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intervention for youth with type 1 diabetes**

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Pepperdine University  
Graduate School of Education and Psychology

ADAPTATION OF A RESILIENCE-ORIENTED STRESS MANAGEMENT  
INTERVENTION FOR YOUTH WITH TYPE 1 DIABETES

A clinical dissertation submitted in partial satisfaction  
of the requirements for the degree of  
Doctor of Psychology

by

Tamara Michele Rumburg

August, 2019

Shelly Harrell, Ph.D. – Dissertation Chairperson

This clinical dissertation, written by

Tamara Michele Rumburg

under the guidance of a Faculty Committee and approved by its members, has been submitted to and accepted by the Graduate Faculty in partial fulfillment of the requirements for the degree of

DOCTOR OF PSYCHOLOGY

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## VITA

Tamara Michele Rumburg earned her B.A. in Psychology from the University of California, Irvine, followed by her M.Ed. in Child Studies in the Empirical Research Track from Vanderbilt University. Ms. Rumburg began her work with youth with type 1 diabetes at the Monroe Carrell Jr. Children's Hospital at Vanderbilt. Ms. Rumburg attended Pepperdine University to obtain her Psy.D. in Clinical Psychology. Ms. Rumburg has worked with clients and patients across the lifespan, with particular emphases on individual and group therapy for behavioral medicine and serious mental illness populations.

## ABSTRACT

Managing type 1 diabetes involves a complex treatment regimen, and often results in increased stress and mental health issues in youth and families as youth enter adolescence. Research indicates that effective management of diabetes-related stress can have a positive impact on both the psychological and physical health of youth and their families. While traditional stress management interventions have aimed to reduce stress through coping, building resilience is a more recent approach to stress management that can be cultivated even in the absence of stress. Interventions specifically aimed at increasing resilience in youth with chronic illnesses have shown promising results; however, an extensive review of the literature yielded few existing interventions. Thus, this project focused on the development and initial evaluation of a resilience-oriented stress management intervention for youth with type 1 diabetes.

Developmentally appropriate adaptations from an intervention developed for adults, review of evidence-based interventions in the literature, and feedback from two psychologists specializing in treating youth with type 1 diabetes informed the development of the Facilitator Manual for the intervention. Two additional type 1 diabetes mental health providers evaluated the Facilitator Manual for feasibility, and they provided feedback on strengths and areas for improvement. Feedback from providers and the dissertation committee was incorporated into a section of recommendations for future development of the intervention.

## **Chapter 1: Introduction and Review of Literature**

It has been estimated recently that 43% of children in the United States (approximately 32 million) currently have a chronic health condition that impacts their daily functioning (Bethell et al., 2011). Type 1 diabetes is the most common childhood chronic health condition (Centers for Disease Control and Prevention, 2005). Type 1 diabetes includes a complex treatment regimen involving multiple blood glucose checks per day, self-administration of insulin, counting carbohydrates, constantly monitoring one's diet, exercising regularly, always having juice and snacks available, and frequent visits to the doctor, to name a few (American Diabetes Association, 2015). Children with type 1 diabetes are subjected to ongoing stress at an early age, and stressors related to having a chronic health condition will be a part of their lives as they mature into adulthood. The prevalence of depression in this population is 2-3 times greater than nondiabetic youth (Grey, Whittemore, & Tamborlane, 2002). Additionally, it is a disease in which early health behaviors have a dramatic impact on side effects later in life (e.g. blindness, amputation, and kidney failure), quality of life, and life expectancy as a whole.

Since type 1 diabetes is most often diagnosed in childhood, the burden of managing this chronic health condition and promoting early health behaviors depends heavily on parental caretaking and responsibility (Monaghan, Hilliard, Cogen, & Streisand, 2009). Thus, family factors are important considerations that can negatively impact children's self-management and glycemic control (Maas-van Schaaijk, Roeleveld-Versteegh, & van Baar, 2013; Mackey et al., 2014), as well as be a source of distress (Whittemore, Jaser, Chao, Jang, & Grey, 2012). In a review of the literature, researchers found that families with a chronically ill child had lower levels of warm and structured communication (e.g. positive statements, positive responses, positive reinforcement, acceptance, behavioral control, cohesion) and higher levels of

hostile/intrusive (e.g. negative statements, negative responses, blocking, criticism, intrusiveness, psychological control) and withdrawn communication (e.g. lack of contributions, disengagement) compared to healthy controls (Murphy, Murray, & Compas, 2017).

The concept of diabetes distress/diabetes-related distress, or distress linked specifically to diabetes and its management, has been gaining traction in the field as a correlate of psychosocial and health-related outcomes (Gebel, 2013; Polonsky et al., 2005). This is particularly important for children transitioning into adolescence, as they are entering an age in which they are often taking over control of diabetes management from parents, and they are at risk for deteriorating glycemic control (Hood et al., 2014), elevated levels of depressive symptoms (Lawrence et al., 2006), and poorer quality of life (Hood et al., 2014; Jaser, Patel, Xu, Tamborlane, & Grey, 2017). Resilience has been associated with increased health behaviors such as compliance with diet and medication, which is critical for this population (Singer, Ryff, & National Research Council, 2001). It would follow then that reducing stress and promoting resilience in children and families with type 1 diabetes is particularly important, considering not only their increased levels of stress, but consequential susceptibility to mental health problems and detrimental poorly-controlled diabetes health outcomes. While adults often already have particular stress-management patterns ingrained, children are still learning, and stress manifests itself in different ways for children. If they can be taught how to manage stress and be more resilient, the hope is that when children do encounter adversity, they will already have a set of skills and ways of coping that is healthy and draws upon developmentally-appropriate resilience qualities. In the service of this goal, it will first be important to examine how stress, coping, and resilience are currently understood, how these concepts apply to children (particularly children with chronic

illnesses like type 1 diabetes), and interventions that currently exist to manage stress and boost resilience in children.

### **Stress and Coping in Children**

**Stress defined.** Stress is a phenomenon that affects everyone, and unfortunately, no one is immune to it (Terre, 2011). Stress in the literature is inconsistently defined, and some researchers have sought to operationally define it. According to Goodnite (2014), stress is not inherent to a stimulus objectively, but the subjective experience of a stimulus as being overwhelming, and the subsequent response that results in some change in the person. A “stressor” can be thought of as something that causes stress, or that stimulus that is perceived as stressful. According to Grant et al. (2003), stressors can be defined as, “environmental events or chronic conditions that objectively threaten the physical and/or psychological health or well-being of individuals of a particular age in a particular society” (p. 449). While stress is inherent to life, constant, long-term chronic stress is not (Baum, Garofalo, & Yali, 1999). It is this kind of stress that is the most detrimental to a person’s health (McEwen & Stellar, 1993; Thoits, 2010), and thus, affected individuals are the most in need of interventions targeting chronic stress.

Chronic stress as a concept has not been uniformly defined in the literature either (Dunkel Schetter & Dolbier, 2011). However, commonalities across definitions include the aspect that this stress is “enduring and without a clear ending” (p. 638). Dunkel Schetter and colleagues defined chronic stress as, “ongoing demands that threaten to exceed the resources of an individual in areas of life such as family, marriage, parenting, work, health, housing, and finances, and often ensuing from very low income, role strains, or their combination” (p. 638). Research suggests that chronic stress can put individuals at risk for physical and mental health problems, particularly children and adolescents (Aldwin & Yancura, 2004; Compas, 2009;

Dunkel Schetter & Dolbier, 2011; Mash & Barkley, 2003; Terre, 2011). As such, it is important to examine how stress manifests in children.

**Childhood stress.** Stress in children looks different, and there are various emotional and behavioral cues that indicate how children experience stress. These include mood swings, irritability, withdrawing from previously enjoyable activities, acting out, changes in sleep patterns, bedwetting, crying, appetite changes, stomachaches, and headaches (APA, 2017). Adolescents may avoid their parents, abandon friendships, and express hostility towards those around them. While some of these are similar to those experienced by adults, it is important to understand the differences, particularly as they are connected to different long term effects.

Grant, Compas, Thurm, McMahon, and Gipson (2004) reviewed 60 studies on the association of stressful events with measures of symptoms of psychopathology in children and adolescents, including controlling for the baseline levels of the symptoms. Out of these 60 studies, 53 found that stressful events actually predict increases in psychological symptoms over time (for a full list of studies, see Grant et al., 2004). Many of these studies show the impact of stress on both the neuroendocrine and immune systems. Among those for whom these systems are already compromised (e.g. individuals with a chronic condition such as type 1 diabetes), results of stress are especially detrimental. Further, those with chronic stress may be more likely to forgo health promoting behaviors and lean towards unhealthy coping behaviors, such as substance use, eating fast-food, and sexual risk-taking (Gouin, 2011). Additionally, chronic stress can increase an individual's allostatic load (AL), which results in impaired function in the stress arousal systems and longer-term measures of metabolism (i.e. poor blood sugar control and accumulation of visceral fat; Dunkel Schetter & Dolbier, 2011).



While stress affects everyone, individual differences have been found in the impact of stress (Segerstrom & Miller, 2004). This variability can either protect against the stress or exacerbate it, depending on the individual cognitive, emotional, behavioral, and contextual factors (Terre, 2011). These individual considerations can also increase or decrease risk or resiliency to stress in the future. There appears to be a reciprocal relationship, where both stress and symptoms of psychopathology can predict increases in each other (Grant et al., 2004). Additionally, stressful events and conditions increase risk for physical illness, and then the illness itself becomes a source of increased stress for children (Compas & Boyer, 2001). Because this can become a vicious cycle, much like the vicious cycle of poverty and psychological disorders (Patel & Kleinman, 2003) it is crucial for there to be intervention to break it, particularly for children and adolescents who are faced with chronic stress. As Compas (2009) states, “understanding successful and unsuccessful adaptation to...significant sources of stress is critical for the development of interventions to enhance resilience and reduce risk” (p. 88).

**Diabetes distress/Diabetes-related stress or distress.** Stress in children with type 1 diabetes has unique features, as it can have “both a direct physiological effect on glycemic control and an indirect effect, through its impact on self-management” (Jaser et al., 2017, p. 30). Thus, glycemic control is doubly-negatively impacted by stress, and only 17% of adolescents are meeting recommended targets for blood glucose (Miller et al., 2015). Diabetes distress is defined as “significant negative emotional reactions to the diagnosis of diabetes, threat of complications, self-management demands, unresponsive providers, and/or unsupportive interpersonal relationships” (Gonzalez, Fisher, & Polonsky, 2011, p. 236). It was also described as the “unique emotional issues directly related to the burdens and worries of living with a chronic disease” and

is characterized by “worry, frustration, concern, and maybe a bit of burnout” (Gebel, 2013, paragraphs 4-5). Diabetes distress is associated with managing both type 1 and type 2 diabetes.

Fisher and colleagues identified four general parts of diabetes distress and designed a test which identifies the unique aspects of this condition. The first is regimen distress, which involves diet, exercise, medications, and other aspects of managing diabetes medically (Gebel, 2013). The second area is concerns about a future with diabetes and the possibility of developing complications. Whether a person is worried about the quality of care he or she is getting from doctors and the cost of that care is within the third identified domain of diabetes distress. And fourth is the social burden of having type 1 diabetes. Type 1 diabetes in particular involves additional areas of stress that can contribute to diabetes distress. Hypoglycemic episodes, which involve low blood glucose, can be “dramatic, frequent, and sudden” (Gebel, 2013, para. 9). Fisher and colleagues described that this can lead to concerns about functioning in daily activities such as driving, which can result in diabetes distress (Gebel, 2013).

Adolescents, in particular, report diabetes-related stress in many of these areas: feeling different from peers, feeling guilty about high or low blood sugar levels, burnout with daily diabetes care, and parents nagging (Davidson, Penney, Muller, & Grey, 2004). Delamater, Patino-Fernandez, Smith, and Bubb (2013) described that diabetes-related stress, especially with regard to parents (e.g., parental nagging or criticism) and diet were related to poorer glycemic control. Jaser et al. (2017) reported on literature that supports the notion that how adolescents cope with diabetes-related stress could mediate the effects of stress on outcomes. Theory and research on coping will be reviewed with special attention to coping in children and adolescents, as well as coping specifically with diabetes.

**Coping defined.** Coping involves a broad range of behaviors and ways of living that reflect the many ways that people navigate through stressful situations. While there have been many definitions of coping across the literature, it is important to operationally define it here. Lazarus and Folkman (1984) present the most widely cited definition of coping as “constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person” (p. 141). While this definition covers many key aspects inherent to coping, other definitions have included attention to coping in childhood and adolescence. Compas and Boyer (2001) define coping as “conscious, volitional efforts to regulate emotion, cognition, behavior, physiology, and the environment in response to stressful events or circumstances” (p. 326). It has been suggested that coping has a direct impact on health behaviors, as individuals with poor coping skills often engage in poor health behaviors to help them cope with stress (Park & Iococca, 2013). The vast coping literature contains many theoretical perspectives that are beyond the scope of this review. Current ideas as they relate to children and adolescents with chronic illnesses will be presented.

**Childhood coping.** Compas and Boyer (2001) describe ways in which stress is implicated in childhood illness and the importance of understanding coping processes. Chronic stress is not only relevant to the onset of illness, but also to the course. Chronic stress can exceed the child’s adaptive capacities, resulting in emotional distress (e.g. anxiety) or advancement of physical disease. As such, Compas and Boyer (2001) point to the importance of how children cope with their symptoms of illness, as this can have a direct impact on the “course, severity, and chronicity of their condition” (p. 325).

Conceptualizations of coping have been strongly influenced by Lazarus and Folkman’s (1984) situational approach which suggests that it is the particular stressor and its appraisal that

determine the coping response, rather than a general coping style that is applied to all stressful situations. They discuss four primary appraisals of a stressor, including that it is benign, a threat, a harm/loss, or a challenge. Compas, Banez, Malcarne, and Worsham (1991) described a similar perspective, suggesting that children's perceptions of stressful experiences impact the ways they attempt to cope and the resulting symptoms that are linked to the stress. Another dimension of how children cope with stress involves perceived control. Lazarus and Folkman (1984) suggested that an individual's beliefs about their ability to control a stressor influences how they choose to respond to it. Coping strategies that increase a sense of control over a situation, or a greater variety of psychological resources, has been linked to resilience in the face of chronic stress (Troy, Wilhelm, Shallcross, & Mauss 2010; Tugade & Fredrickson, 2004). Additionally, Compas and Boyer (2001) describe the difference between voluntary and involuntary stress and coping, and outlined that voluntary coping efforts on the part of the child can help control and regulate involuntary stress responses. In this case, children do not necessarily need to perceive a stressor as controllable in order to control their response to it, as the voluntary coping can help diminish the impact of the stress response.

Compas et al. (1991) discussed multiple models that have been used to guide research on the ways that children and adolescents cope with stress. While there is variability among the models, researchers generally concur that coping can be broadly sorted into two categories separated by intention or function: problem-focused versus emotion-focused (Lazarus & Folkman, 1984). In problem-focused coping, children may either try to master or change "some aspect of the person, the environment, or the relation between them that is perceived as stressful" (Compas et al., 1991, p. 27). This has also been referred to in the literature by many other names, including primary control coping, Coping I, approach coping, problem solving, or monitoring

(Compas et al., 1991). Various types of coping fall under this umbrella category, including planning, seeking information, problem solving, decision making, and seeking social support. One form of problem-focused coping is aimed at analyzing and solving a particular problem, through the use of breaking a problem down into smaller parts, discovering more information, considering alternatives, and taking action directed at change (Aldwin & Yancura, 2004). Emotion-focused coping is when children “try to manage or regulate the negative emotions associated with the stressful episode” (Compas et al., 1991, p. 27). It has also been referred to in the literature as secondary control coping, Coping II, emotion manipulation, tension reduction, avoidance, emotion management, or blunting (Compas et al., 1991). Many other types of coping fall under the general category of emotion-focused coping, including distraction, acceptance, cognitive restructuring, positive thinking, self-encouragement, and minimization (Compas & Boyer, 2001). All of these are efforts aimed at adjusting to the stressor as opposed to acting in a purposeful way on the source of the stress.

While this secondary control coping was previously thought to include avoidance/withdrawal, expressing emotion, suppressing emotion, and substance use to regulate emotion, Compas and Boyer (2001) suggested a third category of coping described as “disengagement, avoidant, or passive coping” (p. 327). This category represents a child’s efforts to disconnect from the stressor and any emotions associated with it. Denial, cognitive avoidance, behavioral avoidance, wishful thinking, and self-isolation/withdrawal are all part of this category. All of these, except for expressing or suppressing emotion, tend to increase distress and are linked to poorer outcomes (Aldwin & Park, 2004). Avoidance coping in particular has been linked to increases in negative affect, which in turn was linked to more physical symptoms in

chronic illness (Billings, Folkman, Acree, & Moskowitz, 2000) and increased risk for additional stress (Troy et al., 2010; Tugade & Fredrickson, 2004).

Aldwin and Yancura (2004) discuss three additional general types of coping, including social support, religious coping, and meaning making. Social support coping might involve asking for advice, concrete aid, emotional support, or justification for one's perceptions and/or actions (Thoits, 1986). This has been found to be associated with better mental and physical health outcomes in coping studies. It has also been found to cause increases in positive affect, and linked to fewer physical symptoms in a study of caregivers of patients with AIDS (Billings et al., 2000). Religious coping includes prayer, and though it is generally considered a form of emotion-focused coping, it can also include elements of problem-focused coping such as asking for advice or concrete aid. This type of coping is suggested by researchers to be particularly helpful for uncontrollable stressors or for lower income individuals (Aldwin & Yancura, 2004). Meaning making includes efforts directed towards "cognitive reframing" or "looking for the silver lining," most often used in coping with extreme stress (Aldwin & Yancura, 2004, p. 8).

Meaning making is examined throughout the stress and coping literature extensively, as it is most important in highly stressful situations (Park, 2010). Finding meaning in the context of these situations is central to healthy adaptation. Park (2010) discusses a model for meaning making (emerging from work with Folkman in 1997) to explain how meaning making is relevant in the context of stress. In the model, Park described global meaning as a general set of beliefs, goals, and subjective feelings in regards to the justice, controllability, predictability, and coherence of stressful events. It is this type of meaning that is the perceptual lens through which individuals interpret the world. This is believed to be formed early in life, and thus childhood is a particularly crucial time to impact global meaning making processes. Situational meaning is an

important component to the model, and it involves meaning-making in the context of a particular environmental event (Park, 2010). There are many components to situational meaning making, such as appraised meaning of the event and discrepancies between the appraised and global meaning. It is believed that when there are discrepancies between the appraised and global meaning, distress results, and the amount of distress experienced depends on the magnitude of the discrepancy. This can result in a strong motivation to reduce the discrepancy, which is believed to be the meaning-making process. According to Park's (2010) model, recovery from a stressful event involves reducing this discrepancy through the process of engaging in meaning-making. As this is particularly relevant for periods of high stress, and global meaning is largely formed during childhood, it will be important for interventions targeting meaning making in particular to be included in any resilience-oriented stress management for children.

With respect to medically-related stressors, Compas et al. (1991) describe literature supporting that a developmental shift occurs in adolescence involving an increase in emotion-focused coping (Altshuler & Ruble, 1989; Band & Weisz, 1988; Band, 1990; Curry & Russ, 1985). While this shift levels off in adulthood, this is particularly important to note, as it suggests the importance of intervention in adolescence to mitigate adjustment to stressors, particularly those that are medical in nature. This seems to make logical sense, as many aspects of medical conditions, particularly chronic health conditions such as type 1 diabetes, are uncontrollable (Jaser et al., 2017). Thus, focusing on the emotional adjustment to the stressor rather than acting on the stressor itself can be more adaptive. Of particular relevance to coping with diabetes, Raspopow, Abizaid, Matheson, and Anisman (2010) found that emotional eating, or eating to soothe negative emotions, is linked to emotion-focused and avoidant coping styles. Additionally, it has been found that problem-focused coping leads to better outcomes for individuals with

chronic illnesses, as adherence to medical regimens is essential to treatment and the prevention of long-term risk factors (Aldwin & Yancura, 2004). When children are more adaptable and resilient, this can facilitate the use of problem-solving skills as opposed to other forms of coping (Compas & Boyer, 2001). Thus, it is important for skills to enhance problem-focused coping to be included in any intervention targeting a chronically ill population.

**Coping with diabetes-related distress.** Fisher and colleagues conducted a study that tested two ways of reducing diabetes distress (Gebel, 2013). The first method is to improve diabetes management so there is less to worry about, and the second is to target the distress directly with cognitive behavioral therapy (CBT), specifically to become aware of negative thoughts and “address them in a productive manner” (Gebel, 2013, para. 11). This first method is part of primary control coping, or acting directly on the stressors through improved self-management. The second method is part of secondary control coping, which involves targeting adjustment to the stressor rather than trying to change the stressor.

Jaser and colleagues (2017) suggest that coping strategies are most adaptive when they are proportionate to how controllable the stressors are. Thus, emotion-focused or avoidance coping (e.g. distraction) may be a more adaptive way to handle an uncontrollable stressor like type 1 diabetes. This was true for studies of pediatric cancer, where it was found that secondary control coping strategies like acceptance and distraction might be more adaptive than primary control coping strategies like problem-solving (Compas et al., 2014).

Jaser and colleagues (2017) conducted a study in which the aim was to describe stress and coping in adolescents with type 1 diabetes, and determine which coping strategies predicted adolescent adjustment. Participants involved adolescent-mother dyads. Adolescents were between the ages of 10 and 16, as this is the age range that encompasses the developmental stage



in which children become more responsible for diabetes management. Mothers were chosen as opposed to fathers because they are more often the caregivers primarily responsible for diabetes care, and they report higher levels of diabetes-related distress than fathers (Whittemore, Jaser, Chao, Jang, & Grey, 2012). One hundred seventeen (117) adolescent-mother dyads completed questionnaires and consented to providing their HbA1C from their medical records at the first time point, and then completed questionnaires again during their regularly scheduled clinic visits at 6 months and 12 months.

Adolescents reported that the most commonly endorsed stressor was dealing with diabetes care, which was endorsed by 83% of adolescents as somewhat or very stressful. They also found that higher levels of diabetes-related stress were associated with less use of primary control coping and secondary control coping, and greater use of disengagement coping. Higher levels of diabetes-related stress were also associated with significantly poorer quality of life, greater symptoms of depression, and poorer glycemic control, even 12 months later. Finally, perceived control over diabetes-related stress was related to greater use of primary and secondary control coping and less use of disengagement coping. Greater use of primary and secondary control coping was also associated with fewer symptoms of depression and higher quality of life over time. Secondary control coping was found to be a significant partial mediator of the effect of stress on quality of life, and both primary and secondary control coping were significant mediators of the effect of stress on depressive symptoms.

This study found that diabetes-related stress is experienced by most adolescents with type 1 diabetes. However, the ways in which adolescents respond to this stress can impact both their physiological and psychosocial adjustment. Limitations of this study include a primarily white and non-Hispanic sample (74.3%), and the majority of participants were using continuous

subcutaneous insulin infusions (82.9%), which is typically more expensive than other forms of insulin injection. Jaser and colleagues listed that the families in the sample did indeed have fairly high socioeconomic status and income, which may impact generalizability. Additionally, the mean Hemoglobin A1C for the sample population was  $7.6 \pm 1.1$  %, which is already in the recommended range and reflects relatively good glycemic control. Since diabetes distress is associated with a higher HbA1c, this sample may not be representative of adolescents and mothers who are experiencing elevated diabetes distress.

Iturralde, Weissberg-Benchell, and Hood (2017) corroborated results, as they found that higher levels of avoidant coping, which is part of disengagement coping, was associated with greater diabetes-related distress. This was in turn related to fewer blood glucose checks, less frequent self-care behaviors, and poorer glycemic control (higher A1c). It appears that while distraction can be useful in the short-term, avoidance coping long term is associated with poorer outcomes across multiple dimensions. Thus, coping interventions targeting diabetes-related stress and distress should focus on primary and secondary control coping.

