

**Cultivating Cognitive-Coping Behaviours:
An Evaluation of a CBT-based Positive Health Intervention's
Impact on Pupil Resiliency.**

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Abstract

The aim of this mixed method enquiry is to examine the key-learnings of a positive Health CBT-based school intervention from pupils' perspectives and to assess the effectiveness of the intervention on pupil's resiliency outcomes. To date studies have analysed the effectiveness of the Friends for life intervention by documenting decreases in anxiety levels (Barret and Turner, 2001; Henefer and Rogers, 2013; Rodgers, 2010). Few studies have investigated the effectiveness of this CBT-based intervention via investigation of changes in children's resiliency processes. The positive correlation of resilience to mental health is well documented (Eppler, 2008; Ungar, 2008; Zautra, Hall & Murray, 2010). It is integral to deepen understanding on the role of resilience in the cultivation and maintenance of positive health school-based interventions. In response this study adopts a resilience-based framework to investigate the effectiveness of the CBT-based FRIENDS for life (Barrett, 2004) intervention. Concurrently this investigation responds to Irish research (Crosbie et al, 2011; Rodgers, 2010; Rutledge *et al.*, 2016) that indicates the need for additional investigations documenting pupils' perspective on the effectiveness of CBT-based interventions alongside Eriksson et al (2010) call for more studies exploring gender difference in protective factors (resilience) in childhood research. With cognizance of gender, this study uses the Child and Youth Resiliency Measures (CYRM-28; Ungar & Liebenberg, 2011) to investigate pupil's overall resilience outcomes and the three subscales of individual traits, relationship with caregivers and sense of belonging. Results indicate statistically significant difference in levels of resiliency post 10-week CBT-based intervention.

1: Introduction

1.1 Overview

Mental Health is an indivisible and integral component of overall health and wellbeing. The World Health Organization (2016) states that mental health is a state of wellbeing in which individuals realize their unique potential, can cope with the normal stresses of life, can work productively and fruitfully and are able to contribute to the community. It is practical therefore, to take a life-course approach to mental health research demonstrating the need to integrate wellness and mental health practices from a child's early years. This approach underscores the relevance of studies that observe 10% of children (aged 5-16 years) have a clinically diagnosable mental problem yet, 70% of children who experience mental health issues do not receive interventions at a sufficiently early age (Children's Society, 2008; Green et al, 2005). The disparity between lack of access to available interventions whilst children's mental health requirements rise is exemplified by Kessler et al, (2005) research that indicates 50% of mental health problems are established by age 14. Cognizant of such literature, the aim of this current research is to investigate the effectiveness of a cognitive-behavioural therapy (CBT) positive health intervention within the Irish Primary School context. The research focus is exclusively on fifth class children (Mean age = 10.57, SD = .51) with appreciation that schools are capable of reaching children who may not have been identified or who would otherwise have restricted access to effective services (Walter et al, 2011; Wissou, 2008).

Ultimately, the goal of school mental health interventions is to enhance access to quality supports and practices early in the lifespan, equipping pupils with the tools to succeed academically and from a mental wellbeing perspective. Empirical evidence documents such interventions help reduce the adverse effects of anxiety and depression on child development (Rao et al., 2007); social functioning (Mychailyszyn, Mendez & Kendall, 2010) and school performance (Van Ameringen, Mancinia & Farvolden, 2003). Increasingly, studies are demonstrating the positive correlation between mental health interventions in a child's early school years with future mental wellbeing in adulthood (Verduin & Kendall, 2008; Wolk, Kendall & Beidas, 2015).

1.2 Definition of Wellbeing

Investigating the conditions that impact on wellbeing and manifest as mental health issues remains contentious, complex and ever-evolving. The Diagnostic and Statistical Manual of Mental Disorders (DSM-5; American Psychiatric Association, 2013) revised its organization

structure, from an original categorical classification of separate disorders towards awareness that mental disorders do not always manifest within the boundaries of one unitary disorder but as symptom domains- depression and anxiety often constitute and impact *multi-dimensional categories*. Referencing the DSM-5 as a living document reflects the understanding that advances in genetics, epidemiology and neurobiology will cultivate additional knowledge, fostering a life-span approach towards mental health. Of additional importance to this study is the clustering of disorders into *internalizing* and *externalizing* factors as the basis for an empirically supported framework. Prominent anxiety, depressive and somatic symptoms are described as internalizing factors that impinge upon positive mental health. Mental disorder therefore is described as a condition that causes significant disturbance in an “individual’s cognition, emotional regulation, or behavior that reflects a dysfunction in the psychological, biological, or developmental processes underlying mental functioning” (DSM-5, 2013, p. 20). With this perspective a brief overview of global research on mental health issues will help illuminate how European statistics on wellbeing have impacted upon Irish research and given impetus towards facilitation of school-based resilience interventions for children.

1.3 Gender Patterns in Mental Health

According to the Global Burden of Disease Study (2013) depression, followed by anxiety is the predominant mental health problem worldwide. Annually one in four people suffer from mental health problems (Haugland et al, 2017; Humphrey, 2016). These figures are supported by the Adult Psychiatric Morbidity Survey (APMS, 2014) research that advances one in six adults experiences a common mental health problem such as anxiety or depression every week. McManus, Bebbington, Jenkins and Brugha (2016) report that over half of adults held that they have a diagnosable (DMV-5) mental health issue, yet only a third are receiving diagnosis. The World Health Organization (2016) underscores the continued need to proactively address mental health given estimates still indicate 35% to 50% of individuals in developing countries receive no treatment. The potential chronic course mental health issues such as depression and anxiety have over the individual’s lifespan and the considerable burden these conditions place upon individuals, families and society are well established (Vos, 2013; Bodden, Dirksen, & Bogels, 2008; Haugland et al, 2017). Addressing this issue is crucial as over the lifespan estimates reveal 1 in 5 adults considered taking their own life (APMS, 2014).

National research reports young Irish people are over-represented among suicidal death (Scolier et al., 2009) with the suicide mortality rate (15-24 age group) the fourth highest in the

EU (National Office of Suicide Prevention, 2010), highlighting that in Europe Irish young men (15-19) are the third highest (Eurostat, 2009). This is supported by the first Irish longitudinal analysis of mental ill-health amongst 11-13years (Cannon et al, 2016) which concludes mental disorders, deliberate self-harm and suicidal ideation are not uncommon, estimating that by age 13, one in three young people will have experienced some sort of mental disorder in Ireland.

Concurrently research indicates a growing gender disparity of common mental health problems between young adolescent men and women (aged 16-24) as AMPS (2014) indicates females (26.0%) were almost three times more likely than men (9.1%) to suffer with mental health issues. Anxiety is identified as the most common issue in young women (Stansfield et al, 2016). This is evidenced in the figure (1) below which underscores the continuing trend between the gender and prevalence of mental health issues:

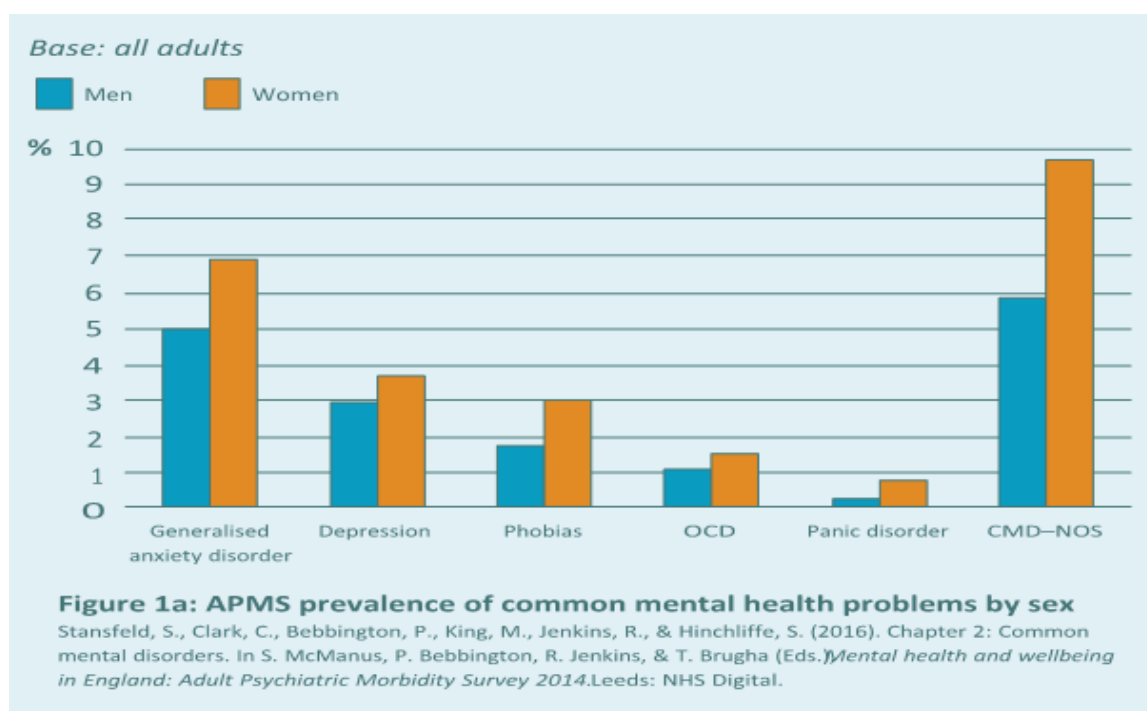


Figure 1: Gender patterns in common mental health problems (sourced: mentalhealth.org.uk)

Surprising given this evidence, childhood studies reveal that despite being under stress school aged girls (aged 4-12) have been found to use resilience factors more than boys (Hampel & Petermann, 2005; Sun & Stewart, 2007). This is important to the foundations of this current research as conceptually resilience is the capacity of a dynamic system to withstand or recover from significant challenges that threaten its stability, viability or development (Masten 2013). This view conceptualizes resilience as a successful adaption amidst risk. Childhood risk factor research (Kessler et al., 2005) notes that anxiety disorders represent the most prevalent mental health problem (Essau, Conradt & Peterman 2002; Kessler et al, 2005). Studies also caution

that mental health problems in children tends to be under-recognized and undertreated (Sourander et al., 2004). Therefore, estimates of psychological problems and disorders may be higher than is reported in previous studies (Stengård & Appelqvist-Schmidlechner, 2010). In response, this study takes a resilience-based approach (Cicchetti, 2001; Luthar, 2006; Masten, 2013; Rutter, 2006; Shonkoff, 2009) towards investigation of children's' mental health challenges with cognizance of gender. Within this study childhood resilience refers to processes leading to positive adaptation in the context of challenging experiences. Accordingly, this study's aim is to evaluate how effectively a CBT-based Intervention (Friends for Life; Barret, 2004) strengthens resiliency and cultivates cognitive-coping in a mixed school setting.

