possibility of lengthy responses, it is essential to possess a tool capable of efficiently managing and organizing the data methodically.

Furthermore, Nvivo has powerful coding and categorization capabilities. This enables the recognition of recurring topics and trends in the interview answers, providing a thorough comprehension of the influence of ETAFB intervention on young individuals experiencing emotional distress. In addition, Nvivo can perform thorough content analysis, allowing researchers to investigate connections between various concepts and themes. This facilitates the discovery of subtle insights and connections that may otherwise go unnoticed. In general, Nvivo is chosen to improve the accuracy and thoroughness of the qualitative analysis, offering a more organized and methodical method for comprehending the intricate experiences and results of the intervention. The theme will be determined by surpassing mere descriptions and providing a certain level of explanation. The principal investigator (PI) and art therapists will discuss and reach a consensus on the emerging topics. The themes and categories will be derived from the experiences of the young individuals and the perceived advantages and challenges of the intervention. This will allow us to define the strengths and limitations of the ETAFB

intervention accurately.

3.3 Summary

A single-blind RCT is proposed for youth with mental distress. Standardized measurements will be conducted through the PWI-SC, GHQ-12, SIAS and SERATS. A mixed research methodology in a case study framework is proposed. After collecting the quantitative data, the T0 and T1 scores on the PWI-SC, GHQ-12, SIAS, SERATS, and in-depth interviews will be conducted to understand the EG' experiences and determine the efficacy of the intervention model. The mixed methods case study framework can provide a comprehensive understanding and data of the effectiveness of the theoretical model, as quantitative and qualitative data are collected in parallel mixed data analysis in a convergent design (Fetters et al., 2013).

Chapter 4 – Pilot Study

4.1 Introduction

An overview of the pilot study is provided in this chapter. This section begins with an explanation of the pilot study's purpose, followed by the study design, methods, results, discussions, implications for the main study, and conclusion. Pilot studies are the first step in planning a large-scale research study and are often smaller studies that assist with organizing and adjusting the main study (In, 2017). Particularly, pilot study may provide the researcher with more information about the logistics arrangement, adverse effects, and potential benefits of the intervention, as well as the acceptability and tolerance of the participants. This pilot served the following purposes:

a. To examine the feasibility of the ETAFB intervention.

b. To understand the preliminary effects of the ETAFB intervention in youth with mental distress.

4.2 Methods

This research was conducted in June 2021 as a prospective, single-blind RCT pilot study. Study protocol was approved by the Human Subject Ethics Sub-Committee of the Hong Kong Polytechnic University (Reference number: HSEARS20210527002). The objective was to investigate the viability and initial effectiveness of the ETAFB intervention on youths experiencing emotional challenges. The subsequent research aims were to investigate the feasibility and acceptability of implementing the ETAFB intervention on youth who experience emotional distress.

The criteria for participants are identical to that of the main study, with specifications listed in section 3.2.3 Sample Selection Criteria. Participants were recruited at a community center using convenience sampling run by a local NGO – Heep Hong Society in Hong Kong. The recruitment process occurred in Apr 2021. Social workers identified 18 youth with emotional distress and recruited them to participate in the intervention. All the participants were informed that their responses would remain confidential. It was underlined that participation was completely voluntary and there would be no consequences if attendees quit attending programs at any point. Participants aged 18 and above completed an informed consent agreement outlining the structure, possible risks, and advantages of participation. Participants aged under 18 submitted a signed parent/guardian consent form at the beginning of the study. Each participant was grouped with three students to form a codesign team. The PI, one qualified art therapist, one social worker, one research assistant, and 54 student helpers assisted with the pilot study. All the eligible participants were assigned to the EG, which received textile arts and fashion-based activities in a codesign setting. The test completion rate was 100%. All the participants completed the PWI-SC, GHQ-12, and SIAS assessments at a preintervention test (T0) and a 4-weeks postintervention test (T1) administered by the RAs. The structured ETAFB intervention was conducted in four 4- hour sessions over 4 weeks. Details of ETAFB intervention are exhibited in Section 3.2.8.1 of this paper. Data were collected using various assessment tools, including the PWI-SC, GHQ-12, and SIAS; these are listed in Chapter 3 (Research method), Section 3.2.14. Data analysis methods are listed in Chapter 3 (Research method), Section 3.2.15. The structure of the ETAFB intervention is listed in Chapter 3 (Research method), Section 3.2.8.1. Details of the ETAFB intervention are provided in Table 4. The CONSORT flow diagram illustrating the ETAFB intervention pilot study is presented in Figure 3.

Figure 3. CONSORT flow diagram – pilot study

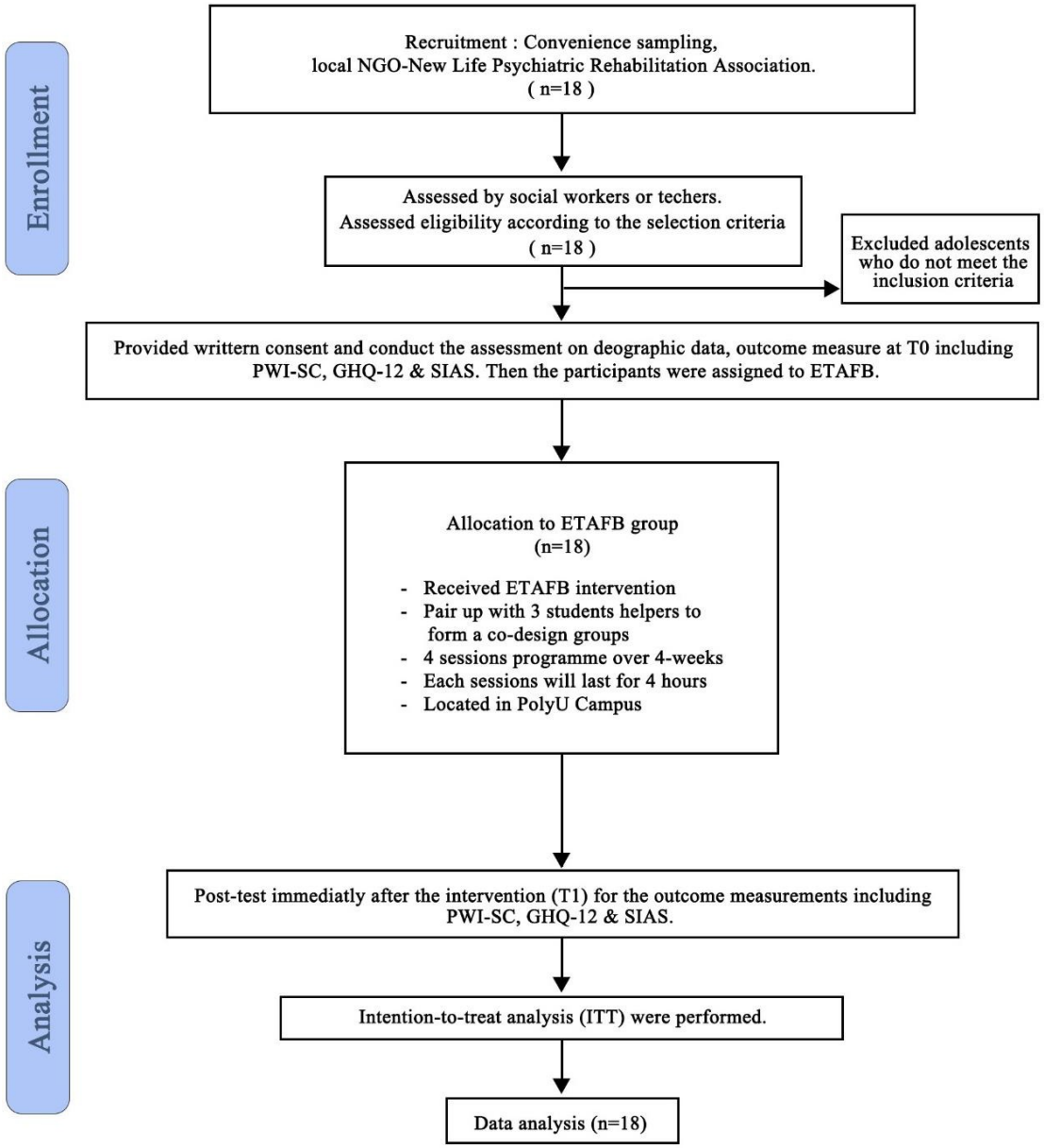
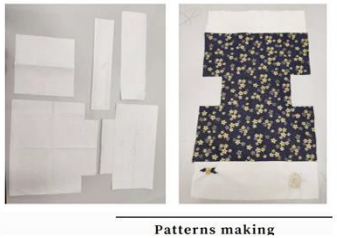


Table 4. ETAFB intervention

Session	I	II	III	IV
Contents	• Welcome & introduction speech • Pretest: PWI-SC, GHQ-12, SIAS & sociodemographic questions • Exercise: Ice-breaking activities • Codesign discussion • Size measurement • Sketch illustration	• Codesign discussion • Sourcing • Practical knowledge lecture • Patternmaking and sewing	• Codesign discussion • Fitting session •Textile art and craft task • Prepare styling references	• Codesign discussion • Hair & make-up styling • Photoshooting • Sharing sessions • Posttest: PWI-SC, GHQ-12, SIAS
Group A				
Group B				

Note: PWI-SC = Personal Wellbeing Index – School Children; GHQ-12 = the 12-item General Health Questionnaire and SIAS = Social Interaction Anxiety Scale.

4.3 Results

A total of 18 youth aged 16–19 with negative emotional distress participated in this study. The average age of the participants was 17.6 (SD = 1.24). With an attendance rate of 100%, all participants finished the intervention. As a result, all participants completed the pretest and posttest questionnaires in addition to the baseline sociodemographic surveys. As detailed in Table 5, many of the participants (66.7%, *n* = 12) were male. Regarding the age distribution, those aged 16, 17, 18, and 19 accounted for 27.8% (*n* = 5), 16.7% (*n* = 3), 22.2% (*n* = 4), and 33.3% (*n* = 6) of the participants, respectively. All the participants had received education at secondary school level (i.e., high school level; n = 100%).

Table 5. Sociodemographic information of participants in pilot study

Parameter	**Number, percentage (*N* = 18)**
Age, years	
Under 15	0 (0%)
15	0 (0%)
16	5 (27.8%)
17	3 (16.7%)
18	4 (22.2%)
19	6 (33.3%)
Gender	
Female	6 (33.3%)
Male	12 (66.7%)
Education level	
Primary level or below	0 (0%)
Secondary education	18 (100%)
Tertiary education or above	0 (0%)

The results obtained from the pretest and posttest were analyzed to examine the efficacy of implementing the ETAFB intervention as a supplementary therapy for reducing emotional discomfort in youth. Table 5 shows that paired sample t-tests were used to analyze the mean scores of the pretest and posttest of the PWI-SC, GHQ-12, and SIAS for the 18 participants, in order to determine any changes.

Results of the PWI-SC indicated a significant enhancement in the personal well- being of the participants during ETAFB intervention in the achievement in life domain (t (17) = -3.37, $p < .05$), with means of 7.72 (n = 18, SD = 0.75) and 8.39 (n = 18, SD = 0.78) at the pretest and posttest. In the personal relationships (t (17) = 0.001, $p < .05$), means of 6.5 (n = 21, SD = 1.1) and 7.45 (n = 18, SD = 0.86) were noted at the pretest and posttest. In the feeling part of the community domain (t (17) = -3.29, $p < .05$), means of 6.95 (n = 18, SD = 1.21) and 7.72 (n = 18, SD = 0.9) were recorded at the pretest and posttest stages, respectively, and in the future security domains (t (17) = -3.29, $p < .05$), means of 6.44 (n = 18, SD = 1.58) and 7.22 (n = 18, SD = 1.52) were recorded at the pretest and posttes. A p-value of $\leq .05$ was considered statistically significant. The findings showed that there were no significant differences in the environment and physical health domains (Table 6). Furthermore, significant improvements in the participants' overall health were noted. The GHQ-12 pretest, and posttest scores showed a significant difference, with means of 11.89 (n = 18, SD = 2.45) at the pretest and 7.83 (n = 18, SD = 2.55) at the posttest, where t (17) = 9.24, and $p < .001$ at the 5% significance level. Significant improvements in the participants' social interaction anxiety were observed. The results revealed that the SIAS scores in pretest and posttest differed significantly, with means of 35.28 (n = 18, SD = 3.32) at the pretest (T0) and 33.11 (n = 18, SD = 2.44) at the posttest, where t (17) = 4.17, $p < .001$ at the 5% significance level. All null hypotheses were rejected.