**Coping interventions.** Aldwin and Yancura (2004) discuss various coping interventions in the literature that have been successful. Psychoeducation is an important coping intervention, particularly in behavioral medicine populations, and is prevalent throughout the literature (Aslander-van Vliet, Smart, & Waldron, 2007; Compas, Haaga, Keefe, Leitenberg, & Williams, 1998; Lovrencic, Pibernik-Okanovic, Hermanns, & Ajdukovic, 2011; Murphy, Rayman, & Skinner, 2006; Nussey, Pistrang, & Murphy, 2013; Olmsted, Daneman, Rydall, Lawson, & Rodin, 2002). Another intervention is an emotional expression task that involves asking participants to write about stressful events. In a review of studies that utilized this task, it was found that the simple act of individuals writing about what they experienced was linked to better

health outcomes, including cardiovascular reactivity and risk factors, immune outcomes, physiological functioning, and health behaviors (Smythe, 1998). However, they note that this sample was mostly older adolescents (e.g. college age). Aldwin and Yancura (2004) noted that the results might be a function of what is called “reversal of emotional repression,” which seems to be integral for neuroendocrine and immune system outcomes (p. 27). In one meta-analysis reviewed by Aldwin and Yancura (2004), a combination of psychoeducation and coping skills training was found to be effective for pain patients, and resulted in a shorter hospital stay, quicker recovery time, lower post-operative pain, and diminished psychological difficulties in the majority of studies. They also described a study (Fawzy, Cousins, Fawzy, Kemeny, & Morton, 1990) utilizing multiple coping interventions that targeted patients with melanoma. It involved psychoeducation on health behaviors, psychological support, problem-solving skills, and stress management. The result showed not only in the psychological outcomes of more active coping and increased positive affect, but also in the biological immune functioning tests. Coping strategies were not directly associated with immune cell changes, but they were correlated with affect. Positive affect was therefore found to be a mediator between coping strategies and immune functioning, such that coping strategies were correlated with increased positive affect, which was then associated with increased immune functioning. This was corroborated by Billings et al. (2000). This suggests that positive affect is not only a discrete concept but also integral to the formation of resilience in the face of chronic stress, particularly stress linked to chronic illnesses. Fawzy et al. (1990) also found that longer survival of patients was correlated with more active coping at baseline, suggesting the benefit of this type of coping approach particularly in biomedical populations.

While reviewing these interventions is useful, they were not specific to children and adolescents. It is important for all interventions used with children to be developmentally appropriate, as stress and coping looks different in children. Some interventions may be applicable, some may need modification, and some are completely different altogether as they are specifically designed to be used with children and adolescents. Some of the recent interventions will be reviewed here.

Since stress, particularly chronic stress, can often lead to psychological problems, it is important for interventions to be specifically geared towards the prevention or treatment of these concurrent issues. Compas (2009) conducted interventions that involved teaching secondary control coping skills to children with depressed parents. Compas focused on teaching acceptance, distraction, cognitive restructuring, positive thinking, and scheduling and participating in mood enhancing activities. For the children in the experimental condition, coping skills increased, and these changes in secondary control coping impacted the level of children's internalizing and externalizing symptoms. This research suggests that when children have more coping resources to call upon in times of stress, they are not as susceptible to the psychological symptoms that could develop and they are more resilient.

Two studies reflect coping interventions with children who are not managing a chronic illness. Allen et al. (2016) conducted a Resilience and Coping Intervention (RCI) for 74 children and adolescents in at-risk neighborhoods. As part of the intervention, youth discussed challenges in their lives, how they have coped, brainstormed alternative ways of coping, and helped each other create plans to implement them. Youth then discussed their progress towards the plans at the next session and engaged in trouble-shooting when necessary. They discussed the use of active coping, avoidance, support seeking, and distraction coping, and mean scores for all four

styles increased at the post-intervention time point as compared to the pre-intervention scores. Researchers also found that child participants engaged in greater distraction coping in comparison to adolescent participants, suggesting a possible difference in how children vs. adolescents cope with stress. However, there were some limitations to this study, including the use of a convenience sample, all African American participants, and no set structure for group topic or number of sessions.

In another investigation, Craig and Austin (2016) conducted a pilot feasibility study of a cognitive behavioral coping skills intervention (AFFIRM) with sexual and gender minority youth. The intervention was delivered over the course of eight manualized sessions, and aimed to improve coping and reduce depression through the understanding and modifying of cognitions, mood, and behavior. Participants reported reductions in depression and the evaluation of stress as a threat, and increases in reflective coping and perceiving stress as a challenge.

Three studies examined coping interventions specific to children with chronic illness. Araujo, Collet, Costa, Dantas, and Moura (2014) conducted an intervention with chronically ill children in a hospital setting. The intervention, conducted in Brazil, was based on a manual called “Como Hóspede no Hospital,” which translates to, “As a patient in the hospital.” There were six study participants, and activities involved in the intervention were designed to boost coping in children with a chronic disease. Interventions focused on psychoeducation, empowering participants to seek out information about their illness and treatment options, and increase their interest and participation in the treatment process. These exercises helped children and adolescents to be more active in their health, thereby increasing their ability to cope with their illness. Limitations include that children and adolescents with mental disorders were excluded, and the sample was all female. Batista et al. (2015) piloted a cognitive behavioral

therapy intervention in youth with epilepsy regarding coping strategies. While the study incorporated cognitive behavioral therapy techniques, it also focused on psychoeducation about epilepsy, stress, and coping skills strategies. Seventeen children and adolescents were involved in the study. Results indicated increases in problem solving, seeking social support from friends and family, and cognitive restructuring. These coping strategies might be particularly important to include in coping interventions for children with a chronic health condition. Ambrosino et al. (2008) examined the effects of a randomized controlled trial of coping skills training (CST) as compared to group education (GE) in elementary-aged children with type 1 diabetes and their parents. The intervention was conducted over six sessions, and emphasized more adaptive coping with day-to-day problems rather than specific type 1 diabetes management. Specific coping skills that researchers taught children and parents were communication, social problem solving, recognition of associations between thoughts, feelings, and actions through guided self-dialogue, stress management, and conflict resolution. It was found that although the groups were more similar than different, trends towards more adaptive family functioning and increased life satisfaction were indicated in the CST intervention group as opposed to the GE group. This intervention highlights some coping strategies that might be particularly helpful for children with type 1 diabetes.

***Familial coping and interventions.*** Since parents are responsible for diabetes care for the first several years of a child's life, and they also experience diabetes distress, it is important to review coping and interventions targeting diabetes distress specifically for parents of a child or adolescent with type 1 diabetes. Additionally, it was found that parents may experience anxiety and distress related to coping with diabetes responsibilities for their children (Jaser, Whittemore, Ambrosino, Lindemann, & Grey, 2009).

The concept of diabetes distress was particularly explored in mothers in one study (Rumburg, Lord, Savin, & Jaser, 2015). Monitoring and managing an adolescent's type 1 diabetes often leads to family conflict and distress, particularly in mothers (Whittemore et al., 2012). Maternal stress and depression are also known to have an impact on youth's self-management and glycemic control (Maas-van Schaaijk, Roeleveld-Versteegh, & van Baar, 2013; Mackey et al., 2014). Participants in this study were 81 mothers of youth ages 10-16 with a diagnosis of type 1 diabetes for at least one year. This age range was chosen to capture the transition from parent to child in responsibility for diabetes management. Mothers completed self-report measures regarding their experience of diabetes distress and depressive symptoms, and provided information on demographic and clinical variables about their adolescent child as well as access to their adolescent's medical record for HbA1c. 26% of mothers were above the clinical cutoff for diabetes distress, 74% were above the clinical cutoff for mild to moderate depressive symptoms, and 37% of mothers reported a psychological disorder. Additionally, 85% of mothers had adolescents who were above the clinical cutoff for HbA1c, indicating that only 15% of adolescents met the recommended target range for glycemic control. It was found that mothers' overall diabetes distress was strongly related to maternal depressive symptoms, and higher relationship distress between mother and adolescent was significantly associated with a lower HbA1c. Maternal depressive symptoms were also found to be associated with adolescents' HbA1c. Relationship distress and maternal depressive symptoms were both significantly related to HbA1c for younger adolescents ages 10-12, but not older adolescents ages 13-16. After adjusting for child age and sex, maternal depressive symptoms was a significant predictor of adolescents' glycemic control. This suggests the importance of coping interventions specifically for mothers related to diabetes distress and depression management.

Hilliard, Monaghan, Cogen, and Streisand (2010) conducted a study in which they explored how parents of young children with type 1 diabetes were coping. Parents included in the study had children ages 2-6 years old with type 1 diabetes, and they completed a variety of self-report measures. Medical data was also gathered from children's medical records. It was found that parents perceived their children's misbehavior as problematic particularly in relation to diabetes management tasks (e.g. bedtime and mealtimes). Additionally, the stress experienced by parents was found to be related to their perception of their children's behavioral problems. It was suggested that parent-focused interventions to increase support and education about child development, parenting, and stress management may be valuable for reducing risk for parent stress and child behavior problems for this population.

Mullins et al. (2015) designed an intervention specifically to test the idea that an uncertainty-focused intervention would help parents adjust to their child's diagnosis of type 1 diabetes. The intervention was aimed at helping parents cope with the uncertainty of their child's illness and its treatment, so parents were taught various cognitive coping skills, how to build social support, and how to effectively communicate with medical staff. Results indicated reductions in psychological distress for parents and children in the intervention group.

While coping has shown to be helpful in the literature in managing stress, and particularly diabetes-related distress, it is important to consider how resilience impacts diabetes adjustment, management, and quality of life, particularly for the purposes of this project.

## **Resilience**

**Resilience defined.** Much like the concepts of stress and coping, there is a wide variety of definitions for resilience, causing inconsistencies and subsequent confusion. Rutter (1985) referred to resilience as the ability to bounce back or cope successfully despite substantial



adversity. It has also been defined as a “dynamic process encompassing positive adaptation within the context of significant adversity” (Luthar, Cicchetti, & Becker, 2000, p. 543). After a thorough review of many definitions of resilience and with the goal of clarifying and operationalizing the concept, Dunkel Schetter and Dolbier (2011) defined resilience in the context of chronic stress as, “the process involving an ability to withstand and cope with ongoing or repeated demands and maintain healthy functioning in different domains of life, such as work and family” (p. 637).

The study of resilience first manifested in the literature when researchers became interested in children who presented as “invulnerable” to adverse life events (Earvolino-Ramirez, 2007, p. 73). This emerged from studies that were focused on developmental psychopathology among children who were subjected to extreme adversity early in life, whether this involved growing up in abusive homes, having parents with a mental illness or substance use, or enduring general poverty (Dunkel Schetter & Dolbier, 2011). The idea was to see how this impacted children’s mental health, school performance, social behavior, or cognitive development; in other words, not children’s resilience. While at first resilience was seen to be an immutable personality trait, researchers now believe it is a “dynamic, modifiable process” (Earvolino-Ramirez, 2007, p. 73). The examination of resilience has fueled a shift in focus on what underlies adaptation and thriving in the face of stress rather than what predicts vulnerability and risk.

Dunkel Schetter & Dolbier (2011) suggest that for resilience to be relevant, a stressor “must be of large enough magnitude to disrupt functioning for at least some individuals who experience it” (p. 637). This introduces a couple of different concepts related to resilience. One, the authors suggest there is an appraisal process of the magnitude of the stressor. This is largely subjective, as the authors acknowledge when they say “at least some individuals” (p. 637). This

assertion is also consistent with coping research discussed above, as the appraisal of a stressor is important to the coping process since it largely determines how an individual responds to a stressor (i.e. involuntarily or through voluntary coping). Additionally, it involves the disruption of functioning. Dunkel Schetter & Dolbier do not define what this would look like, but they do assert that resilience is not of concern unless there is a stressor. But what if resilience is something that can be built on, outside the occurrence of a stressor? It is true that in the event of a stressor, cultivating resilience can help reduce the intensity of stress and allow one to recover more quickly. It can also help one to transform stressful experiences into learning opportunities that facilitate growth. However, it is also the case that one can build on and subsequently utilize internal and external resources to help manage future stressors. Resilience can be grown within an individual in the absence of stress (Segerstrom, 2007). This will be expanded upon more later, but to determine how this can be done, it is first important to look at what makes someone resilient.

Resilient individuals have been studied in the literature to determine what characteristics they share that might be linked to resilience in the face of stress. These are frequently referred to as protective factors (Johnson & Wiechelt, 2004). Rutter (1987) cautioned that while protective factors can predict resilience, an important function of identifying protective factors is to help researchers determine how to approach teaching and enhancing resilience. Protective factors also have individual differences, whereby they can predict resilience in some individuals and for others they do not lead to especially positive outcomes (Johnson & Wiechelt, 2004). The focus on protective processes has led to a shift in the literature to resilience-based intervention and prevention programs (Johnson & Wiechelt, 2004; Luthar et al., 2000).

There are many attributes of resilience that have been discovered in the literature as consistently linked together (Walker & Avant, 2005), and it is important that these are part of any intervention aimed to bolster resilience. In a concept analysis on resilience conducted by Earvolino-Ramirez (2007), many of these concepts are discussed. The review includes research from Anthony, Garnezy, Luthar, Masten, Rutter, Smith, Werner, and other researchers from early resilience work in the 1970s and 80s. The first attribute of resilience discussed is rebounding/reintegration, and it suggests that bouncing back in a positive direction and returning to a regular routine are part of resilience. The next is high expectancy/self-determination. High expectancy was described as “a sense of purpose and achievement in life” (Earvolino-Ramirez, 2007, p. 77) and self-determination is “a feeling that regardless of what the circumstances or barriers are in life, the individual will overcome the barriers and excel” (Earvolino-Ramirez, 2007, p. 77). Another attribute of resilience is positive relationships/social support. This was found to be especially important for children to be resilient, as at least one secure attachment was present in every resilient child studied by many researchers. In adults, this was just as important, and manifested in the form of at least one close peer or family member. Flexibility is another attribute of resiliency, and this includes the idea that an individual can be adaptable to change, cooperative, amiable, tolerant, and have an easy temperament. Another is a sense of humor, about all life situations and the self. This helps individuals “make light of adversity, enhance coping mechanisms, and moderate the intensity of emotional reactions” (Earvolino-Ramirez, 2007, p. 77). Finally, the last attribute discussed is self-esteem/self-efficacy. This speaks to an individual’s belief that they will persevere despite all odds. It is present in both children and adults, and can be mastered based on experience or an innate quality (Earvolino-Ramirez, 2007).

However, it is not just resilience and its attributes that are important. It is clear from the research that a collection of factors are important, including individual differences and familial support. Dunkel Schetter and Dolbier (2011) describe a concept called resilience resources, and it involves one or more predispositions or characteristics at the individual, social, or community level that help maintain functioning and coping in the face of chronic stress. They grouped them into six categories:

1. Personality and dispositional resources.
2. Self and ego-related resources.
3. Interpersonal and social resources.
4. World views and culturally-based beliefs and values.
5. Behavioral and cognitive skills.
6. Other resources (for a full listing of all resources included in each category, see Table 1 in Dunkel Schetter & Dolbier, 2011).

This suggests that while the network to support resilience expands beyond the individual, it can be built upon and sustained over time. Hobfoll's (1989, 2011) Conservation of Resources theory outlines how individuals obtain and conserve psychological resources so that they are prepared in times of stress to call upon these and manage the stress adaptively. Aspinwall and Taylor's (1997) proactive coping model similarly outlines how individuals can accumulate these resources over time, and then use them to help manage stress. Resilience resources can change over time and be built upon (Seegerstrom, 2007), and it was found that once they are learned, they remain stable for months or years. Researchers also found that they can be strengthened with experience, particularly when stressors are confronted early in life (Bonanno, Westphal, & Mancini, 2010). These resources can also help individuals not only better manage their lives and

persist through hardship, but also grow in the context of chronic stress, and ultimately reduce adverse physical and mental health consequences (Dunkel Schetter & Dolbier, 2011). This suggests that interventions aimed to increase individuals', particularly children's, resources can help them more effectively cope with chronic stress in the present, and set them on a new trajectory for increased coping, resiliency, and health in the future. This is especially important for children, as "evidence suggests that there are windows of opportunity for changing the course of development, when systems may be more malleable or there is a higher likelihood of potentiating a positive cascade" (Wright, Masten, and Narayan, 2013, p. 28). According to Masten (2011), it is possible for resilience processes to not only be identified, but changed, and interventions are important for testing theories of resilience. This then begs the questions: how can this actually be done, and with who?

**Resilience interventions for children.** It is important to examine currently existing resilience interventions for children. Wright, Masten, and Narayan (2013) described that a significant shift has occurred in the past decade in the models for resilience interventions for children, particularly taking into account prevention models and the growing field of resilience theory. Specifically, these more recent interventions are focused on the use of protective processes to promote resilient development.

Lichtenthal, Simpson, and Cruess (2005) reviewed literature on stress management interventions for medically ill individuals, and describe a group of skills that are common amongst them. These included cognitive restructuring, problem-solving training, coping skills training, social support training, guided imagery, self-disclosure, progressive muscle relaxation, biofeedback, deep breathing, and mindfulness meditation. Intervention components also included psychoeducation about stress and the body's stress response, support groups, exercise, and

hypnosis. However, it is one thing to manage stress and another to promote resilience. As discussed above, resilience has been conceptualized throughout the literature as positive adaptation in the face of chronic stress, and associated with better physiological outcomes, and decreased experiences of physical and psychological symptoms. Thus, it is important to note that while these skills have been found in interventions targeted at managing stress, particularly for individuals with medical illnesses and thus chronic stress, these interventions were not listed to be specifically aiming to increase resilience.

Alvord and Grados (2005) reviewed literature on interventions promoting resilience, and proposed a list of intervention strategies that particularly focus on strengthening protective factors and resilience. The first strategy they discuss is teaching children and families problem-solving skills that allow them to pinpoint when situations are controllable versus uncontrollable. Children can be empowered through the exercise of coming up with their own alternative solutions. Secondly, children benefit from being able to express their feelings, both when they are positive and negative. The third suggestion was to help children and families to notice strengths and positive family experiences (i.e. ones that emphasize fun and laughter), and to make a point of including more of these into their routines. Fourth is to foster self-esteem in children by giving them responsibility over something that will allow them to gain a sense of accomplishment and mastery. This recommendation also emphasized promoting self-efficacy within children, even when they make mistakes. The fifth strategy is to teach children optimistic thinking and perspective taking, and this also involves the encouragement of a healthy and realistic attributional style. Sixth is to teach cognitive strategies (e.g. thought stopping, changing channels) and use props to illustrate feelings and thoughts visually, while allowing them to exercise and strengthen their ability to control their focus by switching to something more

desirable. The seventh recommendation is to teach relaxation and self-control techniques, which involve deep breathing, progressive muscle relaxation, visualization, and guided imagery. These are all techniques that allow children to self-regulate. The final intervention skill described is to teach parents that warmth, limit setting, and consistency are essential to promoting resilience in their children. This also involves promoting self-sufficiency, independence, and proactive behavior. These comprehensive recommendations are very useful for guiding the development of resilience-focused interventions for children.

A review of the literature revealed few interventions targeted at increasing resilience in children. Alvord and Grados (2005) suggest some group intervention strategies that they have used in clinical practice since 1993 and found effective. The Alvord-Baker Social Skills Group Model is described as a “resilience-based curriculum that focuses on a proactive orientation and cognitive-behavioral strategies” (p. 242). This is a model that takes into account the idea that children are part of families and communities, and therefore a systems-based approach is taken and includes school and community resources as well. This is a 12-14 session intervention described as a social skills group to decrease stigma related to receiving mental health services. It goes in tandem with the academic year, and a recommendation of two sessions is given to maximize benefits. The model contains five structural components, including an interactive didactic component, a free-play component, a relaxation/self-regulation piece, a generalization component that emphasizes using what they have learned outside of group, and a parental component where parents are informed of the skills taught and are encouraged to help their child practice them at home.

Springer, Misurell, Kranzler, Liotta, and Gillham (2014) reviewed three interventions that aim to promote resiliency in youth. The Penn Resiliency Program (PRP) is a “cognitive

behavioral and social problem-solving prevention program designed to promote resilience and prevent symptoms of depression and anxiety in youth” (p. 310). It was developed in 1990 by Gillham, Jaycox, Reivich, Seligman, and Silver, that focuses on fostering strengths related to resilience such as emotional competence, self-control, problem-solving, social competence, self-efficacy, and realistic optimism. There are two components of the intervention. The first involves increasing resiliency through the use of teaching cognitive skills. These allow adolescents to recognize negative thinking patterns and challenge the accuracy of their thoughts, consistent with cognitive-behavioral therapy interventions. This part of the intervention aims to increase self-efficacy and optimism. The second part of the intervention is focused on problem-solving and coping skills to help adolescents regulate their emotions and navigate difficult situations. Youth learn to “increase assertiveness, negotiation, decision-making, social problem-solving, and relaxation” (Springer et al., 2014, p. 311). This intervention is administered in twelve weekly group sessions, and has been evaluated in over 19 studies. Results indicate a reduction of symptoms of depression for at least one year, and also has positive effects on cognitive styles, behavior problems, and anxiety.

The second intervention discussed is the Positive Psychology Program, and focuses on increasing wellbeing more generally, with or without the presence of stressors. The intervention skills in this program include developing an increased capacity for positive emotions, building close relationships, and engaging in meaningful activities. The aim is to allow youth to recognize their special strengths and learn to use them in their daily lives.

The third intervention Springer et al. (2014) discuss is Game-Based Cognitive-Behavioral Therapy, which was designed for youth exposed to trauma. The focus is on “enhancing positive growth and development by focusing on youth strengths, creating a healing, enriching and



positive therapeutic environment, and increasing knowledge through experimental learning” (Springer et al., 2014, p. 313). There are twelve sessions in the intervention, and a parent group runs in tandem with the child group. Springer et al. (2014) describe that although the intervention was designed to treat child sexual abuse, it can be adapted to fit a variety of disorders. The game based approach makes it friendly for children, and allows them to slowly gain comfort with the group in a fun, engaging, and meaningful way.

Brownlee, Harper, and Clarkson (2013) conducted a systematic review examining the existing resilience based intervention programs for children from the previous ten years (2000-2010), and assessed whether or not they used a controlled empirical methodology. They found eleven intervention studies published in that ten year span that met the criteria of a resilience or strengths-based intervention. The interventions focused on fostering resilience in children, and also determined to be “high to moderate quality quantitative studies” according to their analysis system, will be briefly reviewed here (Brownlee et al., p. 439).

The FRIENDS intervention, conducted by Barrett, Sonderegger, and Xenos (2003), is a “cognitive-behavioral program that aims to teach social and emotional learning and build strengths by developing protective factors” (p. 439). The acronym FRIENDS is a way to remind participants of the coping and problem solving that they are taught in the program. F: Feeling Worried? R: Relax and feel good; I: Inner thoughts; E: Explore plans of action; N: Nice work, reward yourself; D: Don’t forget to practice; S: Stay cool and calm. The intervention involved 320 children and adolescents, and focuses on growing important personal development and resilience skills such as building self-esteem, problem-solving, and self-expression of ideas and beliefs. Additionally, the intervention encourages the establishment of good relationships with peers, parents, and adults in order for children and adolescents to learn how to cope with and

manage anxiety and depression. The goal of the program was to prevent the development of serious mental disorders, emotional distress, and impairment in social functioning. This intervention has been very successful in Australia, and was distributed nationally as it is the “only clinically validated early intervention and prevention program for anxiety and depression in Australia” (Barrett et al., 2003, p. 246). Barrett and colleagues also developed versions of the intervention for elementary school children and high school adolescents.

Shek, Siu, and Lee (2008) conducted an intervention called PATHS, which stands for Positive Adolescent Training through Holistic Social Programs. The intervention was implemented in high schools in Hong Kong, and aimed at promoting positive youth development through the promotion of emotional literacy, self-control, social competence, positive peer relations, and interpersonal problem-solving skills. Students in the experimental group were higher than controls on global indicators of bonding, resilience, social competencies, and self-determination on the Chinese Positive Youth Development Scale (CPYDS).

Stewart and Sun (2007) implemented an intervention in primary schools in China that aimed to promote health behaviors and facilitate the development of resilience in order to prevent depressive symptoms. The intervention contained many activities that fostered positive teacher-student relationships, an overall positive school climate, social and emotional competence, self-esteem, confidence and problem solving, and to build partnerships with surrounding family, peers, and the community as a whole. While Brownlee et al. (2013) point out that there was not a standardized delivery of the intervention, adequate training of program facilitators, or randomized group assignment, the sample did include 8,399 students in 14 different primary schools, and found significant gains in the children in the intervention group as opposed to controls.

Noether et al. (2007) implemented a standardized intervention model and examined its effect on children's resiliency with mothers having co-occurring mental health and substance use disorders, and histories of interpersonal abuse. As part of the intervention, children participated in a 12-session psycho-educational skills-building group weekly, and it focused on the promotion of emotional and behavioral strengths. Children had positive outcomes when their mothers did regardless of group, but if mothers were doing poorly, the control group children fared much worse than the experimental group children. Additionally, at the 12-month follow-up, children in the experimental condition were having much stronger and more significant positive outcomes.