1.4 An Irish response: Cultivating resilience-based frameworks

Given the fore-mentioned statistics Irish research (Ruttledge et, 2016; Kelleher, 2012) advancing positive mental health initiatives focused on strengthen resilience are of prime concern. Spotlight (2012) identified health promotion programs within the national school system- Zippy's Friends (2007) for ages 5-9; Jigsaw (2010) for ages 12-15; Mindout (2010) for ages 15-18; Friends for Life (2011) for ages 7-12. What is welcomed is the framework in which much of this research has emerged: *A resilience-based evidenced framework* which uses psychological perspectives that reinforce strength outcomes linked to mental health as opposed to *deficit models* that focused on the negative variables (*risk factors*) of mental ill-health (Haugland et al, 2017).

From a conceptual stance a resilience-based framework *is relational*, it includes interventions that accentuate a positive sense of well-being for participants, placing emphasises on the cultivation of an individual's *intrinsic resources*, (such as self-esteem, optimism and a sense of mastery and coherence; ability to initiate, develop and sustain mutually satisfying personal relationships) alongside *extrinsic resources and relationships* that scaffold abilities to cope with the adversities that arise throughout the lifespan (Lehtinen 2008). The relational component is pertinent to the Primary Education System which eposes "teaching is one of the foremost of personal relations" (Macmurray, 1964, p.17). The positive correlation of resilience to mental health is well documented (Eppler, 2008; Henderson & Milstein, 2003; Ungar, 2008; Zautra, Hall & Murray, 2010). Exploring this relationship Souri and Hasanirad, (2011) contend that resilience is able to predict psychological wellbeing and is best developed in early childhood (Morrison & Kirby, 2010).

In response the Irish Department of Education and Skills (DES) established the National Behaviour Support Services (NBSS) in 2006. The NBSS is charged with integration of a three-tiered continuum of support (whole school; targeted intervention and intensive, individualised support) for schools. The aim was to promote positive behaviour and learning. In 2011, the NBSS initiated the FRIENDS for Life (FFL) research project at second level, in collaboration with the National Educational Psychological Service (NEPS).

1.5 Coping mechanisms: Survive and thrive

Resilience is akin to an ability to bounce back from bad experiences, displaying psychological flexibility and ability to adapt to changing demands of stressful situations (Dunkel, Schetter & Dolbier, 2011). Concurrently, *internal* characteristics such as optimism under adversity can determine and promote the resilience process, but *external* restorative practices can also impact resiliency such as tapping into support systems, ceasing opportunities to rest, cultivating daily relaxation routines (Carver, Scheier & Segerstrom, 2010). Accordingly, integrating a resilience mode of thinking requires awareness of a survive and thrive (Eppler, 2012; Potts, 2013) model of support for children in education.

For this current research, the dynamic nature of resilience is best exemplified by Day et al, (2007) concept that resilience results from the interaction of cognitive, psychological and behavioural (CBT) aspects of functioning alongside emotional regulation. Of importance to this description is the realization that in being enabled to feel positive emotions amidst perceived stressors *is a coping mechanism that resilient individuals tap into* (Tugade & Fredrickson, 2004). Whereas coping is the thoughts and behaviours adopted by individuals to balance the intrinsic and external demands of stressful situations (Taylor & Stanton, 2007). Using a coping mechanism is a characteristic of a resilient person. Uppermost in resilience theory is the concept that resilience can be nurtured(learned) and cultivated(taught) (Ungar 2008).

1.6 Cognitive-Behaviour Therapy (CBT) at Schools

One of the most commonly used treatments for anxiety in children is CBT (James et al., 2013). Characteristically, it comprises four components-somatic awareness of stressors; clarifying cognitions in provoking contexts; developing coping skills and behavioural training strategies to manage difficult situations. CBT sessions are highly structured and easily manualized, making them applicable to school settings. One of the first manualized adaptation was the Coping Cat program (Kendall, 1994), the success of which lead to further school CBT

interventions- Cool Kids (Lyneham, Abbott, Wignall & Rapee, 2003). Evidence supports the effective use of school-based CBT interventions in promotion of positive health (Butler et al., 2006; Flannery-Schroder & Kendall, 2000; Hirshfeld-Becker, 2010; Mychailyszyn et al., 2011). The Friends for Life intervention (Barrett, 2004) is a universal prevention program founded on CBT principles designed for children (aged 7-12) to enhance overall resilience and social and emotional well-being (SEWB). Originally entitled FRIENDS (1994) and developed in clinical settings to treat anxiety disorders, its effectiveness led to further applications for school settings. Since which increases in self-concept, social skills and coping skills alongside reductions in anxiety levels have been documented (Barrett & Turner 2001; Cooper & Jacobs, 2011; Costello et al., 2003; Crosbie et al., 2011; Farrell, Barrett & Claassens, 2005; Lizuka et al., 2015; Ruttledge et al. 2016). Such results led WHO (2004) to cite FRIENDS as the only evidence-based program effective at all levels of intervention for anxiety in children.

1.7 FRIENDS for Life Intervention: Low intensity group-based CBT

In the Irish school context, FRIENDS is not only the most prevalent CBT intervention, it is the only teacher-led intervention supported by (NEPS) to deal with anxiety and increase resilience in children. Irish research indicates that school nurses (Stallard et al, 2008) and psychologists (Crosbie et al, 2011) are equally effective in delivery of FRIENDS intervention. However, some studies Stallard et al (2014) also document a discrepancy between the ‘teacher-led’ intervention and the ‘health-led’ interventions indicating that teacher-led delivery was not as effective. The study’s outcomes focused exclusively on symptoms of anxiety and low mood based on self-completed questionnaires (Revised Child Anxiety and Depression Scale: RCADS 30). Resilience outcomes were not assessed.

Alternate research by Ruttledge et al., (2016) included measure of anxiety (Spence Children’s Anxiety Scales: SCAS), self-concept (Beck Self-Concept Inventory: BSC-Y) coping (Coping Efficacy Scale: CES), school connectedness (School Connectedness Scale: SCS) and social validity (FRIENDS Social validity Scale Measures: SVMs) demonstrated that the intervention was very positively evaluated by pupils, parents and teachers. Concern was raised regarding the pupil workbook which is culturally orientated toward an Australian population, thus many group and homebased activities are not applicable to Irish settings. Yet, again resilience outcomes were not assessed. This is a factor that motivated this current study’s use of the Child and Youth Resilience Measure (CYRM-28; Ungar & Liebenberg, 2011) when evaluating the effectiveness of the intervention with 5th class participants.

1.8 Rationale

A primary rationale for this investigation is application of the CYRM-28(Ungar & Liebenberg, 2011) self-report questionnaire to enable evaluation of pupil's resilience outcomes at an individual, contextual and cultural level. As documented this is integral to deepening understanding on the role of resilience in the cultivation and maintenance of positive health school-based interventions. Additionally, reference was made to the lack of cultural and age appropriate content in the existing pupil workbooks (Barrett, 2003). With cognizance of this another key rationale for this present study arises. The introducing of *a qualitative integrative approach* that enables a researcher to access pupil's self-reported perspective on the CBT key-learning acquired after participation on consecutive sessions enabling a source of needed data for those teachers tasked with facilitating the CBT-based intervention. When combined with the pre and post statistical CYRM-28 data, this mixed method enquiry will enable an evaluation of the systematic effectiveness of this low-intensity CBT-based intervention on pupil's levels of resilience to be documented and analyzed.

It is important to note that collating an exclusive pupil only perspective is purposeful. Previous Irish studies into FRIENDS documents the triad perspective of pupil, parent and practitioner (Crosbie et al, 2011; Ruttledge et al., 2016; Stallard et al., 2014). This study aims to present the pupil voice untampered by teachers or parent data. The rationale is that pupils are the sole participants of this CBT intervention, whilst teachers are facilitators and parents are the overseers. The objective of this research is to present the participant viewpoint.

1.9 Research Aim

The overriding aim of this research is to Accordingly, this investigation will add further qualitative and quantitative data to the existing body of literature investigation children's mental health in Ireland and bring a strength-based resilience perspective to the discussion.

1.10 Primary Research Questions

- From the pupil perspective what are the weekly key CBT learning outcomes (thoughts, feelings and behaviours) acquired over the 10 FRIENDS for life sessions?
- Using self-reported thought bubble responses what do pupils perceive the goal of this intervention to be?

1.11 Research Hypotheses

Hypothesis One

- It is predicted that there will be a statistically significant higher levels of overall resiliency outcomes post 10-week CBT-based intervention.

Hypothesis Two

- There will be statistical difference in levels of individual resiliency post CBT-based Intervention.

Hypothesis Three

- There will be statistical difference in levels of relationships with caregivers post CBT-based intervention.

Hypothesis Four

- There will be statistical difference in levels of sense of belonging post CBT-based intervention.

Hypothesis Five

- There will be statistically significant difference between gender and overall resiliency outcomes post CBT-based Intervention.

Hypothesis Six

- There will be statistically significant difference between gender and levels of individual resiliency subscales outcomes post CBT-based Intervention.

Hypothesis Seven

- There will be statistically significant difference between gender and relationship with caregiver resiliency subscales outcomes post CBT-based Intervention.

Hypothesis Eight

- There will be statistically significant difference between gender and sense of belonging subscales outcomes post CBT-based Intervention.