Table 6. Results of the pilot study

Participants n = 18				**Paired *t*-test**		
	Mean	**Std. Dev**	**S.E. mean**	***t* value**	**df**	**Significance** (2-tailed)
						Pre vs Post
Personal Wellbeing Index – School Children						
Standard of Living						
Pretest	6.56	1.5	0.35	-2.91	17	0.1
Posttest	6.89	1.57	0.37			
Personal Health						
Pretest	6.94	0.87	0.21	-2.56	17	0.2
Posttest	7.22	0.94	0.22			
Achieving in Life						
Pretest	7.72	0.75	0.18	-3.37	17	0.004
Posttest	8.39	0.78	0.18			
Personal Relationships						
Pretest	6.5	1.1	0.26	-3.8	17	0.001
Posttest	7.45	0.86	0.2			
Personal Safety						
Pretest	7.06	1.11	0.26	-1.71	17	0.1
Posttest	7.28	1.18	0.28			
Community-Connectedness						
Pretest	6.95	1.21	0.29	-3.29	17	0.004
Posttest	7.72	0.9	0.21			
Future Security						
Pretest	6.44	1.58	0.37	-3.29	17	0.004
Posttest	7.22	1.52	0.36			
The 12-item General Health Questionnaire						
Pretest	11.89	2.45	0.58	9.24	17	<0.001
Posttest	7.83	2.55	0.6			
Social Interaction Anxiety Scale						
Pretest	35.28	3.32	0.78	4.17	17	<0.001
Posttest	33.11	2.44	0.58			

Note: SEM = standard error of the mean; df = degrees of freedom.

4.4 Discussion

The objective of the pilot study was to examine preliminary effects of the ETAFB protocol. Several significant changes were identified in within-group test score comparisons. Participants' scores for some subscales in the PWI-SC (achieving in life, personal relationships, community-connectedness, and future security), GHQ-12, and SIAS increased after the intervention. The findings supported the hypothesis and indicated that emotional distress improved among youth. This result suggests that engagement with textile art is a continual process involving goal setting, controlling external conditions, and meeting aims (Bailey & Fernando, 2012; Pöllänen, 2015). According to the significant scores, attendance rate, and high completion rate collected from the study, although distressed youth tend to be uninterested in seeking help from adults (Riley, 2001), the retention rate was high, at 100%. Art-based intervention with textile and fashion elements is an easy-to-learn art activity, which has been proven effective in improving personal well-being, reducing psychological distress, and increasing a sense of social support among communities. Based on the pilot study results, chapter 6 discusses the possible reasons for the findings, proposes the biopsychological mechanism based on these findings, and suggests practice implications combined with the main study.

This pilot study had provided the researcher with more information about the logistics arrangement, adverse effects, and potential benefits of the intervention, as well as the acceptability and tolerance of the participants. This pilot successfully achieved its intended objectives and goals.

a. The feasibility of the ETAFB intervention was assessed, limitations were examined, and recommendations might be applied to the main study.

b. Preliminary effects of the ETAFB intervention in youth with mental distress were explored.

4.5 Limitations

The study has some limitations worth acknowledging. First, the pilot study was limited by its small sample size and because the participants were all recruited from a single NGO centre, reducing the findings' generalizability. Analytically, despite the value of recruiting a difficult-to-reach sample, the analysis was limited by its sample size. Future studies could more effectively evaluate the effectiveness of the intervention, for example, by using multivariate statistical tests with larger sample sizes.

Second, the analysis lacked a CG. Although this is not uncommon in evaluation studies on interventions (e.g., Blanchard et al., 2020), this prevented testing of what would have happened to participants had the programme not been provided. Therefore, the intervention effectiveness cannot be fully verified and warrants further testing. Future studies are encouraged to include a CG and random assignment procedure.

Thirdly, measurements to assess and understand the participants' experiences and determine the efficacy of the intervention model were lacking. An authenticated scale focusing on self-expression and emotion regulation would be necessary to monitor how the ETAFB intervention was received. A appropriate scale is necessary to evaluate art therapy in multidisciplinary programmes to identify its contribution within the broader programme. Since the results would be more isolated, they might provide situation- specific information. By interfering in certain aspects, assessing the outcomes, or both, it is feasible to assess and enhance the quality of art therapy. In-depth interviews should also be conducted to understand the EG' experiences. EG will be asked to reflect on the experiences of the workshops and arouse emotions during the creation process. The in-depth interview aims to understand the contextual factors that could determine the trial results, insights, and participants' experiences in the intervention (Fetters et al., 2013).

4.6 Implications and suggestions for the main study

The use of textile art and fashion is novel to expressive art therapy practice. Despite its potentially tremendous significance for expressive art therapy practice, it has yet to receive proper investigation. The need for in-depth research on ETAFB intervention is critical for practitioners to introduce the intervention worldwide. Based on the results from the pilot study, the following modifications were made to the main study:

a. Given the limited sample size and homogeneous sample composition, these findings may need to be more generalizable. Since this study controlled both age and ethnicity, the findings cannot be generalized to young people from diverse cultural backgrounds or younger and older individuals at various stages of development. It is necessary to broaden the scope of the main study by extending the ETAFB intervention to encompass other age groups, including both younger and older individuals. Constructing a comprehensive database of research results that different populations can use universally would yield significant advantages. Furthermore, youth could be recruited from different organizations and secondary schools in Hong Kong to obtain diverse samples. Youth with developmental disabilities and diverse socioeconomic and ethnic backgrounds should also be included.

b. A CG would be used to establish causality by isolating the effect of an independent variable. CG can significantly strengthen a study's findings by providing the researcher with a means of determining whether the treatment under investigation truly impacts the experimental group.

c. The Self-Expression and Emotion Regulation in Art Therapy Scale (SERATS) would be added as an outcome measurement in the main study to assess and understand the participants' experiences and determine the efficacy of the intervention model.

d. To learn more about the experiences of the participants and assess the effectiveness of the intervention model, in-depth interviews would be carried out. The mixed

methods case study framework can provide a comprehensive understanding of the effectiveness of the theoretical model. A qualitative approach using in- depth interviews allowed youth to report on how, why, and which specific area within the interventions was helpful in addressing their emotion-related experiences.

4.7 Summary

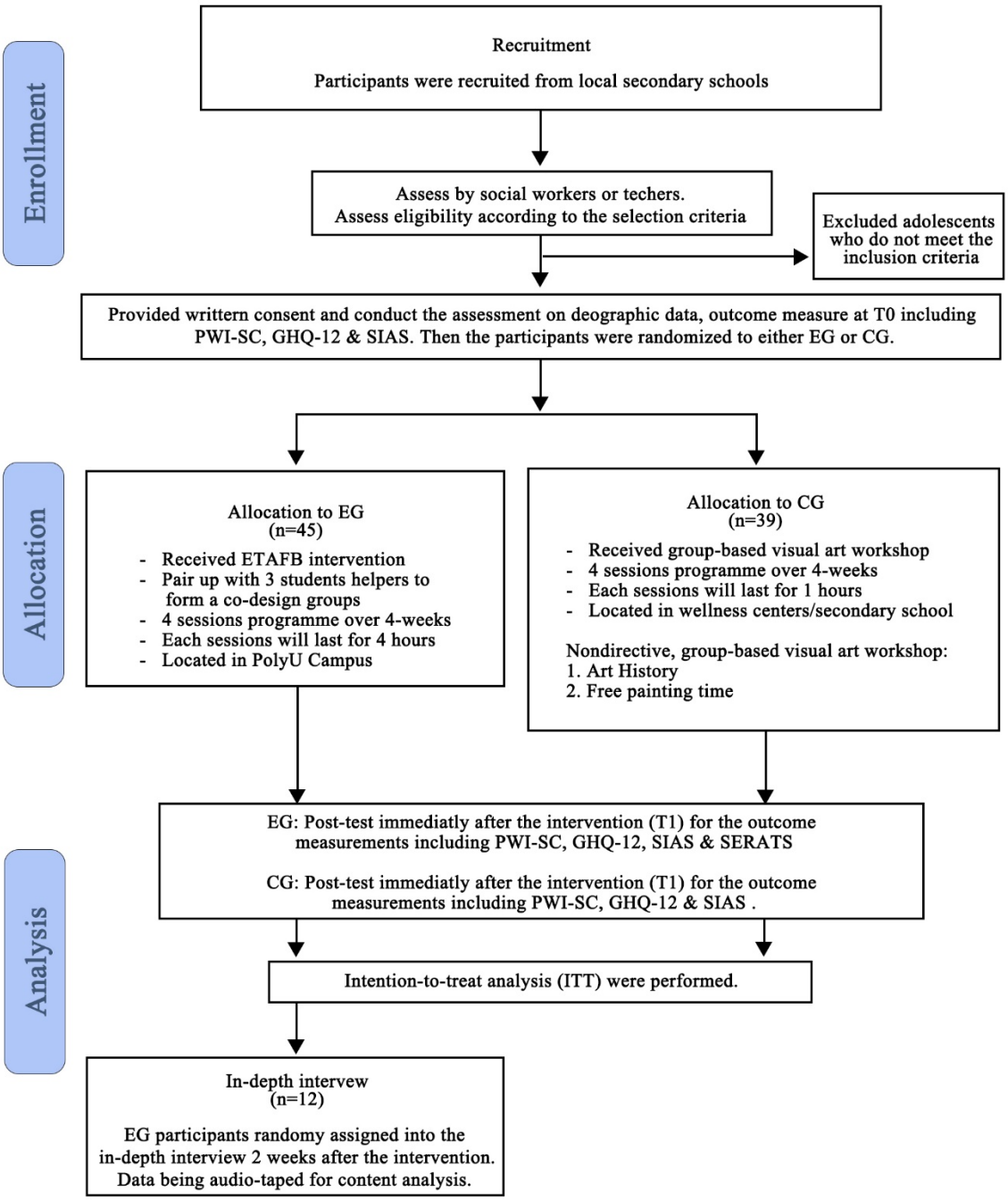
Results of this pilot research determine that ETAFB intervention is a feasible and acceptable care intervention for youth experiencing emotional distress. The intervention equips youth with textile arts and fashion-based abilities to regulate negative emotions, empowering them to confront daily challenges. The preliminary findings revealed that the ETAFB is an effective intervention for improving youth well-being, promoting their general health, and eliminating overall social anxiety. The main research was proposed with a larger and more diversified sample, along with CG and in-depth interviews, to evaluate the intervention’s profound impacts and enhance the study’s generalizability.

Chapter 5 –Main Study

5.1 Introduction

Chapter 5 focuses on the results of the RCT. 84 participants completed the workshop, and 12 participants completed the in-depth interview. This chapter begins with an overview of the research participants' demographics, which is followed by an examination of the baseline data. The second section presents the results of the treatment effect and the maintenance effect on various outcomes. This main study was conducted in March 2023. The study protocol was approved by the Human Subject Ethics Sub-Committee of the Hong Kong Polytechnic University (Reference number: HSEARS20210527002). The participants were recruited from three Secondary Schools located in Hong Kong East: Shau Kei Wan Government Secondary School, Precious Blood Secondary School, and St. Mark’s School. Students recruited in these three schools are varied in terms of their education level, income, age group, and social class to obtain more diverse samples. According to the sample selection criteria, the researcher screened potential participants for eligibility for our study. Upon recruitment, the schoolteachers approached the participants to provide a comprehensive explanation of the goal, procedures, potential benefits, and any negative effects of the interventions. Then written consents were obtained. Participants were reminded that participation is voluntary and that they can stop attending workshops at any time. All participants aged 18 and above signed a permission agreement that described the format, as well as the potential risks and advantages of participation. All participants under 18 years old at the beginning of the study were needed to submit a signed consent form from their parents or guardians. The CONSORT flow diagram depicting the ETAFB intervention’s main study is presented in Figure 4.

Figure 4. CONSORT flow diagram – main study



5.2 Demographic Characteristics

Table 7 showed the demographic characteristics of the participants in this research. A total of 84 participants were enrolled in the study and randomly assigned to the experimental group (n = 45) or the CG (n = 39). In the experimental group, over half of them (57.8%, n = 26) were in the age group of 16 – 17 years, 10 (22.2%) were male, 35 (77.8%) were female. All the students were attending secondary education, most of them belonged to Form 4, (62.2%, n = 28), the others were Form 3 (15.6%, n = 7) and Form 5 (22.2%, n = 10). Most of the participants were born in Hong Kong (84.4%, n = 38). They were from Precious Blood Secondary School (33.3%, n = 15); Shau Kei Wan Government Secondary School (44.4%, n = 20) and St. Mark's School (22.2%, n = 10). Whereas in the CG, over half of them (53.8%, n = 21) were in the age group of 16 – 17 years, 11 (28.2%) were male, 28 (71.8%) were female. All the students were attending in secondary education, most of them belonged to Form 4, (43.6%, n = 17), the others were Form 3 (15.4%, n = 6) and Form 5 (41%, n = 16). Most of the participants were born in Hong Kong (92.3%, n = 36). They were from Precious Blood Secondary School (38.5%, n = 15); Shau Kei Wan Government Secondary School (41%, n = 16) and St. Mark's School (20.5%, n = 8).

Table 7. Demographics of participants for the main study (Intention-to-treat)

Parameter	EG (N=45) N (%)	CG (N=39) N (%)	Total (N=84) N (%)
Age, years old			
14 - 15	16 (35.5%)	17 (43.6%)	33 (39.3%)
16 - 17	26 (57.8%)	21 (53.8)	47 (55.9%)
18 - 19	3 (6.7%)	1 (2.6%)	4 (4.8%)
Gender			
Female	35 (77.8%)	28 (71.8%)	63 (75%)
Male	10(22.2%)	11 (28.2%)	21 (25%)
Education level			
Never received any	0 (0%)	0 (0%)	0 (0%)
Primary level or below	0 (0%)	0 (0%)	0 (0%)
Secondary education	45 (100%)	39 (100%)	84 (100%)
Tertiary education or above	0 (0%)	0 (0%)	0 (0%)
Grade			
Form 3	7 (15.6%)	6 (15.4%)	13 (15.5%)
Form 4	28 (62.2%)	17 (43.6%)	45 (53.6%)
Form 5	10 (22.2%)	16 (41%)	26 (31%)
Place of birth			
Hong Kong	38 (84.4%)	36 (92.3%)	74 (88.1%)
China	6 (13.3%)	3 (7.7%)	9 (10.7%)
Others	1 (2.2%)	0 (0%)	1 (1.2%)
School			
Precious Blood Secondary School	15 (33.3%)	15 (38.5%)	30 (35.7%)
Shau Kei Wan Government Secondary School	20 (44.4%)	16 (41%)	36 (42.9%)
St. Mark's School	10 (22.2%)	8 (20.5%)	18 (21.4%)

Note: EG: Experimental Group; CG: Control group.