**Resilience interventions for children with chronic illness.** Individuals who experience chronic stress are especially vulnerable, and medically-ill populations are understudied in the field of resilience. In particular, children and adolescents could benefit from resilience interventions as they are in the process of learning how to cope with stress. Interventions aimed at teaching them how to cope with and be resilient to stress could have drastic and lasting impacts on the course of their lives. There have been several intervention studies designed for children with chronic illnesses. The CHiRP intervention, which stands for Child Illness and Resilience Program, is an intervention designed by Hamall, Heard, Inder, McGill, and Kay-Lambkin (2014) to improve the resilience and wellbeing of families living with childhood chronic illness. In this intervention, families received a Family Resilience and Wellbeing Fact Sheet upon being discharged from a pediatric hospital, and then the ones who agree to participate (based on their attending one of the clinics at the hospital and having a child with a chronic illness) fill out a series of initial questionnaires, are given a Family Resilience and Wellbeing booklet titled "Strong Parents, Resilient Families," attend a parent information support group based on the booklet, and complete follow-up questionnaires. The intervention contains content

informed through a literature review of interventions aimed at improving the wellbeing of families living with childhood chronic illness, consulting with the intervention group, and allied health and medical staff at the pediatric hospital. The specific intervention topics include family routines, relationship building, parenting skills, self-care, cognitive restructuring, communication, problem-solving skills, and accessing social support.

When Type 1 diabetes was searched specifically, a review of the literature yielded only two existing interventions that aimed to increase resilience in this population. Rosenberg et al. (2015) commented that “to [their] knowledge, there are no age-appropriate interventions to promote [resilience] among adolescents with serious illness” (p. 993). They designed an intervention called Promoting Resilience in Stress Management (PRISM) and studied 30 adolescents and young adults aged 12-25 years old with either type 1 diabetes or cancer (Rosenberg et al., 2015). Intervention skills included stress management/coping, mindfulness, breathing and relaxation techniques, goal-setting, reflection, cognitive restructuring, benefit-finding, celebration, and identification of further needs and resources. It is important to note that these intervention skills actually reflect more traditional stress management and coping rather than specifically resilience-bolstering activities. The intervention was not designed to determine efficacy, but rather feasibility (e.g. 80% completion of all main sessions) and acceptance by participants. However, participants were invited to complete a 10-item version of the Connor-Davidson Resilience Scale (CD-RISC; Connor & Davidson, 2003) at the time of enrollment and at the follow-up session after the intervention. While participants qualitatively expressed their satisfaction with the intervention, exploratory analyses revealed no differences in change scores on the CD-RISC for either groups. Rosenberg and colleagues describe that they believe this is most likely due to the study being insufficiently powered to detect changes, as it was not

designed for this purpose and statistically significant changes were not identified. They also reason that it could also be the intervention did not change the patient-perceived resilience, the measure used to detect subjective resilience (CD-RISC) was not sensitive or appropriate to detect changes in adolescent or young adult patient-reported resilience, the intervention lacked a significant amount of treatment, or it was not the right time to detect changes.

Hackworth et al. (2013) designed a protocol for a randomized controlled trial of the Nothing Ventured Nothing Gained online adolescent and parenting support intervention, but it has not been conducted yet. The intervention was designed to improve the physical and mental health outcomes of adolescents with type 1 diabetes and their parents. The adolescent portion of the intervention involves five sessions, and it is based on cognitive behavioral principles, including psychoeducation and active learning exercises. Goals of the intervention include increasing self-efficacy and coping, teaching adolescents strategies to improve their mental and physical health, and building positive relationships with friends and family. The parent portion of the intervention has six sessions, and teaches them to differentiate between their adolescent's illness and normal adolescent development, while also developing and maintaining a trusting, positive, and accepting relationship. This portion of the intervention promotes helping the adolescent transition into independent self-care.

The potential importance of resilience was indicated in a study examining relationships between existing resiliency qualities, diabetes-related stress, and glycemic control. In this study, researchers found that higher resilience resources at baseline predicted future well-controlled Hemoglobin A1c (HbA1c, a measure of glycemic control) and buffered against worsening HbA1c (Yi, Vitaliano, Smith, Yi, & Weinger, 2008). This suggests not only the benefit of building resilience resources for children and adolescents with type 1 diabetes, but also the

necessity to address the lack of interventions focused on building resiliency in this particular population to date.

### **The Resilience and Reconnection (R&R) Intervention**

The Resilience and Reconnection group intervention designed by Dr. Shelly Harrell and her research team is a resilience-oriented stress management approach developed and piloted with adults. . This group is a positive psychology approach to stress management that is designed to be culturally-adaptive and enhance positive outcomes such as resilience and well-being (Harrell, 2017). The group is designed to strengthen resilience through the enhancement of personal expression of various qualities of resilience and developing coping skills targeted at facilitating a positive adaptation to stress. The intervention is focused on three essential pillars of resilience, including Contemplative Processes (Awareness; What am I experiencing?), Communal Processes (Allies; What/who will I connect with?), and Empowerment Processes (Action; What choices will I make?; Harrell et al., 2017). This encourages participants in the group to contemplate their experience through being more present and reflective, connecting to others and strengthening their social networks, and empowering themselves through their ability to transform and choose how they behave in response to stress. The intervention teaches participants how to cope with stress through cultivation of their strengths, and using these to consciously and deliberately live more value-based lives. Twenty-five resilience themes have been identified to promote resilience in the face of stress: Acceptance, Affirmation, Authenticity, Compassion, Connection/Relatedness, Creativity, Empowerment, Engagement/Courage, Flexibility, Flow, Forgiveness, Gratitude, Groundedness, Hope/Faith/Optimism, Liberation, Meaning/Purpose, Patience/Perseverance, Positivity, Presence/Attention/Focus, Receptivity/Openness, Reflection/Contemplation, Release/Surrender, Sharing/Giving,

Transcendence, and Wholeness/Integration. Each group session of the intervention focuses on a cluster of these themes, and content is adapted for each particular group's culture and context.

While this group has been designed for clinical adult populations, substantial gains could be made from the adaptation of this group intervention for children with concurrent medical diagnoses, particularly type 1 diabetes. The Center on the Developing Child (2015) identified ways to cultivate resilience in children. The first includes scaffolding learning in order to build a sense of self-efficacy and control. Children must first be aware of their experience in order to control their response and feel capable to do so. Interventions to strengthen these skills would be included in the Awareness resiliency pillar of the intervention. Then, promoting supportive adult-child relationships will help children tap into the "Allies" pillar of the intervention, and give them healthy ways of interacting with and relating to others. This will include ways to involve parents in some of the at-home activities. These interventions can focus on learning to ask for help from parents and friends when in distress, joining school clubs or sports teams to build a peer network, and building strengths like compassion for others. Finally, the "Action" pillar intervention for children could include strengthening adaptive skills, self-regulatory capacities, and using a faith and culture-based approach to encourage hope and stability (Rumburg & Alnatour, 2017).

An adaptation of the R&R intervention for children would work to incorporate the aforementioned resilience attributes, correlates, and resources in a developmentally appropriate format. It would be important to draw from positive psychology interventions, as positive affect is essential to resilience. Positive emotion can be used to cope with stress and promote resilience in children suffering from chronic stress linked to their medical illnesses. Research has shown that positive emotions contribute to the psychological and physical well-being via more effective

coping mechanisms (Tugade, Fredrickson, & Barrett, 2004). So much of the focus for medically ill children is on surviving, but the focus of the intervention proposed here would go beyond survival and recovery to thriving (Ickovics & Park, 1998). The emphasis of a resilience-oriented approach would be on improving and enhancing quality of life and well-being despite their current circumstances. Significant attention would be given to the experience of positive emotion, and how positive experiences can be used to facilitate adaptive coping with adversity.

The primary aim of the dissertation is to address a gap in the literature in regards to resilience-oriented stress management interventions for children with type 1 diabetes through the development of a group intervention. While there were many coping and resilience based interventions for children, even one for children with type 1 diabetes, there has not been one that has systematically integrated multiple effective resilience-based coping strategies with the goal of reducing stress and promoting resilience in children with type 1 diabetes. The overarching goal of the intervention is to help children with type 1 diabetes learn to draw upon qualities of resilience to manage the chronic stress they experience more effectively. If children can build resilience and call upon this in times of stress, the hope is a healthier adaptation to stress and better health outcomes, both physically and psychologically. The development of the group intervention includes the integration of findings from the literature in terms of specific coping and resilience strategies, as well as feedback from professionals in the field who work with children with type 1 diabetes. The primary goals of this research include: a) the development of a manual for a resilience-oriented stress management group intervention for youth with type 1 diabetes, and b) an initial evaluation of the manual by pediatric diabetes providers.



## Chapter 2: Methodology

### Introduction

The goal of the current project was to create a resilience-based stress management intervention for youth with type 1 diabetes. The one intervention designed for this population located in the published literature was only tested for feasibility. However, there have been many more interventions or activities focused on resilience and coping with illness-related stress, or stress more generally, for youth. The intervention integrated effective intervention activities from these sources into a youth modification of the Resilience-Oriented Stress Management group application Resilience and Reconnection (R&R) developed by Harrell (2017). First, this involved a review of the R&R adult intervention to determine where adjustments could be made to target the intervention to be developmentally appropriate for adolescents, and sensitive to the needs of chronically ill youth, particularly those with type 1 diabetes. Then, an extensive review of the literature identified which coping and resilience interventions in previous studies have been particularly effective with youth, especially those with type 1 diabetes, that were integrated into the basic R&R intervention framework. The third phase involved consultation with type 1 diabetes providers (e.g. physicians, psychologists) to gain further knowledge and insight to inform and enhance intervention development. Three areas were explored: (a) what differences have they observed between youth who thrive despite their illness and the ones who are not coping effectively; (b) what do they identify as the characteristics of resilience in this population; and (c) what strategies have they observed to be most effective in facilitating youth to be more adherent to their treatment regimen. This helped identify resilience considerations specific to the pediatric diabetes population, which were important to include in the intervention to increase its potential effectiveness. Information from these sources were integrated into the R&R

intervention format, and a manual for an adapted intervention for youth with type 1 diabetes was developed. Finally, an initial evaluation of the manual was conducted to inform future revisions.

Thus, the specific research objectives for this project were:

1. To determine potential interventions for boosting resilience for youth with type 1 diabetes from various sources (i.e. literature review, pediatric diabetes providers, and the adult R&R intervention).
2. To synthesize information from all sources and design a resilience-oriented stress management intervention for youth with type 1 diabetes.
3. To conduct a preliminary evaluation of the intervention manual.

### **Review of Literature**

Once areas of the R&R intervention that could be adapted for youth were identified, the literature used to inform the adaptation came from various databases, including Academic Search Complete, Alt-HealthWatch, Health Source: Nursing/Academic Edition, ProQuest, PsycARTICLES, PsycINFO, Sage Journals Online, Science Direct, SpringerLink, PubMed, Wiley Online Library, and WorldCat.org. This review focused on finding intervention activities that have been effective with adolescents with type 1 diabetes, particularly resilience-based interventions or ones that are based on resilience attributes identified in the literature review. Keyword searches included the following terms in various combinations: resilience, stress, children, adolescents, type 1 diabetes, chronic illness, coping, stress management, support groups, and group intervention.

### **Consultation with Pediatric Diabetes Providers**

**Recruitment and inclusion criteria.** The development of the group intervention was also informed by input from diabetes healthcare providers. Two strategies were initially

identified to recruit potential participants. The first included identifying people in the researcher's professional networks who work with pediatric diabetes. If providers in the researcher's network were not able to participate, the researcher planned to identify diabetes providers from hospitals offering pediatric diabetes and endocrinology specialty services. The latter strategy was not necessary as recruitment was successful using the first strategy.

Inclusion criteria involved being a mental health professional or nurse practitioner with experience treating youth ages 12-15 with type 1 diabetes for a minimum of five years. These screening questions were attached to the email, concerning providers' position, licensure status, and number of years working with youth ages 12-15 with type 1 diabetes are designed to determine eligibility to participate in the study. If they did not meet the requirements of (a) being a mental health provider or nurse practitioner, and (b) a minimum of five years working with youth ages 12-15 with type 1 diabetes, they were not contacted further. If participants were not identified through the initial set of emails, additional sets of ten emails would have been sent until at least two providers completed participation in the study (see Appendix A).

Potential participants were informed that their participation is completely voluntary, and if they chose to be part of the study, they would be asked to review and sign the informed consent document (see Appendix B) and complete the screening questions (see Appendix C). The email also informed providers that the interview would take approximately thirty minutes to complete, and upon return of the informed consent document and screening questions, they would be sent an email to schedule the phone call to conduct the interview.

**Participants.** Two clinical psychologists treating pediatric diabetes were recruited to provide insight into resilience in youth with type 1 diabetes. Both were recruited from hospitals in networks known to the researcher, are faculty members at prestigious universities, and

conduct research concerning coping and resilience in youth with type 1 diabetes. Both providers also work in clinical settings (e.g. university medical center clinics and private practice) with youth ages 12-15 with type 1 diabetes. Both met requirements of the inclusion criteria.

The researcher had planned to obtain feedback from a nurse practitioner (NP); however, this was unable to be obtained due to potential participants who were nurse practitioners not meeting full criteria for inclusion in the study (e.g. not having worked with youth with type 1 diabetes for at least 5 years), lack of response from some nurse practitioners, and time constraints.

**Data collection and analysis.** Following the receipt of the informed consent and screening questions, interviews with both pediatric diabetes providers were scheduled and conducted over the phone in a semi-structured interview format. The interview was guided by a questionnaire (see Appendix D) that included questions related to each provider's work with youth with type 1 diabetes, and contained a mix of objective and open-ended questions. This allowed providers the opportunity to speak freely about their experience treating youth with type 1 diabetes.

The responses were then reviewed by the researcher. Responses from participants were reviewed for common interventions and themes, as well as unique ideas regarding what providers believed to be most helpful when working with adolescents with type 1 diabetes. This content was then used to inform the development of the intervention and adaptation of the R&R intervention.

## **Intervention Development**

**Overview of the adapted R&R intervention for youth.** Living My Best Life, the adapted Resilience and Reconnection group for youth with type 1 diabetes was designed, like the

adult group, to be adaptable and enhance positive outcomes, such as resilience and well-being. Development of the 10-session curriculum was informed by the literature and input from the two diabetes healthcare providers. The focus was identifying activities to strengthen resilience through the enhancement of personal expression of various qualities of resilience and developing coping skills targeted at facilitating a positive adaptation to stress, particularly in the context of a chronic health condition such as type 1 diabetes. Eligibility for the group includes parental permission, a current diagnosis of type 1 diabetes, and being between the ages 12-15 years. The initial plan was to also require at least one parent's attendance at a psychoeducational session and orientation for parents. For the purposes of this dissertation, information about this session was not included in the final curriculum for Living My Best Life. However, parents are a crucial part of diabetes management at this age. This is a time when children enter adolescence, and thus want to be more autonomous. For youth with type 1 diabetes, this includes the desire to manage their own health. As type 1 diabetes is most often diagnosed in childhood, parents are used to monitoring and taking care of their child's diabetes. So, not only do children want to be in control of their diabetes management as they enter adolescence, but they typically will not know how because their parents have very likely managed their treatment regimen for them. Supporting autonomy was an important consideration in the structure of group sessions and selection of activities. After the group curriculum was designed, a Facilitator Manual was created that included background information, group facilitation recommendations, and guidelines for each session.

**Session structure.** The first session involves an orientation to the group, with the establishment of confidentiality and other ground rules, and also a brief focus on the theme of Courage. Highlighting and validating the strength it takes to seek support will be important to

facilitating engagement in the group from the beginning. Following this, sessions 2-10 each focuses on a different resilience quality relevant to the challenges of youth with type 1 diabetes. The sessions are organized to focus on each of the Pillars of Resilience: Awareness, Allies, and Action.

Since youth must first be aware of their experience in order to cultivate a sense of self-efficacy in their ability to control their response, sessions 2-4 focus on the Awareness pillar. The themes of these sessions are Presence, Reflection, and Flexibility, respectively. This is a modification from the adult intervention, which contains two to three themes for each session. In order to cultivate a group environment that is developmentally and culturally sensitive to youth with type 1 diabetes, the sessions are simple, concise, and fun. These sessions contain mindfulness activities, including guided meditative practices involving props (e.g. blueberries), attention to sensory experiences, reflective practices related to their mood, and practices that center on flexibility in the face of uncertainty through the use of vignettes.

Sessions 5-7 focus on the Allies pillar, and cover the themes of Connection, Compassion, and Positivity, respectively. Interventions in these sessions include activities that they can practice connecting with other group members and with their parents at home in order to promote positive relationships and healthy ways of interacting with others. The Compassion theme employs interventions that aim to cultivate compassion for oneself and others, such that youth learn to ask for help from parents or peers when they are in distress. Additionally, interventions aim to help youth feel comfortable spending time with others to give them practice building compassion for others. The Positivity theme includes interventions that facilitate positive time with peers, parents, and themselves so that these memories can be called upon in times of stress and can be used to foster resilience.

Sessions 8-10 focus on the Action pillar, and involve themes of Empowerment, Creativity, and Wholeness, respectively. As mentioned previously, these last few sessions focus on strengthening self-regulatory capacities, adaptive skills, recognizing and utilizing one's strengths, and using a faith and culture-based approach to encourage hope and stability long-term (Center on the Developing Child, 2015).

Sessions are structured beginning with a brief mood check-in and rating of their stress level and resiliency level. Whereas the adult intervention would then go into an activity based on reading different quotes and reflecting on them, adolescents will do a modified version of the quote activity. Research suggests that music is central to the lives of adolescents (Miranda, 2013; North, Hargreaves, & O'Neill, 2000), so each week, adolescents will take turns bringing in a song they can relate to and sharing it with the group. The song will be played, and then there will be a brief group discussion about what the song brings up for each group member. Next, the session includes two to four fun and interactive group activities, depending on the theme for the week. Finally, a short debrief will end the session. This includes adolescents identifying a stressor in their life and one way they can practice being resilient consistent with the pillar or theme of the session. The session closes with each adolescent sharing one thing they are taking away from the session.

### **Initial Evaluation of the Intervention**

After the curriculum and manual for the intervention were developed based on the process described above, it was sent to mental health professionals who treat youth with type 1 diabetes that might utilize this intervention in their treatment setting to perform an initial evaluation. The primary goal was to evaluate the manual for its implementation feasibility and improve it based on the expertise, experience, and recommendations of pediatric diabetes

providers who would most likely utilize the manual to conduct stress management groups for youth with type 1 diabetes.

**Recruitment.** To recruit participants, the researcher reached out to known networks, but participants were unable to be obtained in this manner due to time constraints of the providers. The researcher then consulted the Mental Health Provider Directory on the American Diabetes Association website, which contains a list of mental health professionals treating diabetes in the United States. A random number generator was used to select ten participants to contact. Of the ten participants, five agreed to participate. However, three of these five did not complete the evaluation. One of the three was unable to participate due to ineligibility (this provider specialized in working with older adolescents above the age of 15). Another one of the three was unable to participate due to scheduling and time constraints. The third provider expressed interest but did not reply to scheduling the evaluation interview.

**Participants.** Two pediatric diabetes providers were interviewed. The first participant (who was assigned the participant ID code MSW1) is a Licensed Clinical Social Worker (LCSW) who works with teens with type 1 diabetes in a private practice setting in the Midwest. This participant works with teens to help reduce their Hemoglobin A1C (HbA1c) by enhancing their coping mechanisms and dealing more effectively with stress. The second participant (participant ID code MSW2) is a LCSW who is the director of a diabetes program in the northeast. This participant is also a diabetes educator and has experience with group psychotherapy. Both evaluators met the eligibility criteria (see Appendix C – Pediatric Diabetes Provider Screening Questions) of having a mental health professional degree (e.g. LCSW, PhD) and working with youth with type 1 diabetes for at least five years.



**Procedure.** Providers were invited to participate (see Appendix E), and given an informed consent form (see Appendix F), the Evaluation Questionnaire (see Appendix G), and the Living My Best Life Facilitator Manual (see Appendix H). Providers were instructed to evaluate the manual using the evaluation questionnaire as a guide. The questionnaire consists of items that guided providers in their evaluation of the intervention, so that they could provide constructive and concise feedback. There were also options to provide open-ended feedback. The researcher then interviewed them for thirty to forty-five minutes over the phone following their evaluation to hear their feedback in a semi-structured interview format. This was done to provide rich data to inform future developments of the intervention and give providers freedom to evaluate the intervention as they saw fit. The data was then reviewed and common areas of feedback identified in order to inform future revisions to the group intervention.

## Chapter 3: Results

### Introduction

This chapter will describe the development and evaluation of the manual for Living My Best Life: A Resilience-Oriented Stress Management Intervention for Youth with Type 1 Diabetes. This includes adaptations from the adult *Resilience and Reconnection* intervention (Harrell et al., 2017) that served as its foundation, integration of existing coping and resilience interventions from previous studies, and strategies to bolster treatment adherence and resilience gleaned from consultation with type 1 diabetes providers. Feedback from the initial evaluation of the intervention manual will also be presented.

### Adaptations from the R&R Adult Intervention

In adapting the original Resilience and Reconnection (R&R) group intervention for youth with type 1 diabetes, much of the format was kept the same. The researcher kept the 10-session format from the R&R intervention, with the first session being largely introductory. Consistent with the R&R intervention, each of the three resilience pillars has three sessions devoted to it which is reflected in the organization of the intervention: three Awareness sessions, three Allies sessions, and three Action sessions. However, session length was reduced from 90-120 minutes to 60 minutes in order to be developmentally appropriate for this age group. Session “themes” are referred to as “strengths,” again, in order to be more relevant to 12-15 year olds. Each session has one “strength” as the title, rather than a thematic phrase, for the same reason. Overall language of the intervention, including the title, was simplified and adapted to fit the age group. The title Living My Best Life is a reference to the common phrase used amongst some teenagers.

Each session begins with an opening ritual, like the R&R adult intervention. Adaptations were made to the session ratings card to be simpler and more developmentally appropriate. The

psychoeducation segment was retained; however, the information is presented via YouTube video rather than more didactically. This was adapted in order to make the information more appealing and digestible for youth. The purpose of the psychoeducation, like in the R&R intervention, is to provide a definition of the strength and why it is important for resilience, including information that reflects research support. Instead of a discussion of inspirational quotes (used in the original R&R group) that are connected to the session theme, the next section is a music sharing exercise. Music was chosen as the medium to connect to the theme rather than quotes as adolescents particularly connect to music (Miranda, 2013; North et al., 2000). In order to reduce session length, the body synchrony portion of the R&R adult sessions was not included in Living My Best Life.

### **Literature Review**

A review of the literature yielded only one intervention aimed at managing stress through promoting resilience in youth with type 1 diabetes (Rosenberg et al., 2015). However, there is substantial evidence to indicate the need and usefulness of such an intervention. Various interventions in the literature were found to be successful in boosting coping and resilience more generally in children and adolescents. Reviewing these interventions was a critical piece in developing the resilience-oriented stress management intervention for youth with type 1 diabetes. It was found that problem-focused coping leads to better outcomes for individuals with chronic illnesses, as adherence to medical regimens is essential to treatment and the prevention of long-term risk factors (Aldwin & Yancura, 2004). Psychoeducation is an important coping intervention, particularly in behavioral medicine populations, and is prevalent throughout the literature (Aslander-van Vliet et al., 2007; Compas et al., 1998; Lovrencic et al., 2011; Murphy et al., 2006; Nussey et al., 2013; Olmsted et al., 2002). Another intervention is an emotional

expression task that involves asking participants to write about stressful events. In a review of studies that utilized this task, it was found that the simple act of individuals writing about what they experienced was linked to better health outcomes, including cardiovascular reactivity and risk factors, immune outcomes, physiological functioning, and health behaviors (Smythe, 1998). Strategies to enhance positive affect appear to be integral to the formation of resilience in the face of chronic stress, particularly stress linked to chronic illnesses.