2. Methodology

2.1 *Participants and Recruitment*

33 Fifth class pupils (18 girls, 15 boys) from a developing rural national school constituted a study sample. The purposeful sample comprised of 15 males (mean age = 10.60 years, SD = .50) and 18 females (mean age = 10.55, SD = .51). The age ranged from 10 to 11 with a mean of 10.57 (SD=.50). There were more girls (54.5%) in the sample. After approval from the Psychology Filter Ethics Committee had been granted, the data collection and intervention commenced November 2017 and concluded February 2018. A dedicated prefab located on school grounds was used for 1.5 hrs weekly during delivery of the 10 consecutive CBT-based FREINDS intervention sessions.

The recruitment of fifth class pupil participants was purposeful. The participating school's Social, Personal and Health Education (SPHE) policy mandates that a trained FRIENDS facilitator delivers the NEPS sanctioned Friends for Life intervention to the fifth-year grouping on an annual basis. Additional Board of Management and Principal consent was sought and granted to research, record and publish the findings. Concurrently signed parental and pupil participation consent letters were received to ensure full disclosure of the research been conducted throughout the intervention.

At the school, the researcher is the sole accredited Friends for Life facilitator with in-school-management (ISM) responsibility for delivery of SPHE initiatives at a whole school level. Therefore, all pupils would be obliged to participate in this intervention regardless of whether research into the effectiveness of the intervention was been conducted. This is the second year the Friends for life intervention has taken place. On each of the 10 sessions, participants were made aware that they were free to withdraw from the research element of this project at any stage.

The participants were asked to complete a 3-point response scale CYRM-28 (Ungar & Liebenberg, 2011) pre-participation and post participation on the CBT-based intervention. The survey format used self-reported measures. The overall response rate was 100%. From a qualitative perspective, after each session participants recorded their key-learnings using Mosaic CBT-based Thought Bubbles (Clark & Moss, 2001; Goorha & Potts, 2016). The Materials section offers in depth descriptions of both measures.

2.2 Research Design

The quasi-experimental design of this study helped link the purpose of this childhood resilience research to the strategies used to implement it. Accordingly, the rationale for mixing methods was to achieve complementarity- “that is broader, deeper, and more comprehensive social understanding by using methods that tap into different facets or dimensions of the same complex phenomenon” (Creswell, 2009, p.5). The mixed method approach corresponds to the twofold aim of this investigation- To examine from pupils’ perspectives the key-learnings of the CBT-based intervention alongside assessing the effectiveness of the intervention on pupil’s resiliency outcomes. The repeated measure quantitative component uses the CYRM-28 (Ungar & Liebenberg, 2011) questionnaire to measure overall resilience levels, alongside three subscales that influence resilience processes- individual traits, relationship to caregivers and contextual factors that facilitate a sense of belonging. Resilience is the dependent variable (DV) while the Friends for life CBT- based intervention is the independent variable (IV). Gender is an IV also. There was no control group. Over the 10 weeks of the CBT-based intervention the qualitative approach integrated use of thought bubble visuals (Clark & Moss, 2001; Goorha & Potts, 2016) to facilitate pupils written reflections on key-learnings arising from the individual CBT-based intervention sessions. Additionally, thought bubbles were used to collate pupils’ collective perspectives on what they perceived to be the goal of the FRIENDS for life intervention.

2.3 The Intervention

Friends for life (Barrett, 2008) is a universal school-based prevention program founded on cognitive-behavioural therapy principles aimed at 7-12year olds. Its goal is to cultivate overall resilience and enhance social and emotional skills. Accordingly, the intervention teaches children cognitive, behavioural and physiological strategies. Barrett (2010) emphasizes these skills enable children to identify their feelings, regulate their emotions using coping skills, to identify unhelpful thoughts and replace them with more helpful thoughts alongside how to face and overcome challenges with use of coping step plans. The intervention comprises 10 sequential lessons designed to be delivered weekly, lasting approximately 1 to 1.5 hours. The table 1. below illustrates the thematic structure of the intervention, with each lesson including activities targeted at cultivating coping skills and problem-solving techniques.

Table 1. Friends for Life Intervention (Barrett, 2010)

Sessions	Content and activities
Session 1	Introduction: Understanding Feelings in Ourselves and Others
Session 2	Awareness of Feelings: Lilly's Story
Session 3	Body Clues and Relaxation: Pizza Massage & Milkshake breathing
Session 4	Identifying Helpful (green) and Unhelpful (red) Thoughts. Use of Self-talk
Session 5	Changing Unhelpful Thoughts in to Helpful thoughts: Orange Challengers
Session 6	Coping Step Plans: Role play
Session 7	Learning from Role Models and Support Teams: Visualization
Session 8	Problem Solving Skills: Balloon Game
Session 9	Using FRIENDS skills to help Ourselves and Others: Visualization
Session 10	Future Challenges and Green Thoughts Party: Reward yourself!

2.4 Materials

The Child and Youth Resilience Measure (CYRM) was designed to be used with youth aged 9 to 23 years old. Developed by Ungar (2002) at the Resilience Research Centre(RRC). Part of the International Resilience project (IRP) the CYRM was used in 14 communities around the world. It is an indirect measure of overall resilience- it measures the availability or resources (individual, relational, communal and cultural) that increase the likelihood of demonstrating resilience when children or youths are experiencing adverse or difficult

situations. Since its initial validation, it has been adapted into a 26-item version for children aged 5-9 using both a five-Likert type and three-Likert type scales, this was later developed into a 28-item version for youths (aged 10-23). An adult 28 version for individuals (aged 24 and over) was also constructed. For this research purposes the school-based CYRM-28 (Ungar & Liebenberg, 2011) was selected. Please refer to (appendix A)

2.4.1 CYRM-28

The CYRM-28 contains a 3 Likert-type scale (1 = no, 2 = sometimes, 3 = yes) with 28 questions that evaluate the three dimensions of resilience: Individual factors (11 items- *When things don't go your way, can you fix it without hurting yourself or other people?*), relational factors (7 items- *Do you talk to your family about how you feel for example when you are hurt or feeling scared?*) and contextual factors (10 items- *Is doing well in school important to you?*). Construct and concurrent validity support for the instrument has been reported (Daigneault, Dion, Hebert, McDuff & Collin-Vezina, 2013; Ungar & Liebenberg, 2013). Cronbach's coefficient obtained in the range of 0.65 to 0.9. making it reliable and valid as a self-report tool. Concurrently, the three-dimensional (individual, relational, communal and cultural) structure of resilience has been validated in several studies (Govender, Cowden, Oppong, George & Reardon, 2017; Liebenberg, Ungar & Vijver, 2012; Sanders, Munford, Thimasarn-Anwar & Liebenberg, 2015). The psychometric properties of the CYRM-28 have been documented in research literature (Daigneault et al., 2013; Sanders et al, 2015) that confirmed factor analysis identified positive correlation between the three resilience subcategories of individual, family and community.

The range of possible scores is (28 – 84). The higher the score the more resilience components are present in the lives of the participants. The lowest score achievable is 28. Using SPSS each of the three Likert type scores (No = 1, sometimes = 2, yes = 3) are combined giving

an overall resiliency outcome. To calculate the resiliency subscales scores (Individual, relationship with caregiver and contextual) designated questions within the 28 CYRM measures are inputted and tallied in SPSS. Higher scores indicate higher levels of characteristics associated with the resilience subcategories.

The written directions for completing the CYRM questionnaire were also read aloud with cognizance of the youth sample (aged 10-11). The directions highlighted that there were 28 questions and that the participants can circle one answer from three options, yes, sometimes and no. The directions explained the questions are about yourself, your family, your school and your relationship with people and that the questions are designed to better help researchers understand how children cope with daily life and what role the people around them play in how they deal with daily challenges.

2.4.2 Mosaic Thought Bubble Reflections

To access the view of young school-aged children, several educational studies (Dahlberg, Moss & Pence, 2007; Mayall, 2002; Woodhead & Faulkner, 2008) have integrated the Mosaic approach (Clark & Moss, 2001; 2005; Clark et al, 2005). This approach encourages children to communicate their views using a combination of participatory methods such as drawings, audio recordings, photos or story alongside the traditional tools of interviewing or observation (Maconochie, 2008). Adapting this integrative tool for this psycho-educational research enables the participants to combine the visual and verbal (MacDonald, 2009) using thought bubbles. The intentional use and rationale for integration of thought bubbles into this research is supported by studies that identify the benefit of this visual tool “for organizing our thinking about the process of idea search” (Goorha & Potts, 2016, p. 7). For this study, each of the 33 participants were invited to complete a template after each CBT-based session which often included problem-solving, team games, drama and story. This template was illustrated

with a cartoon character surrounded by three distinct thought bubbles. The three thought bubbles contained the prompt (I think..., I feel....and I'd do...). These prompts are purposeful reflective of CBT principles which combine physiological, cognitive and behaviour elements. By the session ten, 330 thought bubble transcripts were collected, transcribed by the researcher and prepared for thematic analysis (Braun & Clarke, 2006). The software package Nvivo 11 was used to assist this researcher to inductively yet systemically analyse the data, actively identifying codes, categorizing themes, reviewing themes, leading ultimately to reporting the main thematic patterns which were induced from the transcribe participant data. (Refer to appendix B) to view the 10 mosaic thought bubble reflections used after each CBT-based sessions.

2.5 Procedure

In November 2017, after full College ethical approval, BOM, Principal, Guardian and Pupil signed consent was received the 33 participants were asked to complete the CYRM-28 in the classroom (the dedicated SPHE initiative prefab where the facilitator/insider-researcher delivered the CBT-based intervention was new to the participants and has no tables/chairs). To ensure participant comfort and room for concentration the classroom was selected. The researcher presented the survey and gave instructions on how to circle one of the three-point response scale (No, Sometimes, Yes) for each of the 28 questions. Due to diagnosed specific learning needs the survey had to be read aloud by the researcher. The CYRM-28 took 20 minutes to complete. The Friends for life intervention started the next afternoon in the dedicated SPHE prefab re-occurring every Friday afternoon (1.5hrs) after the participants lunchtime.