5.3 Baseline Data Analysis

Baseline data (T0) were analyzed by independent samples t-tests on the mean scores of all the outcome variables between the EG and the CG. Table 8 summarizes the results of the independent samples t-tests for the intention-to-treat analysis. The two groups had no significant differences in baseline comparison of PWI-SC, GHQ-12, and SIAS ($p > .05$).

Table 8. Baseline comparison of PWI-SC, GHQ-12, and SIAS between two groups

	Variates	EG(*n*=45)	CG(*n*=39)	*t*	*p*
Personal Wellbeing Index – School Children					
Standard of Living	Pre	6.69±1.53	6.59±1.37	0.310	0.757
Personal Health	Pre	6.69±1.95	6.69±1.34	-0.009	0.992
Achieving in Life	Pre	6.56±1.50	6.77±1.33	-0.686	0.494
Personal Relationships	Pre	7.04±1.52	6.46±1.39	1.821	0.072
Personal Safety	Pre	5.93±1.88	6.38±1.29	-1.265	0.209
Community-Connectedness	Pre	6.13±1.52	6.36±1.74	-0.635	0.527
Future Security	Pre	6.29±1.93	6.46±1.50	-0.453	0.652
The 12-item General Health Questionnaire					
	Pre	13.91±2.97	13.08±4.06	1.061	0.293
Social Interaction Anxiety Scale					
	Pre	37.91±2.52	38.38±1.84	-0.969	0.335

Note: EG: Experimental Group; CG: Control group.

5.4 Effects on personal well-being

The personal well-being level of the at-risk youth was measured by the PWI-SC. The comparison of the pre-test and post-test total scores of the PWI-SC Standard of Living in the IG

and CGs are shown in Table 9. While there was no significant difference between the EG and CG ($t = 0.310$, $p > 0.05$; $t = 1.342$, $p > 0.05$) before and after the ETAFB intervention. There was no significant difference between the PWI-SC pre-test and post-test in the EG and CG ($t = -1.871$, $p<0.001$; $t = -0.567$, $p > 0.05$). For the PWI-SC Personal Health results, there was no significant difference between the EG and CG ($t = -0.009$, $p > 0.05$; $t = 0.355$, $p > 0.05$) before and after the ETAFB intervention. There was no significant difference between the PWI-SC pre-test and post-test in the EG and CG ($t = -1.015$, $p<0.001$; $t = -0.734$, $p > 0.05$). For the PWI-SC Achieving in Life results, there was no significant difference between the EG and CG ($t = -0.686$, $p > 0.05$) before the ETAFB intervention, a significant difference was found between the groups after co-design ETAFB intervention, in favor of the EG ($t = 4.484$, $p<0.001$). There was a significant difference between the PWI-SC pre-test and post-test in the EG ($t = -5.307$, $p<0.001$). There was no significant difference between the PWI-SC pre-test and post-test in the CG ($t = -0.114$, $p > 0.05$). For the PWI-SC Personal Relationships results, there was no significant difference between the EG and CG ($t = 1.821$, $p > 0.05$) before the ETAFB intervention, a significant difference was found between the groups after co-design ETAFB intervention, in favor of the EG ($t = 3.780$, $p<0.001$). There was a significant difference between the PWI-SC pre-test and post-test in the EG ($t = -2.372$, $p<0.05$). There was no significant difference between the PWI-SC pre-test and post-test in the CG ($t =-0.083$, $p > 0.05$). For the PWI-SC Personal Safety results, there was no significant difference between the EG and CG ($t =-1.265$, $p > 0.05$; $t = -0.818$, $p > 0.05$) before and after the ETAFB intervention. There was no significant difference between the PWI-SC pre-test and post-test in the EG ($t = --1.689$, $p>0.05$). There was significant difference between the PWI-SC pre-test and post-test in the CG ($t =-2.339$, $p < 0.05$). For the PWI-SC Community Connectedness results, there was no significant difference between the EG and CG ($t = -0.635$, $p > 0.05$) before the ETAFB intervention, a significant difference was found between the groups after co-design ETAFB intervention, in favor of the EG ($t =2.426$, $p<0.05$). There was

a significant difference between the PWI-SC pre-test and post-test in the EG ($t = -5.007$, $p<0.001$). There was no significant difference between the PWI-SC pre-test and post-test in the CG ($t = -1.290$, $p > 0.05$). For the PWI-SC Future Security results, there was no significant difference between the EG and CG ($t = -0.453$, $p > 0.05$) before the ETAFB intervention, a significant difference was found between the groups after co-design ETAFB intervention, in favor of the EG ($t = 4.009$, $p<0.001$). There was a significant difference between the PWI-SC pre-test and post-test in the EG ($t = -5.030$, $p<0.001$). There was no significant difference between the PWI-SC pre-test and post-test in the CG ($t = 0.875$, $p > 0.05$). The comparison of the PWI-SC post-test mean scores in Achieving in Life; Personal Relationships; Community Connectedness and Future Security between the EG and CG revealed that the difference was statistically significant.

Table 9. Intragroup and intergroup at-risk youth' PWI-SC pre-test–post-test means scores

		EG(*n*=45)	CG(*n*=39)	*t*	*p*
PWI-SC					
Standard of Living	Pre	6.69±1.53	6.59±1.37	0.310	0.757
	Post	7.16±1.51	6.74±1.27	1.342	0.183
	t	-1.871	-0.567		
	p	0.068	0.574		
Personal Health	Pre	6.69±1.95	6.69±1.34	-0.009	0.992
	Post	6.96±1.43	6.85±1.39	0.355	0.724
	t	-1.015	-0.734		
	p	0.316	0.467		
Achieving in Life	Pre	6.56±1.50	6.77±1.33	-0.686	0.494
	Post	8.02±1.06	6.79±1.40	4.484	0.000*
	t	-5.307	-0.114		
	p	0.000**	0.910		
Personal Relationships	Pre	7.04±1.52	6.46±1.39	1.821	0.072
	Post	7.84±1.43	6.49±1.80	3.780	0.000*
	t	-2.372	-0.083		
	p	0.022**	0.935		
Personal Safety	Pre	5.93±1.88	6.38±1.29	-1.265	0.209
	Post	6.56±1.85	6.85±1.31	-0.818	0.416
	t	-1.689	-2.339		
	p	0.098	0.025**		
Community Connectedness	Pre	6.13±1.52	6.36±1.74	-0.635	0.527
	Post	7.38±1.40	6.67±1.26	2.426	0.017*
	t	-5.007	-1.290		
	p	0.000**	0.205		
Future Security	Pre	6.29±1.93	6.46±1.50	-0.453	0.652
	Post	7.67±1.40	6.18±1.99	4.009	0.000*
	t	-5.030	0.875		
	p	0.000**	0.387		

Note: *Independent samples t-test; **Paired samples t-test; EG: Experimental Group; CG: Control group; PWI-SC: Personal Wellbeing Index – School Children

5.5 Effects on psychological distress

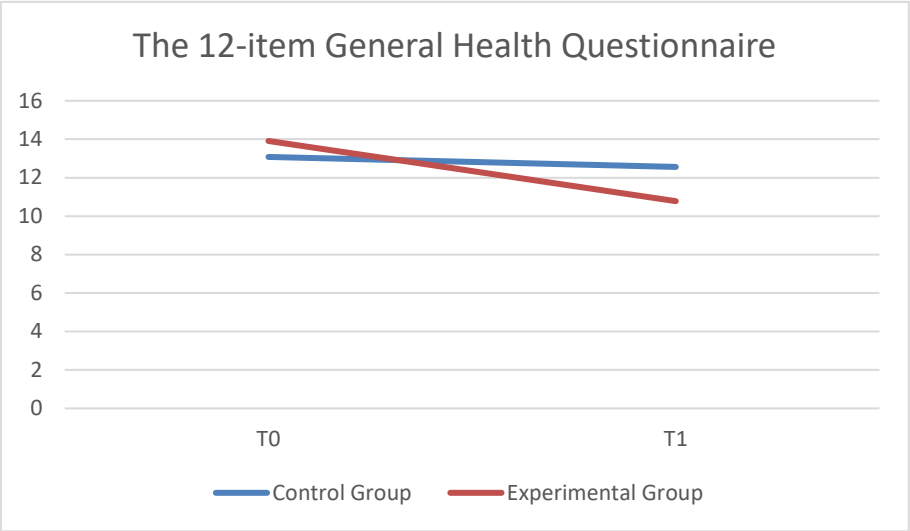
The psychological distress level of the at-risk youth was measured by the GHQ-12. The comparison of the pre-test and post-test total scores of the GHQ-12 in the IG and CGs are shown in Table 10. While there was no significant difference between the EG and CG ($t = 1.061$, $p > 0.05$) before the ETAFB intervention, a significant difference was found between the groups after co-design ETAFB intervention, in favor of the EG ($t = -2.431$, $p<0.05$). There was a significant difference between the GHQ-12 pre-test and post-test in the EG ($t = 9.25$, $p<0.01$). There was no significant difference between the GHQ-12 pre-test and post-test in the CG ($t = 0.903$, $p > 0.05$). (Table 4). The comparison of the GHQ-12 post-test mean scores between the EG and CG revealed that the difference was statistically significant, and the mean scores for psychological distress decreased significantly in the EG compared to the CG. The fact that this decrease in psychological distress score averages was higher and statistically significant in the EG in this study may indicate that the group ETAFB intervention was effective. Significant interaction effects between groups and time were found, suggesting that scores of the EG and CG changed differentially across time (Figure 5).

Table 10. Intragroup and intergroup at-risk youth' GHQ-12 pre-test–post-test mean scores

	EG(*n*=45)	CG(*n*=39)	*t*	*p*
GHQ-12				
Pre	13.91±2.97	13.08±4.06	1.061	0.293
Post	10.78±2.50	12.56±3.95	-2.431	0.018*
t	9.250	0.903		
p	0.000**	0.372		

Note: *Independent samples t-test; **Paired samples t-test; EG: Experimental Group; CG: Control group; GHQ-12: The 12-item General Health Questionnaire

Figure 5. Changes in GHQ-12 (Experimental and control group)



5.6 Effects on social interaction anxiety

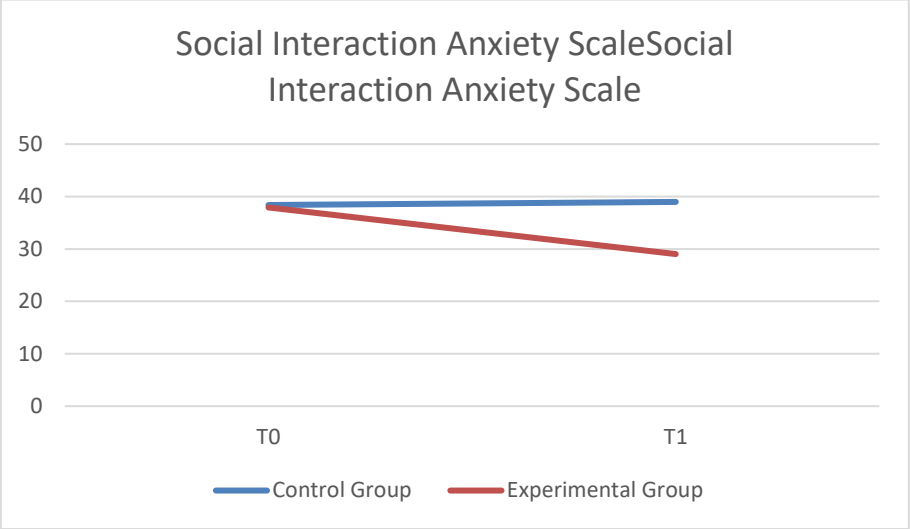
The social interaction anxiety level of the at-risk youth was measured by SIAS. The comparison of the pre-test and post-test total scores of the SIAS in the IG and CGs are listed in Table 11. While there was no significant difference between the EG and CG ($t = 1\text{-}0.969$, $p > 0.05$) before the ETAFB intervention, a significant difference was found between the groups after co-design ETAFB intervention, in favor of the EG ($t = -10.185$, $p<0.001$). There was a significant difference between the SIAS pre-test and post-test in the EG ($t = 12.969$, $p<0.01$). There was no significant difference between the SIAS pre-test and post-test in the CG ($t = 0.903$, $p > 0.05$). (Table 11). The comparison of the SIAS post-test mean scores between the EG and CG revealed that the difference was statistically significant, and the mean scores for social interaction anxiety decreased significantly in the EG compared to the CG. The fact that this decrease in social interaction anxiety score averages was higher and statistically significant in the EG in this study may indicate that the group ETAFB intervention was effective. Significant interaction effects between groups and time were found, suggesting that scores of the EG and CG changed differentially across time (Figure 6).