In 2009, Compas and colleagues focused on teaching acceptance, distraction, cognitive restructuring, positive thinking, and scheduling and participating in mood enhancing activities. Araujo et al. (2014) corroborated these findings with chronically ill children using similar interventions, such as psychoeducation, empowering participants to seek out information about their illness and treatment options, increasing their interest and participation in the treatment process, problem solving, seeking social support from friends and family, and cognitive restructuring. Earvolino-Ramirez (2007, p. 77) supported findings that positive relationships and social support are imperative to the development of resilience. They also found that flexibility and a sense of humor are attributes of resiliency. Humor helps individuals “make light of adversity, enhance coping mechanisms, and moderate the intensity of emotional reactions” (Earvolino-Ramirez, 2007, p. 77). It was found that resilience resources can be built up over time, used to manage future stressors in order to bounce back quicker and easier, and can mitigate long-term negative effects of chronic stress (Dunkel Schetter & Dolbier, 2011; Hobfoll, 1989 & 2011; Segerstrom, 2007). Overall, the research suggests that interventions aimed to increase individuals’, particularly children’s, resources can help them more effectively cope with chronic stress in the present, and set them on a new trajectory for increased coping, resiliency, and health in the future.

The literature reviewed resulted in prioritizing the inclusion of several types of intervention strategies in developing the Living My Best Life group. Interventions were selected if they were supported by at least 1 study to enhance coping and resilience, and prioritized for inclusion based on the amount of support in the literature (e.g. multiple studies suggesting an intervention is essential to coping and resilience) or if it was specifically associated with building resilience. Table 1, below, lists interventions gleaned from the literature, which studies supported them, and where they were included in the manual.

Table 1

*Literature-Based Intervention Strategies*

Intervention	Research Support	Intervention Location
Acceptance	Compas and Boyer, 2001 Compas, 2009	Session 4 – Flexibility; Psychoeducation Session 6 – Compassion; Mindful Self-Compassion Exercise Session 10 – Wholeness; Psychoeducation
Asking for help from parents and friends when in distress	Aldwin and Yancura, 2004 Rumburg and Alnatour, 2017 Thoits, 1986	Session 2 – Presence; Psychoeducation Session 5 – Connection; Psychoeducation and Homework assignment Session 8 – Empowerment; Interactive or Experiential Activity, Examples 1 & 3
Building compassion for self and others	Rumburg and Alnatour, 2017	Session 6 – Compassion Session 10 – Wholeness; Psychoeducation

(continued)

Intervention	Research Support	Intervention Location
Cognitive restructuring/reframing	Aldwin and Yancura, 2004 Alvord and Grados, 2005 Batista et al., 2015 Compas and Boyer, 2001 Compas, 2009 Craig and Austin, 2016 Dunkel Schetter and Dolbier, 2011 Gillham et al., 1990 (Reported in Springer et al., 2014) Rosenberg et al., 2015	Session 7 – Positivity; Interactive or Experiential Activity
Deep breathing	Alvord and Grados, 2005 Lichtenthal et al., 2005 Rosenberg et al., 2015	Session 2 – Presence; Closing mindfulness activity Session 6 – Compassion; Lovingkindness Meditation, Soothing Touch Meditation, and Mindful Self-Compassion Exercise
Discussing challenges, how individuals cope, brainstorm alternative ways of coping, and help create plans to implement them	Allen et al., 2016	All sessions
Emotional expression/expressing feelings	Smythe, 1998	All sessions
Empowering individuals to seek out information (e.g. about their illness and treatment options, alternative solutions to cope)	Alvord and Grados, 2005 Araujo et al., 2014	Session 8 – Empowerment; Interactive or Experiential Activity
Encourage hope and stability	Center on the Developing Child, 2015	All sessions
Flexibility	Earvolino-Ramirez, 2007	Session 4 – Flexibility
Fostering strengths	Barrett et al., 2003 Gillham et al., 1990 (Reported in Springer et al., 2014) Noether et al., 2007 Springer et al., 2014	All sessions

(continued)

Intervention	Research Support	Intervention Location
Goal-setting	Rosenberg et al., 2015	Session 3 – Reflection; Interactive or Experiential Activity All homework assignments
Guided imagery	Alvord and Grados, 2005 Lichtenthal et al., 2005	All sessions
Increasing interest and participation in the treatment process	Araujo et al., 2014	Session 8 – Empowerment; Interactive or Experiential Activity
Mindfulness meditation	Lichtenthal et al., 2005 Rosenberg et al., 2015	Session 2 – Presence; Psychoeducation, Interactive or Experiential Activity, Closing mindfulness activity Session 6 – Compassion; Psychoeducation, Lovingkindness Meditation, Soothing Touch Meditation, and Mindful Self- Compassion Exercise
Noticing strengths and positive family experiences and include them more in your routine	Alvord and Grados, 2005	Session 3 – Reflection; Homework assignment Session 7 – Positivity; Homework assignment Session 8 – Empowerment; Check in on homework assignment from last session
Positive affect	Billings et al., 2000 Fawzy et al., 1990 Springer et al., 2014 Tugade et al., 2004	Session 1 – Courage; Psychoeducation Session 3 – Reflection; Homework assignment Session 6 – Compassion; Interactive or Experiential Activity, Soothing Touch Worksheet Session 7 – Positivity
Positive relationships and social support	Earvolino-Ramirez, 2007 Hackworth et al., 2013 Shek et al., 2008 Stewart and Sun, 2007	All sessions

(continued)

Intervention	Research Support	Intervention Location
Positive thinking	Alvord and Grados, 2005 Compas and Boyer, 2001 Compas, 2009	Session 3 – Reflection; Homework assignment Session 6 – Compassion; Interactive or Experiential Activity Session 7 – Positivity
Problem solving/problem focused coping	Aldwin and Yancura, 2004 Alvord and Grados, 2005 Barrett et al., 2003 Batista et al., 2015 Compas and Boyer, 2001 Compas et al., 1991 Fawzy et al., 1990 Gillham et al., 1990 (Reported in Springer et al., 2014) Hamall et al., 2014 Lazarus and Folkman, 1984 Lichtenthal et al., 2005 Shek et al., 2008 Springer et al., 2014 Stewart and Sun, 2007	All sessions
Psychoeducation	Aldwin and Yancura, 2004 Araujo et al., 2014 Aslander-van Vliet et al., 2007 Batista et al., 2015 Compas et al., 1998 Fawzy et al., 1990 Hackworth et al., 2013 Lichtenthal et al., 2005 Lovrencic et al., 2011 Murphy et al., 2006 Nussey et al., 2013 Olmsted et al., 2002	All sessions
Reflection	Rosenberg et al., 2015	All sessions Explicitly session 3 – Reflection

(continued)



Intervention	Research Support	Intervention Location
Scheduling/participating in mood enhancing activities	Compas, 2009	All sessions Explicitly Session 3 – Reflection; Homework assignment Explicitly Session 5 – Connection; Homework assignment Explicitly Session 7 – Positivity; Homework assignment Explicitly Session 9 – Creativity; Homework assignment
Seeking social support from friends and family	Aldwin and Yancura, 2004 Allen et al., 2016 Batista et al., 2015 Compas et al., 1991 Dunkel Schetter and Dolbier, 2011 Earvolino-Ramirez, 2007 Fawzy et al., 1990 Hamall et al., 2014 Lichtenthal et al., 2005 Mullins et al., 2015	All sessions
Self-disclosure	Lichtenthal et al., 2005	All sessions
Self-esteem/self-efficacy	Alvord and Grados, 2005 Barrett et al., 2003 Center on the Developing Child, 2015 Earvolino-Ramirez, 2007 Hackworth et al., 2013 Gillham et al., 1990 (Reported in Springer et al., 2014) Stewart and Sun, 2007	All sessions
Sense of humor	Earvolino-Ramirez, 2007	All sessions

### **Pediatric Diabetes Provider Feedback**

Two pediatric diabetes providers were interviewed using a semi-structured interview format to help inform the development of the intervention. Both providers are licensed clinical psychologists, and have worked with youth with type 1 diabetes for over five years. Both

providers were invited to participate from networks known to the researcher. Themes that emerged across providers will be discussed here, separated by question.

**Question 1.** The first question posed to providers was, “Based on your experience, what have you observed to be effective coping strategies among youth (persons 12 to 15 years old) with type 1 diabetes?” One issue mentioned by both providers was that developing a routine and incorporating diabetes into their lives helps adolescents cope. This of course means that acceptance of the diagnosis is essential to coping. The second theme that emerged for both providers was the importance of identifying sources of support, both in and outside the home. Both providers spoke to the importance of connecting with others, particularly peers and friends (with and without diabetes). The specifically discussed people whom the adolescent can talk about diabetes with and get support. The third theme mentioned by providers were personality characteristics. They reported adolescents who are motivated and have an energetic, resilient nature cope better.

One provider mentioned the helpfulness of focusing on the immediate benefits of better diabetes management rather than trying to avoid long term complications (e.g. what is important to you now?). This provider also reported that brief behavioral interventions focused on strengths can be helpful. The other provider stated that families overall having access to resources, time to spend reinforcing behaviors, and positive communication is helpful.

**Question 2.** The second question posed to providers was, “What have you observed to be helpful in facilitating adherence to their treatment regimen?” Both providers discussed the importance of having a concrete structure for managing diabetes, with goals and nonmonetary rewards for achieving those goals. They referenced various types of plans they have tried with adolescents and families, and how it is crucial for everyone to agree on a system or plan, and

rewards that are picked out by the adolescent and are meaningful to them. Since diabetes management is not inherently meaningful yet, tying health behaviors to what they do care about can help with treatment adherence. Both providers also discussed the importance of communication, and striking a balance between overinvolved and under-involved in their child's diabetes management.

**Question 3.** The third question posed to providers was, "What do you think is the difference between youth that cope and thrive despite their illness, and those that do not?" The first theme both providers mentioned in response to this question was regarding the home life situation. If the structure of the family was such that there is instability, conflict, insecurity, or limited resources, adolescents did not do as well managing diabetes. On the other hand, both providers also mentioned that sometimes adolescents have many resources and are doing very well in some areas of their life, but diabetes is falling apart for various reasons (e.g. not having the right kind of attention from parents). They also reported that adolescents who are "Type A," "super conscientious," and "positively anxious" do well in managing diabetes, and sometimes have higher numbers, but more distress because there is not a 1:1 correlation between effort and results. Finally, both providers mentioned the importance of having supportive caregivers and a supportive family without a lot of conflict. One provider also stated that peer support is very important.

**Question 4.** The fourth question posed to providers was, "What characteristics come to mind to describe a resilient youth with type 1 diabetes?" Providers differed on their answers to this question for the most part, but one theme they both shared in common was having a "positive, bounce back" or "go with the flow" attitude to dealing with setbacks, understanding there will be ups and downs, and taking them in stride. One provider mentioned the following: a

strong sense of values (identifying what is important to them) and a sense of humor. The other provider reported that being verbal, confident, skilled in planning, organized, having high executive functioning skills, a good emotional language, and the ability to recognize their feelings and express them (i.e. through talking or writing about it). This provider also mentioned the importance of having good friends and being a good friend (i.e. someone who is well-liked, not socially awkward, steadfast, and trustworthy).

**Question 5.** The fifth question posed to providers was, “Are there any particular interventions that you have found to be effective to encourage youth with type 1 diabetes to be more resilient?” Providers varied in their answers to this question, and there were no common themes. One provider mentioned using interventions in Coping Cat, the TADs manual, and other brief behavioral interventions like the CBT triangle, identifying hot thoughts, using metaphors and stories as a way to engage, cognitive reframing, and mindfulness. Another provider discussed interventions such as problem solving skills and emotional story-telling, or writing about an experience, the way it feels, creating poetry or a story from it. This provider also discussed diabetes camp, getting involved in movements about diabetes, and leadership and fundraising for diabetes. Finally, this provider described that teaching adolescents how to reach out when they need help, specifically talking to trusted adults that are not parents if it is hard to talk to parents about something, helps youth to be resilient.

**Question 6.** The sixth question posed to providers was, “Have you used or observed any psychosocial interventions with youth with type 1 diabetes to boost coping or resilience? If yes, what types of interventions have you used/observed?” The first element both providers mentioned was problem solving skills. The next commonality was using technology, specifically text messaging, to remind youth to use skills like gratitude and self-affirmations to boost positive

affect. One provider mentioned Cognitive Behavioral Therapy (CBT) and Acceptance and Commitment Therapy (ACT) techniques and components, to accept more of doing something in the spirit of values. This provider also reported that family systems therapy, and pre-teaching of the medical team and parents to increase coping was helpful. Another provider discussed communication skills and complex resolution, which were part of a larger coping skills training this provider had been involved in previously.

**Question 7.** The seventh question posed to providers was, “Do you think that youth could benefit from a group intervention to increase resilience in the face of the chronic stress associated with a diagnosis of type 1 diabetes?” Both providers agreed that yes, a group intervention of this type would be useful. They both expressed that meeting other kids going through the same experience who are nice and doing well, and being part of a group is an intervention in itself. However, both providers expressed concerns about feasibility; particularly, that a group intervention might be difficult to do in person due to access, location, and other competing demands teens have. When speaking to the benefit of such an intervention, one provider mentioned that teens might handle questions about their diabetes from other teens based on whether or not they have had contact with other teens who have type 1 diabetes. This provider gave the example that one teen might get a question about their pump and see it as bullying, whereas another teen might just say, “Oh it’s my pump! Want to see how it works?” This provider also reported that a group intervention could also help parents take these questions less personally.

**Question 8.** The eighth question posed to providers was, “What are the main improvements you would like to see in youth who participated in a psychosocial group with respect to healthy coping and resilience related to their type 1 diabetes?” Providers differed in

their responses to this question. One provider mentioned outcomes such as reductions in diabetes distress, increased acceptance of having diabetes, and self-identifying as a person with diabetes. The second provider reported they would like to see more self-confidence, better communication, a clearer network of social support, and better overall quality of life related to diabetes and beyond.

**Question 9.** The ninth and final question posed to providers was, “Based on your experience, what recommendations would you make for developing a stress management and resilience group for youth with type 1 diabetes?” Both providers agreed that ACT interventions would be helpful and useful. Recommendations from both providers were largely to build from what has already been done (i.e. examining studies to see what people have already seen, and what works vs. what hasn’t). One provider mentioned this particularly with regard to ACT, values and strength-based approaches, as well as positive psychology interventions. This provider asserted that an in-person group would help foster connections between teens and give them an opportunity to practice a shared problem-solving approach. This provider described a strengths-based intervention that is currently in development, and it involves reporting adherence behaviors to parents and positive reinforcement. The other provider discussed integrating elements that make the intervention fun and exciting. This provider also discussed the importance of accessibility of the intervention (e.g. in a dance studio teens are already going).

**Themes.** After reviewing feedback from both pediatric diabetes providers, the following themes were extracted for inclusion in the manual. Table 2, below, outlines which themes were identified by both providers, and where in the intervention these themes were integrated or how the theme was used to help develop the intervention.

Table 2

*Themes identified by providers and their inclusion in the intervention*

Question	Theme	Intervention Location
1	Developing a routine and incorporating diabetes into their lives	Routine for diabetes established through attending group weekly for 10 weeks, and following routine session format Explicitly in Session 8 – Empowerment; Interactive or Experiential Activity
1	Identifying sources of support and connecting with others	All sessions through peer support and sharing with group Explicitly in Session 5 – Connection Explicitly in Session 7 – Positivity; Homework assignment
1	Personality characteristics such as an energetic, resilient nature	All sessions focus on building a resilient nature
1 and 2	Focusing on immediate benefits of better diabetes management; tying diabetes behaviors to what they care about now	Session 3 – Reflection; Interactive or Experiential Activity Session 8 – Empowerment; Interactive or Experiential Activity
2	Concrete structure/reinforcement plan for managing diabetes (with goals, rewards)	Session 8 – Empowerment; Interactive or Experiential Activity
2	Communication, particularly with parents	Session 5 – Connection Session 7 – Positivity; Homework assignment Session 8 – Empowerment; Interactive or Experiential Activity
1 and 3	A stable home with resources (financial and emotional)	Using this Manual/Tips for Facilitators: Adapting interventions based on demographic factors, incorporating parents in homework activities
3	Personality characteristics such as “Type A” “super conscientious” and “positively anxious”	Session 8 – Empowerment; Interactive or Experiential Activity Session 4 – Flexibility
3	Supportive caregivers/family	Session 5 – Connection Session 7 – Positivity; Homework assignment Session 8 – Empowerment; Interactive or Experiential Activity

(continued)

Question	Theme	Intervention Location
3	Peer support	All sessions
4	“Positive, bounce back, go with the flow” attitude to dealing with setbacks	All sessions focus on building this attitude
6	Problem solving skills	All sessions
6	Use of technology	All sessions – Psychoeducation presented through YouTube videos
7	Meeting other kids going through the same experience	All sessions
9	ACT interventions	Session 2 – Presence Session 3 – Reflection; Interactive or Experiential Activity Session 4 – Flexibility Session 6 – Compassion; Mindfulness Meditations Session 10 – Wholeness

### **Integration to Inform the Group Intervention and Facilitator Manual**

To create the group intervention and facilitator manual, an extensive literature review was conducted, and successful interventions across studies were noted. After speaking to pediatric diabetes providers, common themes and recommendations were identified. Various interventions and recommendations from pediatric diabetes providers that were not identified as shared “themes,” were still included in the intervention based on (a) session length, and (b) if it was also supported by research found in the literature review. These were then integrated in the intervention based on fit with a session’s resilience theme.

Table 3, below, outlines which individual provider interventions and recommendations were included in the intervention, which provider reported it (using provider’s de-identified participant ID number), and where in the intervention it was incorporated.



Table 3

*Intervention recommendations from providers and integration into the intervention*

Intervention/Recommendation	Provider Support	Intervention Location
Brief behavioral interventions focused on strengths	PHD1	All sessions
CBT triangle and cognitive reframing	PHD1	Session 7: Positivity; Interactive or Experiential Exercise
Emotional language: the ability to recognize their feelings and express them (through talking or writing about them)	PHD2	All sessions
Emotional story-telling (writing about an experience, the way it feels, creating poetry or a story from it)	PHD2	All sessions
Increased acceptance of having diabetes	PHD1	Session 4 – Flexibility; Psychoeducation Session 6 – Compassion; Mindful Self-Compassion Exercise Session 10 – Wholeness; Psychoeducation
Mindfulness	PHD1	Session 2 – Presence; Psychoeducation, Interactive or Experiential Activity, Closing mindfulness activity Session 6 – Compassion; Psychoeducation, Lovingkindness Meditation, Soothing Touch Meditation, and Mindful Self-Compassion Exercise
Positive psychology interventions	PHD1	Session 3 – Reflection; Interactive or Experiential Activity, Homework assignment Session 7 – Positivity
Sense of humor	PHD1	All sessions
Strong sense of values (identifying what is important to them)	PHD1	Session 3 – Reflection; Interactive or Experiential Activity

**Description of the intervention.** Living My Best Life: A Resilience-Oriented Stress Management Intervention for Youth with Type 1 Diabetes is a resilience-oriented stress management intervention for youth with type 1 diabetes that was adapted from the “Resilience

and Reconnection” (R&R) group intervention designed by Dr. Shelly Harrell and her research team. The intervention is informed by a positive psychology orientation and is designed to be culturally-adaptive and enhance positive outcomes such as resilience and well-being (Harrell, 2017). The group is designed to strengthen resilience through the enhancement of personal expression of various qualities of resilience and developing coping skills targeted at facilitating a positive adaptation to stress. The intervention is focused on three essential pillars of resilience, including Contemplative Processes (Awareness; What am I experiencing?), Communal Processes (Allies; What/who will I connect with?), and Empowerment Processes (Action; What choices will I make?; Harrell et al., 2017). This encourages participants in the group to contemplate their experience through being more present and reflective, connecting to others and strengthening their social networks, and empowering themselves through their ability to transform and choose how they behave in response to stress. The intervention teaches participants how to cope with stress through cultivation of their strengths, and using these to consciously and deliberately live more value-based lives.

The group intervention consists of ten sessions, each focused on a different resilience theme, much like the R&R group intervention. The intervention is meant to be conducted weekly over the course of ten weeks. Three sessions are devoted to Contemplative Processes and the Awareness Resilience Pillar, three sessions to Communal Processes and the Allies Resilience Pillar, and three sessions to the Empowerment Processes and the Action Resilience Pillar.

Each session follows a similar format. There is first an opening ritual, where youth check in on their stress level over the past week and their resilience level over the past week (i.e. their ability to keep feeling good despite stress, and how they may have used their strengths and resilience to manage any stress they have been feeling). Youth rate their stress and resilience

levels on a scale of 0-10 over the past week, and then record this on a “Session Card” (which they receive at the beginning of every session). After this, each participant “checks in” to the group in a circle, with each group member sharing their name, one word for how they are feeling in that moment (using the Feelings chart, which is passed around), what their stress and resilience numbers are for the week, and if they are comfortable, a sentence or two about why their numbers are that way.

After the opening ritual, youth will be provided with psychoeducation on the theme/strength that is the focus for that session through YouTube videos. After watching the videos, youth will have the opportunity to engage in discussion about what they are taking away to solidify learning and “take-aways” from the psychoeducation. They’ll then be instructed to write down on their session card what they learned.

After that, youth will engage in a Music Sharing Exercise. Each week, they will take turns sharing a song connected to the strength for that week. Youth will introduce their song and why they chose it, play the song, and then youth will engage in discussion about the song. They are then instructed to write down the title and artist of the song on their Session Card.

Each session then involves an interactive or experiential activity. The activities are designed to be developmentally and culturally appropriate. Each section involves 2-4 examples of an interactive or experiential activity in order to be adaptable for the group. The group activity is to be chosen by the facilitator prior to the session. The group activity will be filled in on the session card, and after completion of the activity, youth will write down a sentence about what they would like to remember about the activity.

At the end of each group, there is a debriefing activity where youth share one thing they are taking away from session that day with the group, with an individual peer, or with themselves

via writing about it privately. The group will then learn the name and a brief definition of the resilience strength for the next week, and a group member will volunteer to bring in a song for the following week connected to that resilience strength that they would like to share with the group. For four of the sessions (sessions 3, 5, 7 and 9), there is a homework assignment. The homework assignments are designed to solidify learning, and give youth the opportunity to practice using the resilience strength in their lives. This is also presented at the end of the group, and is followed-up with after the opening ritual in the next session.

***Session-by-session details.*** The first of ten sessions is introductory and is intended to introduce the essential elements of the group: confidentiality, ground rules, general structure of the rest of the nine sessions, a brief ice-breaker, psychoeducation about stress and resilience, and the first theme: Courage. The psychoeducation in the first session involves more of a focus on the definitions of stress and resilience, the subjective nature of stress, and that stress can be managed through building resilience. There is no experiential activity for the first session as most of the hour is focused on group orienting-related activities. However, the end of this session involves a “here and now” reflection on what brought youth into the program, and recognizing that they are courageous for joining and committing to the group.

The next set of three group sessions focuses on the Awareness Pillar. The first of the Awareness groups (Session 2) is on the resilience theme of *Presence*. The psychoeducation on presence emphasizes sensing into the body to help identify needs (e.g. asking for help or having a snack when blood sugar is low) and prevent “bottling up” of emotions or ignoring physical sensations. Options for the experiential activity for this group are (a) a mindfulness activity where youth will be led through a sensory guided mindfulness meditation while they eat blueberries, and (b) playing I Spy or 20 questions. Youth will then participate in a debrief

activity and a closing mindfulness activity about Presence. The second of the Awareness groups (Session 3) is focused on the resilience theme *Reflection*. The psychoeducation on reflection emphasizes the importance of understanding the impact of events and integrating new learning to make better choices in the future. Options for the experiential activity for this group are (a) a Values Worksheet/Bullseye (preceded by a discussion about what values are and how you know what your own values are), and (b) a journaling/expressive writing exercise called “Met at my Best” where youth are instructed to write about what their life would look like when they are at their best. Youth will then participate in a debrief activity and are given their first homework assignment: to start a gratitude journal. Youth will also receive a sheet describing the “In-between Group Project” (a.k.a. the homework assignment) so they remember what they were instructed to do over the next week and why it is important. The third and final Awareness group (Session 4) is focused on the resilience theme *Flexibility*. The psychoeducation on flexibility emphasizes accepting what is out of one’s control, and the thoughts and feelings associated with that, so they don’t create barriers to living a full life. Feeling bad sometimes is part of being a human, and acceptance of this frees one up to be flexible and make choices for how to act based on what is most important to each person. Options for the experiential activity for this group are (a) a Sentence Completion exercise in which youth write 5 “should” statements and then make them into 5 “I would like to” statements, and (b) a group discussion about when something did not go their way related to diabetes (e.g. wanting to go to a party, fighting with parents about checking blood sugar). The facilitator will walk youth through describing the situation, thoughts, feelings, and behaviors in the situation, and how they could practice flexibility.