Friday 1st December the participants were lead to the prefab by their class teacher for hand over to the Friends for Life facilitator/researcher and the first CBT-based intervention

commenced. The Facilitator/researcher has the prefab arranged with 33 cushions laid in an inclusive circular format. All necessary equipment (Display chart, colours, pencils, paper, balls, prizes, chart paper, pupil workbooks with name labels) are ready. The pupils receive their take home Friends for Life workbook needed for completion of weekly home-based family exercises. At the end of each session 15 minutes was dedicated to the completion of the post-session qualitative component- Mosaic Thought Bubble Reflections (Clark & Moss, 2011). Each Thought Bubble Reflection sheet illustrates participants unique thoughts, feelings and behaviours focused on (1) Cognition (I think...); (2) Physiology (I feel...) and (3) Behaviours (I'd do...). Collaboratively these add qualitative data to the pupil's perspectives of the key-learnings acquired over each session.

Although no tables/chairs are present this CBT-based Intervention always ends with relaxation exercises (lying on ground) so, participants are acquainted now (from filling in the first sessions problem-solving activity sheets on the floor or sitting on their cushion) with writing/drawing in this freestyle environment. The Mosaic Thought Bubble reflections continue until the final tenth session. Prior to the tenth session the participants are asked to complete the CYRM-28 again. For consistency the researcher uses the participants classroom the day before the final session and repeats the exact procedure used during completion of the first CYRM-28. The final sessions is abbreviated to enable a 30minute Green Thoughts Celebration party. Therefore, the tenth Mosaic Thought Bubble reflection sheet is completed after the final relaxation exercise (1hr). After which certificates of completion are awarded and the celebration follows.

2.6 Ethical considerations

Throughout the CBT-based intervention, guardians of participants and pupil participants were aware that research was being conducted by the facilitator. To ensure full

knowledge of the research was made known, information sheets were sent to all guardians and fully signed consent forms were returned to the researcher by parents and pupils prior to any collection of research data. (refer to appendix C). The B.O.M and principal consent was also granted. The right to withdrawn from the research element of this intervention was clearly articulated and written for pupils and parents.

Children participants are an at risk sample this researcher is fully Garda vetted and gained signed legal documentation to work with minors. The researcher adhered to the current best practice standards advanced by the Department of Children and Youth Affairs(https://www.dcy.gov.ie/documents/Publications/Ethics_Guidance.pdf).

As an educator, the researcher carried out the investigation in accordance with Children First: National Guidance for the Protection and Welfare of Children (2011). A list of mental health resources (headstrong.ie; Barnardos; Mental Health Ireland) were included on the CYRM-28, Mosaic Thought Bubbles, Informational and consent forms. As a researcher the 4 principles (respect for the rights and dignity of the person; competence; responsibility and integrity)of the PSI code of professional ethics <https://www.psychologicalsociety.ie/footer/PSI-Code-of-Professional-Ethics-3> were followed.

3. Results

3.1 Descriptive Statistics

This research comprised of 33 participants. The sample consisted of 54.5% females (N=18) and (45.5%) males (N=15). The age ranged from 10 to 11 with a mean of 10.57 (SD=.501). No missing values were found in the data.

3.2 Inferential Statistics

Hypothesis One: There will be statistically higher levels of Overall Resiliency outcomes post CBT intervention.

A paired samples t-test found that there was significant difference in Overall Resiliency outcomes at time 1 (M=68.15, SD = 8.04) and time 2 (M=74.45, SD = 8.17) ($t(32) = -6.18$, $p < .001$., CI (95%)-8.39-4.22). Therefore the null can be rejected.

Hypothesis Two: There will be statistical difference in levels of Individual Resiliency post CBT Intervention

Using a paired sample t-test further analysis of the 3 subsets of the CYRM-28: (1) Individual skills, (2) Relationship with caregivers and (3) Sense of Belonging document significant differences in all 3 subsets pre and post CBT intervention. This result demonstrated the individual skills result:

A paired samples t-test found that there was significant difference in Individual Skills (personal skills, social skills and peer support) outcomes at time 1 (M=26.94, DS = 3.51) and time 2 (29.50, SD = 3.69)($t(32) = -4.85$, $p < .001$., CI (95%)-3.57 -1.46). Therefore the null can be rejected.

Hypothesis Three: There will be statistical difference in levels of relationships with Caregivers post CBT intervention

Relationships with Caregivers

A paired samples t-test found that there was significant difference in relationship with primary caregivers (psychological and physical) outcomes at time 1 (M=16.70, SD = 2.60) and time 2 (18.54, SD = 2.56)(t(32) = -5.00, p < .001., CI (95%)-2.60 -1.11). Therefore the null can be rejected.

Hypothesis Four: There will be statistical difference in levels of contextual sense of belonging post CBT intervention

Sense of Belonging

A paired sample t-test found that there was significant difference in Context and Sense of Belonging (educational, cultural and spiritual) outcomes at time 1 (M= 24.51, SD = 3.11) and time 2(26.45, SD = 2.93)(t(32)= -5.08, p < .001., CI (95%)-2.72-1.16). Therefore the null can be rejected.

Research Hypothesis Five: There will be statistically significant difference between gender and overall resiliency outcomes

Gender and Overall Resiliency Levels

A paired samples t-test found that there was significant differences in overall resiliency outcomes for males pre intervention (M=-67.40, SD = 9.28) and post intervention (M=73.00, SD = 9.85) (t(14) = -4.07, p < .001., CI(95%) -8.55-2.65). Therefore the null can be rejected. Additionally, a paired samples t-test found that there was significant differences in overall resiliency outcomes for female participants pre-intervention (M = 68.77, SD = 7.06) and post

intervention ($M = 75.66$, $SD = 6.51$)($t(17) = -4.59(4.60)$, $p < .001.$, $CI(95\%)-10.05 - 3.73$).

Therefore the null can be rejected.

Research Hypothesis Six: There will be statistically significant difference between gender and individual resiliency subscales outcomes

Gender and individual resiliency

Both male ($N=15$) and female ($N=18$) participants showed statistically significant increases in the Individual resilience subscales of (personal skills, peer and resource supports and social skills). The female cohort demonstrated higher levels of increase post intervention: A paired samples t-test found significant difference at time1($M=26.9$, $SD = 3.43$) and at time 2 ($M= 30.00$, $SD = 2.91$)($t(17) = -3.99$, $p < .001.$, $CI(95\%)-4.84 - 1.49$). In comparison the males participants had slightly higher individual sub-scores prior to any CBT intervention but demonstrated a marginally reduced individual outcome post intervention: A paired samples t-test found that there was significant difference in Male Individual Skills (personal skills, social skills and peer support) outcomes at time 1 ($M=27.01$, $DS = 3.71$) and time 2 (28.80 , $SD = 4.46$)($t(14) = -2.90$, $p < .001.$, $CI (95\%)-3.01 -.425$). In contrast to existing research the female participants indicated lower levels of individual resilience pre-intervention.

Research hypothesis Seven: There will be statistically significant difference between gender and relationship with caregiver resiliency subscales outcomes

Gender and relationship with caregivers

A paired samples t-test on the male participant cohort found that there was significant difference in relationship with primary caregivers (psychological and physical) outcomes at time 1 ($M=27.06$, $SD = 3.71$) and time 2 (28.80 , $SD = 4.46$)($t(14) = -3.25$, $p < .001.$, $CI (95\%)-2.81 -.657$). Therefore the null can be rejected. A paired samples t-test on the female participant cohort found that there was significant difference in relationship with primary caregivers

(psychological and physical) outcomes at time 1 ($M=16.50$, $SD = 2.17$) and time 2 (18.44 , $SD = 2.50$)($t(17) = -3.57$, $p < .001$., $CI (95\%)-3.09 - .794$). Therefore the Null can be rejected.

Research Hypothesis Eight: There will be statistically significant difference between gender and sense of belonging resiliency subscales outcomes

Gender and sense of belonging

A paired samples t-test on the male participant data found that there was significant difference in sense of belong (educational, cultural and spiritual) outcomes at time 1 ($M= 23.40$, $SD = 3.58$) and time 2(25.53 , $SD = 3.48$)($t(14) = -3.94$, $p < .001$., $CI (95\%)-3.29 - .970$). Therefore the null can be rejected. A paired samples t-test on the female participant data found that there was significant difference in sense of belong (educational, cultural and spiritual) outcomes at time 1 ($M= 25.44$, $SD = 2.38$) and time 2 (27.22 , $SD = 2.18$)($t(17)=-3.26$, $p < .001$., $CI(95\%)-2.93-.627$).Therefore the null can be rejected.

3.3 Thematic Analysis

Thematic analysis (Braun & Clarke, 2006) was used for the qualitative component of this research. This inductive enquiry meant the Mosaic Thought Bubble Reflections (Clarke & Ross, 2002) were not coded within a pre-existing coding framework. Rather, the researcher utilised 6 phases of thematic analysis (Braun & Clarke, 2006) to analyse the participants data rich descriptions- Familiarization with the collected data set; generating initial codes; searching for themes; reviewing themes. Defining and naming themes and lastly producing the report. This qualitative analytic method is an active process by which the researcher transcribed the 330 participant responses. The same were uploaded to Nvivo 11 a data analysis software package. The researcher proceeds to code the data, identifying overall nodes(themes). Originally over 75 codes were identified. This process was revised and reviewed many times.

Through constant comparative of the data, 7 parent nodes (general themes) were systematically categorised. These themes are reflective of the participants thought bubble response (I think, I do and I feel) content derived from the 10 consecutive CBT Friends sessions. 16 sub-categories (child nodes) were attributed to the 7 identified key themes. Naming the themes took considerable time as the sub-categories needed to be correctly classified within the selected theme label. Table 2. highlights the overarching themes inductively generated from the participant data. The project map that follows makes visual the subcategories that underpin the themes.