Table 11. Intragroup and intergroup at-risk youth' SIAS pre-test–post-test mean scores

	EG(*n*=45)	CG(*n*=39)	*t*	*p*
SIAS				
Pre	37.91±2.52	38.38±1.84	-0.969	0.335
Post	29.20±4.86	38.97±3.93	-10.185	0.000*
t	12.969	-0.963		
p	0.000**	0.341		

Note: *Independent samples t-test; **Paired samples t-test; EG: Experimental Group; CG: Control group; SIAS: Social Interaction Anxiety Scale

Fig 6. Changes in SIAS (Experimental and control group)



5.7 Effects on self-expression and emotion regulation

The self-expression and emotion regulation level of the at-risk youth was measured by SERATS. All EG(n=45) completed the scales to analyze the impact of the ETAFB intervention, which demonstrates how to create clothes that promotes suitable control of emotions and personal growth. (Table 12). Youth at risk generally found the experience satisfying, further

investigation was made during the qualitative research. The data presents insights into participants' experiences and perceptions regarding emotional expression and self-discovery through ETAFB workshops.

A significant majority (80%) of participants feel that they connect with their emotions during the art-making process in workshops, with no respondents expressing disagreement. This indicates a strong belief in the therapeutic value of art for emotional engagement. 76% of participants agree they can effectively depict their feelings during the workshops. Only 2% disagreed, suggesting that the workshops facilitate emotional expression through artistic representation. Similarly, 76% of respondents feel that artmaking helps them uncover their inner thoughts and feelings, with no disagreement noted. This highlights the role of art as a tool for personal insight. While 65% agree they can express their feelings through art, 31% remain neutral, and 4% disagree. This indicates that while many find art a useful medium for expression, a segment of participants may only partially resonate with this aspect. The ability to make things "fall into place" in their artwork is agreed upon by 65% of participants, with a slightly higher neutral response (33%). This suggests that while many find clarity in their artistic process, they may still explore this aspect. Only 55% agree that making art is an outlet for them, with 25% neutral and 2% disagreeing. This indicates that while art benefits some, it may only serve as a universal outlet for some participants. A strong 76% agree that their created art helps them hold onto specific feelings, with only 2% disagreeing. This suggests that participants find value in their artwork as a means of emotional anchoring. A majority (69%) of participants feel they can apply new behaviours learned in art therapy outside the workshop, with 7% disagreeing. This indicates a positive transfer of skills and insights from the workshops into everyday life. Finally, 78% of participants report gaining greater insight into their psyche through the art workshops, with only 2% disagreeing. This underscores the workshops' effectiveness in fostering self-awareness and personal growth.

In general, the data indicates that ETAFB workshops have mostly beneficial effects on emotions and psychology. The focus is on forming emotional connections, discovering oneself, and using insights obtained from the artistic process. Nevertheless, there are specific domains, particularly in self-expression and artistic endeavors, where many individuals maintain a neutral stance or express disagreement. This indicates the need for additional investigation and assistance in these areas.

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Table 12. Result in SERATS for experimental group (n=45)

		Agree	*Neutral*	*Disagree*
1	I get in touch with my feelings through the process of making art through the workshops.	80%	20%	0%
2	I am able to depict my feelings in the workshops.	76%	22%	2%
3	Through the process of making art, I am able to discover what is at play within me.	76%	24%	0%
4	I am able to express my feelings through the process of making art.	65%	31%	4%
5	I am able to make things fall into place in the art.	65%	33%	2%
6	Making art is a kind of outlet for me.	55%	25%	2%
7	A piece of art I have created can help me hold on to a particular feeling.	76%	22%	2%
8	I apply the new behavior that I have been experimenting with in art therapy outside of the workshops setting.	69%	24%	7%
9	I gain greater insight into my psyche through art workshops.	78%	20%	2%

Note: SERATS: Self-Expression and Emotion Regulation in Art Therapy Scale

5.8 Qualitative Feedback of the Participants in the EG

Two weeks after attending the workshop, an individual interview was conducted with 12 participants. The interviews were conducted sequentially, meaning participants were given the flexibility to diverge from the predetermined set of questions. The participants were randomly assigned to an in-depth interview on art-based empowerment. This interview study aims to investigate the influence of ETAFB intervention on youths experiencing emotional discomfort. The analysis aims to gain insights into the experiences and perceptions of the youth by conducting one-to-one interviews with participants two weeks after the workshop. The qualitative research involves twelve participants and aims to analyze the impact of the intervention on their emotional well-being, creative expression, and personal growth.

Table 13. High frequency vocabulary statistics (Top 30)

Word	Count	Similar Words
workshop	191	workshop, workshops
participating	119	participate, participated, participating, participation
different	103	difference, differences, different, differently
clothes	85	clothes, clothing, cloths
classmates	58	classmate, classmates
example	57	example, examples
experience	52	experience, experiences
school	50	school, schools
teachers	47	teacher, teachers
confidence	43	confidence, confident
friends	41	friend, friendly, friends
express	38	express, expressed, expressing, expression
feelings	40	feeling, feelings
design	35	design, designed, designs
helpful	36	helped, helpful, helping

challenging	28	challenge, challenging
changed	29	change, changed, changes
emotions	31	emotion, emotional, emotionally, emotions
interesting	29	interest, interested, interesting, interests
making	31	making
materials	31	material, materials
opinions	31	opinion, opinions
describe	25	describe
family	25	family
improve	26	improve, improved, improvement, improvements
learned	24	learned, learning
understand	26	understand, understandable, understanding
activity	23	actively, activities, activity
fashion	21	fashion
communication	15	communicate, communicating, communication, communications

The high-frequency vocabulary in Table 13 offers significant insights into the ETAFB intervention for youth with emotional distress. The extremely high count of "workshop" (191) emphasizes its centrality in the intervention process. "Participating" (119) shows the active engagement of the youth, indicating that they were involved and took an active part in the activities. "Different" (103) implies that the intervention brought diverse experiences and perspectives. The frequent mention of "clothes" (85) and "design" (35) highlights the importance of fashion and creative expression as key elements of the intervention. "Classmates" (58), "teachers" (47), and "friends" (41) suggest the social aspect and interaction within the intervention, which may have contributed to the overall experience. "Confidence" (43), "express" (38), and "emotions" (31) point to the emotional and psychological impact of the intervention, showing that it likely helped the youth express their emotions and boost their confidence. "Helpful" (36) and "challenging" (28) indicate that the intervention was both valuable and

presented difficulties, which could have contributed to personal growth. Words like "materials" (31), "example" (57), and "experience" (52) suggest that the variety of materials used, examples provided, and personal experiences were important aspects. Overall, these high-frequency words offer a thorough comprehension understanding of the various elements and impacts of the intervention.

Figure 7. Word cloud for the ETAFB intervention

The word cloud in Figure 7 further emphasizes the significance of the key terms. The prominent display of words like "workshop", "participating", and "clothes" reinforces their importance. The size and prominence of certain words provide a visual representation of their frequency and significance. For example, "confidence" and "express" stand out, highlighting the emotional and expressive aspects of the intervention. The word cloud helps in quickly identifying the main themes and concepts that dominate the discussion, providing a useful summary of the intervention's impact on youth with emotional distress.

5.8.1 Coding result

Table 14. Open coding

ID	Open coding	ID	Open coding
a1	Home economics related	c1	Ability recognition
a2	Tie-dye experience	c2	Confidence boost
a3	Bag making	c3	Emotional expression
a4	School courses	c4	Time management
a5	Relatively unfamiliar	c5	Observe self
a6	Design connection	c6	Believe in self
a7	School courses	c7	Classmate communication
a8	Visual art	c8	Understand classmates
a9	Painting mainly	c9	Teacher's opinion
a10	Not very familiar	c10	Family sharing
a11	Curious attempt	c11	More topics
a12	Design related	c12	Closer relationship
b1	Diverse materials	d1	Contact media
b2	Break through limits	d2	Learn skills
b3	Value discovery	d3	Enjoy process
b4	Casual combination	d4	Diversified learning
b5	Collage skills	d5	School deficiency
b6	Reduced framework	d6	Willing to participate
b7	Color combination	d7	Extended time
b8	Material use	d8	Increase sessions
b9	Design clothes	d9	Fashion teaching
b10	Glue gun use	d10	Different clothes
b11	Use of white glue	d11	Task challenge
b12	Creative production	d12	Other materials

Open coding is the process of extracting concepts from text. By coding the interview texts of 12 interviewees sentence by sentence, a total of 48 open codes are formed as shown in Table 14. The open codes cover a wide range of aspects related to the ETAFB intervention with youth

experiencing emotional distress. For example, codes such as "Home economics related", "Tie-dye experience", and "Bag making" suggest prior experiences that might have influenced the participants' perception of the intervention. "Visual art" and "Painting mainly" indicate the participants' background in art. "Diverse materials", "Break through limits", and "Value discovery" highlight the innovative and exploratory nature of the intervention. Codes related to emotional expression, confidence boost, and self-belief show the psychological impact on the youth. Additionally, codes like "Classmate communication", "Teacher's opinion", and "Family sharing" emphasize the social aspects. The variety of open codes reflects the complexity and multi-faceted nature of the intervention, providing rich insights into the experiences and responses of the participants.

Table 15. Spindle coding

ID	Spindle coding	Open coding
A1	Textile cognition	a1～a6
A2	Art cognition	a7～a12
B1	Concept change	b1～b6
B2	Skill improvement	b7～b12
C1	Self-growth	c1～c6
C2	Social interaction	c7～c12
D1	Participate again	d1～d6
D2	Content expectation	d7～d12

Spindle coding is the process of concept integration from open coding. By merging the concepts of open coding, a total of 8 spindle codes from A1 to D2 are formed as shown in Table 15. In the process of spindle coding for the job seeker data, distinct categories emerge. For instance, under A1 “Textile cognition”, the open codes from a1 to a6 combine to provide a comprehensive understanding of the participants’ understanding of textiles, encompassing

aspects such as home economics related experiences, tie-dye experiences, bag making, school courses, unfamiliarity, and design connection. A2 “Art cognition” similarly groups the relevant open codes to represent the participants’ understanding and experiences related to art. B1 “Concept change” and B2 “Skill improvement” capture the transformation and development in the participants’ perspectives and abilities through the intervention, with codes like diverse materials, breakthrough limits, and various skill-related aspects. C1 “Self-growth” and C2 “Social interaction” highlight the personal and interpersonal impacts of the intervention, covering aspects such as ability recognition, confidence boost, emotional expression, and interactions with classmates, teachers, and family. D1 “Participate again” and D2 “Content expectation” reflect the participants’ attitudes and desires for future engagement, including contact with different media, learning skills, and specific expectations for the content of future interventions.

Table 16. Selective coding

	Selective Coding	Spindle coding	Items
A	Pre-participation cognition	A1～A2	12
B	Changes after participation	B1～B2	12
C	Workshop gains	C1～C2	12
D	Future expectations	D1～D2	12

Selective coding is the process of further concept integration from spindle coding. By highly summarizing the spindle coding, a total of 4 selective codes from A to D are formed as shown in Table 16. In the selective coding for the data, clear overarching themes emerge. Code A “Pre-participation cognition” combines spindle codes A1 and A2, representing the participants’ understanding and experiences related to textiles and art before participating in the intervention. This provides insights into their initial perspectives and expectations. Code B “Changes after

participation” encompasses spindle codes B1 and B2, highlighting the concept changes and skill improvements that occur as a result of the intervention. It shows how the participants’ views and abilities are transformed during the process. Code C “Workshop gains” includes spindle codes C1 and C2, demonstrating the personal growth and social interaction benefits that the participants gain from the workshop. This reflects the positive impacts on their emotional well-being and relationships. Code D “Future expectations” combines spindle codes D1 and D2, indicating the participants’ desires and expectations for future participation and the content of potential future interventions. The three level coding framework is shown in Appendix VIII. Overall, these selective codes provide a comprehensive and structured understanding of the expressive art-based with textile and fashion elements intervention for youth with emotional distress, from their pre-intervention state to the changes and gains experienced, and their aspirations for the future.

5.9 Summary

In summary, the modified ETAFB intervention showed a significantly greater reduction in the level of psychological distress, social interaction anxiety, and improvements in well-being at immediately (T0) and 4 weeks (T1) after completion of the intervention than the CG.

Chapter 6 – Discussion

6.1 Introduction

The present research is the first to offer psychological evidence of the novel ETAFB intervention's benefits to youths experiencing emotional difficulties. This chapter addresses multiple objectives: (i) it summarizes the study's findings; (ii) it addresses the study's implications for research and practice; and (iii) it discusses the work's limitations. This chapter's first section provides an overview of the full study.