The next set of three groups focuses on the Allies Pillar. The first of the Allies groups (Session 5) is focused on the resilience theme *Connection*. The psychoeducation on connection

emphasizes the importance of connection for getting help and support. Options for the experiential activity for this group are (a) Behavioral Activation Bingo, (b) Playing a short game together in which participants have to collaborate to achieve a shared goal (e.g. Oregon Trail card game), and (c) Partner share: youth pair up to share a fact about themselves that their partner doesn't already know about them, and then discuss in pairs and as a group. Youth will then participate in a debrief activity and are given their second homework assignment: to reflect on sources of support, make a list of them, and track how often over the course of the next week youth are reaching out to their support network. Youth will also receive a sheet describing the "In-between Group Project" (a.k.a. the homework assignment) so they remember what they were instructed to do over the next week and why it is important. The second of the Allies groups (Session 6) is focused on the resilience theme *Compassion*. The psychoeducation on compassion emphasizes the importance of having self-compassion and compassion for others in boosting positive emotional experience. Options for the experiential activity for this group are (a) How Do You Typically React? Worksheet instructing youth to brainstorm how they react to a friend when they are struggling versus themselves, (b) Write a letter expressing well wishes and gratefulness for someone who annoyed or made them angry lately, and (c) A Positive Affirmation Activity. Youth will then participate in a guided Mindfulness Meditation activity centered on compassion. The third and final of the Allies groups (Session 7) is focused on the resilience theme *Positivity*. The psychoeducation on positivity emphasizes the impact that shifting thoughts to be more balanced and positive can have on one's self-esteem and self-confidence. Options for the experiential activity for this group are (a) Learning the cognitive triangle of thoughts, feelings, and behaviors, and identifying thought distortions using CCC: Catch It, Check It, Change It, and (b) Having group members identify challenging situations lately related to diabetes, and teaching

the cognitive triangle to help them identify unhelpful thoughts and try to turn them around to be more positive/helpful using the “Thoughts on Trial” simple thought record worksheet. Youth will then participate in a debrief activity and are given their third homework assignment: to think of one activity they can do that brings them joy, schedule it into their week, and spend positive time with someone they care about. Youth will also receive a sheet describing the “In-between Group Project” (a.k.a. the homework assignment) so they remember what they were instructed to do over the next week and why it is important.

The last set of three groups focuses on the Action pillar. The first of the Action groups (Session 8) is focused on the resilience theme *Empowerment*. The psychoeducation on empowerment emphasizes youth sensing into the power they have to make a difference in their lives and in the lives of others, self-efficacy, and taking action to do something. Options for experiential activity for this group are (a) Group discussion about how to apply empowerment to diabetes care via learning ways to communicate with parents and doctors about their diabetes care, (b) Creating their own mantra, (c) Group discussion of vignettes of challenging situations and how youth might empower themselves with knowledge/ask for help, and 4) Group discussion about connecting to the immediate benefits of diabetes management. The second of the Action groups (Session 9) is focused on the resilience theme *Creativity*. The psychoeducation on creativity emphasizes willingness to try something new, “think outside the box,” and express oneself. Options for the experiential activity for this group are (a) Cutting out pictures, words, colors, etc. to create their “resilience collage”, and (b) Going around in a circle and each person sharing 1-2 of their greatest strengths. Then, as a group, youth will brainstorm new, creative ways to use this strength to help them manage diabetes care. Youth will then participate in a debrief activity and are given their fourth and final homework assignment: to think about a way

they can incorporate creativity in their life and implement it. They are instructed to decide on one, new thing they can do for themselves every day in the next week and then try to do it each day. Youth will also receive a sheet describing the “In-between Group Project” (a.k.a. the homework assignment) so they remember what they were instructed to do over the next week and why it is important. The third and final of the Action groups (Session 10), and the final group of the entire intervention, is focused on the resilience theme *Wholeness*. The psychoeducation on wholeness emphasizes accepting all of the parts of oneself that make one whole, and also knowing that no single piece of who someone is (including thoughts, feelings, and a diagnosis of diabetes) is one’s entire identity. Options for the experiential activity for this group are (a) Review of all of the resilience strengths, and how they are all important pieces of being resilient to manage diabetes in a “whole” way. Participants will then take turns drawing a resilience strength from a hat and acting it out charades style, and discuss how they have incorporated each strength into their lives, (b) Creating resilience marbles, and (c) Reading aloud “I am a diabetic,” vs. “I am someone who has diabetes” and then thinking about and discussing how each makes them feel. Youth will then participate in a final Wholeness activity, using an Energy stick to demonstrate the importance of staying connected and using all of their resilience strengths to keep their energy and light going.

**Description of the facilitator manual.** The group intervention is presented in the format of the Facilitator Manual (FM; see Appendix I) to illustrate the content and process of the intervention. The FM presents background information and guidance for facilitators, as well as specific instructions for each group session. It was created for a pediatric diabetes provider to utilize in a group therapy setting. It is designed to have enough structure and direction so the facilitator is adequately guided and prepared to run the group without input from another



professional. However, it is also intended to be flexible and easily adaptable based on a variety of factors (e.g. demographic and sociocultural factors, age, and gender).

The FM is a total of 59 pages and contains detailed session break-downs for each of the ten sessions. The manual begins with an introduction containing information about diabetes in youth, the need and rationale for the intervention, an overview of the program, and the organization of the manual. Following this, recruitment is discussed, including how to identify and screen participants. The group facilitator will determine suitability for the group on a case by case basis, according to guidelines in the manual regarding identification and screening of potential group members. There is then a section containing tips for facilitators in making the best use of the manual, including how it might be adapted to best suit the needs of each particular group. The remainder of the manual contains the 10-session curriculum and a description of each activity to be conducted in each session. While the structure is largely similar for each session, there is variability across psychoeducation videos to fit each resilience strength, varying homework assignments, and each session has multiple options for interactive, experiential activity to give the facilitator the flexibility to utilize their clinical judgment for the group they are working with.

### **Evaluators' Feedback**

The following results were obtained during the preliminary evaluation of the program and manual. The two evaluators (two LCSWs) discussed each question in the Evaluation Questionnaire and provided feedback on parts of the intervention. The results are presented in Tables 4-11. Overall, feedback from the two pediatric diabetes providers were very positive in supporting a resilience-oriented stress management intervention for youth with type 1 diabetes. Providers made many recommendations for what to include in the intervention that are supported

by literature. Providers also listed many aspects that they liked about the intervention, and many areas in which the intervention can be improved. The primary recommendation was to make content more diabetes-specific. The overarching concern of pediatric diabetes providers who gave feedback to develop the intervention and evaluate it was the feasibility aspect. One provider (MSW1) used the LIKERT scale to provide their opinion on feasibility, and they gave it a 5 (*very feasible*). MSW2 did not provide a numeric rating for feasibility, and instead provided comments (see Table 8). Comments focused on scheduling and geographical concerns. Expecting that youth will be able to attend a group intervention once a week for ten weeks in a row might not be possible depending on the setting in which the intervention is being held. Some concerns were that teens are already very scheduled and busy, parents will also need to be free for that time, and what will parents do while their kids are participating in the group. It is noteworthy that the feasibility concerns expressed by MSW2 were also identified by the pediatric diabetes providers who provided their insights to help develop the intervention. Both providers who evaluated the intervention (MSW1 and MSW2) rated the user-friendliness of the intervention to be a 5 (*very user-friendly*). Comments included that the manual is “great, [has] terrific content, [is] well-written, easy to understand, fun, thought-provoking, and stimulating (see Table 9). Finally, evaluators also rated that likelihood that they would use the group intervention. MSW1 rated this a 5 (*very likely*). MSW2 did not provide a numeric value, and instead responded with comments (see Table 10). Comments included that likelihood this provider would use the manual would depend on the treatment setting.

Table 4

*Evaluators' Responses to Item One*


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Do you think youth with type 1 diabetes could benefit from this intervention in terms of increasing treatment adherence? Please state why based on your experience and evaluation of this manual.

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Evaluator	Summary of Comments
MSW1.	Absolutely yes. Calmer they feel, more focused their brain is. When a person is stressed, they are less calm, less focused, and less able to do anything above and beyond what is absolutely necessary to survive in life. When we can calm and focus our brain, we are more capable of doing above and beyond every day chores. Managing blood sugar is connected to how stressed you are. It's the first thing they will give up if they feel overwhelmed and stressed out. Not brushing teeth, or doing their hair, but they will give up checking sugar. They don't feel an immediate result from that. They need to be calm and relaxed to be higher level functioning, which is essential to managing type 1. At this age, it's one more humungous stressor.
MSW2.	Absolutely. The reasons for that is because it is a group intervention. From my opinion, there is nothing quite like group for people with chronic illness. They support one another and learn from one another. It's a much better method than individual meetings. I think all diabetes education should be in group interventions. It's quite unique with a focus on resilience skills in diabetes. As far as I know, there is not a lot out there for this particularly targeted at children and adolescents. Interventions like this are much needed.

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Table 5

*Evaluators' Responses to Item Two*


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Do you think that youth with type 1 diabetes could benefit from this intervention to increase resilience in the face of the chronic stress? Please state why based on your experience and evaluation of this manual.

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Evaluator	Summary of Comments
MSW1.	Oh yeah. The more support they have, the better. The more support they feel, the stronger they feel. I have a ton of clients that don't want to hang out with people with type 1, they resist it because they don't want to identify as their disease. I really don't have a lot that want to go to a group for type 1. But to just be around other teens working on stress can be easier. I think that group can be used with any teenager for anything.
MSW2.	What I like is that there are lots of diabetes interventions that focus on flexibility, connection, positivity and empowerment, but this also adds six other dimensions that aren't talked about or taught. That will be very key. I love the group activity and shared learning exercises that you built into this.

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Table 6

*Evaluators' Responses to Item Three*


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What did you find most effective about this intervention?

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Evaluator	Summary of Comments
MSW1.	All important. Each person will take something different out of different components of it. Everyone's different and will find something different of value.

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(continued)

Evaluator	Summary of Comments
MSW2.	<p>Overall, I liked it very much. Living My Best Life, that's a great title. I love the title. It's encouraging, hopeful, and positive. I like the language throughout. It's straightforward, positive, easy for facilitators to understand. The activities are great. I love the choice of songs and YouTube videos. I like the way you narrow discussion into diabetes after the YouTube videos. At the end of the first session, you used their real life group experience, their here and now experience, to demonstrate courage. I thought that was really beautiful. You did that in each session. It was very nice. Session 2, with the blueberries. That's a fun little game. I like the way you begin and end each session the same way. I think that establishes routine, builds in safety. I thought it was great. Very nice job there. I like the little homework sessions in between. That's really neat. Session 4: Barriers. Challenges and barriers that are getting in the way of doing homework. I'm sure there will be some that arise by this point from completing the assignment. There's quite a bit for them to do. It's the perfect time to talk about it, I'm glad you're doing that in the sessions. I like the interactive exercises. There is a nice mix of exercises, they are all thought-provoking, stimulating, and I think kids will love them. I like that each week you review the exercise from the week before, which is great. Looking back, reviewing it, it re-emphasizes points from the week before. Really nicely done. In session 8: How to talk to parents and doctors. I like that you did both, family and included the health care team. Sessions 9 and 10: Very good. I love the creativity group, and the wrap-up on Wholeness. There are two videos in there that are diabetes-related. I like that a lot.</p>

Table 7

*Evaluators' Responses to Item Four*

Based on your experience and evaluation, what recommendations or suggestions would you make for modification and/or inclusion to this stress management and resilience group for youth with type 1 diabetes?

(continued)

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Evaluator	Summary of Comments
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MSW1. To be aware of common themes of struggle for type 1. Bring up specific stressors related to that age group and specifics of managing it. This is really broad and general, but these kids have very specific issues of what they need to be working on that other kids don't. Bringing up specific examples. "When Mary Jo was 13, she just got her period, now she has to change her tampon, brush her teeth, AND check her blood sugar and now she's overwhelmed." How other kids have managed and coped with these very specific things. What other kids do and how they deal with this and what other families have done. These are young kids. Most overwhelming thing is the physical responsibility, the physical part of it. They are adding so much to their plate with puberty hitting. Right now, regular tasks and going to school is they can handle. Really aware at this age, some of the real particulars of what they're feeling related to this. Who handles the diabetes? Parents or kids at this age? These are things that come up in therapy. These are the issues that are causing these kids stress. The doctor says, "Why is this kid not checking his blood sugar? They used to, what changed?" Since then, they hit puberty, they're trying to survive high school sports, dating a girl, and they just can't when they're overwhelmed. How come they're not doing what they need to do? It's just too much. Stop trying to do it all. Give it back to your parents. You do not need to manage it all yourself. You think you do, but you don't. Maybe you never do – when you're older, you have a partner who helps you. It's too much. Letting parents step in whenever you need them to. Let parents be more enabling at this age. Kids need them even more because there is too much else going on in their life. The level of dependency may wax and wane throughout adolescence based on their need at the time. I tell my clients don't be afraid of being dependent on parents. Don't be afraid of saying "this is too much." You never have to feel like you're alone in this.

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(continued)

Evaluator	Summary of Comments
MSW2.	<p>In Need and Rationale, change “compliance” to “adherence.” Keep the group size 7-10 people maximum, because more than 10 starts to become difficult to manage and contain behaviors. The “Using this Manual” section might encourage people to be too adaptive, and then you are not going to know if it really works or what really works. At the risk of making it more restrictive, you would be able to say “this is what works” rather than guessing because groups were so different. You really want to show what works rather than leave people second guessing about what activities really made the difference. Allowing group members to add their own guidelines is risky. How are you going to do that? What if they want to do something the facilitator doesn’t like? Can they veto? It would be better to simply establish the guidelines and ask if they sound reasonable, safe, and helpful. I was hoping for more videos that would be diabetes related, but they may not exist. Unclear on instructions for filling out the first Values worksheet. Keep private writing and reflection private, but give the option to share if they want to. You don’t want to embarrass anyone in the group by requiring them to share their response. Sentence completion exercise – add another diabetes “should” there. “I should check my blood glucose more often.” I was a little confused about the instructions for Bingo. Make instructions more clear and have more diabetes specific examples. At the end of the Mantra activity, you might say “Now that we have gone around and heard everyone’s mantras, would you change anything about yours?” They might have second thoughts and want to refine theirs.</p>

Table 8

*Evaluators’ Responses to Item Five*

Based on your experience and evaluation, how feasible do you think this intervention is to implement? LIKERT: (not at all, not very, neutral, somewhat, very feasible)

(continued)

Evaluator	Summary of Comments
MSW1.	Very feasible (5)
MSW2.	<p>Challenging. You've got a 10 week program. Not sure where you were thinking of implementing it, but most of the kids come once every 3 months to XX treatment center. They come from a diverse geographical area, their parents bring them, and have to struggle with traffic, paying for parking, time, balancing other family responsibilities. If it's every week for 10 weeks, you're going to recruit very few people. It's going to depend on the center where you're delivering this. For XX facility, it's going to be tough to get them to come to a 10 week program. Where is it going to be delivered? Is it going to be reasonable to get a group of kids who can do this over the course of 10 weeks, not just kids, parents too? Parents will have to get them there. Secondly, what are you going to do with the parents? Are they hanging out together? Giving coffee while they wait? Space where the parents can wait because it's only an hour. If you put these parents together, they'll start their own support group. They'll connect with each other very quickly.</p>

Table 9

*Evaluators' Responses to Item Six*

Based on your experience and evaluation, how user-friendly is this manual? LIKERT: (not at all, not very, neutral, somewhat, very feasible)	
Evaluator	Summary of Comments
MSW1.	Very User-Friendly (5)
MSW2.	Very User-Friendly (5). Great, terrific content, well-written, easy to understand, it's fun, it's thought-provoking, stimulating. Very user-friendly, it's great.



Table 10

*Evaluators' Responses to Item Seven*


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Based on your experience and evaluation, how likely would you be to use the manual in your treatment setting? LIKERT: (not at all, not very, neutral, somewhat, very feasible)

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Evaluator	Summary of Comments
MSW1.	Very likely (5). For a beginning clinician, I highly recommend it. It's a really good specific outline, and for a new therapist to have that guideline is really good. I personally wouldn't use it because I'm already doing all of these things. But for a new therapist working with kids with type 1, the sooner they can learn them, the better.
MSW2.	It's going to depend upon the setting. Particularly if it's a 10 week program. You'll find out a lot about this. When we tested out blood glucose training, an 8 week 16 hour program. It was like getting your Ph.D. in diabetes. At end participants said, "you couldn't pay me enough to do this over again." Over the course of years, we modified the program from 16 hours to a much shorter one simply because of customer preference because we couldn't get anyone to sign up for the program. Kids said they got enough homework at school already. You learn a lot in implementing it in real life treatment settings.

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Table 11

*Evaluators' Responses to Item Eight*


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If there is any additional information you would like to add, please state it here.

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Evaluator	Summary of Comments
MSW1.	It's very good. Very comprehensive. There's a common theme – kids wanting to

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(continued)

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Evaluator	Summary of Comments
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be autonomous and running it all themselves and knowing they don't have to. And how can parents support a teen without feeling like a nag. Always go back to the kid coming up with the plan, what do you want it to be like and feel like. Let kid design how parents can support them. Kids get overwhelmed and tune them out. Teach them to ask for support in a way that feels supportive to them.

MSW2. None.

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## Chapter 4: Discussion

This dissertation project sought to develop a resilience-oriented stress management intervention for youth with type 1 diabetes. As described previously, after conducting a thorough review of the literature, there were many coping and resilience based interventions for children; even one for children with type 1 diabetes. However, the researcher was unable to find a published intervention that has systematically integrated multiple evidence-informed strategies with the goal of reducing stress and promoting resilience in early adolescents with type 1 diabetes. This dissertation project aimed to address this gap in the literature and develop such an intervention.

To this end, the researcher integrated findings from the literature in terms of specific coping and resilience strategies, as well as feedback from pediatric diabetes professionals in the field. The first phase of the project involved a review of the literature to see what interventions currently exist to address this need for youth with type 1 diabetes. The second phase involved interviewing pediatric diabetes providers to gain insight into their experience in order to inform the development of the intervention. The third phase involved the creation of the intervention, in the form of the Facilitator Manual (FM), which integrated successful findings and interventions from the literature review and feedback from pediatric diabetes providers. The final phase of this dissertation project involved sending out the FM for evaluation by additional pediatric diabetes mental health professionals in order to inform future development of the intervention.

This chapter will provide a discussion of the results, including data from mental health providers specializing in pediatric diabetes who informed the development of the intervention, and who gave evaluative feedback on the FM (including the group curriculum).

## **Feedback from Pediatric Diabetes Providers**

**Psychologists who informed the development of the intervention.** Responses from pediatric diabetes providers who informed the development of the group intervention are largely supported by the literature. When describing a resilient youth with type 1 diabetes, providers discussed having a “positive, bounce back” or “go with the flow” attitude in dealing with setbacks. As part of one of the original definitions of resilience, Rutter (1985) referred to resilience as the ability to bounce back or cope successfully despite substantial adversity. Literature suggests that this is an attitude that can be taught, cultivated, and built with the right psychological and resilience resources. This speaks directly to the reason for the development of the intervention, and overall aim of the manual.

In response to the first question, providers discussed the importance of developing a routine. With respect to coping with diabetes-related stress, returning to a regular routine can be understood in the context of what Earvolino-Ramirez (2007) described an attribute of resilience known as rebounding/reintegration, or bouncing back in a positive direction. Providers mentioned seeking social support, which is a common finding across multiple studies involving healthy coping (Aldwin & Yancura, 2004; Allen et al., 2016; Compas et al., 1991). Finally, although resilience is no longer believed to be an immutable personality trait, providers mentioned innate, resilient personal characteristics. This is supported in research by Dunkel Schetter and Dolbier (2011). They described a concept called resilience resources, and it involves one or more predispositions or characteristics at the individual, social, or community level that help maintain functioning and coping in the face of chronic stress. Therefore, routines, social support, and personal resilient qualities are all important parts of coping with diabetes, and

should be recognized, included, discussed, and built upon in a resilience intervention for youth with type 1 diabetes.

In regards to facilitating adherence to youth's treatment regimens, providers discussed the importance of positive communication. Murphy et al. (2017) found that families with a chronically ill child had lower levels of warm and structured communication, so teaching these skills is very important to facilitating coping and resilience (Ambrosino et al., 2008; Hamall et al., 2014). Providers also indicated that having a stable, supportive home environment with resources can help adolescents thrive despite their illness. Researchers found that a greater variety of psychological resources in particular has been linked to resilience even in the context of chronic stress (Troy et al., 2010; Tugade & Fredrickson, 2004). Therefore, including elements about building social support, utilizing support, and healthy communication within the family context are all important parts of resilience for youth with diabetes, and crucial to include in an intervention aimed at increasing resilience.

Particular interventions that providers discussed using are all evidence-based practices that have ample support in the literature. As such, several specific strategies were included in Living My Best Life such as the CBT triangle, hot thoughts, ACT interventions focused on values, and mindfulness are all well-supported in the literature to help cope with stress and boost resilience. Providers also discussed cognitive reframing, which is a part of meaning making, and is most often used in coping with extreme stress (Aldwin & Yancura, 2004). Providers also indicated that teaching adolescents to reach out when they need help is very important, and support seeking is indicated as essential for coping and resilience (Allen et al., 2016). Problem solving skills, gratitude, and self-affirmations were all indicated by providers as helpful in boosting coping and resilience, and these are all indicated as effective in the literature

(Ambrosino et al., 2008; Araujo et al., 2014; Barrett et al., 2003; Batista et al., 2015; Compas et al., 1991; Stewart and Sun, 2007). Interventions to help adolescents build support and seek it out on a regular basis were included in the manual, as well as interventions grounded in CBT, ACT, mindfulness, and cognitive reframing.

**Evaluation by mental health professionals.** Pediatric diabetes mental health professionals who evaluated the intervention, specifically through reading the Facilitator Manual (FM), provided very helpful feedback for future development of the intervention. In response to the first question regarding whether youth with type 1 diabetes could benefit from this intervention in terms of increasing their treatment adherence, both providers (MSW1 and MSW2) agreed that youth could benefit in this way. MSW1 specifically discussed how stress can impact an individual, particularly that they will be “less able to do anything above and beyond what is absolutely necessary to survive in life.” This was corroborated in the literature by Gouin (2011), who found that those with chronic stress may be more likely to forgo health promoting behaviors. As MSW1 stated, managing diabetes is above and beyond “every day chores.” However, even though it is necessary to survive in life, this provider rightly pointed out that youth will give up checking their blood sugar when stressed as they do not feel an immediate result of that. This ties back to the notion discussed by PHD1 and PHD2 in the initial development of the intervention, as they discussed the importance of making diabetes more immediately relevant and tying health behaviors to what youth care about right now to increase treatment adherence. MSW2 discussed that group interventions are particularly helpful for anyone managing a chronic illness, and commented that “It’s quite unique with a focus on resilience skills in diabetes. As far as I know, there is not a lot out there for this particularly targeted at children and adolescents. Interventions like this are much needed.” This was

corroborated by Rosenberg et al. (2015), specifically “to [their] knowledge, there are no age-appropriate interventions to promote [resilience] among adolescents with serious illness” (p. 993). This supports the lack of such an intervention existing currently, and the need being addressed with this project.

In addressing whether youth could benefit from this intervention with regard to increasing resilience, both providers (MSW1 and MSW2) agreed. MSW1 asserted that this would be a way to get support, and the more support youth have, the better. Many studies have corroborated the importance of social support in increasing coping and resilience (Aldwin & Yancura, 2004; Allen et al., 2016; Batista et al., 2015; Compas et al., 1991; Dunkel Schetter & Dolbier, 2011; Earvolino-Ramirez, 2007; Fawzy et al., 1990; Hackworth et al., 2013; Hamall et al., 2014; Lichtenthal et al., 2005; Mullins et al., 2015; Shek et al., 2008; Stewart & Sun, 2007). MSW2 suggested that while many diabetes interventions focus on flexibility, connection, positivity, and empowerment, this intervention includes six other dimensions that are not talked about or taught, and they feel this will be “very key.” This ties back to the reason for this project, as no interventions have systemically incorporated multiple interventions targeting increasing resilience for youth with type 1 diabetes (Rosenberg et al., 2015).