Table 2. The Seven Themes

Theme 1	Cognitive awareness
Theme 2	Positive action behaviours
Theme 3	Resilience
Theme 4	Self-awareness
Theme 5	Self-efficacy
Theme 6	Support systems
Theme 7	Understanding feelings

3.4 Project Map: From codes to themes

A project map was created to show the hierarchy of coding and the interconnection between the 7 themes (and 16 subcategories) arising from participation on the CBT-based intervention (refer to figure 2). This map illustrates collectively the participants' perspectives of what they perceive to be the key-learning outcomes emerging from the 10 sessions. These responses were collated using a three-tiered (I think, I feel, I do) self-reported Thought Bubble template. This CBT-based intervention is based on 10 thematic lessons yet the participants identified 7 key-learning outcomes. This result may reflect the thematic prevalence of *identification and understanding feelings* in the Friends for Life intervention. Feelings are explored over two of the thematic sessions. Additionally, the concluding activity chiefly the celebratory *green thoughts party* tends to dominate the learning outcomes embodied in the tenth session.

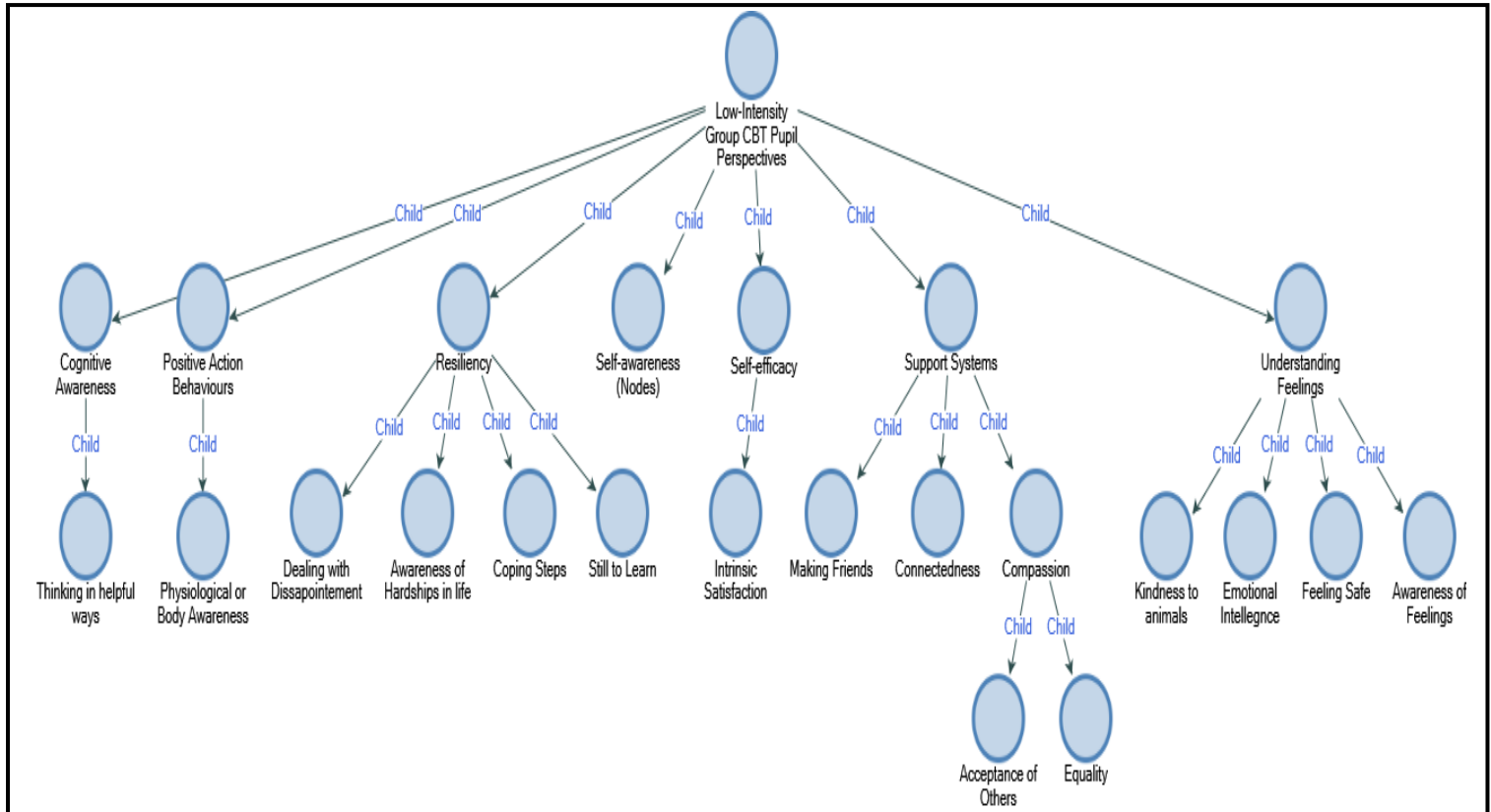


Figure 2. Thought Bubble Reflections (I think, I feel, I do) documenting Key-learning from the CBT-based Friends for Life Intervention

As can be observed from the participants perspectives *understanding feelings* and *resiliency* have multiple components as indicated by the subcategories. Whilst *cognitive awareness*, *positive action behaviours*, *self-efficacy* and *self-awareness* have a single contributory factor. Concurrently *support systems* is the only theme that contains a triad-layer with the *compassion* factor contributing additional subfactors: *Acceptance of others* and *equality*.

3.5 The Seven Themes: Key-learnings

Friends for life is based on 10 thematic units incorporating stories, games, dramas colouring and relaxation. These activities scaffold the key-learning enabling a whole curricular approach to be cultivated rather than restricting concepts to specific units or sessions. Therefore, this research depicts the collective key learning(themes) which infuse the entire intervention. It is important to recall the three-tiered (I think, I feel, I do) format of the thought bubble response sheets.

3.6 Theme 1 - Cognitive awareness

According to participant responses, this theme is closely aligned to understanding how negative and positive self-talk (introduced in session 5) potentially impacts upon feelings and behaviours. Examples of responses from the participants include-

I'd listen to my feelings and brain together.

We learnt a lot today about paying attention.

I think this is good for my mind. It was helpful.

After this I would do it in my head instead of on a sheet.

3.6.1 Sub-Theme 1(a): Thinking in helpful ways.

The participants articulated the need to understand how to think in helpful ways as an underlying component to cognitive awareness. Responses include:

It is important to know what is a green and red thought!

It's very useful and realistic.

Self-talk it's a good idea for everyone. I think it's a good way to cope more with feelings.

It helped me because I need to know how to properly cope.

3.7 Theme 2- Understanding feelings

The concept of awareness and understanding feelings predominant the findings in this research. This is also evidenced in the word cluster which was derived from frequency of words sourced from the transcripts (ref to figure 3). This theme embodied four sub-themes (emotional intelligence; feeling safe; kindness to animals and awareness of feelings). Responses include:

I need to be myself to be able to understand feelings and how to live.

I learned a lot and I understand about feeling more than I did.

I know more about people than I thought I knew! I feel wouldn't try to read their mind.

3.7.1 Sub-theme 2(a)- Emotional Intelligence.

Thought bubble responses mentioned how the mind and emotions can both effect actions and behaviours exemplified in comments such as-

I have lots of feelings I forgot about. Now I know what to do with them.

I will listen to my body and my mind, so I know how to deal with emotions. So, I don't get in trouble!

I should not let me brain take over all the time.

3.7.2 Sub-theme 2(b)- Feeling safe.

Participant responses accentuated the importance of security. Commenting on the effect this has on their own feelings and behaviours-

I am loved. I feel safe and confident.

I feel safe and now I am a happy camper!

I got to learn more and more without anyone talking over me. We should all listen. I feel happy and I can learn.

3.7.3 Sub-theme 2(c) Kindness to animals.

The FRIENDS for life intervention routinely uses story and drama to explore abstract concepts such as compassion, respect and kindness as evidenced by the following comments-

I'd try to understand how animals feel. She understood not to exclude. I'd love them and care for them.

I would help the cat feel safe. She was mature. I would feed them and include everyone.

3.7.4 Sub-theme 2(d)- Awareness of feelings.

Even though *Understanding Feelings* was identified as one of the overarching seven themes, emotions and feelings infuse the Intervention's content and thus participant observed a difference between understanding and awareness of feelings-

I know a lot more about myself. It's a good experience to be able to identify them.

We should all talk together about (feelings) it. We all have feelings. So, I don't need to worry!

3.8 Theme 3 – Self-awareness

This is the only standalone theme. Participant mentioned-

I think I know a lot more about myself. I need to learn and do different stuff.

I felt excited about doing something different.

I learned more about myself; I learned a lot and I understand about feeling more than I did.

3.9 Theme 4– Positive action behaviours

Participant response included-

After this I would stop when I'm worried and think about a coping step plan.

I think it was inspiring. I would include people. I'd do more things to make friends.

I would do it even if others might not want to do. I feel I could be more brave and confident.

3.9.1 Sub-theme 4(a): Body Awareness.

For the participants physiological or body awareness was connected strongly with modelling positive future behaviours.

I think it's important to be friends with your body. We should eat healthy

I think that what we did in FFL today actually worked; pizza massage was best!

I feel I'd use the milkshake breathing in the future to calm down

3.10 Theme 5– Self-efficacy

This theme had a contributing sub-theme *intrinsic satisfaction*. Responses noted-

I can do it; I'm happy I'm learning. This session made me feel I can do anything I want!

I think it's good for self-esteem.

3.10.1 Sub-theme 5(a)-Intrinsic Satisfaction.

I think it's amazing. I'd use self-praise before a contest. FFL It really helps. It makes you feel good.

3.11 Theme 6 – Support Systems

One of the larger themes to emerge. This includes 4 sub-themes (compassion, making friends and connectedness) and 2 further Compassion nodes (Acceptance of others and equality).

I think (FFL)is a caring system. I feel very happy for support. I'd support others because they might support me back

3.11.1 Sub-theme 6(a) Making friends.

It was great as we now know how and can make new friends.

I would try to make some different friends

3.11.2 Sub-theme 6(b) Connectedness.

We all should be loved. I feel like I belong.

I feel safe now I know my support team.

3.11.3 Sub-theme 6(c) Compassion, acceptance of others and equality.

We should be treated equally. We should respect each other.

You shouldn't hurt like that! I'd be more kind.