6.2 Summary of Results

After the EG received a 4-session,4-week ETAFB intervention, the participants experienced a greater improvement in their level of personal wellbeing subscales, including achieving in life($t = -5.307$, $p < 0.001$), personal relationships($t=-2.372$,$p < 0.05$), community-connectedness($t = -5.007$, $p < 0.001$), and future security (-5.030, $p < 0.001$) at the post-test as compared with the control with consistency with the pilot study. Significantly greater improvements were also found in the level of psychological distress ($t = 9.250$, $p < 0.001$) by the GHQ-12 and social interaction anxiety ($t = 12.969$, $p < 0.001$) by the SIAS of the intervention as compared with the control. However, no significant improvements were found in within-group test score comparisons in some subscales in the PWI-SC (standard of living, personal health, and personal safety). The objective of this main study was to examine the effects of the ETAFB intervention on youth with emotional distress. The findings supported the hypothesis and indicated that emotional distress improved among youth. Despite the fact that distressed youth are often disinclined to seek adult assistance, the study's high completion rate, attendance rate, and considerable scores suggest otherwise. (Riley, 2001), the retention rate was high, at 100%.

The main and pilot study results identified three areas with corresponding significant improvements: a) Personal well-being, b) General Health, and c) social interaction anxiety.

6.2.1 *Impacts on well-being*

Within-group test score comparisons showed significant improvement in participants' GHQ-12 scores. GHQ-12 is utilized to evaluate symptom levels of anxiety and depression in the general population (Baksheev et al., 2011). A statistically significant decrease in the mean total scores was observed in the EG after the intervention, indicating that the intervention reduced anxiety and depression levels in this group. The majority of participants stated that the program assisted them in reducing tension. They asserted that engaging in textile arts such as stitching and weaving could help them forget about their concerns and reduce stress. They discovered that weaving could serve as an alternative to sleeping and eating for tension relief. Leisure activities have been shown to reduce aggression, anxiety, stress, and depression (Clave-Brule et al., 2009; Iso-Ahola & Mannell, 2004). Art therapy can reduce problem behaviours, depression, and anxiety (Cobbett, 2016; Mueller et al., 2010; Rowe et al., 2016; Ispanovic- Radojkovic, 2004). According to Başl et al., art therapy was applied to 21 volunteer youth with positive results. Depression and anxiety levels were significantly reduced, and quality-of-life scores improved (Başlı, 2020). Moreover, a study of 42 youth participating in an art therapy programme in school or under a control condition found that the treatment group was more likely to experience reductions in behavioural difficulties and emotional symptoms than the CG (Quinlan et al., 2016). These results demonstrate that regardless of an individual's medical diagnosis or socioeconomic background, art therapy relieves anxiety, stress, and depression in them. Thus, in the present study, youth depression and anxiety levels decreased due to the ability to share and solve their problems with others and interact with others in a codesign setting.

6.2.2 Impacts on social interaction

Results of both studies supported and confirmed the hypothesis of the study that the ETAFB intervention could be an effective programme for reducing social interaction anxiety among youth with emotional distress. A significant improvement in participants' scores in the PWI-SC (personal relationships and community connections) and the SIAS was observed after the intervention. Also, the self-expression and emotion regulation level of the at-risk youth measured by SERATS shown the participants generally found the experience satisfying.

Studies have demonstrated that youth with emotional distress are more sensitive to how others perceive them (Schwartz, 2018). Positive adjustments in social behavior, attention span, and relaxation may result from the application of art therapy. (Pioch, 2010). A study conducted by Menzer (2015) discovered that those who participated in a variety of artistic activities, such as singing, dancing, acting, and crafting, throughout their formative years had favorable social and emotional behavior. This included the development of empathy, sharing, and emotional regulation skills. According to Otter-Johnson (2014) and von Busch (2013), crafts have been included as a way to foster a sense of community and as a platform for idea sharing, mutual support, and acknowledgment. Group crafting generates a sense of belonging and cohesion within the group (Palmer & Kawakami, 2014). Sharing and honoring one's creation with others and finding multi support in a community can improve one's sense of agency and self-esteem (Mayne, 2016, 2020). By participating in the ETAFB intervention, youth's psychological well-being could be enhanced by socializing, expressing oneself, and sharing both positive and negative experiences or sentiments related to their emotional states in a group setting. By engaging in more conversation with their classmates, participants claimed they were able to learn more about them. Their creative pursuits might facilitate connections. When developing prototypes, participants were required to work collaboratively, respect each other's opinions, and

maintain confidentiality. The participants often met these challenges and rapidly recognized the significance of group connection and the necessity for shared understanding. During the mini fashion show, participants were required to respect other groups' work because styles and fashion preferences differed among participants. Consequently, participants overcame self-doubt and remained positive and self-affirming under pressure. Additionally, participants thought the art therapists and assistants to be pleasant and helpful to their community.

6.2.3. Achievement in the future direction

Following the intervention, significant changes were observed in participants' scores for some subscales of the PWI-SC (achieving in life and future security) within groups. Due to the ETAFB intervention, the participants were more satisfied with their lives and found a sense of purpose for the future.

The participants expressed that creating allowed them the chance to gain self-empowerment by engaging in activities such as designing, time management, and choosing fabrication. After finishing the assignments and sharing them with others, they experienced a sense of fulfillment and developed a sense of self-worth. This result suggests that engagement with textile art is a continual process that involves goal setting, controlling external conditions, and meeting aims (Bailey & Fernando 2012). Participants could gain a greater understanding of themselves and improve abilities such as communication and problem-solving through the program, which ultimately resulted in enhanced self-confidence and self-esteem. During the photoshoot session, participants expressed their insecurities and obtained encouragement from others in order to enhance their self-esteem through self-presentation. Moreover, through the process of managing and assembling raw materials into a fashionable product, participants could cultivate self-determination. When youth experience emotional distress, their plans and expectations for the

future are altered. Youth experience anxiety and worry when considering their futures. A textile art and craft goal can assist individuals in achieving personal life and health goals and empower them through handling and assembling raw materials (Diener, 2000). Most craft practitioners continue their leisure activities throughout their lives and into elderly age (Kenning, 2015; Lamont & Ranaweera, 2019; Maidment & Macfarlane, 2011). Additionally, crafting is a socially conscious activity that empowers and supports people through life's transformations. (Kenning, 2015). According to the literature, individuals who can overcome problems have greater satisfaction with their lives (İnce, 2015). When youth with emotional distress were given the opportunity to take ownership of their lives and communities, they are more likely to develop innovative solutions to the complex problems facing the world. Textile crafting helps individuals reach their potential by devoting effort and concentration toward reaching goals in a systematic process (Stebbins 2017). Participants' enthusiasm for the programme indicated significant improvement in metacognition and time management skills from participation in the handcrafting process and their considerable sense of achievement gained. This study supports past research findings in demonstrating that textile art engagement allows crafters to take ownership of their crafting process, which involves the development of ideas, design, preparation, evaluation, and problem-solving (Collier 2011; Hari 2011; Pöllänen 2009; Riley 2008).

6.3 Process evaluation

The process was evaluated through the SERATS and in-depth interviews. The objective was to comprehend the therapeutic components of the ETAFB intervention and determine its strengths, limitations, and challenges from the viewpoint of youths experiencing emotional distress. The following are four themes that are addressed.

6.3.1 *Analysis on self-expression and emotion regulation*

Results of the SERATS for the EG group highlight the significant part that ETAFB intervention might have in improving youths' coping with emotions. The data indicates that most participants establish a profound connection during the creation process, with 80% confirming their active involvement with their emotions during workshops. This highlights the therapeutic potential of art as a medium for emotional engagement, aligning with existing literature that emphasizes the ability of art therapy to facilitate emotional expression and processing (Malchiodi, 2012).

The participants also indicated a significant level of efficacy in portraying their emotions through the process, as 76% said that the workshops improved their artistic expression of sentiments. This discovery corroborates the idea that art therapy offers a secure environment for patients to express intricate emotions that may be challenging to put into words (Klorer, 2005). For young people, who might find it difficult to communicate through traditional means, being able to visually represent emotions can be especially helpful. Moreover, the research reveals that 76% of participants believe that the process of creating an outfit contributes to self-discovery, implying that art is a potent instrument for introspection and personal understanding. This is consistent with the therapeutic approach suggested by Moon (2002), which argues that engaging in creative expression can result in increased self-awareness and comprehension of one's emotional state. Even though most participants (65%) said they could express their emotions through fashion and textile creation, a sizeable portion (31%) said they had no opinion about it. According to Creech and Hallam (2013), this implies that not everyone will find art therapy to be equally effective, emphasizing the necessity for customized approaches that take each participant's particular emotional needs and preferences into account.

The results also show that 55% of participants used art to express their emotions. While many think engaging in fashion and textile-related activities can be therapeutic, not all young

people may find this true. Furthermore, the data shows that 76% of participants perceive their work as valuable for maintaining emotions. This supports the notion that art can act as a concrete expression of feelings, enabling individuals to preserve and work through their emotions over time. In addition, 69% of participants reported being able to apply new behaviours learned in art therapy outside of the workshop setting, highlighting the practical benefits of the ETAFB intervention. Developing the ability to use acquired abilities in ordinary circumstances is essential for promoting resilience and coping mechanisms in young people dealing with emotional difficulties. The results demonstrate that ETAFB intervention is highly effective in facilitating self-reflection and personal growth, as seen by 78% of participants gaining a deeper understanding of their psychology. This is consistent with the therapeutic objectives of expressive art therapy, which seek to improve emotional wellbeing and self-awareness (Kapitan, 2017).

Overall, the results of the SERATS questionnaire offer strong evidence supporting an in-depth interview on the effectiveness of ETAFB intervention in alleviating emotional distress. Although most participants expressed beneficial experiences and results, the range of responses highlights the need for further modification of the exciting practices. Further investigation should be conducted to examine various results of ETAFB intervention on youths experiencing emotional distress, taking into account elements such as individual preferences, cultural backgrounds, and specific emotional difficulties.

6.3.2 *Theme analysis on in-depth interview*

a. Pre-participation cognition

Prior to attending the workshop, respondents' understanding of textiles was comparatively low in terms of textile cognition. Some participants believed that home economics and textiles

were related. They participated in activities related to their school curriculum, including tie-dying and bag-making. However, they experienced a general sense of unfamiliarity. For example, one respondent mentioned, "There were school courses related to textiles in forms one, two, and three. We also had tie-dyeing and made bags for the school's anniversary. Overall, it was relatively unfamiliar." Regarding the connection to design, although a few participants did have some design experience, it conceded to become more focused on painting and visual arts. They have yet to have much exposure to textile design. The primary sources of art cognition were school courses and elective visual art. According to the majority of participants, painting is the primary art form. Despite their lack of experience in textile design, they embraced the session with enthusiasm and a willingness to learn; as an illustration, "Studied visual art. Before participation, art was mainly painting. Curious about textile art."

b. Changes after participation

Regarding conceptual change, participants were released from the boundaries of traditional textiles and were aware of the material diversity of textile creation. They could surpass production constraints and identify each item's value. For instance, individuals might use various materials to express themselves and create clothing by combining unexpected elements. "Realized textile art brings diverse materials. No longer limited. Can express self with different combinations." Simultaneously, they acquired combined skills and experienced an improvement in the constraints of the framework, which resulted in more liberating creation.

Regarding skill development, participants became proficient in handling materials and colour collaboration. In addition to learning how to use creative tools for manufacturing, like glue guns and white glue, they could create their clothing. "Learned color combination and material use. Able to design clothes and use tools for creative production." The concept of textile art attracted most participants, and they enthusiastically explored their exploration of fashion

design. Instead of engaging in the act of sewing, they could explore innovative materials and thoughts to create an original creation. Most of them became fascinated with the art of weaving.

c. Workshop gains

Regarding personal growth, participants realised their abilities, enhanced their confidence, expressed feelings through artistic means, gained proficiency in time management and self-reflection and developed a greater sense of self-confidence. The participants stated that engaging in tasks such as designing, time management, and choosing fabrication through creating allowed them to achieve self-empowerment. They developed a sense of self-worth and experienced a sense of fulfilment after completing the assignments and sharing them with others. Through the program, participants could learn more about themselves and develop skills like communication and problem-solving, eventually increasing self-confidence and self-esteem. During the photographic session, participants openly shared their insecurity and received support from others to boost their self-confidence by positively showing themselves. Furthermore, participants could develop self-determination by handling and assembling raw materials into a stylish product. "Got ability recognition. Boosted confidence. Can express emotions. Learned time management and observe self. Believe in oneself more."

In terms of social interaction, there was more communication with classmates and a better understanding of classmates. They could give opinions to each other and get materials to make clothes. The interaction with teachers was mainly to seek opinions. There was more topic sharing, closer bonding among family members, and increased sharing. "More communication with classmates. Understand classmates better. Seek teacher's opinion. Share with family more. Closer relationship." By engaging in more conversation with their classmates, participants claimed they were able to learn more about them. Their creative pursuits facilitate connections. Additionally, participants thought the art therapists and assistants to be pleasant and helpful to their community.

d. Future expectations

Regarding their willingness to participate, participants expressed a desire to engage in the workshop again. The intention was to acquire expertise by reaching out via numerous design media, derive pleasure from the process, and attain an extensive amount of knowledge. They believed that schools were deficient in this particular feature, for example, "Willing to participate again. Want to contact different media, learn skills, enjoy process and have diversified learning. School lacks in this aspect."

Regarding content expectations, they wanted to extend the duration, increase the number of sessions, anticipate the different fashion techniques, explore unique clothing products, embrace task-based difficulties, and utilize alternative materials. This study examines the use of ETAFB intervention as a means of helping youths who are experiencing emotional distress. The study adopted qualitative research methods and in-depth interviews to gain valuable insights. The research objectives were explicitly established to investigate the influence of the ETAFB intervention on the emotional well-being, expression of creativity, and personal development of young individuals. The use of Nvivo for qualitative analysis was justified based on its ability to facilitate efficient organizing, coding, and identification of themes.