MSW2 discussed multiple aspects of the intervention that are “encouraging, hopeful, and positive.” This is supported by research findings on the importance of positive affect and positivity, which was a unique aim of this intervention (Billings et al., 2000; Fawzy et al., 1990; Springer et al., 2014; Tugade et al., 2004). This provider also reported that they love the choice of songs, which was supported in the literature that music is central to the lives of youth (Miranda, 2013; North et al., 2000). This provider also discussed liking the mindfulness activity in the second session with blueberries, and mindfulness has been found to promote resilience

(Lichtenthal et al., 2005; Rosenberg et al., 2015). MSW2 reported liking beginning and ending sessions the same way as this establishes routine, which PHD1 and PHD2 both discussed the importance of in their feedback to inform the development of the intervention. MSW referenced liking the intervention activity focused on how to talk to parents and doctors about diabetes care, and this was supported in the literature (Alvord & Grados, 2005; Araujo et al., 2014).

While MSW1 found the intervention *Very feasible*, MSW2 expressed concerns about the length of the intervention (i.e. 10 weeks), where it will be implemented, and scheduling. PHD1 and PHD2 expressed similar concerns. These will be addressed in the next section regarding limitations.

Both providers found the Facilitator Manual (FM) *Very User-Friendly*, and MSW2 found it “great, with terrific content, well-written, easy to understand, fun, thought-provoking, stimulating, and great.” The FM was designed with both the facilitator and youth in mind, and language, activities, and adaptations were all meant to be easily understandable and straightforward to implement and follow. MSW1 and MSW2 agree that this goal was achieved. MSW1 found the intervention “very good and very comprehensive.” These were also goals to help facilitators by providing exact language and activities, with the option of adapting as they see fit based on their clinical judgment.

### **Limitations and Recommendations for Future Improvement of the Intervention**

There are multiple limitations that exist for this study. In the development phase of the manual, two psychologists specializing in pediatric diabetes were consulted to help inform the development of the intervention. Both of these psychologists were from networks known to the evaluator. Feedback from a nurse practitioner was unable to be obtained due to potential participants who were nurse practitioners not meeting full criteria for inclusion in the study (e.g.



not having worked with youth with type 1 diabetes for at least 5 years), lack of response from some nurse practitioners, and time constraints. Input from a nurse practitioner would enhance the scope of the intervention, as it could include further information regarding the medical management of type 1 diabetes. However, given that the group intervention is designed to be facilitated by a mental health provider (i.e. psychologist, LMFT, LPCC, or LCSW), it should not include a wealth of information about the medical management of type 1 diabetes so as to not exceed the scope of expertise of the facilitator. The manual would greatly benefit from further exploration using the questions in *Appendix D – Pediatric Diabetes Provider Questionnaire* with providers in various settings across the country. This would allow providers treating a range of patients to provide their feedback regarding what they would like to see in this intervention. Secondly, the opportunity to have a greater number and variety of pediatric diabetes mental health providers review the group curriculum and facilitator manual would be helpful to determine if the intervention would be a good fit for various treatment settings.

Another limitation to this study is that the intervention was not actually implemented. Therefore, this intervention, much like the Rosenberg (2015) intervention, will only have been evaluated for feasibility to implement. In order to adequately address the gap in literature regarding lack of tested interventions to boost resilience for youth with type 1 diabetes, the intervention should be piloted and the manual further improved with feedback from facilitators.

Finally, three out of the four providers (both psychologists and one LCSW) specializing in type 1 diabetes reported concerns about accessibility of this group, both in fitting it into teens' busy schedules and the group being located in a convenient place. Since the recommended frequency of medical checkups for diabetes is every three months, running the group in the same clinic in which they are receiving this care would be ideal. However, the group can also be

facilitated in community mental health centers and private practice settings. While it is true that teens have busy schedules and are often involved in sports or other after school clubs and activities, the group spans a total of ten weeks and does not require an ongoing commitment (e.g. like individual therapy would). If it is presented as an option or recommendation by the teens' doctor or nurse practitioner, this could assist with buy-in, and parents and teens might be more willing to make time for it.

Additionally, including curriculum for parents specifically, in the form of an orientation and psychoeducational session, would likely increase buy-in and assist parents with their own stress level. When youth enter adolescence and want to care for their own diabetes, this leads to increased stress at home for both youth and their parents. Adults who have youth with chronic health conditions are subjected to additional, acute stress that is persistent over time. Jaser (2010; 2011) found that parents of youth with diabetes specifically, and the youth themselves have a higher incidence of depression and anxiety. Additionally, youth's self-management and glycemic control were found to be impacted by maternal stress and depression (Maas-van Schaauk et al., 2013; Mackey et al., 2014; Rumburg et al., 2015). Therefore, in addition to a parent psychoeducational session at the beginning of the intervention, which would cover the psychological aspects of diabetes among youth, parents could be strongly encouraged to utilize support systems such as therapy or support groups. Research suggests that when parents spend time attending to their own mental health, their children's outcomes are better (Howell, Kern, & Lyubomirsky, 2007; Park & Iococca, 2014). Additionally, parents could be provided with resources related to parenting challenges and needs for support at the psychoeducational session.

After receiving feedback from pediatric diabetes providers, the following modifications for the next version of the Facilitator Manual were identified as important to strengthen the intervention:

- Include more discussions regarding specific stressors and common struggles for youth with type 1 diabetes.
- Limit group size to ten people maximum.
- Establish guidelines and rules for the group, and add that group members can suggest additional guidelines to be approved by the facilitator, as well as other group members.
- Include more diabetes-specific psychoeducation videos.
- Clarify instructions for the *Values* and *Behavioral Activation Bingo* activities.
- Modify sentence completion exercise to include a diabetes-related example.
- Modify the *Mantra* activity to include an opportunity to refine mantras after sharing with the group.
- Design curriculum for a psychoeducation and orientation session for parents, including resources and encouragement to seek support for themselves.

In addition to these recommendations, additional consultation with the dissertation committee yielded the following recommendations to include in future developments of the intervention. The first set of recommendations were for recruitment. The importance of securing buy-in from both providers and parents was emphasized, as they will be the ones presenting the intervention as a possibility to youth. To this end, it was suggested that the first part of the manual be given to providers to highlight the need and rationale for this population, and how youth might benefit. The intention is that this will help providers understand the aim and

importance of this intervention and increase the likelihood that they would recommend it to patients and their parents. Secondly, creating an overview of the program to give to parents could be helpful in gaining buy-in to the benefits of the intervention. Since parents will be the ones needing to clear time in their schedules, drive youth to group, wait for them to be done and drive them home, it will be important for them to buy-in to the benefits far outweighing the costs of completing the intervention. The last suggestion during recruitment is that a youth assent form be included. This will be an important addition to the intervention as it empowers youth to choose to be involved in the intervention, especially when much of their lives may feel out of their control.

Committee members provided recommendations to enhance specific aspects of the intervention, as well. It was suggested that since there is increased energy and excitement on the first day of something new, this should be capitalized on by incorporating a fun video or activity at the beginning of the first session and a particular emphasis on courage. The aim of this would be to help youth feel empowered, excited, and more comfortable in this new setting. It was also suggested to include discussion in the first session about whether youth are allowed to communicate outside of group. Additional research would need to be reviewed regarding the benefits versus costs of extra-group communication for this population. However, since the intervention is focused on decreasing isolation and increasing support to build resilience, it could be very beneficial for youth to be able to communicate outside of group. This would of course involve some risk, and there would need to be established ground rules in the first session to maintain the integrity of the group (e.g. what happens in the group should not be discussed in social situations with people who are not in the group). In the second session, prior to the blueberry mindfulness exercise, it was suggested that additional discussion be incorporated to

call attention to the dietary restrictions and experiences (particularly food with sugar). Eating may be a triggering activity for youth with type 1 diabetes, as they have to count carbohydrates and meticulously monitor their diet. Naming the process of acknowledging any thoughts and feelings they have about the activity, and giving them the choice to engage in the activity could enhance the impact. The mindful eating activity could be presented (in developmentally appropriate ways) as an exposure exercise or as an opportunity to engage in committed action in the service of their values. It is also an opportunity to develop skills related to eating mindfully, which is very important for youth with type 1 diabetes. Other foods were also suggested as options for this activity; particularly a tangerine slice or another small food that is lower in sugar. Another suggestion included the possibility of renaming the In-Between Group Activities to “Best Life Challenges” in order to further distinguish the activity from a “homework assignment.” This also affirms the overall message of the intervention and presents the activities in an empowering way for youth to try out. Calling it a challenge also highlights and normalizes the potential difficulty of incorporating something new into one’s routine and potentially reduces any feelings of shame associated with not completing an activity.

In order to increase the applicability and generalizability of the intervention, the following recommendations were suggested from committee members. First, to make the group more accessible to youth, adaptations to the intervention could be made so that it is suitable for youth with any chronic medical illness. If it is broadened in this way, the hope is that the intervention could be conducted at a location even more convenient for youth (e.g., at school). This could potentially impact a greater number of youth and target the barrier of time and convenience for parents. In addition, modifying the structure to reduce the need to make a ten-week commitment could be accomplished by combining the individual sessions into “modules”.

The content from the group session within each of the three resilience pillars could be combined such that the program would involve three meetings rather than ten. This was also suggested with the intention of increasing the feasibility and accessibility of the intervention for a greater number of youth.

Finally, committee members discussed adding an important aspect of any evidence-based intervention: how the intervention might be evaluated or assessed for effectiveness. One potential drawback of an adaptable intervention such as Living My Best Life is the inability to truly know what which elements are responsible for the effects. Suggestions about how the intervention could be evaluated might be included at the end of the manual. For instance, this could include a plan for the intervention to be piloted with a small number of clinicians/groups in order to evaluate its effectiveness. The group facilitators could be instructed to lead the intervention exactly as written, using the first suggestion for each of the intervention or experiential activities, and record and document the rationale for and type of any deviations from the intervention. Including information about how to evaluate the intervention could allow the intervention to truly satisfy the gap in the literature regarding the existence of an evidence-based resilience-oriented stress management intervention for youth with type 1 diabetes.

### **Conclusion and Implications of this Study**

Living My Best Life: A Resilience-Oriented Stress Management Intervention for Youth With Type 1 Diabetes was developed in order to address a gap and need in the literature identified to help boost resilience in youth with type 1 diabetes. They experience chronic stress as a result of diabetes management, and this impacts the whole family as parents are often solely managing diabetes until around the age of 12-15. In addition to beginning to manage diabetes themselves, youth at this age are also hitting puberty, entering middle and high school, forming

their identities, and learning how to live long term with a chronic illness. Because stress management is not something that is explicitly taught, it is important that youth learn how to manage stress associated with diabetes management. Ample research suggests that while coping with stress is important, resilience can be strengthened to help manage stress better in the future. This intervention was developed to help youth learn to manage stress through building resilience resources and utilizing their strengths. Two psychologists who specialize in pediatric diabetes provided their experience to inform the development of the intervention, and two mental health providers evaluated the manual to enhance its feasibility. All feedback was reviewed and incorporated into the manual or indicated for future development of the manual. It is the hope that the intervention can help youth build resilience to call upon in times of stress, with the goal of a healthier adaptation to stress and better physical and psychological health behaviors and outcomes. Further, with access to a group intervention such as Living My Best Life, the researcher hopes that mental health providers feel empowered to utilize and implement an intervention informed by top experts in the field and evidence-based practices to enhance the wellbeing of their patients. The primary contribution of this work is adding to intervention options for youth with type 1 diabetes so that they will have access to evidence-informed treatment and have the best opportunities to thrive and live their best lives.

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APPENDIX A

Invitation to Participate in Pediatric Diabetes Study

**Email Subject Line: Invitation to Participate in Pediatric Diabetes Study**

Dear (insert name of identified pediatric diabetes provider),

My name is Tamara Rumburg, and I am designing a resilience-oriented stress-management intervention for youth with type 1 diabetes for my dissertation. I am conducting my dissertation under the supervision of Dr. Shelly Harrell at Pepperdine University. The primary aim of my study is to develop a manual for an intervention to boost resilience in youth with type 1 diabetes to help manage the chronic stress they often experience. The first stage of my project will consist of an extensive literature review to determine what interventions currently exist to this aim, and how my intervention could satisfy any gaps in research or treatment. The next portion will consist of incorporating feedback from pediatric diabetes providers such as yourself to enhance the scope and applicability of the intervention for youth with type 1 diabetes.

I am contacting you to request your voluntary and anonymous participation in providing your insight, expertise, and experience in working with youth with type 1 diabetes, so that I may incorporate aspects of this into the development of my intervention. The questionnaire will take approximately fifteen minutes to complete. The data you provide will be used to facilitate the creation of the intervention, titled, "Adaptation of a Resilience-Oriented Stress-Management Intervention for Youth with Type 1 Diabetes."

If you are interested in participating, please complete the attached consent form, which guarantees your anonymity and outlines your voluntary participation. Upon completion of the consent form, an email will be sent with a link to the questionnaire, which you can complete online.

I would greatly value and appreciate your contribution to the development of this intervention in regards to its content and usefulness for pediatric diabetes providers to implement.

If you have any questions regarding the study procedures, please feel free to contact me via email at ###@pepperdine.edu, or post to Shelly Harrell, Ph.D., Dissertation Chairperson at Pepperdine University, Graduate School of Education and Psychology, 6100 Center Drive, Los Angeles, CA 90045, (310) 568-5600.

Thank you for your time and consideration. I look forward to your input.

Sincerely,

Tamara Rumburg, M.Ed.

Doctoral Candidate, Pepperdine University

APPENDIX B

Pediatric Diabetes Study Informed Consent

## PEPPERDINE UNIVERSITY

### INFORMED CONSENT FOR PARTICIPATION IN RESEARCH ACTIVITIES

#### ADAPTATION OF A RESILIENCE-ORIENTED STRESS MANAGEMENT INTERVENTION FOR YOUTH WITH TYPE 1 DIABETES

You are invited to participate in a research study conducted by Tamara Rumburg, M.Ed., doctoral student in clinical psychology at Pepperdine University, Graduate School of Education and Psychology, working under the supervision of Shelly Harrell, Ph.D. You have been invited to participate because you are a licensed clinician providing services to youth aged 12-15 with type 1 diabetes. Your participation is voluntary. You should read the information below, and ask questions about anything that you do not understand, before deciding whether to participate. Please take as much time as you need to read the consent form. You may also decide to discuss participation with your family or friends. If you decide to participate, you will be asked to sign this form. You will also be given a copy of this form for your records.

#### **PURPOSE OF THE STUDY**

The purpose of the study is aimed at enhancing and expanding the usefulness and applicability of an intervention for pediatric diabetes providers' use with youth who have type 1 diabetes.

#### **STUDY PROCEDURES**

If you volunteer to participate in this study, you will be asked to complete an interview with the investigator providing your feedback for the development of this intervention. The interview should take approximately thirty minutes, and can be conducted in person or over the phone.

#### **POTENTIAL RISKS AND DISCOMFORTS**

There are no anticipated risks associated with participation in this study. However, if a breach in confidentiality occurs, you will be notified immediately.

#### **POTENTIAL BENEFITS TO PARTICIPANTS AND/OR TO SOCIETY**

While there are no direct benefits to the study participants, the anticipated benefit to society includes potentially addressing a need for youth with type 1 diabetes.

#### **CONFIDENTIALITY**

I will keep your records for this study confidential as far as permitted by law. However, if I am required to do so by law, I may be required to disclose information collected about you. Examples of the types of issues that would require me to break confidentiality are if you tell me about instances of child abuse and elder abuse. Pepperdine's University's Human Subjects Protection Program (HSPP) may also access the data collected. The HSPP occasionally reviews and monitors research studies to protect the rights and welfare of research subjects.

The data will be stored on a password protected computer and in a locked file cabinet in the principal investigators' place of residence. The data will be stored for five years, at which time the data will be destroyed. The data collected will be de-identified and coded, and will be identified only by a participant number assigned to you, and not by your name. Any comments submitted may be published or presented to a professional audience but no personal identifying information will be released. Additionally, consent forms will be stored in a file separate from all other study materials.

### **PARTICIPATION AND WITHDRAWAL**

Your participation is voluntary. Your refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled. You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study.

### **ALTERNATIVES TO FULL PARTICIPATION**

The alternative to participation in the study is not participating or completing only the items which you feel comfortable.

### **EMERGENCY CARE AND COMPENSATION FOR INJURY**

If you are injured as a direct result of research procedures you will receive medical treatment; however, you or your insurance will be responsible for the cost. Pepperdine University does not provide any monetary compensation for injury

### **INVESTIGATOR'S CONTACT INFORMATION**

I understand that the investigator is willing to answer any inquiries I may have concerning the research herein described. If I have any other questions or concerns about this research, I understand that I may contact Tamara Rumburg, M.Ed. or Shelly Harrell, Ph.D., Dissertation Chairperson at Pepperdine University, Graduate School of Education and Psychology, 6100 Center Drive, Los Angeles, CA 90045.

### **RIGHTS OF RESEARCH PARTICIPANT – IRB CONTACT INFORMATION**

If you have questions, concerns or complaints about your rights as a research participant or research in general please contact Dr. Judy Ho, Chairperson of the Graduate & Professional Schools Institutional Review Board at Pepperdine University 6100 Center Drive Suite 500 Los Angeles, CA 90045, 310-568-5753 or [gpsirb@pepperdine.edu](mailto:gpsirb@pepperdine.edu).

**SIGNATURE OF RESEARCH PARTICIPANT**

I have read the information provided above. I have been given a chance to ask questions. My questions have been answered to my satisfaction and I agree to participate in this study. I have been given a copy of this form.

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Name of Participant

---

Signature of Participant

---

Date

<b>SIGNATURE OF INVESTIGATOR</b>
----------------------------------

I have explained the research to the participants and answered all of his/her questions. In my judgment the participants are knowingly, willingly and intelligently agreeing to participate in this study. They have the legal capacity to give informed consent to participate in this research study and all of the various components. They also have been informed participation is voluntarily and that they may discontinue their participation in the study at any time, for any reason.

---

Name of Person Obtaining Consent

---

Signature of Person Obtaining Consent

---

Date

APPENDIX C

Pediatric Diabetes Provider Screening Questions



1. What is your current job title?
2. Are you currently licensed? If yes, what mental health license do you have? (e.g. Psychologist, Nurse Practitioner, LCSW, MFT?)
3. How many years of experience do you have treating youth aged 12-15 with type 1 diabetes?

APPENDIX D

Pediatric Diabetes Provider Questionnaire

1. Based on your experience, what have you observed to be effective coping strategies among youth with type 1 diabetes?
2. What have you observed to be helpful in facilitating adherence to their treatment regimen?
3. What do you think is the difference between youth that cope and thrive despite their illness, and those that do not?
4. What characteristics come to mind to describe a resilient youth with type 1 diabetes?
5. Are there any particular interventions that you have found to be effective to encourage youth with type 1 diabetes to be more resilient?
6. Have you used or observed any psychosocial interventions with youth with type 1 diabetes to boost coping or resilience? If yes, what types of interventions have you used/observed?
7. Do you think that youth could benefit from a group intervention to increase resilience in the face of the chronic stress associated with a diagnosis of type 1 diabetes?
8. What are the main improvements you would like to see in youth who participated in a psychosocial group with respect to healthy coping and resilience related to their type 1 diabetes?
9. Based on your experience, what recommendations would you make for developing a stress management and resilience group for youth with type 1 diabetes?
10. If there is any additional information you would like to add, please state it here.

APPENDIX E

Invitation to Evaluate Pediatric Diabetes Resilience Intervention

**Email Subject Line: Pediatric Diabetes Resilience Intervention Manual Evaluation**

Dear (insert name of identified pediatric diabetes provider),

My name is Tamara Rumburg, and I am designing a resilience-oriented stress-management intervention for youth with type 1 diabetes for my dissertation. I am conducting my dissertation under the supervision of Dr. Shelly Harrell at Pepperdine University. The primary aim of my study is to develop a manual for an intervention to boost resilience in youth with type 1 diabetes to help manage the chronic stress they often experience. The first stage of my project has consisted of an extensive literature review to determine what interventions currently exist to this aim, and how my intervention could satisfy any gaps in research or treatment. The next portion involved incorporating feedback from pediatric diabetes providers to enhance the scope and applicability of the intervention for youth with type 1 diabetes. The final portion of my dissertation will involve obtaining feedback from pediatric diabetes providers such as yourself on the intervention in order to enhance its feasibility.

I am contacting you to request your voluntary and anonymous participation in providing your insight, expertise, and experience in the evaluation of my intervention. The data you provide will be used to enhance the intervention, titled, "Adaptation of a Resilience-Oriented Stress-Management Intervention for Youth with Type 1 Diabetes."

I would greatly value and appreciate your contribution to the accuracy, relevance, and usefulness of the manual for pediatric diabetes providers to implement. The information you provide will be compiled for inclusion into further development of the manual.

I have attached a consent form outlining your anonymity and voluntary participation for you to sign, should you choose to participate in the evaluation of the manual. Additionally, please find attached a brief, fifteen minute questionnaire, and a pdf version of the manual which you will base your evaluation on. Upon completion of your evaluation, please return your signed consent form and evaluation form via email to ###@pepperdine.edu.

If you have any questions regarding the study procedures, please feel free to contact me via email at ###@pepperdine.edu, or post to Shelly Harrell, Ph.D., Dissertation Chairperson at Pepperdine University, Graduate School of Education and Psychology, 6100 Center Drive, Los Angeles, CA 90045, (310) 568-5600.

Thank you for your time and consideration. I look forward to your input.

Sincerely,

Tamara Rumburg, M.Ed.

Doctoral Candidate, Pepperdine University

APPENDIX F

Pediatric Diabetes Manual Evaluation Informed Consent

## PEPPERDINE UNIVERSITY

### INFORMED CONSENT FOR PARTICIPATION IN RESEARCH ACTIVITIES

#### ADAPTATION OF A RESILIENCE-ORIENTED STRESS MANAGEMENT INTERVENTION FOR YOUTH WITH TYPE 1 DIABETES

You are invited to participate in a research study conducted by Tamara Rumburg, M.Ed., doctoral student in clinical psychology at Pepperdine University, Graduate School of Education and Psychology, working under the supervision of Shelly Harrell, Ph.D. You have been invited to participate because you are a licensed clinician providing services to youth aged 12-15 with type 1 diabetes. Your participation is voluntary. You should read the information below, and ask questions about anything that you do not understand, before deciding whether to participate. Please take as much time as you need to read the consent form. You may also decide to discuss participation with your family or friends. If you decide to participate, you will be asked to sign this form. You will also be given a copy of this form for your records.

#### **PURPOSE OF THE STUDY**

The purpose of the study is aimed at enhancing and expanding the usefulness and applicability of an intervention for pediatric diabetes providers' use with youth who have type 1 diabetes.

#### **STUDY PROCEDURES**

If you volunteer to participate in this study, you will be asked to evaluate a manual of a resilience-oriented stress-management intervention. The evaluation will involve a review of the manual and completion of an evaluation interview with the investigator. In the interview, you will provide your feedback for further development of this intervention. The interview should take approximately thirty minutes, and can be conducted in person or over the phone.

#### **POTENTIAL RISKS AND DISCOMFORTS**

There are minimal anticipated risks associated with participation in this study, including mild levels of fatigue in response to reviewing the manual and completing the evaluation interview. You are advised to review the manual and complete the evaluation interview at a time that is most convenient for you, taking breaks as necessary. If a breach in confidentiality occurs, you will be notified immediately.

#### **POTENTIAL BENEFITS TO PARTICIPANTS AND/OR TO SOCIETY**

While there are no direct benefits to the study participants, the anticipated benefit to society includes potentially addressing a need for youth with type 1 diabetes.

#### **CONFIDENTIALITY**

I will keep your records for this study confidential as far as permitted by law. However, if I am required to do so by law, I may be required to disclose information collected about you. Examples of the types of issues that would require me to break confidentiality are if you tell me about instances of child abuse and elder abuse. Pepperdine's University's Human Subjects Protection Program (HSPP) may also access the data collected. The HSPP occasionally reviews and monitors research studies to protect the rights and welfare of research subjects.

The data will be stored on a password protected computer and in a locked file cabinet in the principal investigators' place of residence. The data will be stored for five years, at which time the data will be destroyed. The data collected will be de-identified and coded, and will be identified only by a participant number assigned to you, and not by your name. Any comments submitted may be published or presented to a professional audience but no personal identifying information will be released. Additionally, consent forms will be stored in a file separate from all other study materials.

### **PARTICIPATION AND WITHDRAWAL**

Your participation is voluntary. Your refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled. You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study.

### **ALTERNATIVES TO FULL PARTICIPATION**

The alternative to participation in the study is not participating or completing only the items which you feel comfortable.