3.12 Theme 7- Resilience

The final theme of resilience has 4 counterparts 7(a)Dealing with hardship in life, 7(b)Dealing with disappointment, 7(c) Coping steps and 7(d) Still to learn

4: Discussion

4.1 Overview

The aim of the study centered on using a mixed method enquiry to examine the key-learnings of the CBT-based Friends for life intervention from pupils' perspectives and to assess the effectiveness of the intervention on pupil's resiliency outcomes. To date studies have analysed the effectiveness of the Friends for life intervention by documenting decreases in anxiety levels (Barret and Turner, 2001; Henefer and Rogers, 2013; Rodgers, 2010). Few studies have investigated the effectiveness of this CBT-based intervention via investigation of changes in children's resiliency processes.

4.2 Overall Resiliency and CYRM Subscales: Individual skills, relationship with caregivers and sense of belonging.

This study achieved this via analysis of the CYRM-28 sample data using repeated measure paired t-tests to compare pre and post intervention mean scores of overall resiliency outcomes alongside resiliency subscales of (1) Individual skill, (2) Sense of Belonging and (3) Relationship with caregivers. In childhood resilience research (Liebenberg, Ungar and de Vijver, 2012) these three factors underscore key components of resiliency processes. The CYRM-28 used in this study has three subscales reflecting the categories of resilience. The findings of this study indicate statistical significant increases in participant's overall resiliency score and in the three subscales of the CYRM. Thus, consideration of how these findings fit with previous research and the implications of these results needs to be investigated.

4.2.1 Hypothesis One: There will be statistically higher levels of overall resiliency outcomes post CBT intervention.

Mean scores for overall resiliency levels indicate statistically higher levels of outcomes for all participants post CBT-based intervention. A positive increase is evidenced from (M=68.15)pre-invention to (M=74.45) post-intervention. Thus, the null hypothesis was rejected and research hypothesis accepted. These results corroborate previous International studies that indicates the Friends for life intervention is associated with increases in self-concept, social skills and coping skills (Barrett et al., 2001; Classens, 2005; Fisak, Richard and Mann 2011; Iizuka et al, 2015).

4.2.2 Hypothesis Two: There will be statistical difference in levels of individual resiliency post CBT Intervention

The individual resiliency subscale reflects an individual factor that includes- personal skills (5 items), peer support (2 items) and social skills (4 items). This research reports statistically significant post intervention increases in individual resilience thus the research hypothesis was accepted, and the null rejected. Pre-intervention (M=26.94) to a positive increase (M=29.50) post-intervention. This results support literature that indicates significant group improvements in individual resilience most notably in self-concept (Crosbie et al., 2011;). Stallard et al, 2008; Liddle and Macmillan, 2010).

4.2.3 Hypothesis Three: There will be statistical difference in levels of relationships with Caregivers post CBT intervention

The second subscale investigates caregiving as reflected in physical caregiving (2 items) alongside psychological caregiving (5 items). This study noted significant statistical difference in scores post intervention- increasing from(M=16.70) to (M=18.54). Therefore, the null was rejected. Although not predicted this result was not surprising given the framework implicit to prior delivery of the Friends program: Pre-intervention, guardians of pupils are invited into the school for an information evening regarding the CBT-base structure of the intervention. The role of adult participation in scaffolding their child's mental health progress is reinforced and is subsequently and actively sought via the weekly home family-based activities implicit in each pupil's workbook.

4.2.4 Hypothesis Four: There will be statistical difference in levels of sense of belonging post CBT intervention

The final subscale comprises contextual components that facilitate a sense of belong related to culture (5 items), spirituality (3 items) and education (2 items). The findings indicated statistically significant increases in sense of belonging. A positive increase was measured (M= 24.51) to (M=26.45) post-intervention. The null was rejected and the research hypothesis accepted. These findings support educational research that emphasize schools where pupils report increased feelings of belonging and connectedness to peers and adults are strongly associated with higher-pupil ratings of resilience (Stewart et al, 2004). This subscale result is important given evidence indicates that having a low sense of belonging may lead to disaffection, anxiety and depression (Frederickson and Baxter, 2009).

4.2.5 Hypothesis Five: There will be statistically significant differences in overall resiliency outcomes and gender.

This research investigated overall resilience outcomes and subscales from a split gender perspective. This enabled an examination of whether increases in resiliency would be significant for both the male (N=15) and female (N=18) participants. This gendered perspective arose in response to literature that documents within primary school setting girls had consistently higher scores than boys for resiliency factors (Sun et al, 2007). These factors included higher levels of autonomy of experiences, reported increases in empathy and positive connections with parents, peers and teachers within the school and community.

The findings of this research however demonstrate that gender did not affect the overall resiliency scores as both indicated statistically significant increase in resiliency. Males pre-intervention (M=67.40) increased positively (M=73.00) post-intervention. In parallel females increased (M = 68.77) to (M = 75.66) Therefore, the null was rejected. These findings support Cooper and Jacobs (2011) views on the whole-school delivery of the Friends intervention as an effective in improving emotional coping and resilience for all students.

4.2.6 Hypothesis Six: There will be statistically significant difference in individual resiliency and gender.

Both male (N=15) and female (N=18) participants showed statistically significant increase in the Individual resilience subscales of (personal skills, peer and resource supports and social skills). Therefore, the research hypothesis was accepted and the null reject. In contrast to existing research (Sun et al, 2007) although the female cohort demonstrated marginally elevated levels of increase post intervention (M=26.9) increasing to (M= 30.00) this group had indicated lower levels of individual resilience to their male counterparts pre-intervention- (M=27.01) increasing to (M=28.80) post-intervention. As Jonzon and Lindblad (2005) indicate using available social supports is a characteristic associated with being a resilient individual.

4.2.7 Hypothesis Seven: There will be statistically significant difference in relationship with caregivers and gender

The findings of this subscale indicated statistically significant increase in the relationship with caregivers (physical and psychological) in both genders. Male outcomes rising from (M=27.06) pre-intervention to (M=28.80) post-intervention. Female outcomes

increasing from (M=16.50) pre-intervention to (M=18.44) post-intervention. Therefore, the research hypothesis was accepted. This is essential given research documents that increasingly peer-orientated and familial oriented patterns of support are predictive of emotional development (DuBois et al 2002; Jacobs et al., 2002).

4.2.8 Research Hypothesis Eight: There will be statistically significant difference in the sense of belonging resiliency subscales and gender.

The final sub-score sense of belonging component looks at cultural, educational and spiritual factors. This study's findings established that both female and male participants showed statistically significant increases therefore the null hypothesis was rejected. Males increasing from (M= 23.40) pre-intervention to (M=25.53) and females showing positive increase moving from (M= 25.44) pre-intervention to (M=27.22). In 2014, NEPS evaluated the FFL program in Irish primary schools noting statistically significant increase in school peer and teacher connectedness after FFL participation. This current research documents similar findings, reaffirming the importance of the social supports received during childhood as positively affecting future resiliency and development. (Jacobs et al., 2002; Roeser, Eccles and Sameroff, 2000)

In conclusion the eight hypotheses indicated positive correlations for the three components of the resilience processes; individual, relationship with caretakers and sense of belonging. Positive correlations for overall resiliency scores were statistically significant for both females and males post CBT-based intervention.

4.3 Qualitative Discussion: Thought Bubble Reflections

Two research questions, motivated the qualitative component of this research: From the pupil perspective what are the weekly CBT learning outcomes (thoughts, feelings and behaviours) acquired over the 10 FFL sessions? And: What do pupils perceive the goal of the CBT-based intervention to be? The project map (refer to figure 2) illustrates the hierarchy of coding and interconnection between the 7 themes (Cognitive awareness; understanding feelings; self-awareness; positive action behaviours; self-efficacy; support systems and resilience). The implications of which are now discussed.

4.3.1 Cognitive awareness- Thinking in helpful ways

As highlighted by Wu et al, (2013) resilience as a successful adaptation relies on *effective responses to environmental challenges* alongside resistance to the damaging effects of stress. Pupils perspectives readily identified that awareness of thinking process although interesting became useful only when linked to how to use *green and red thought patterns* to influence potential action in their immediate environment- *I think I might be able to pay attention better to my feelings with the green and red thoughts so I can cope with things*. The practical implications of cognitive awareness is reinforced with the comment *It was helpful to know you can thought change! So, I'd use self-talk; It is important to know what is green and red*. The pupil's views are reflective of Eisenberg et al (2004) study that states effectively controlling negative thoughts is a central characteristic of a resilient person.

4.3.2 Positive action behaviours: Body cues

Pupils identified strongly with physiological aspects of the program (Milkshake breathing and Pizza Massage) as influential inner tools that enable them to tap into their emotional states and self-regulate. Responses indicated self-regulation was pivotal to avoiding unwanted behaviours- *I would do the milkshake breathing to be more confident and calm down or I need to be myself to be able to understand feelings and how to live nicer! to It's important to be friends with your body*. The ability to self-regulate is one of the most important protective factors emerging in resilience research (Grade et al., 2017).

4.3.3 Resiliency- Dealing with disappointment, hardships, coping and still to learn

In the science of human development, resiliency refers to processes leading to positive adaptation or development acquired in the context of adverse experiences (Matsen, 2013). This conceptualization is evidenced in pupil's responses- *I think resilience is about interacting with*

people; learning how to be responsible; exploring solutions and dealing with hard situation in life and just coping.