The high-frequency vocabulary analysis revealed the centrality of the workshop, active participation of the youth, diverse experiences, importance of fashion and design, social interaction, emotional and psychological impact, and personal growth. The open coding process generated 48 codes covering various aspects of the intervention, reflecting its complexity and multi-faceted nature. Spindle coding integrated these concepts into eight categories, and selective coding further condensed them into four overarching themes. The pre-participation cognitive theme demonstrated a restricted understanding of textiles and art, primarily obtained from school and elective visual art classes. Following participation, there were notable enhancements in

conceptual understanding and skill development in fashion and textiles. Participants understood the wide variety of materials used in textile art, acquired skills in creating assemblages, and became proficient in different methods for producing creative works. The program resulted in personal development in understanding one's abilities, improving confidence, expressing emotions, time management effectively, and promoting self-confidence. There was also an improvement in social connection with students, teachers, and family members. The user's future expectations encompassed a desire to engage in future participation, acquire knowledge through various forms of the news media, and express a need for an increased duration, additional sessions, and instruction on fashion. This intervention has certain benefits with young people experiencing emotional distress, as it offers them a means of expressing themselves creatively, increasing their self-assurance, fostering their ability to solve problems, and improving their social interactions. The research offers a thorough comprehension of the intervention and its impacts and helpful recommendations for future interventions and research in this field.

6.4 Theoretical Frameworks Relations

In discussing this study's findings, it is essential to connect them to established theoretical frameworks, such as the Expressive Therapies Continuum (ETC), person-centred expressive arts theory, and co-design principles. These frameworks provide a robust foundation for understanding how integrating expressive textile arts and fashion-based interventions can benefit youth experiencing emotional distress. As developed by Kagin and Lusebrink (1978), the ETC provides a complete model for understanding how people absorb information and construct images using art materials. This study's findings are consistent with the ETC levels. The reduction in anxiety and depression levels, as well as the development of emotional coping skills, can be linked to therapeutic involvement at these levels. Participants who interacted with textile

materials such as patternmaking, fabric cutting and sewing, and handicraft activities most likely had a kinesthetic and sensory grounding effect stimulate tactile and sensory functions, which facilitated emotional expression and processing in perceptual and affective level. Participants could facilitate personal achievement and fulfilment through creative output, eventually leading to cognitive restructuring and symbolic comprehension of their experiences (Hinz, 2009; Lusebrink, 2010) and set goals for change (Kahn, 1999). Furthermore, the ETC's creative level, which can exist at any or all the previous levels, was obvious in the participants' conceptual and personal development. Removing traditional textile limitations and recognizing material diversity indicates a creative investigation beyond standard cognitive and symbolic interpretations. This is consistent with the ETC's emphasis on creativity as a transforming factor in therapy (Lusebrink, 2010).

Based on Carl Rogers' work (1951; 2001), the person-centered expressive arts theory emphasizes the client's inherent ability to direct their healing process. The findings of greater life satisfaction, a sense of purpose, and self-confidence among participants are consistent with this notion. The intervention created a secure and compassionate setting where participants could explore their feelings and express themselves artistically, promoting personal development and self-discovery. This is consistent with Rogers' conviction in the therapeutic power of empathy and unconditional positive regard, which was most likely helped by the expressive arts method. Furthermore, the co-design principles contributed significantly to the intervention's success. The study ensured that the intervention model was adapted to the needs of the participants by encouraging creative teamwork and participant involvement during its creation and delivery (Steen et al., 2011). This collaborative approach improved idea development and intervention management and empowered participants, giving them a sense of agency and control over their recovery process. In conclusion, combining expressive textile arts and fashion-based treatments within the frameworks of the ETC, person-centered expressive arts theory, and co-design

principles resulted in a multidimensional approach to addressing emotional discomfort in youth. The study's findings highlight the frameworks' potential to promote emotional healing, personal growth, and social engagement, providing valuable insights for future therapeutic interventions.

6.5 Limitations

Several limitations were observed in this investigation. Prior to extending the findings of the study to the intended population, it is essential for individuals to take into account these limitations. The limitations pertain to the study's design, methodologies, and procedures, and will be explained in the next section.

6.5.1 *EG and CG Sample Size*

The size of the study sample influences the reliability of the findings. Several of the studies analyzed have a small sample size, which hinders the ability to conclude the effectiveness of art programs for young individuals experiencing emotional distress. The pandemic hindered the recruitment process in this study, resulting in an inability to reach a bigger objective. Undeniably, a bigger sample size yields more accurate results with increased statistical power and a smaller margin of error (Freiman et al., 1992).

6.5.2 *Recruitment of participants*

The study recruited youths experiencing emotional distress from three different secondary schools. They belonged to several backgrounds. The participants accurately reflected the socioeconomic composition of the community where the schools were located. There were two schools on Hong Kong Island and one in Kowloon. Youths might experience emotional and

social challenges due to geographical difficulties, taking into account their close location to Mainland China and the lengthy distance between Hong Kong Island and Kowloon (Wong, 2010). Various results may have been obtained if a more even allocation of residential or school locations had been available. Due to the recruitment of participants being primarily conducted in only two locations, there was an under-coverage bias. Due to the inability of the samples to accurately reflect all local secondary students, the study's findings have less generalizability. In order to reduce the impact of sample bias, it may be beneficial to explore recruiting participants across multiple sites.

6.5.3 *Blinding*

This research study utilized a prospective, single-blinded, RCT design. Comparable to the design of earlier psycho-educational interventional studies, establishing double-blinding (i.e., blinding both the interventionist and the participants) was challenging. Due to the lack of blinding among the participants regarding the interventions they received, this could have influenced their performance and evaluation of the outcome measurements subjectively. Upon enrollment in the study, participants become aware of whether they have been assigned to the intervention or CG. Participants' perceptions may be influenced by their inability to implement blinding. Due to the reliance on self-reported surveys, the findings regarding the impact of ETAFB intervention should be approached with caution.

6.5.4 *Focus group size*

The semi-structured interview with the children did not generate a large amount of data when it was transcribed. The researcher's intention was to conduct in-depth interviews with more participants. However, most participants were not available 2 weeks after the intervention. As

they were occupied with exams and extra-curricular activities after school.

6.5.5 *Programme Duration*

Four weeks may prove insufficient for students to develop a sense of connection with the art therapist. This can hinder students from feeling comfortable while expressing real feelings and viewpoints regarding the ETAFB workshops. Furthermore, a duration of barely four weeks for the intervention would not yield sufficient time to observe enduring advantages in the individuals. The data and results of the investigation will be impacted if this occurs. Several participants in the in-depth interviews stated a desire for additional sessions of ETAFB intervention to get more knowledge about fashion.

6.5.6 *Follow-up assessment*

In addition, the outcomes of the intervention were only evaluated at the beginning of the study, and after all of the sessions had been completed. A follow-up assessment might be added in order to determine whether or not the effects of the intervention are still there after the intervention has been completed.

6.6 Summary

Both pilot and main study employed expressive textile art and fashion-based activities to relieve emotional distress among participants. The findings of this study are consistent with earlier studies highlighting the good influence of art therapy on kids experiencing emotional distress. However, they also include innovative components that distinguish them from existing literature. Cohen-Yatziv and Regev (2019) examined the effectiveness of art therapy for children and youth, discovering positive emotional outcomes in various settings, including trauma and

special education. The findings of this study, which found that participants had reduced levels of depression and anxiety, are consistent with these proven advantages, supporting the hypothesis that art-based therapies might promote emotional healing and personal growth. Similarly, Moon (2012) stated the importance of nonverbal, responsive artmaking in developing therapeutic relationships with youth, which is consistent with the approach taken in this study, which involves engaging participants in a nonverbal discourse using expressive textile arts. The success of art therapy in trauma contexts, as described by Chapman et al. (2001), and the organized art programs examined by Cortina and Fazel (2015) provide more evidence of art's therapeutic potential in offering a safe space for emotional exploration and expression.

However, this study stands out because it incorporates fashion and textile arts into therapy, an area that has received less attention in literature. While previous studies have concentrated on traditional art techniques such as drawing and painting, textiles provide a distinct tactile and sensory dimension that may increase engagement and self-expression. This approach is consistent with the multimodal character of expressive arts therapies, which combine different artistic techniques to facilitate recovery (Atkins, 2002; Expressive Arts San Diego, 2018). The study's use of co-design principles, which involve participants in the production process, represents a change from traditional art therapy methods, empowering adolescents by providing them agency in their recovery path (Steen et al., 2011). This interactive method, along with an emphasis on textiles, adds to the study's unique findings, providing new insights into how art-based treatments might be adjusted to address the various needs of young people. Furthermore, the study's emphasis on textile making as empowerment and self-expression is consistent with previous research by Corkhill et al. (2014) and others, who have highlighted the therapeutic benefits of boosting self-esteem and giving continuity during life transitions. Overall, this study supports the well-established advantages of art therapy and broadens the scope of therapeutic art interventions by introducing novel aspects that meet the specific difficulties that today's kids

experience. The evaluation results of the ETAFB intervention indicate that it positively impacted the participants in terms of social interaction, overall health, and future achievement. This study, a RCT with single blinding, yielded results suggesting that the ETAFB intervention can effectively decrease emotional distress among young people in Hong Kong. During the ETAFB programme, EG were taught to understand various textile materials, fashion design skills, and styling knowledge, accept their thoughts, and disengage from their source of negative feelings and stress non-judgmentally, leading to stress reduction.

Chapter 7 – Implications and Conclusions

7.1 Introduction

Chapter 7 examines the implications, recommendations, and conclusions drawn from the research. The initial section pertains to the implications of the findings for community practice, fashion and textile education, and research, with improving the intervention. Subsequently, suggestions for further research are provided, followed by the thesis's conclusion.

7.2 Practical Implications

This study emphasizes numerous crucial factors when using art-based programs with fashion and textile components in non-clinical settings. The results, both in quantity and quality, showed that the ETAFB intervention could decrease psychological stress and enhance social interaction. The analysis of the data reveals implications for practice, which are outlined below.

The findings indicate that the co-design art-based program, incorporating fashion and textile elements, may be an effective intervention for local authorities to promote positive emotional well-being among young people. Thus, it is important to continue providing this intervention to secondary youths where appropriate to their needs. In terms of practical applications, the study proposes numerous approaches to improving youths' mental health support. Today's youth are significantly influenced by fashion in terms of their identity, behaviour, and desired outcomes. Due to the diverse characteristics of adolescent individuals, a wide range of fashion choices are available in various styles, sizes, colours, and materials. Adolescents embrace fashion as self-expression, establishing connections with classmates, and attaining social standing (Gaikwad, 2024). By enhancing the program's attractiveness to youths, it is anticipated that they will be

more likely to participate in these activities, actively participate in them, and experience higher satisfaction with the services provided. Therapeutic programs can include expressive textile arts in their services, giving youth creative opportunities to express and process their feelings.

Furthermore, the present research indicates that providing school-based ETAFB intervention for youths experiencing emotional distress can help prevent the need for future potential costs with the youth offending system and in-patient psychiatric care, thus reducing potential expenditures. The benefits achieved in terms of the student's emotional well-being, social functioning, and engagement with school far exceed the initial costs of the interventions. Schools and community organizations could integrate art-based therapies into their mental health services, including workshops and collaborative activities that promote emotional well-being and social connection. Mental health practitioners' training might include modules on employing expressive arts in treatment, allowing them to engage youth in these interventions effectively. Furthermore, politicians might support projects that fund and promote art-based mental health services, recognizing their ability to address the unique difficulties that young people confront today. By integrating these practical applications, communities can create supportive environments that nurture youth's mental health and personal development.

For educators, this study highlights the importance of understanding the needs of youths who have had difficulties with emotions and identifying suitable interventions to support them. In many ways, educators in various disciplines are the most well-positioned professionals within educational institutions to help students relieve stress. In addition to ensuring that students with emotional distress have access to therapy and that their needs are recognized and met within educational institutions, secondary school teachers can act as advocates for young people experiencing emotional distress. The findings indicate that secondary schools can offer a highly supportive setting for accessing therapy services and collaborating with various authorities to

deliver ETAFB intervention. Increasing the availability of therapeutic services in schools and providing young people access to professionals from diverse backgrounds in school settings will likely have positive effects. Fashion and textile professionals who seek to broaden programming possibilities for youth experiencing emotional distress might discover the study's conclusions to be informative in providing insight into how to take emotional wellness into account when designing and implementing programs. Fashion and textile instructors could consider changing program goals and activities to focus on nurturing specific emotions. For academic researchers, this study emphasizes the relevance of multidisciplinary methods, proposing that collaborations between art therapy, psychology, and fashion design can result in novel interventions that address emotional distress in youth. Future research could expand on this, looking into how different artistic mediums and therapeutic practices can be combined to improve mental health outcomes. Furthermore, ongoing investigations are required to measure the long-term impact of expressive textile arts treatments, as this would provide essential information into the sustainability benefits. Research might also be conducted on varied populations to assess the generalizability of these findings across cultural and demographic groups. Understanding the mechanisms of change, whether psychological, neurological, or social, can help explain how these interventions promote emotional recovery and personal growth.