### **EMERGENCY CARE AND COMPENSATION FOR INJURY**

If you are injured as a direct result of research procedures you will receive medical treatment; however, you or your insurance will be responsible for the cost. Pepperdine University does not provide any monetary compensation for injury

### **INVESTIGATOR'S CONTACT INFORMATION**

I understand that the investigator is willing to answer any inquiries I may have concerning the research herein described. If I have any other questions or concerns about this research, I understand that I may contact Tamara Rumburg, M.Ed. or Shelly Harrell, Ph.D., Dissertation Chairperson at Pepperdine University, Graduate School of Education and Psychology, 6100 Center Drive, Los Angeles, CA 90045.

### **RIGHTS OF RESEARCH PARTICIPANT – IRB CONTACT INFORMATION**

If you have questions, concerns or complaints about your rights as a research participant or research in general please contact Dr. Judy Ho, Chairperson of the Graduate & Professional Schools Institutional Review Board at Pepperdine University 6100 Center Drive Suite 500



Los Angeles, CA 90045, 310-568-5753 or [gpsirb@pepperdine.edu](mailto:gpsirb@pepperdine.edu).

**SIGNATURE OF RESEARCH PARTICIPANT**

I have read the information provided above. I have been given a chance to ask questions. My questions have been answered to my satisfaction and I agree to participate in this study. I have been given a copy of this form.

\_\_\_\_\_  
Name of Participant

\_\_\_\_\_  
Signature of Participant

\_\_\_\_\_  
Date

**SIGNATURE OF INVESTIGATOR**

I have explained the research to the participants and answered all of his/her questions. In my judgment the participants are knowingly, willingly and intelligently agreeing to participate in this study. They have the legal capacity to give informed consent to participate in this research study and all of the various components. They also have been informed participation is voluntarily and that they may discontinue their participation in the study at any time, for any reason.

\_\_\_\_\_  
Name of Person Obtaining Consent

\_\_\_\_\_  
Signature of Person Obtaining Consent

\_\_\_\_\_  
Date

APPENDIX G

Pediatric Diabetes Resilience Intervention Evaluation Questionnaire

1. Do you think youth with type 1 diabetes could benefit from this intervention in terms of increasing treatment adherence? Please state why based on your experience and evaluation of this manual.
2. Do you think that youth with type 1 diabetes could benefit from this intervention to increase resilience in the face of the chronic stress? Please state why based on your experience and evaluation of this manual.
3. What did you find most effective about this intervention?
4. Based on your experience and evaluation, what recommendations or suggestions would you make for modification and/or inclusion to this stress reduction and resilience group for youth with type 1 diabetes?
5. Based on your experience and evaluation, how feasible do you think this intervention is to implement?  

LIKERT: (not at all, not very, neutral, somewhat, very feasible)
6. Based on your experience and evaluation, how user-friendly is this manual?  

LIKERT: (not at all, not very, neutral, somewhat, very user-friendly)
7. Based on your experience and evaluation, how likely would you be to use the manual in your treatment setting?  

LIKERT: (not at all, very unlikely, neutral, somewhat likely, very likely)
8. If there is any additional information you would like to add, please state it here.

APPENDIX H

GPS IRB Approval Notice



Pepperdine University  
24255 Pacific Coast Highway  
Malibu, CA 90263  
TEL: 310-506-4000

## NOTICE OF APPROVAL FOR HUMAN RESEARCH

Date: September 20, 2018

Protocol Investigator Name: Tamara Rumburg

Protocol #: 18-04-779

Project Title: Adaptation of a Resilience-Oriented Stress Management Intervention for Youth with Type 1 Diabetes

School: Graduate School of Education and Psychology

Dear Tamara Rumburg:

Thank you for submitting your application for expedited review to Pepperdine University's Institutional Review Board (IRB). We appreciate the work you have done on your proposal. The IRB has reviewed your submitted IRB application and all ancillary materials. As the nature of the research met the requirements for expedited review under provision Title 45 CFR 46.110 of the federal Protection of Human Subjects Act, the IRB conducted a formal, but expedited, review of your application materials.

Based upon review, your IRB application has been approved. The IRB approval begins today September 20, 2018, and expires on September 19, 2019.

Your final consent form has been stamped by the IRB to indicate the expiration date of study approval. You can only use copies of the consent that have been stamped with the IRB expiration date to obtain consent from your participants.

Your research must be conducted according to the proposal that was submitted to the IRB. If changes to the approved protocol occur, a revised protocol must be reviewed and approved by the IRB before implementation. For any proposed changes in your research protocol, please submit an amendment to the IRB. Please be aware that changes to your protocol may prevent the research from qualifying for expedited review and will require a submission of a new IRB application or other materials to the IRB. If contact with subjects will extend beyond September 19, 2019, a continuing review must be submitted at least one month prior to the expiration date of study approval to avoid a lapse in approval.

A goal of the IRB is to prevent negative occurrences during any research study. However, despite the best intent, unforeseen circumstances or events may arise during the research. If an unexpected situation or adverse event happens during your investigation, please notify the IRB as soon as possible. We will ask for a complete written explanation of the event and your written response. Other actions also may be required depending on the nature of the event. Details regarding the timeframe in which adverse events must be reported to the IRB and documenting the adverse event can be found in the *Pepperdine University Protection of Human Participants in Research: Policies and Procedures Manual* at [community.pepperdine.edu/irb](http://community.pepperdine.edu/irb).

Please refer to the protocol number denoted above in all communication or correspondence related to your application and this approval. Should you have additional questions or require clarification of the contents of this letter, please contact the IRB Office. On behalf of the IRB, I wish you success in this scholarly pursuit.



Pepperdine University  
24255 Pacific Coast Highway  
Malibu, CA 90263  
TEL: 310-506-4000

Sincerely,

Judy Ho, Ph.D., IRB Chair

cc: Mrs. Katy Carr, Assistant Provost for Research

APPENDIX I

Facilitator Manual (FM) for Living My Best Life

“Living My Best Life”

A Resilience-Oriented Stress  
Management Intervention for  
Youth with Type 1 Diabetes

*Facilitator Manual*

Tamara Rumburg, M.Ed.



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## Introduction

### Diabetes in Youth

There are currently 1.25 million Americans living with type 1 diabetes, and 40,000 people are newly diagnosed each year in the United States alone (JDRF, 2019). Type 1 diabetes is a chronic health condition most often diagnosed in childhood that is associated with extreme levels of chronic stress throughout the lifespan. Children with type 1 diabetes are subjected to ongoing stress at an early age, and stressors related to having a chronic health condition will be a part of their lives as they mature into adulthood. The prevalence of depression in this population is 2-3 times greater than nondiabetic youth (Grey, Whittemore, & Tamborlane, 2002). Additionally, it is a disease in which early health behaviors have a dramatic impact on side effects later in life (e.g. blindness, amputation, and kidney failure), quality of life, and life expectancy as a whole. Type 1 diabetes includes a complex treatment regimen involving multiple blood glucose checks per day, self-administration of insulin, counting carbohydrates, constantly monitoring one's diet, exercising regularly, always having juice and snacks available, and frequent visits to the doctor, to name a few (American Diabetes Association, 2015). Family factors are important considerations that can negatively impact children's self-management and glycemic control (Maas-van Schaaijk, Roeleveld-Versteegh, & van Baar, 2013; Mackey, E.R. et al., 2014), as well as be a source of distress (Whittemore et al., 2012). In a review of the literature, researchers found that families with a chronically ill child had lower levels of warm and structured communication (e.g. positive statements, positive responses, positive reinforcement, acceptance, behavioral control, cohesion) and higher levels of hostile/intrusive (e.g. negative statements, negative responses, blocking, criticism, intrusiveness, psychological control) and withdrawn communication (e.g. lack of contributions, disengagement) compared to healthy controls (Murphy et al., 2017).

### Need and Rationale

Resilience has been associated with increased health behaviors such as compliance with diet and medication, which is critical for this population (Singer, Ryff, & National Research Council, 2001). It would follow then that reducing stress and promoting resilience in children and families with type 1 diabetes is particularly important, considering not only their increased levels of stress, but consequential susceptibility to mental health problems and detrimental poorly-controlled diabetes health outcomes. While adults often already have particular stress-management patterns ingrained, children are still learning, and stress manifests itself in different ways for children. If they can be taught how to manage stress and be more resilient, the hope is that when children do encounter adversity, they will already have a set of skills and ways of coping that is healthy that draw upon developmentally-appropriate resilience qualities. Additionally, youth with type 1 diabetes often feel isolated, and like they are the "only one." A group intervention would give them the space to connect with other youth who have type 1 diabetes and build their social support. The aim of the proposed intervention is to address a gap in the literature in regards to resilience-oriented stress management interventions for youth with type 1 diabetes. While there were many coping and resilience based interventions for youth, even one for youth with type 1 diabetes, there has not been one that has systematically integrated multiple effective resilience-based coping strategies with the goal of reducing stress and

promoting resilience in youth with type 1 diabetes. The overarching goal of the intervention is to help youth with type 1 diabetes learn to manage the chronic stress they experience more effectively, through the use of resilience. If youth can build resilience and call upon this in times of stress, the hope is a healthier adaptation to stress and better health outcomes, both physically and psychologically.

### **Overview of the Program**

Living My Best Life is a resilience-oriented stress management intervention for youth with type 1 diabetes that was adapted from the “Resilience and Reconnection” group intervention designed by Dr. Shelly Harrell and her research team. The original intervention is a resilience-oriented stress management approach that was developed in a diverse sample of three groups of psychology graduate students and at a community mental health center over a three-year period. It will next be tested more systematically at outpatient clinics among adults who have mental illness. The group is a positive psychology approach to stress management that is designed to be culturally-adaptive and enhance positive outcomes such as resilience and well-being (Harrell, 2017). The group is designed to strengthen resilience through the enhancement of personal expression of various qualities of resilience and developing coping skills targeted at facilitating a positive adaptation to stress. The intervention is focused on three essential pillars of resilience, including Contemplative Processes (Awareness; “What am I experiencing?”), Communal Processes (Allies; What/who will I connect with?), and Empowerment Processes (Action; What choices will I make?; Harrell et al., 2017). This encourages participants in the group to contemplate their experience through being more present and reflective, connecting to others and strengthening their social networks, and empowering themselves through their ability to transform and choose how they behave in response to stress. The intervention teaches participants how to cope with stress through cultivation of their strengths, and using these to consciously and deliberately live more value-based lives. Twenty-five resilience themes have been identified to promote resilience in the face of stress: Acceptance, Affirmation, Authenticity, Compassion, Connection/Relatedness, Creativity, Empowerment, Engagement/Courage, Flexibility, Flow, Forgiveness, Gratitude, Groundedness, Hope/Faith/Optimism, Liberation, Meaning/Purpose, Patience/Perseverance, Positivity, Presence/Attention/Focus, Receptivity/Openness, Reflection/Contemplation, Release/Surrender, Sharing/Giving, Transcendence, and Wholeness/Integration. Each group session of the intervention focuses on a cluster of these themes, and content is adapted for each particular group’s culture and context.

While this group has been designed for clinical adult populations, substantial gains could be made from the adaptation of this group intervention for children with type 1 diabetes. The Center on the Developing Child (2015) identified ways to cultivate resilience in children. The first includes scaffolding learning in order to build a sense of self-efficacy and control. Children must first be aware of their experience in order to control their response and feel capable to do so. Interventions to strengthen these skills would be included in the “Awareness” resiliency pillar of the intervention. Then, promoting supportive adult-child relationships will help children tap into the “Allies” pillar of the intervention, and give them healthy ways of interacting with and relating to others. These interventions can focus on learning to ask for help from parents and friends when in distress, joining school clubs or sports teams to build a peer network, and building strengths like compassion for others. Finally, the “Action” pillar interventions will

include strengthening adaptive skills, self-regulatory capacities, and using a faith and culture-based approach to encourage hope and stability (Rumburg & Alnatour, 2017).

This adaptation to the R&R intervention for children would involve parents in some of the at-home activities. The intervention would work to incorporate the aforementioned resilience attributes, correlates, and resources in a developmentally appropriate format. There will be a specific emphasis on positive psychology interventions, as positive affect is essential to resilience. Positive emotion can be used to cope with stress and promote resilience in children suffering from chronic stress linked to their medical illnesses. Research has shown that positive emotions contribute to the psychological and physical well-being via more effective coping mechanisms (Tugade, Fredrickson, & Barrett, 2004). So much of the focus for medically ill children is on surviving, but the focus of the intervention proposed here would go beyond survival and recovery to thriving (Ickovics & Park, 1998). The emphasis would be on improving and enhancing quality of life and well-being despite their current circumstances. One of the unique contributions of the proposed intervention is attention to the experience of positive emotion, and how positive experiences can be used to facilitate adaptive coping with adversity.

## **Organization of Facilitator Manual**

In the next sections of this manual, you will find information about recruiting group members, including how to identify appropriate group members and screen members for fit. You will also find a section for tips on how to use the manual and adapt it based on different groups of individuals. The next part of the manual includes the curriculum, including an outline of each of the sections with a list of materials you will need for each one, and any worksheets to be used for each group. At the end of the curriculum, you will find the materials needed for each group, including a Sample Session Card and a Feelings Chart. The manual ends with information to contact the creators and references.

## **Recruitment**

### **Identification**

The target population would be youth ages 12-15 with a diagnosis of type 1 diabetes. This is a group that is designed to be conducted in a healthcare setting, possibly in the same clinic in which youth present for ongoing medical care for diabetes management. Members could be referred from their pediatric diabetes physicians, particularly if they are having difficulty lowering their Hemoglobin A1c (an average measure of blood sugar over the past 3 months), maintaining treatment adherence (e.g. checking blood sugar 4-5 times per day), if they do not have adequate social support, if diabetes management is negatively impacting major areas of their lives (e.g. grades dropping, isolation from peers), or if they are simply suffering. Group size should be no larger than 10 participants so that group members are able to get 1:1 attention from the facilitator and maximize their learning. In the event that the group is larger than 10, a second facilitator is suggested, and smaller “break-out” groups based on age or gender is suggested, particularly for parts of the session that involve activities and practicing skills.

## Screening

This group intervention would not be appropriate for youth with severe impulse control issues, youth in an active psychotic episode, youth with uncontrolled substance use, or youth with serious mental illness. Each session requires one hour of meaningful, focused participation and engagement. Many sessions also have homework assignments, which would be very difficult for individuals struggling with the aforementioned conditions. Finally, the group will work best if it is cohesive, so it will be important for individuals to attend every group.

### Using this Manual/Tips for Facilitators

“Living My Best Life” is designed to be flexible and adaptive to fit the group it is being used for. In most of the sessions, there are several different activity options that all engage youth in cultivating resilience as it relates to that week’s strength. All facilitator instructions in quotations are meant as suggestions to modify in ways that flow naturally and fit the group being served. Additionally, facilitators can decide whether it is clinically indicated to split up the group for “break-out” activities by gender, age, or other demographic and sociocultural factors. Pay special attention to the diversity factors of the group. If the group is predominantly one ethnicity, make sure to adapt group activities or include attention to cultural differences. If a group is lower socioeconomic status, make sure to adjust content so that it is realistic. Have conversations about what to do with homework assignments if there are barriers like single-parent households. If a group is particularly religious, think about how to include religion and spirituality. Many individuals use their faith to help cope with stress, so it will be very important to have discussions about 1) what does your faith say about this? Particularly about struggle, handling stress, and medication? And 2) how can you incorporate your religious or spiritual beliefs into your diabetes care? Another important adaptation to consider is if parents also have diabetes or other major medical or mental health issues. This is very common. It may be helpful to have a conversation about how to manage barriers at home that are outside your control (e.g. living in an unsafe neighborhood, limited financial means to pay for diabetes care, parent with an illness). Particularly if a group is younger (i.e. more 12 or 13-year-olds), language and activities should be adapted/simplified. Youth are also in the process of puberty at this age, so questions about sexuality and sex are expected and developmentally appropriate. It may be fitting to have a mini-process group discussing how diabetes impacts puberty or vice versa. It may also be helpful to separate groups by gender for this discussion. If the group is more newly diagnosed, it is possible there will be more medical questions and a greater need for psychoeducation about diabetes management. However, resilience is even more important to cultivate at this stage, as youth are starting the process of accepting a chronic medical illness that will require lifetime management. Fear of the unknown, the future, and potential consequences for poor diabetes management are all very relevant at this stage, and it will be important to have process discussions related to this. The goal is for youth to learn skills to build their resilience, connect with other youth who have type 1 diabetes to build their support network/call upon in times of stress, and learn more about their bodies and their illness so they know when to take care of themselves and when to ask for help. All of this is to maximize their chance to thrive and live their best lives.

# CURRICULUM

## Session 1

### Orientation & COURAGE

- 1) Orientation to group, Confidentiality, Guidelines
  - a. **Facilitator:** “In this group, we will be focusing on stress as it relates to diabetes management, and how to build resilience so that stress is easier to manage. The content we will be discussing and activities we will be doing together over the next ten weeks is based on years of research on stress management, resilience, and feedback from pediatric diabetes providers. This program is designed to offer some information that we think may be helpful for you, and to give you the space to discuss your experiences with each other so you can build upon your strengths together. Today, we’ll be talking about what the group will look like, confidentiality, guidelines, and our first resilience strength: Courage.”
  - b. **Facilitator:** “First, let’s go over what I mean by confidentiality.”
    - i. *Go over confidentiality rules*
      1. What’s said here, stays here.
      2. Exception: “Sometimes people share information about a person who is being hurt or who is in danger. I am what is known as a “mandated reporter,” a person who legally must let authorities know that someone who cannot protect themselves is possibly being hurt. That means if you discuss a child, elder adult, or dependent adult who is currently being abused, I will have to break confidentiality and discuss this outside of group so that everyone stays safe. This also includes if you talk about wanting to hurt yourself or someone else.”
    - ii. **Facilitator:** “Questions about that?”
      1. *Check to make sure everyone understands, including whether they know what you mean by “abuse” and “dependent adult”*
      2. *Be prepared if some participants make a joke out of this. It could be that they are uncomfortable, and use humor to diffuse the tension. It could be that this is something they can relate to.*
  - c. **Facilitator:** “Now let’s spend some time talking about guidelines that we want to establish for our group so that people feel safe to talk and so that everyone can benefit from participating. I have some guidelines that I’d like to share with you, and then I want to hear about any guidelines you would like to add. This is your group, so we can add whatever guidelines the group would like to make this feel safer and more helpful.” *Pass around handout about guidelines and ask for volunteers to read them one by one.*
    - i. Be respectful of one another: no interrupting, cross-talking, making fun of others.
    - ii. Raise your hand if you have a question or something to share with the group.
    - iii. Refrain from using profanity, and glorifying unhealthy coping (e.g. drug use, self-harm).
    - iv. **Facilitator:** “Does anyone have questions about those? What other guidelines would you like to add?” *Spend a few minutes allowing group*



*members to share ideas for other guidelines, and check with group for confirmation. Add suggested guidelines on group handout sheet (if appropriate). Make copies of this to pass out next time, or post it in group room if possible.*

2) Group structure and song choice

**Facilitator:** “Let’s review what will happen in our group each week.

Today is the first of ten sessions, and we will meet once a week at this same time. Please try to arrive fifteen minutes early so that we can begin on time and everyone has a chance to settle in. Each group will be one hour, and each group session will focus on strengths that help people be resilient. Does everyone know what I mean when I say resilient? *Allow for 1-2 group members to respond, and then let them know you will discuss resilience in more detail later in the session. Main takeaway: being “resilient” is being able to bounce back from stress.*

The first three groups after today will all be about Awareness, so we can all learn to answer the question “What am I experiencing?” Can someone tell me what Awareness means to you? *Allow one person to answer.*

The next three groups will be about Allies. What do you think I mean by “Allies?” Who or what are the allies in your life that you feel connected to? *Allow one person to answer.*

The last three groups will be about Action, and what choices will you make or what actions will you take. These groups are all about how you can apply what you learn to your life to be more resilient. Questions about that?

We will start each group by passing around the “Session Card” for that week. *Pass out Session card example.* At the top, you’ll see the name of the strength for that session, and you can fill in the date and your current mood. For the next part, I’ll ask you to think about what has been stressful for you in the different areas of your life and how the stress affected you. Give your stress level a number between 0 and 10 with “0” meaning no stress at all and a “10” meaning really intense stress that felt like it was too much to handle. You’ll write the number down on your Session Card. Next, I’ll ask you to think about how resilient you have felt, your ability to keep feeling good despite stress. Think about how you have used your strengths and resilience to manage any stress you have been feeling. Give your resilience a number between 0 and 10 with “0” meaning no resilience, you felt your worst and nothing seemed to help, and a “10” meaning highly resilient, you used your resilience skills, or skills that helped you bounce back, to manage stress very well and made you feel your best. Write the number down on your Session Card.”

i. “My stress level this past week was a \_\_\_\_ (0-10).”

ii. “My resilience level was a \_\_\_\_ (0-10).”

After filling this out, we’ll each “check in” on the past week. We’re going to go around in a circle, and we’ll pass around this sheet called the “Feelings” chart. *Hold up the Feelings chart and then pass it around.* When we check in, we’ll each share our name, one word for how we are feeling, and what our stress and resilience numbers are for that week. If you’re comfortable, you can share a sentence or two about why your numbers are that way. We are then going to learn some background information on the strength we are focusing on, and you’ll write

down on your session card what you learned. After that, you'll take turns each week sharing a song connected to the strength for that week, we'll talk about it, and then you'll write down the title and artist of the song. We'll then have our group activity, which will be filled in on your card, and afterwards you'll write down a sentence about what you'd like to remember about the activity. At the end of each group, I'll ask for a volunteer from the group to bring in a song for the following week connected to that resilience strength that they would like to share with the group. Any questions about the group structure?"

Before we go on, let's talk a little about how to pick out songs. We have some guidelines around what songs are appropriate. We're going to apply the group rule here, and not allow songs that use profanity, or glorify unhealthy coping (e.g. drug use, self-harm). I know a lot of songs have bad words, or talk about alcohol or drugs. If you want to bring in a song like that, make sure you choose the edited/radio version. Sound good? There's also more to picking out a song. We want it to be a song that makes you FEEL the strength that we are talking about that week. Let's use the strength "Courage" as an example, since that is the one we will be talking about today. Can you think of a song that makes you think of "Courage" or makes you feel courageous? *Allow time for participants to respond. Engage in discussion about why a song is or is not a good example of the strength "Courage." Use examples "Fight Song" by Rachel Platten or "Brave" by Sara Bareilles if necessary.*

### 3) Brief ice-breaker

- a. Two Truths and a Lie
- b. **Facilitator:** "Let's spend a few moments getting to know one another. I'm going to pass around small slips of paper, and we're going to play Two Truths and a Lie. Who here has played that before? You're going to write down two things that are true about you, and one thing that is false. Then, we will go around and each share our three things, and the group will have to guess which one is a lie." *Allow for maximum 10 minutes to complete this activity.*

### 4) Stress and Resilience

- a. **Facilitator:** "Thanks everyone. Let's switch gears now to talk a little bit about what stress and resilience are. Who can tell me what stress is?" *Give 2-3 people an opportunity to answer question.* "Let's watch a couple of short videos about stress."
  - i. Managing Stress: <https://www.youtube.com/watch?v=hnpQrMqDoqE>
  - ii. Teens Talk About Stress: <https://www.youtube.com/watch?v=27Z-mfzgSyA>
  - iii. **Facilitator:** "Thoughts? Reactions?" *Facilitate maximum five minute discussion about videos.*
  - iv. Take home: "Stress is a physical response to a thing or event that you perceive or experience as overwhelming or threatening to your physical/psychological health or wellbeing. What is stressful is subjective, so the same thing or event will not cause the same experience for everyone. There are things you can do to help manage stress."
- b. **Facilitator:** "Now let's go back to resilience. We discussed it a little earlier, so let's watch a couple of short videos about it."

- i. Teens Can – Resilient teens and positive mental health:  
<https://www.youtube.com/watch?v=1v9XeApSYNY>
- ii. Resilience in Kids (STOP AT 2:25):  
<https://www.youtube.com/watch?v=HYsRGe0tfZc>
- iii. Resilience Animation:  
<https://www.youtube.com/watch?v=C1UCI2ZHEqw>
- iv. **Facilitator:** “Thoughts? Reactions?” *Facilitate maximum five minute discussion about videos.*
- v. Take home: “Resilience is the ability to bounce back or adapt in a positive way when we have setbacks. It is different than coping, which is how you manage and bring down your stress when it happens. Resilience is something you can build up, even when there isn’t stress, to help you manage stress better in the future.”