4.3.4 Self-Awareness- Concept of the Self

Resilience research demonstrates that self-concept is a fundamental factor influencing children's ability to cope with challenges in life (Liddle & Macmillan, 2010). Studies focused exclusively on FFL CBT-based intervention noted self-concept gains (Stallard et al., 2008; Crosbie et al., 2011). The importance of which infuses responses-*I learned more about myself. I understand about feelings more than I did. It's about personality and it helps me learn.*

4.3.5 Self-Efficacy- Intrinsic satisfaction

According to Ruttledge et al., (2016) nurturing a sense of mastery or self-efficacy is one of the prime characteristics with being a resilient individual. Given the positive correlations evidenced by SPSS data- increased pupil resiliency, this characteristic is exemplified also in qualitative quotes- *it makes me feel good about myself & it's useful...made me feel brave and like I can do anything... I Feel now that I can handle Situations better than I did...I feel happy now, I'm a happy camper!*

4.3.6 Support Systems- Friends, connectedness and compassion

Research documents the positive correlations between feelings of connectedness and pupil ratings of resilience (Stewart et al, 2004). This link is evidenced in many of the participants reflections- *It's a caring system... It's good to think about who can help you... we all should be loved ... I feel that we all need to help each other better.*

4.3.7 Understanding Feelings- Emotional intelligence, animals and feeling safe

Magnano, Craparo and Paolillo, (2016) argue Emotional Intelligence (IE) is considered an antecedent to resilience. What is evidenced in this current study is the importance pupils placed on *I will listen to my body and my mind, so I know how to deal with emotions* which underscores the prevalence of IE in their collective responses. Returning to the Word Cluster

(figure 3) conceptually, feelings followed by thinking was most represented in the pupils thought bubble reflections.

4.3.8 Limitations, strengths, implications and future research

This study possesses certain limitations readers should be cognizant of. There was a lack of control group. This restricts the efficacy by which the resiliency findings could be measured against corresponding 5th classes who had no access to the intervention. To delivery this intervention teachers must be NEPS trained. There is an extensive waiting list. Therefore, this researcher was also the only available facilitator trained to deliver the intervention in the school. Thus, the dual role of Insider researcher/facilitator (Saidin, 2017) was adopted. This was a small-scale study implemented in a rural mixed school(N=317), using a purposeful sample. These results therefore, should be interpreted with care given limited generalizability of the results. The time needed, location required, trained facilitator requirement and time out of the curriculum day requites required to effectively implement, observe, record and evaluate this school-based intervention were curtailed by having only one fulltime practitioner/researcher. The Insider researcher role could lead to bias of results, yet it could also add strength to this research. This is highlighted by Saidin (2017) whose work points to advantages such as; the practitioner/researchers inside understanding of the phenomena under investigation, alongside direct access to the research participants and locations often needed to conduct the study.

Future research could use larger scale samples comparing results from urban and rural educational settings. The focus was exclusively on a 5th class cohort, studies are needed to assess the impact of the intervention from second class to sixth. International research found larger effect of the intervention on participants when assess 6 and 12 months later (Essau et al, 2012). This is CBT-based intervention thus aligned to (In-Albon & Schneider, 2007) this researcher would concur that the long-term outcomes are imperative to assessing the true effect of the intervention. This could be attained via a longitudinal research following participants from their primary years into the transition into the secondary school sector.

4.3.9 Conclusion

In childhood research resilience and coping are well established as integral protective factors helping children counterbalance many of the challenges that impact positive mental health (Cannon et al., 2013). This study set out to use a resilience -based framework by which to investigate the effectiveness of a CBT-based Intervention's impact on the pupil's resiliency

alongside presenting pupils' perspectives on the goal of the intervention with reflections on the key-learnings they acquired through participation on the Friends for life (Barrett, 2010) intervention. The findings indicate strong and positive correlations between this CBT based intervention and increased resiliency for pupils as part of school-based promotions in positive mental health. This research compliments existing Friends for life studies, highlighting the important role a CBT-based intervention can impart on the wellbeing and positive health of children.

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CONSENT FORM:

Title of Study: *Children's Cognitive-Coping Behaviours: An Effectiveness Study of Key-learning from the Positive Mental Health 'FRIENDS' Initiative.*

Researcher: Nicola Martin-Hodgins,

Supervisor: Garry Prentice

BACKGROUND

As part of my Psychology degree with Dublin Business School, I am conducting a study into the *Effectiveness of the 10-week mental health 'FRIENDS' Intervention in strengthening resilience skill in children*. Your child has been invited to join this research. The decision to let you child join, or not to join, is up to you. Please take whatever time you need read the information letter and discuss the study with your family and friends, or anyone else you wish to.

In this study, the impact of the school-based FRIENDS programme on children's resilience levels will be evaluated. This study uses a positive psychology approach (focusing on the strengths people demonstrate when dealing with difficult situations).

WHAT IS INVOLVED IN THE STUDY?

Your child will be asked to fill in a pre-intervention Child and Youth Resilience Measure (CYRM) questionnaire (before the FRIENDS programme begins) and post-intervention CYRM resilience questionnaire (on completion of the 10-week courses). This will take him/her 15 minutes. In addition, at the end of each of the 10 FRIENDS sessions your child will be asked to fill in three thoughts bubbles: I think... / I feel... / I do... to explore children's views on the psychological CBT elements of the FRIENDS programme. This will take him/her 10 minutes and will be part of each FRIENDS session.

CONFIDENTIALITY

I understand that the information collected may be presented and/or published in academic journals and at conferences, but that no child will be identifiable from the information. Participation in this study is voluntary. Your child's name will not be used when data from this study are published. Your child can stop participating at any time.

BENEFITS AND RISKS TO TAKING PART IN THE STUDY

The risks to your child partaking in this study are low but if at any stage your child experiences any unexpected physical or psychological discomforts, or you think that something unusual or unexpected is happening support can be accessed **at Barnardos (01) 453 0355; The Samaritans (1890 200 091) and Headstrong.ie**. Internal school support will be accessed via the Child and Adolescent Mental Health Services. If your child stops he/she will not lose any benefits from the FRIENDS programme, only withdrawing from the research activities stated above.

Permission for a Child to Participate in Research

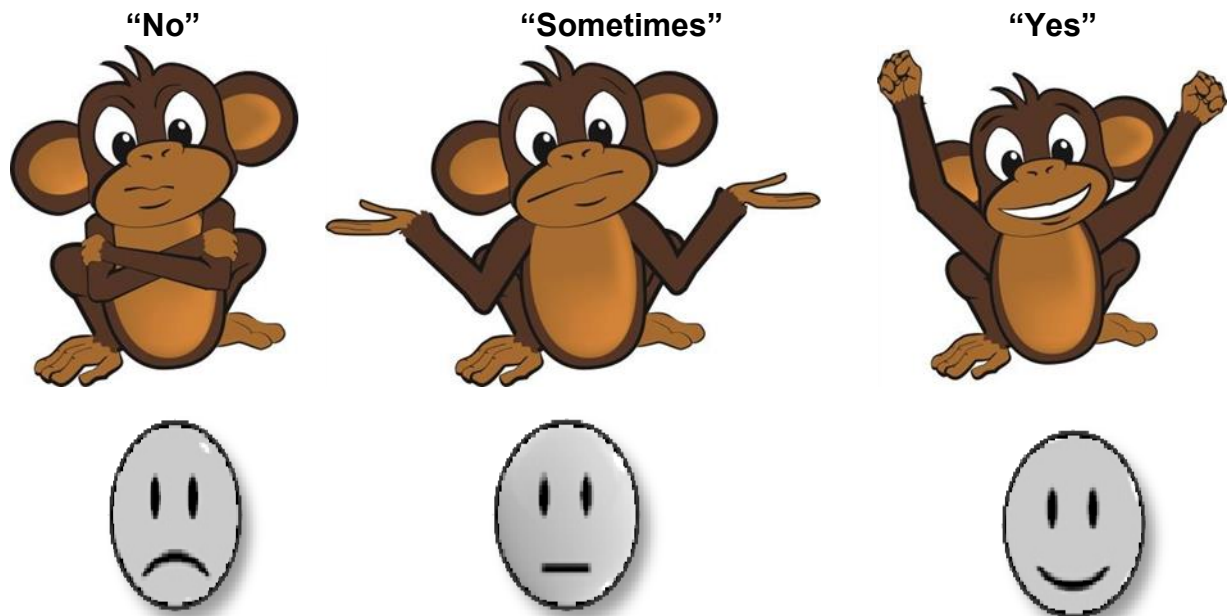
As parent/legal guardian, I authorize _____ (child's name) to become a participant in the research study described in this form.

Child's Date of Birth _____ Parent/Legal Guardian's Signature:
 _____ Date: _____

Thank you very much for supporting this research study. Please keep this information for your records.

Child and Youth Resilience Measure (CYRM)

DIRECTIONS: Listed below are questions about you, your family, your school and your relationships with people. These questions are designed to help us better understand how you cope with daily life and what role the people around you play in how you deal with daily challenges. You can stop taking part in this research at any time. It is voluntary. If you feel like you need support it is available at **Headstrong.ie** and **Barnardos (01) 453 0355.**



There are no right or wrong answers.

How old are you now? _____

Are you a girl _____ or a boy _____ ?

How many brothers (_____) sisters (_____) are in your family?

Who do you live with? (mother, father, aunt, uncle, grandparent, friends, etc.)











































Do you have a favourite TV programme? _____














































Do you have a favourite app/computer game? _____

Participant Number:
Site ID:
Data number:
Date of administration:

Thank you very much for supporting this research study.

Please circle one answer for each question.

	No 	Sometimes 	Yes 
1. I have people I want to be like			
2. I share/cooperate with people around me			
3. Getting an education is important to me			
4. I know how to behave/act in different situations (such as school, home and church)			
5. My parent(s)/caregiver(s) watch me closely, they know where I am and what I am doing most of the time			
6. I feel that my parent(s)/caregivers know a lot about me (for example, who where you are and what you are doing all the time?)			
7. There is enough to eat at home when I am hungry			
8. I try to finish activities that I start			
9. Spiritual beliefs are a source of strength for me (for example, believing in God or Allah)			
10. I am proud of my ethnic background (for example, I know where my family comes from or know about my family's history)			
11. People think I am fun to be with			
12. I talk to my family about how I feel (for example when I am hurt or sad)			
13. When things don't go my way, I can fix it without hurting myself or other people (for example hitting others or saying nasty things)			

	No	Sometimes	Yes
14. I feel supported by my friends			
15. I know where to go to get help			
16. I feel I belong at my school			
17. I think my family cares about me when times are hard (for example, if I am sick or have done something wrong)			
18. I think my friends care about me when times are hard (for example if I am sick or have done something wrong)			
19. I am treated fairly			
20. I have chances to show others that I am growing up and can do things by myself?			
21. I know what I am good at			
22. I participate in religious activities (such as church, mosque)			
23. I think it is important to help out in my community?			
24. I feel safe when I am with my family			
25. I have chances to learn things that will be useful when I am older (like cooking, working, and helping others)			
26. I like the way my family celebrates things (like holidays or learning about your culture)			
27. I like the way my community celebrates things (like holidays, festivals)			
28. I am proud to be a citizen of Ireland.			