In future research, research on the use of ETAFB intervention with youth with emotional distress needs to be systematically developed longitudinally. Future studies need to be specific and long-term and incorporate large groups of students evenly distributed between control and experimental groups. Data on gender, as well as other specific demographics, must be collected. Future research must consider the changing needs of students during an incredibly stressful time in public education.

7.3 Recommendations for future research

The ETAFB intervention was shown to reduce psychological distress and enhance social interaction in youth with emotional distress in the randomised controlled trial. Reliable evidence was provided to support this statement. Further study would be expected to examine the impact of the art-based program on textile and fashion elements in a larger sample size and to conduct additional in-depth interviews. Development of non-pharmacological interventions for the reduction of emotional distress should be pursued. This mixed-method study contributes to the expanding literature regarding the therapeutic advantages of art-based interventions that incorporate a textile and fashion approach.

In order to maximize the diversity of the samples, future research should enroll participants from a greater diversity of secondary institutions in three districts: Hong Kong Island, the New Territories, and Kowloon. In order to minimize sampling bias, future research should be conducted across numerous Hong Kong regions using distinct samples. Investigating at-risk youths or clinical populations is also recommended, as the study of youth attending school with a similar demographic composition to neighbors may result in smaller effect sizes that are problematic to detect with limited sample size. The therapeutic effects of the ETAFB intervention were immediate in the study; however, the long-term effect is unidentified, particularly during the initial phases of learning. Consequently, additional validation of the therapeutic effects' sustainability is necessary, such as including a follow-up assessment. The majority of the outcomes were evaluated using self-reported questionnaires.

Specific literature emphasizes the importance of gathering and analyzing diverse data sources to improve the understanding of juvenile development and behavior (De Los Reyes & Kazdin, 2005). Incorporating parental perspectives into ETAFB therapy may improve the understanding of the participant's efficacy and durability. Families can provide novel insights

into service delivery (Thegan & Weber, 2002). Outside therapy sessions, parents can offer significant insights regarding their child's behavior and emotional status. This comprehensive viewpoint enables therapists to evaluate the practical application of skills and coping strategies gained during therapy in daily life. Consistent communication with parents establishes a feedback loop that enables therapists to develop and modify their methods perpetually. This iterative procedure improves the overall efficacy of the intervention. Involving parents in the therapeutic process equips them with knowledge and resources to improve their child's emotional health. This empowerment may yield enduring benefits when parents engage actively in their child's therapeutic process. By engaging in the observation and evaluation of behaviors in youth, families enhance their understanding of their child's development (Dinnebeil & Rule, 1994) and augment their contributions to the formulation of intervention plans and decision-making processes (Brinckerhoff & Vincent, 1987). In an upcoming investigation, it may be worthwhile to incorporate more objective measurements to evaluate the impact on tension reduction.

7.4 Conclusions

Youth who are experiencing emotional distress are at a higher risk of engaging in and being impacted by risky behaviours, including juvenile delinquency, drug use, criminal activity, and academic failure, as well as mental health disorders. Emotional distress can be reduced by offering youths a range of pro-social activities. They might be better defended against risk factors frequently linked to juvenile crime and delinquency if they have worthy goals and beliefs. Crafting empowers individuals by engaging in the fabrication and design process.

The results of the present study suggested that the ETAFB intervention had a beneficial impact on the self-reported outcomes of youths experiencing emotional distress in various significant domains. It is important to recognize that the study has certain limitations. This study indicates that a targeted intervention—an integrated textile arts and fashion therapy program for

youth with emotional distress—may be a viable approach to inducing positive change in at-risk youth despite the limitations. This can serve as preventative measures or sources of empowerment for pro-social behavioural change. The therapeutic effects of art-based interventions and the relationships between art, textiles, and empowerment for youth with emotional problems in Hong Kong have been neglected in previous research. Consequently, this study makes a significant contribution to the discipline.

Research on this topic is mostly facilitated by independent research worldwide. A well-established body of research on the implementation of art-based therapies in fashion and textile school settings with youth of all ages would be advantageous to the field of art therapy as a whole as well as the public school system. The literature reviewed in this thesis suggests a mutually beneficial symbiotic relationship between art therapy and youth with emotional distress. However, more viable data is needed to promote for school districts. Integrating an art-based therapy that incorporates fashion and textiles into the regular curriculum for all students would positively impact the mental health and school culture of all secondary schools.

Appendix I

Information sheet for the participants in the ETAFB workshops. (English version)

INFORMATION SHEET

Community engagement through expressive textile arts and fashion-based workshops 2021

This research study is supervised by Dr. Jin Lam, Assistant Professor of the School of Fashion and Textiles, The Hong Kong Polytechnic University, and her team members. Please read the following information carefully and discuss it with your parents, teachers, and social workers if you wish. Ask us if there is anything that needs to be clarified or if you would like to have more information. Take time to decide whether or not you wish to take part. The project has been approved by the Human Subjects Ethics Sub-committee (HSESC) (or its Delegate) of The Hong Kong Polytechnic University (HSESC Reference Number: HSEARS20210527002).

The purpose of this study is to gain the information necessary for evaluating the expressive textile arts and fashion-based workshops on youth with mental distress. The workshops will be conducted in four 4-hour sessions over four weeks. You are invited to design an outfit with our student helpers. Textiles and fashion techniques involving designing, patternmaking, sewing, screen printing, fitting, and styling will be demonstrated in the workshops. Youth from Forms 3–6 aged 14–19 in Hong Kong whom social workers and schoolteachers have identified as having mental distress will be invited to participate in the workshops. The study will involve completing a questionnaire and/or interviews.

All information collected will be kept confidential. All personal information and research data collected from participants will only be reviewed and used by the research team as a research aspect. If you would like to get more information about this study, please contact Dr. Jin Lam on Tel. No. 27666487; mailing address Room QT715, School of Fashion and Textiles, The Hong Kong Polytechnic University, Hung Hom, Hong Kong and email address: jin.lam@ or Ms. LI Wai Kwan wai- kwan.li@ .

There are no special compensation arrangements in this study. If you have any complaints about the conduct of this research study, please do not hesitate to contact Miss Cherrie Mok, Secretary of the Human Subjects Ethics Sub-Committee of The Hong Kong Polytechnic University in writing (c/o Research Office of the University), stating clearly the responsible person and department of this study.

Thank you for your interest in participating in this study.

Dr. Jin Lam
Chief Supervisor

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(Chinese version)

資料篇

Community engagement through expressive textile arts and fashion-based workshops 2021

本研究由香港理工大學時裝及紡織學院助理教授林枝衍及其團隊成員負責指導。請仔細閱讀以下信息，亦可與你的父母、老師和社工諮詢意見。如果有什麼需要澄清的地方，若有任何不清晰的地方或需要更多資料，請隨時向我們提出。請詳細考慮你是否願意參與。本項目已獲經由香港理工大學道德評議會秘書會審批（HSESC）（或其代表）批(HSESC 參考編號：HSEARS20210527002)。

這項研究旨在為評估表達性紡織藝術和時裝工作坊對受情緒困擾的青少年的有效性。工作紡將在四個星期內分四次進行，每次 4 小時。我們邀請您與我們的學生一起設計一套服裝。紡織品和時裝設計過程，包括設計、紙樣製版、縫紉、絲網印刷、量身和造型設計，將在工作坊中演示。我們將邀請香港 14-19 歲的中三至中四受情緒困擾青少年參加工作坊。該研究將包括填寫問卷和/或訪談。

所有收集到的信息都將被保密。當中獲得的參加者個人資料及研究數據只會用作研究用途，並由今次的研究人員全權收集及分析。如果你想獲得更多關於這項研究的信息，請與林枝衍博士聯繫，電話：27666487；郵件：jin.lam@ 。郵寄地址：香港紅磡香港理工大學服裝及紡織學院 QT715 室，或李煒均女士聯繫，郵件：wai- kwan.li@ 。

本研究計劃並沒有設特殊的補償安排。若您欲就本研究提出任何投訴，您可親自或以書面形式聯繫香港理工大學道德評議會秘書委員會（轉香港理工大學研究處），並清楚說明本研究的負責人和部門。

感謝你對參與本研究的興趣。

研究組組長

林枝衍博士

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Appendix II

Inform consent for the ETAFB intervention. (English version)

CONSENT TO PARTICIPATE IN RESEARCH
Community engagement through expressive textile arts and fashion-based workshops 2021

I _____ hereby consent to participate in the captioned research conducted by Dr. Jin Lam, Assistant Professor of School of Fashion and Textiles and Ms LI Wai Kwan, PhD Student in the School of Fashion and Textiles, The Hong Kong Polytechnic University.

I understand that information obtained from this research may be used in future research and published. However, my right to privacy will be retained, i.e. my personal details will not be revealed.

The procedure as set out in the attached information sheet has been fully explained. I understand the benefit and risks involved. My participation in the project is voluntary.

In addition, I do hereby consent to the use of my image, video, voice, or all three of them, in the item described above. I waive any right to inspect or approve the finished video recording. I agree that all such pictures, video or audio recordings and any reproduction there of shall remain the property of Dr. Jin Lam and Ms Li Wai-Kwan, School of Fashion and Textiles, The Hong Kong Polytechnic University and she may use it as it sees fit. I understand that these images may appear publicly as part of The Hong Kong Polytechnic University's website and/or other marketing materials.

I understand that this consent is perpetual, that I may not revoke it, and that it is binding.

I acknowledge that I have the right to question any part of the procedure and can withdraw at any time.

Name of participant	Date	Signature of participant
Name of Parent or Guardian (if applicable)	Date	Signature of Parent or Guardian (if applicable)
Name of researcher	Date	Signature of researcher

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Community engagement through expressive textile arts and fashion-based workshops 2021

參與研究同意書
承諾及聲明

此中文版本為英文版本之譯本，如中、英文兩個版本有任何抵觸或不相符之處，應以英 文版本為準。

本人 ，_____(研究參與者姓名) 茲同意參與由香港理工大學時裝及紡織學院林枝衍博士和李煒均小姐提供的研究「Community engagement through expressive textile arts and fashion-based workshops 2021」。本人了解從這項研究中獲得的信息可能會用於未來的研究並發表。本人明白，本人之身份和個人詳細資料將獲得保密處理。

本人已細讀參與者資料小冊子及知情同意書。本人已了解研究的詳細細節。本人沒有因簽署這同意書而放棄了任何法律權益。對於此研究，本人已獲得有關研究足夠的資料。本人明白所有有關本研究的好處及風險。本人的參與是自願的。

此外，本人同意林枝衍博士在上述研究中使用本人的圖像、視頻和語音。本人同意製成品無需提交本人檢視或批核。本人保障香港理工大學免除因使用有關本人之圖像、視頻和語音而引起的一切法律責任及索賠，包括誹謗、中傷或侵犯私隱及人權等。本人明白香港理工大學對有關本人之圖像、視頻和語音有絕對使用權。本人明白這些圖像、視頻和語音可能會作為香港理工大學網站/並使用於任何媒體及用途上，而不需提供任何回報。

本人了解此同意書是永久性的，不得撤銷，並同意受其約束。本人有權質疑研究程序的任何部分，本人有權在任何時間退出而不會受到任何形式的懲罰。

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Appendix III

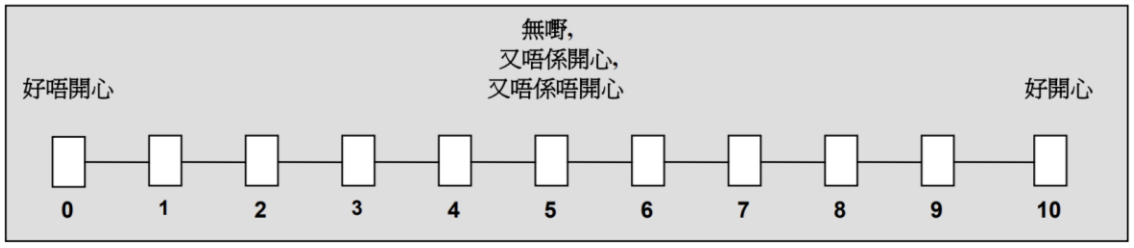
Personal Wellbeing Index – School Children (PWI-SC) (Chinese version)