Thank you very much for supporting this research study.

CONSENT FORM:

Title of Study: *Children's Cognitive-Coping Behaviours: An Effectiveness Study of Key-learning from the Positive Mental Health 'FRIENDS' Initiative.*

Researcher: Nicola Martin-Hodgins,

Supervisor: Garry Prentice,

BACKGROUND

As part of my Psychology degree with Dublin Business School, I am conducting a study into the *Effectiveness of the 10-week mental health 'FRIENDS' Intervention in strengthening resilience skill in children*. Your child has been invited to join this research. The decision to let you child join, or not to join, is up to you. Please take whatever time you need read the information letter and discuss the study with your family and friends, or anyone else you wish to.

In this study, the impact of the school-based FRIENDS programme on children's resilience levels will be evaluated. This study uses a positive psychology approach (focusing on the strengths people demonstrate when dealing with difficult situations).

WHAT IS INVOLVED IN THE STUDY?

Your child will be asked to fill in a pre-intervention Child and Youth Resilience Measure (CYRM) questionnaire (before the FRIENDS programme begins) and post-intervention CYRM resilience questionnaire (on completion of the 10-week courses). This will take him/her 15 minutes. In addition, at the end of each of the 10 FRIENDS sessions your child will be asked to fill in three thoughts bubbles: I think... /I feel... / I do... to explore children's views on the psychological CBT elements of the FRIENDS programme. This will take him/her 10 minutes and will be part of each FRIENDS session.

CONFIDENTIALITY

I understand that the information collected may be presented and/or published in academic journals and at conferences, but that no child will be identifiable from the information. Participation in this study is voluntary. Your child's name will not be used when data from this study are published. Your child can stop participating at any time.

BENEFITS AND RISKS TO TAKING PART IN THE STUDY

The risks to your child partaking in this study are low but if at any stage your child experiences any unexpected physical or psychological discomforts, or you think that something unusual or unexpected is happening support can be accessed at Barnardos (01) 453 0355; The Samaritans (1890 200 091) and Headstrong.ie. Internal school support will be accessed via the Child and Adolescent Mental Health Services. If your child stops he/she will not lose any benefits from the FRIENDS programme, only withdrawing from the research activities stated above.

Permission for a Child to Participate in Research

As parent/legal guardian, I authorize _____ (child's name) to become a participant in the research study described in this form.

Child's Date of Birth _____ Parent/Legal Guardian's Signature: _____ Date: _____

DATE:

MOSAIC APPROACH (Clark & Moss, 2011) with THOUGHT BUBBLE TEMPLATES

NAME:

Session 1: We are All Living Beings.

I FEEL

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I THINK that

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I would DO

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DATE

Session 2: Understanding Feelings: A Special Present for Lilly

NAME.....

I THINK that.....
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.....
.....
.....

I FEEL that
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.....
.....

I would DO/Behave
.....
.....
.....
.....



DATE:

Session 3: Body Clues and Relaxation

NAME:

I **THINK** that.....
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.....
.....
.....

I **FEEL** that
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I would **DO**
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.....
.....
.....
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DATE:

Session 4: Paying Careful Attention: Our Control Centre

NAME:

I **THINK** that.....
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I **FEEL** that
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I would **DO**
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.....
.....



DATE:

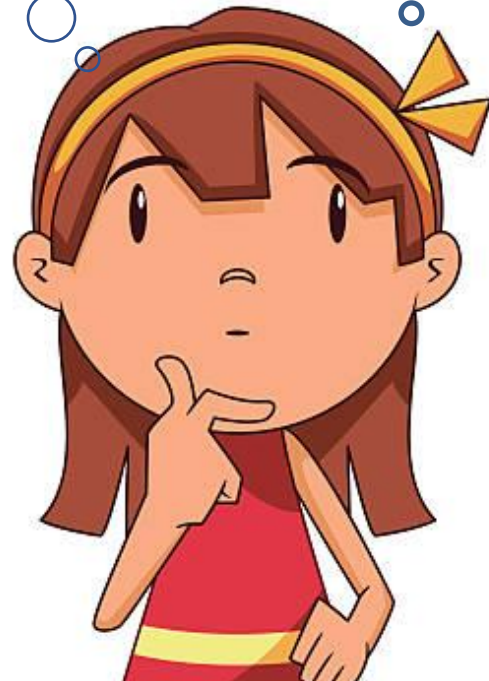
Session 5: Imagination! Self -Talk

NAME:

I **THINK** that.....
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.....

I **FEEL** that
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.....

I would **DO**
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.....
.....
.....



DATE:

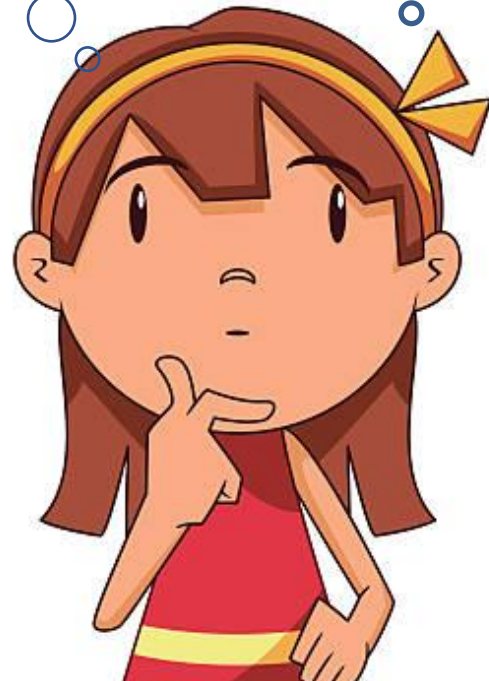
Session 6: Exploring Ways to Cope

NAME:

I **THINK** that.....
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I **FEEL** that
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I would **DO**
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DATE:

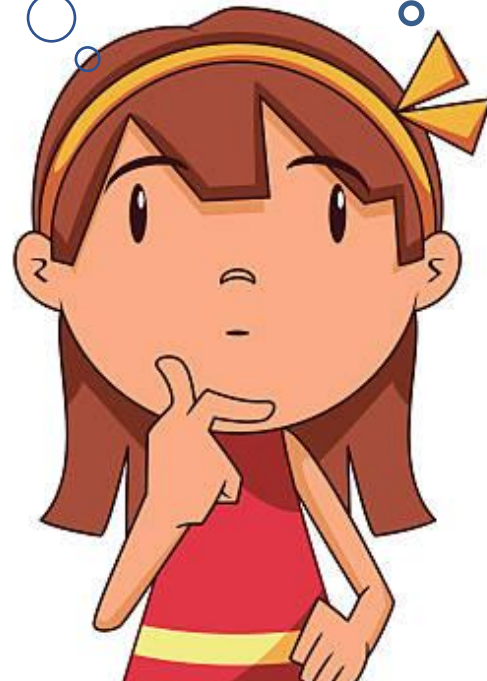
Session 7: FRIENDSHIP TREE: Role Models

NAME:

I **THINK** that.....
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I **FEEL** that
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I would **DO**
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DATE:

Session 8: THE WATERLEMON Dilemma!

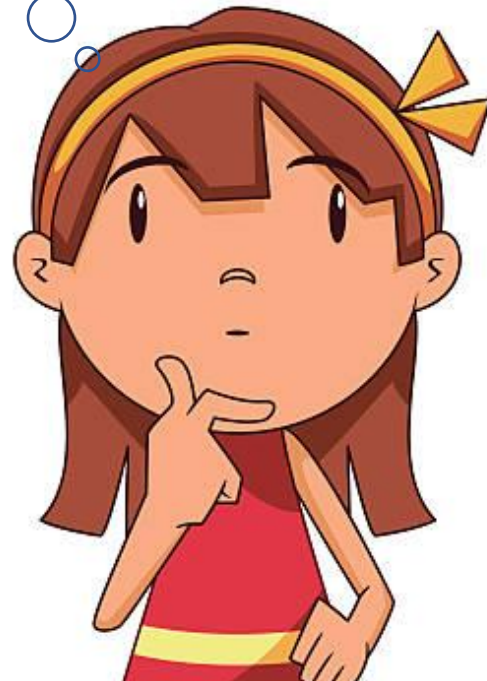
NAME:

I **THINK** that.....
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I **FEEL** that
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I would **DO**
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DATE:

Session 9: COACHING CHAMPIONS

NAME:

I THINK

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I FEEL

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I would DO

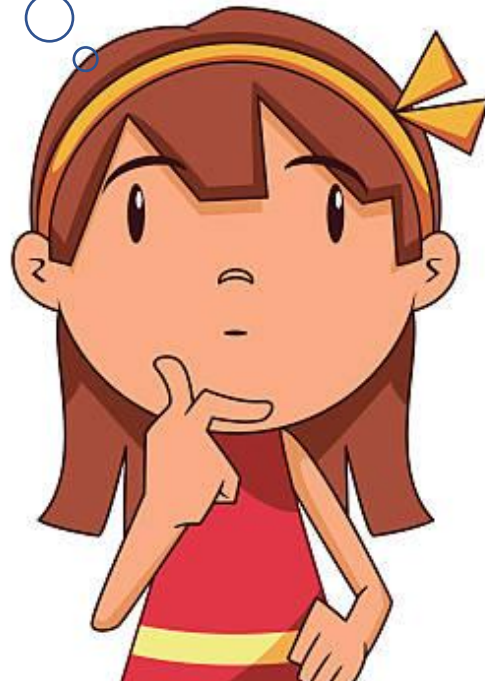
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DATE:

Session 10: FUTURE CHALLENGES

NAME:

I THINK

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I FEEL

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I would DO

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