個人幸福指數–學生版

請細讀下列陳述，並就每句句子圈出最能代表你想法的數字。由零至十。零代表你覺得好唔開心，而十就代表你覺得好開心，五代表你覺得無嘢, 又唔係開心,又唔係唔開心。

3.1 Happy with Life as a Whole [Optional]

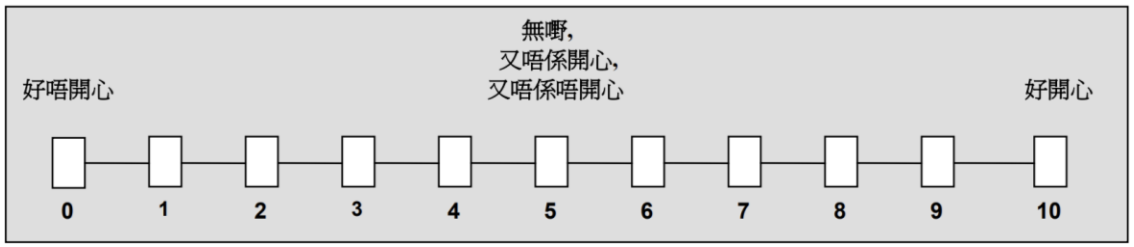
1. 你對於你嘅整體生活，有幾開心呀？



3.2 Personal Wellbeing Index – School Children/Adolescents [Life Domains]

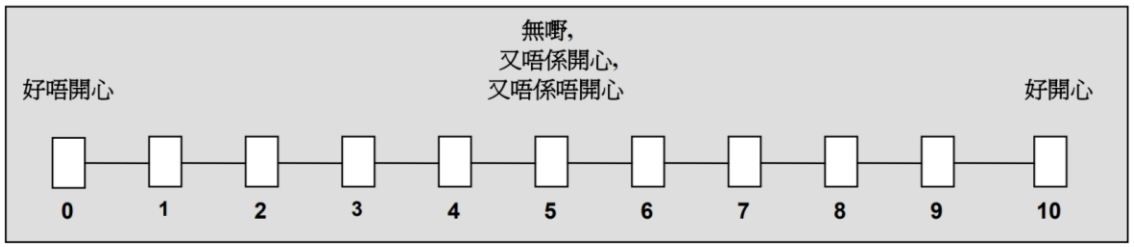
1. [Domain: Standard of Living]

你對於你擁有嘅嘢，有幾開心呀，譬如：錢，或者其他屬於你嘅嘢？



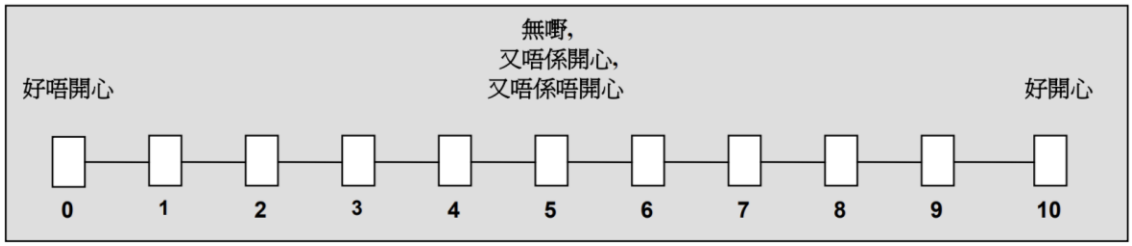
2. [Domain: Personal Health]

你對於你嘅健康，有幾開心呀？

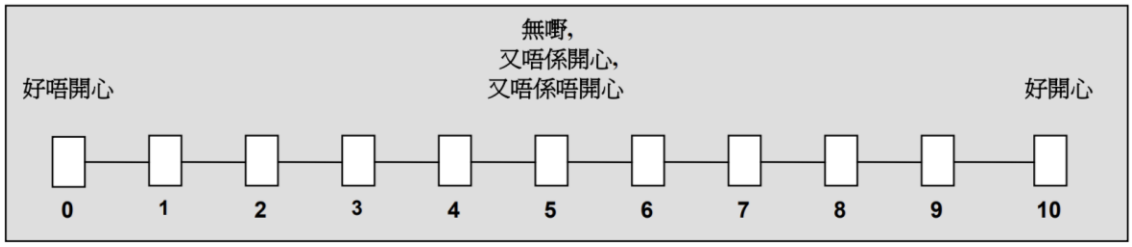


3. [Domain: Achievement in Life]

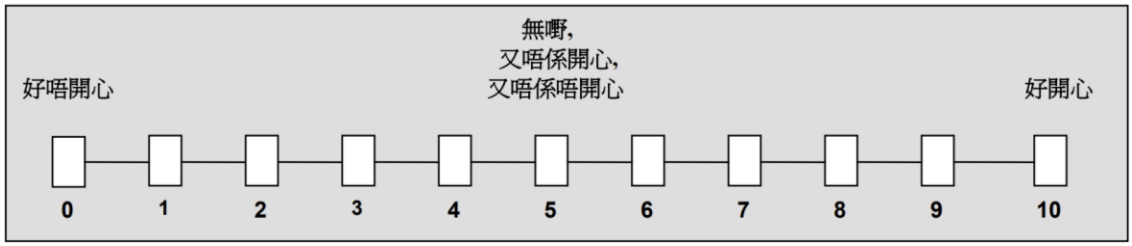
你對於你希望做得好嘅嘢，有幾開心呀？



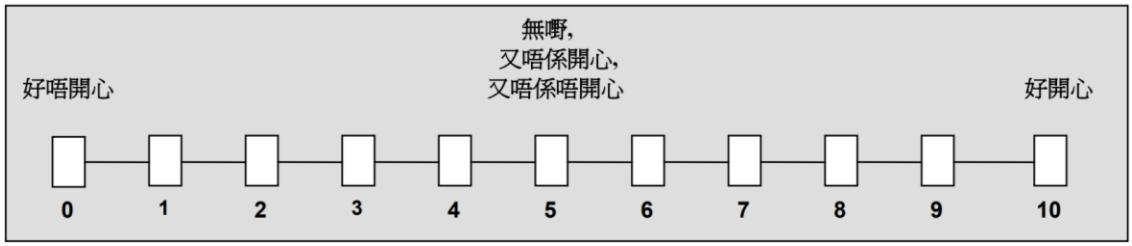
4. [Domain: Personal Relationships]
你對於同你認識嘅人相處，有幾開心呀？



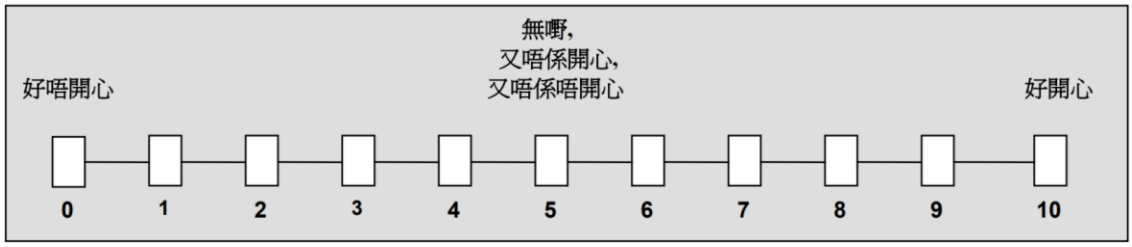
5. [Domain: Personal Safety]
你對於你嘅安全感，有幾開心呀？



6. [Domain: Feeling Part of the Community]
你對於你係屋企以外做嘅嘢，有幾開心呀？



7. [Domain: Future Security]
你對於人生遲 d 會發生嘅嘢，有幾開心呀？



~問卷完~

Appendix IV

The 12-item General Health Questionnaire (GHQ-12) (Chinese version)

一般健康問卷 (GHQ-12)

最近幾個星期，你身體有沒有不舒服?你的健康情況如何?。所有答案都沒有正確或錯誤之分。

	沒有	同平時一樣	頗多於平時	甚多於平時
1. 做事都能夠集中精神	0	1	2	3
2. 因擔心一些事情而失眠	0	1	2	3
3. 覺得大致上做事情都做得不錯	0	1	2	3
4. 覺得自己能對事情下定主意	0	1	2	3
5. 覺得自己總是感到有精神壓力	0	1	2	3
6. 覺得自己不能夠克服困難	0	1	2	3
7. 能夠享受日常生活的活動	0	1	2	3
8. 能夠面對現時的問題	0	1	2	3
9. 覺得很不開心及悶悶不樂	0	1	2	3
10. 對自己失去信心	0	1	2	3
11. 覺得自己是一個無用的人	0	1	2	3
12. 大致來說樣樣事情都頗開心	0	1	2	3

~問卷完~

Appendix V

Social Interaction Anxiety Scale (SIAS) (Chinese version)

社會交往焦慮量表和社交恐懼量表

對於每個問題，請在空白處填寫一個數字，以表明您認為該陳述對您來說真實的程度。

		從不	很少	有時	經常	總是
1	如果我必須與老師交談，我會緊張起來。	1	2	3	4	5
2	我與他人有事眼神接觸上的困難。	1	2	3	4	5
3	在我必須談論自己心裏感覺的場合中，我會變得不自。	1	2	3	4	5
4	我發現很難與我一起工作的人舒適地在一起。	1	2	3	4	5
5	我發現結交和我同齡的朋友很容易。	1	2	3	4	5
6	如果我在街上遇到熟人，我會緊張。	1	2	3	4	5
7	與他人在活動或聚會中碰面，我會覺得很自在。	1	2	3	4	5
8	假如我獨自與另一個人在一起，我會覺得焦慮不安。	1	2	3	4	5
9	我很容易在聚會等場合認識其他人。	1	2	3	4	5
10	與別人自在的交談很難	1	2	3	4	5
11	我發現很容易想到要談論的事情。	1	2	3	4	5
12	我擔心表達自己，我感到很困擾尷尬。	1	2	3	4	5
13	我覺得很難不同意別人的觀點。	1	2	3	4	5
14	我與具有吸引力的異性/ 對象交談有難。	1	2	3	4	5
15	在社交場合中我常不知道要說什麼。	1	2	3	4	5
16	和陌生人在一起，我通常會覺得焦慮不舒服。	1	2	3	4	5
17	與別人說話時，我會擔心我說出的話會讓自己感到困擾尷尬。	1	2	3	4	5
		從不	很少	有時	經常	總是
18	在一個團體中時，我擔心自己會被忽視。	1	2	3	4	5
19	我在社交場合中很緊張。	1	2	3	4	5
20	在街上遇到不熟的人我會想逃避。	1	2	3	4	5

~問卷完~

Appendix VI

In-Depth Interview (Chinese version)

1	在這次workshop之前，您對紡織/藝術的經歷是什麼？
2	您注意到workshop後您與紡織/藝術活動的看法有什麼不同嗎？
3	在參與 workshop之前，您對紡織/藝術治療的感受/看法/知識是什麼？
4	參與workshop後，您對紡織/藝術治療有什麼感受/看法？
5	請描述您認為在為期三週的紡織/藝術治療workshop中哪些方面最有幫助？
6	請描述您認為在workshop期間最具挑戰性的地方？
7	可唔可以講吓您參加紡織/藝術治療workshop小組的經歷。（例如，同學之間是否有凝聚力？您在導師指導期間是否感到支持？）
8	請描述您對紡織/藝術治療workshop的想法；它對於提升自信是否有幫助？它對於處理事情有幫助？它對於個人幸福是否有幫助？
9	請描述您在紡織/藝術workshop期間與家人、同學或老師互動的方式有何差異。
10	請描述您在紡織/藝術workshop前和後思考和對待自己的方式上的任何差異。
11	如果您可以接受紡織/藝術workshop，您希望未來多久可以參與一次？
12	有無任何對紡織/藝術workshop想法、反思或評論？

~問卷完~

Appendix VII

Self-Expression and Emotion Regulation in Art Therapy Scale (SERATS)

(Chinese version)

自我表達情緒調節量表

對於每個問題，請在空白處填寫一個數字，以表明您認為該陳述對您來說真實的程度。

		不同意	一般	同意
1.	我通過「生命不加索」藝術工作坊的過程接觸到我的感受。	2	3	4
2.	我能夠在紡「生命不加索」藝術工作坊中自由地表達自己的意見。	2	3	4
3.	通過「生命不加索」藝術工作坊創作的過程，我能夠更明白我內心的想法。	2	3	4
4.	我能夠通過藝術作品講述了有關我的故事。	2	3	4
5.	「生命不加索」藝術工作坊創作幫助我了解自己的行動步驟，解決困難。	2	3	4
6.	創作藝術幫助我發洩情緒。	2	3	4
7.	我創作的藝術作品可以幫助我以一種新的方式看待事物	2	3	4
8.	我把我在「生命不加索」藝術工作坊中嘗試和學習的新技能運用到工作坊之外我地方。	2	3	4
9.	通過「生命不加索」藝術工作坊，我對自己有了更深入的了解。	2	3	4

~問卷完~

Appendix VIII Three level coding framework

A	Pre-participation cognition	A1	Textile cognition	a1	Home economics related
				a2	Tie-dye experience
				a3	Bag making
				a4	School courses
				a5	Relatively unfamiliar
				a6	Design connection
		A2	Art cognition	a7	School courses
				a8	Visual art
				a9	Painting mainly
				a10	Not very familiar
				a11	Curious attempt
				a12	Design related
B	Changes after participation	B1	Concept change	b1	Diverse materials
				b2	Break through limits
				b3	Value discovery
				b4	Casual combination
				b5	Collage skills
				b6	Reduced framework
		B2	Skill improvement	b7	Color combination
				b8	Material use
				b9	Design clothes
				b10	Glue gun use
				b11	Use of white glue
				b12	Creative production
C	Workshop gains	C1	Self-growth	c1	Ability recognition
				c2	Confidence boost
				c3	Emotional expression
				c4	Time management
				c5	Observe self
				c6	Believe in self
		C2	Social interaction	c7	Classmate communication
				c8	Understand classmates
				c9	Teacher's opinion
				c10	Family sharing
				c11	More topics
				c12	Closer relationship
D	Future expectations	D1	Participate again	d1	Contact media
				d2	Learn skills
				d3	Enjoy process
				d4	Diversified learning
				d5	School deficiency
				d6	Willing to participate
		D2	Content expectation	d7	Extended time
				d8	Increase sessions
				d9	Fashion teaching
				d10	Different clothes
				d11	Task challenge
				d12	Other materials

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