#### 5) Courage

- a. **Facilitator:** “Remember I mentioned that each week we have a strength that helps build resilience? Well, our strength for today is COURAGE!”
  - b. “Just a show of hands, how many of you were hesitant to join this group, let alone come today?” *Allow time for a show of hands.* “Making time for extra things is hard. Especially when the thing is something you wish you didn’t have to deal with. Managing your diabetes is HARD. It takes a lot of work, and a lot of courage to face this every single day. It took a lot of courage for each and every one of you to come in today and be open to new things. I want you to know I appreciate you and all of the experiences in your lives that led you to this moment. Maybe you reached out for help, or maybe your parents forced you to come; whatever the case, I’m glad you’re here. I’m excited for the time we’ll all have together to get to know one another and grow together.”
- #### 6) Song for next week
- a. **Facilitator:** “Thank you everyone for your courage today. Our strength for next week is Presence, which means being Here and Now, or “in the moment.” You are not focused on the past or the future. Presence means you are only focusing on what is happening inside you and around you in that exact moment. Anyone have any questions about that? Before we end for the day, can I have a volunteer to bring in a song related to next week’s strength of Presence?” *Choose whoever raises their hand first and record it.*
  - b. **Facilitator:** “Thank you all for coming today!”

## Session 2

### Awareness “What am I experiencing?” pillar group #1 – PRESENCE

- 1) Opening Ritual: Check-In on Mood, Stress, and Resiliency Level During the Past Week (*Pass out session card for each group member to record*).
  - a. Check in on how the week went
    - i. **Facilitator:** “Let’s start with a check-in on how you’ve been doing this past week. I want you to think about what has been stressful for you in the different areas of your life and how the stress affected you. Give your stress level a number between 0 and 10 with “0” meaning no stress at all and a “10” meaning really intense stress that felt like it was too much to handle. Write the number down on your Session Card. Next, I’ll ask you to think about how resilient you have felt, your ability to keep feeling good despite stress. Think about how you have used your strengths and resilience to manage any stress you have been feeling. Give your resilience a number between 0 and 10 with “0” meaning no resilience, felt your worst and nothing seemed to help, and a “10” meaning highly resilient, you used your resilience skills, or skills that helped you bounce back, to manage stress very well and made you feel your best. Write the number down on your Session Card.”
      1. “My stress level this past week was a \_\_\_\_ (0-10).”
      2. “My resilience level was a \_\_\_\_ (0-10).”
    - ii. *Participants write ratings on Session Card*
    - iii. **Facilitator:** “Now, I’m going to pass around the Feelings chart, and I want each of you to share your name, one word for how you are feeling, and what your stress and resilience numbers are for this week. If you’re comfortable, you can share a sentence or two about why your numbers are that way. Who would like to start?”
      3. *Pass the Feelings chart to whoever volunteers. If a participant is talking for more than thirty seconds, gently interrupt and redirect to continue the check in process.*
- 2) Transition
  - a. **Facilitator:** “Thank you everyone for sharing. Let’s keep in mind both the resilience and the challenges that each of us have and support each other throughout the group today.”
- 3) Psychoeducation: Presence
  - a. **Facilitator:** “What is presence, or being in the here and now? Why is it important to be present?” *Allow 2-3 minutes for discussion.*
  - b. **Facilitator:** “Let’s watch a couple of short videos about presence.”
    - i. The Real Reason Being Present is Important:  
<https://www.youtube.com/watch?v=ZWs2Q2Z0XQk>
    - ii. Mindful of the Present – STOP at 5:30:  
<https://www.youtube.com/watch?v=FEhL3kTUXGI>
    - iii. OPTIONAL 3<sup>rd</sup> video (if time) The Power of the Present Moment – Living in the Now: <https://www.youtube.com/watch?v=Ci4Wg6MFcT4>

- c. **Facilitator:** “Thoughts? Reactions?” *Facilitate maximum five minute discussion about videos. “Why might being present be important particularly for diabetes management?”*
  - d. **Take away:** Being present can help you sense into your feelings and thoughts RIGHT NOW, and you can shift your focus if the current one is unhelpful. You can also notice when something is not right in your body. You must be observant in monitoring your internal state in order to know when you have highs or lows, when you need to check your blood sugar, when you need to give yourself insulin, or when you just need to have a snack or some juice. Knowing your emotions is important so you can ask for what you need, like reaching out for company when you feel lonely or asking for a hug if you feel sad; if you don’t know you’re feeling these things it is harder to get what you need. Also, what you do with these feelings is important. If you ignore your present feelings, both emotional feelings and physical feelings, it can be really dangerous. Feelings can get bottled up and come out when you don’t expect or want them to, or you could get really sick ignoring physical feelings.
  - e. **Facilitator:** “On your session card, write down what you learned about presence.”
- 4) Music Sharing Exercise
- a. **Facilitator:** “We’re now going to switch gears, and have XXXX share a song that they associated with this week’s strength of Presence. XXXX, before you play the song, why don’t you tell us a little about why you chose this song?”
  - b. *Adolescent assigned to this week introduces and plays song.*
  - c. **Facilitator:** “What does that bring up for everyone?” *Allow 2-3 minutes for discussion.*
  - d. **Facilitator:** “On your session card, take a moment to write down the name and artist of the song.”
- 5) Interactive or Experiential Activity
- a. Intervention with the group that is developmentally and culturally appropriate. Consider making adjustments based on group size, gender, ethnicity, or any other elements of culture and context.
  - b. Example 1: Mindfulness activity [adapted from © 2012 Marc Helgesen – noted OK to copy on <http://ELTandhappiness.com>]. *Read the following out loud.*  
**Facilitator:** “Happy people notice good things **as they happen**. However, many people are so busy worrying about tomorrow or yesterday, they don’t take time to experience the present moment, here and now. Evidence suggests that mindfulness, or being aware and mindful of the present moment, increases the more you practice it. There is an expression in English that says, “Take time to smell the roses.” That is the point of this lesson. This is a listening/doing task. It helps you slow down and experience – and enjoy – eating a piece of fruit.”
    - i. *Take out a box of blueberries (or some similar fruit – it should be a fruit that most people like). Each participant only needs one. Read the following in a slow, relaxed way. When you see a dot (•), pause to give the participant time to think about what you said and do what you suggested.*

1. **IMPORTANT NOTE:** *Some adolescents might find this silly, or annoying, so be prepared for this reaction, validate, and redirect if necessary.*
- ii. **Facilitator:** “Now, we are going to do something unusual. • You are going to really experience eating a blueberry. • Maybe you’ve eaten many blueberries in your life • but did you take the time to “experience” it? • Many times we are “Eating and watching TV” • or “Eating and scrolling social media” • “Eating and talking to friends. • “Today, we are going to eat a blueberry very slowly. • You will really experience it. This might sound a little silly, and that’s okay. I want you to notice if you are having a thought that it is silly, or annoying, and try to keep it to yourself so everyone can get the most out of this exercise.”
- iii. *Give each person one blueberry. Don’t let them eat it yet.*
- iv. **Facilitator:** “You are going to eat this (blueberry) and as you do, really notice it. You’ll get to know this piece of fruit better than any fruit you’ve eaten before. • Hold it in your hand or between your finger and thumb. Look at it. • Take the time to really focus on it; gaze at the blueberry with care and full attention – imagine that you’ve just dropped in from Mars and have never seen an object like this before in your life. Let your eyes explore every part of it, examining the highlights where the light shines, the darker hollows. Notice the color. Notice the wrinkles. I wonder if they are like fingerprints. I wonder if each one is different than other ones. • Now touch it. Turn the blueberry over between your fingers, exploring its texture. Maybe do this with your eyes closed if that enhances your sense of touch. • And smell it. Hold the blueberry beneath your nose. With each inhalation, take in any smell, aroma, or fragrance that may arise. As you do this, notice anything interesting happening in your mouth or stomach. • You can notice that slight, sweet flavor. • Now slowly bring the blueberry up to your lips, noticing how your hand and arm know exactly how and where to position it. Gently place the blueberry in your mouth; without chewing, noticing how it gets into your mouth in the first place. Spend a few moments focusing on the sensations of having it in your mouth, exploring it with your tongue. • And notice how your mouth is wet with saliva. Your body automatically knows you are going to eat something good. • When you are ready, prepare to chew the blueberry, noticing how and where it needs to be for chewing. Then, very consciously, take one or two bites into it and notice what happens in the aftermath, experiencing any waves of taste that emanate from it as you continue chewing. Without swallowing yet, notice the bare sensations of taste and texture in your mouth and how these may change over time, moment by moment. Also pay attention to any changes in the object itself. • As you chew, you taste and smell the flavor. • Take your time. It is good and you want it to last as long as possible. • When you feel ready to swallow the blueberry, see if you can first detect the intention to swallow as it comes up, so that even this is experienced consciously before you actually swallow the blueberry.

- v. *If you have time and enough fruit, have each person eat another one. This time, don't talk. Tell them to do the same things as before. They should eat it as slowly as possible.*
    - vi. *Discuss with the group for 5-10 minutes.*
  - c. Example 2: Playing I Spy or 20 questions
    - i. Have a few rounds where a member of the group picks one thing in the room and others take turns trying to guess what it is asking only yes/no questions.
- 6) Debrief
  - a. Each member of the group will reflect on the current strength and how it can be useful to promote resiliency in the face of stress they are currently experiencing.
  - b. **Facilitator:** "Let's all take a moment to reflect on the activity today, and the group as a whole. Go ahead and fill out the last part of your session cards, and then we will go around the circle as a group and each share one thing you are taking away from the group today." *Allow five minutes for this total.*
- 7) Closing mindfulness activity.
  - a. **Facilitator:** "We're going to end our group today with a short meditation that can help you CENTER into being in the "here and now" rather than worrying about the past or being stressed-out about the future. Sometimes there are a lot of distractions and it is helpful to get yourself back to the center of what is important to you. This meditation uses each letter of the word "CENTER" to go through the steps of getting more "present". *Read the following to the group.*
    - i. **C stands for CLOSE YOUR EYES.** Go ahead and do that now to take a moment to pause, and take a deep, long breath in. If it helps to breathe in more slowly, count to 4 in your head as you breathe in. Hold your breath once you have breathed now.
    - ii. **E stands for EXHALE.** Now, blow out a big, long breath out through your mouth. Count to 6 in your head as you breathe out to make sure you are doing it slowly.
    - iii. **N stands for NOTICE.** Notice what is going on inside yourself, what you are feeling in your body and your emotions, and what thoughts are going through your mind.
    - iv. **T stands for TRUST.** Trust in what your body and your judgment are telling you about the choices you need to make.
    - v. **E stands for EMPOWER.** This means connecting to the power you have to pay attention to your own values, priorities, and goals.
    - vi. **R stands for RETURN.** Return to what is going on, being more focused and centered in what is most important to you, and confident that you can do what needs to be done.
- 8) Song for next week
  - a. **Facilitator:** "Thank you everyone for your Presence today. Our strength for next week is Reflection. Reflection means to think about something that happened in the past, and the impact that it had on you. Focusing on your thoughts and feelings about what happened can help you understand it better and use what you learned to help you in the future. Before we end for the day, can I have a

volunteer to bring in a song related to next week's strength: Reflection?" *Choose whoever raises their hand first and record it.*

- b. **Facilitator:** "Thank you all for coming today!"



## Session 3

### Awareness “What am I experiencing?” pillar group #2 – REFLECTION

- 1) Opening Ritual: Check-In on Mood, Stress, and Resiliency Level During the Past Week (*Pass out session card for each group member to record*).
  - a. Check in on how the week went
    - i. **Facilitator:** “Let’s start with a check-in on how you’ve been doing this past week. I want you to think about what has been stressful for you in the different areas of your life and how the stress affected you. Give your stress level a number between 0 and 10 with “0” meaning no stress at all and a “10” meaning really intense stress that felt like it was too much to handle. Write the number down on your Session Card. Next, I’ll ask you to think about how resilient you have felt, your ability to keep feeling good despite stress. Think about how you have used your strengths and resilience to manage any stress you have been feeling. Give your resilience a number between 0 and 10 with “0” meaning no resilience, felt your worst and nothing seemed to help, and a “10” meaning highly resilient, you used your resilience skills, or skills that helped you bounce back, to manage stress very well and made you feel your best. Write the number down on your Session Card.”
      1. “My stress level this past week was a \_\_\_\_ (0-10).”
      2. “My resilience level was a \_\_\_\_ (0-10).”
    - ii. *Participants write ratings on Session Card*
    - iii. **Facilitator:** “Now, I’m going to pass around the Feelings chart, and I want each of you to share your name, one word for how you are feeling, and what your stress and resilience numbers are for this week. If you’re comfortable, you can share a sentence or two about why your numbers are that way. Who would like to start?”
  - b. *Pass the Feelings chart to whoever volunteers. If a participant is talking for more than thirty seconds, gently interrupt and redirect to continue the check in process.*
- 1) Transition
  - a. **Facilitator:** “Thank you everyone for sharing. Let’s keep in mind both the resilience and the challenges that each of us have and support each other throughout the group today.”
- 2) Psychoeducation: Reflection
  - a. **Facilitator:** “What is Reflection? How is it different than Presence? Why is it important to Reflect?” *Allow 2-3 minutes for discussion. Presence focuses on your emotions and feelings/sensations in your body right now while reflection focuses on your thoughts and how you understand things that happen or the feelings you have, what they mean to you, what is important to you, etc.*
  - b. **Facilitator:** “Let’s watch a video about Reflection.”
    - i. The Value of Self-Reflection:  
[https://www.youtube.com/watch?v=G1bgdwC\\_m-Y](https://www.youtube.com/watch?v=G1bgdwC_m-Y)
  - c. **Facilitator:** “Thoughts? Reactions?” *Facilitate maximum five minute discussion about videos. “Why might reflection be important particularly for diabetes management?”*

- d. Take away: Reflection can help us process information, understand the impact of events that have happened, and notice when things went wrong so we can learn and make different choices in the future. You will also notice moments you felt good, moments you felt grateful for. Reflecting can help you integrate new learning into your life, and help you stay on a healthy life path.
- 3) Music Sharing Exercise
- a. **Facilitator:** “We’re now going to switch gears, and have XXXX share a song that they associated with this week’s strength of Reflection. XXXX, before you play the song, why don’t you tell us a little about why you chose this song?”
  - b. *Adolescent assigned to this week introduces and plays song.*
  - c. **Facilitator:** “What does that bring up for everyone? [DISCUSSION] So our discussion about the song is using the strength of “Reflection”! People can reflect together by talking about something and discussing a situation with someone is a great way to use Reflection.
  - d. **Facilitator:** “On your session card, take a moment to write down the name and artist of the song.”
- 4) Interactive or Experiential Activity
- a. Intervention with the group that is developmentally and culturally appropriate.
  - b. Example 1: Values Worksheet/Bullseye (see end of session): What is important to me, and how satisfied am I with the way I am expressing my values in my life?
    - i. *Make sure to have a discussion prior to beginning this activity about what values are, and how you know what your own values are.*
    - ii. **Facilitator:** What are values?
      - 1. *Values are the things in life that are important to us. They are different than goals. Goals can be achieved, while values are always there. For example, if you value your friends and family, that isn’t something that can be achieved. But we can make goals based on our values (e.g. spend more time with friends and family). Lots of people make choices based on other things, like fear and anxiety, or to avoid feelings things like fear and anxiety. Values can guide us to make good choices in life, choices that are consistent with what is most important to us.*
    - iii. **Facilitator:** How do you know what your own values are?
      - 1. *Sometimes certain emotions can hint to us what our values are. Think about a time when you were most happy. You were probably doing something that is important to you. Think about a time when you were sad. Sadness can sometimes tell us when something is important to us too. Anger, too. When you get angry, it is often because you got something you didn’t deserve, or didn’t get something you did deserve. That can tell you something about what is important to you. All of these are values. Other questions to ask yourself are: “What makes a good life?” “What do I look for in a friend?” “What does success mean to me?” Answers to these questions can help clarify your values.*

- c. Example 2: Journaling exercise. Expressive writing – “Me at my Best.” What does your life look like when you are your best self? What would your life look like going forward when you are at your best?
- 5) Debrief
- a. Private writing/reflection: Each member of the group will reflect on the current strength and how it can be useful to promote resiliency in the face of the stress that they are currently experiencing.
  - b. **Facilitator:** “Let’s all take five minutes to reflect on the group today. Journaling is a great way to reflect. Journaling prompts can be especially helpful. Just a show of hands, how many of you here journal? The “prompt” that I’m going to give you is this: Write down some things you have learned or noticed in group today.” The great thing about journaling is that it is not like school where you get a grade on your writing! You don’t have to write full sentences or use the correct grammar. You just write whatever comes to mind in whatever form you want. Did you know that a list can be journaling? Or doodling words can be journaling? So, back to our prompt: *Write down some things you have learned or noticed in group today.*
  - c. Reflect further if time: Participants will now write about one stressor in their lives and one way they can engage in resiliency using the strength of Reflection.
- 6) Homework
- a. Homework assignment worksheet provided at the end of this session.
  - b. **Facilitator:** “I’d like all of you to start a gratitude journal tonight. This is just a diary of things you are grateful for. Research shows that keeping a gratitude journal helps you focus on the things you are grateful for, and therefore, you begin to notice them more in your life. It also increases your overall positive feelings. For the next week, I want you to reflect and write down 1 thing you are grateful for each day before you go to sleep. You can write it on paper or write it in your phone’s notes. If you think of more than 1, that’s great – write as many as you want! Feel free to bring them in to the next group and we can discuss how it went.”
- 7) Song for next week
- a. **Facilitator:** “Thank you everyone for your Reflection today. Go ahead and fill out the last part of your session cards. Before we end for the day, can I have a volunteer to bring in a song related to next week’s strength of Flexibility?” Flexibility refers to being adaptable and open-minded, trying new things or doing something in a different way. *Choose whoever raises their hand first and record it.*
  - b. **Facilitator:** “Thank you all for coming today!”

**THE BULL'S EYE** (adapted and reprinted with permission from Tobias Lundgren and Russ Harris)

The 'Bull's Eye' is a values-clarification exercise designed by a Swedish ACT therapist called Tobias Lundgren. The dashboard on the next page is divided into four important domains of life: school/education, friends/family, health, and interests/hobbies/fun activities. To begin with, please write down your values in these 4 areas of life. Not everyone has the same values, and this is not a test to see whether you have the "correct" ones. Think in terms of general life directions, rather than in terms of specific goals. There may be values that overlap – e.g. if you value studying psychology, that may come under both School/Education and Health. Write down what you would value if there were nothing in your way, nothing stopping you. What's important? What do you care about? And what you would like to work towards? Your value should not be a specific goal but instead reflect a way you would like to live your life over time. For example, to go to the movies with your family might be a goal; to be an involved and interested child might be the underlying value. **Note!** Make sure they are *your* values, not anyone else's. It is *your* personal values that are important!

**1. School/Education:** refers to your school work, education and knowledge, skills development. (This may include volunteering and other forms of unpaid work, too). How do you want to be towards your classmates and teachers? What do you like about school? What personal qualities do you want to bring to your work? What skills do you want to develop?

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**2. Friends/Family:** refers to closeness and connections in your life: it includes relationships with your parents, relatives, friends, teachers, counselors, boyfriend/girlfriend, and other social contacts. What sort of relationships do you want to build? How do you want to be in these relationships? What personal qualities do you want to develop? (E.g. Trust, Honesty, Reliability)

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**3. Health:** refers to your ongoing wellness development as a human being and includes your physical health as well as your emotional, psychological, and spiritual health. This may include developing health habits and life skills, exercise, nutrition, and addressing health risk factors like smoking or chronic medical conditions (e.g. diabetes), meditation, yoga, getting out into nature; creative expression; organized religion or personal expressions of spirituality.

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**4. Interests/Hobbies/Fun Activities:** refers to how you play, relax, or enjoy yourself; it includes things you are really interested in, your hobbies or other activities for rest, recreation, fun, creativity, or intellectual stimulation.

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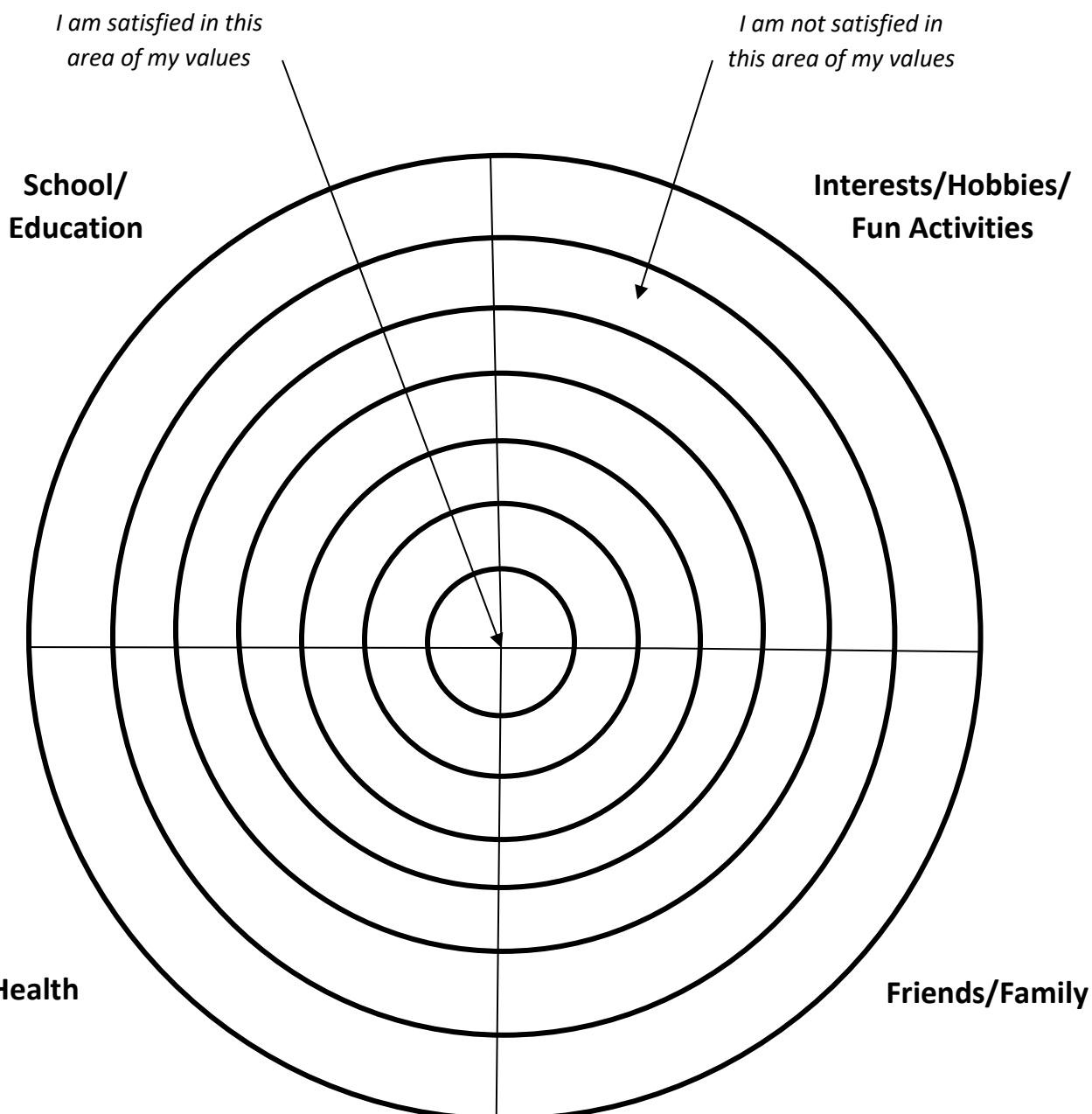
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**THE BULL'S EYE:** Read through your values, then make an X in each area of the dart board, to represent where you stand today. An X in the Bull's Eye (the center of the board) means that you are living fully by your values in that area of life. So, if an outside observer looked at your life, they could tell something is important to you because you are clearly making it a priority, spending a lot of time doing it, etc. An X far from Bull's Eye means that you are way off the mark in terms of living by your values. This is sometimes the case when something is important to you, but you aren't showing that in your life (e.g. not prioritizing it, not spending a lot of time doing it). This can happen when people get busy and go into "auto-pilot" mode, or when people make decisions based on other things, rather than what is important to them.

Since there are four areas of valued living, you should mark **four Xs** on the dart board.



*Figure 1.* The Bull's Eye worksheet. From *thehappinesstrap.com*. Copyright 2008 by Russ Harris. Reprinted with permission.

## **In-between Group Project:**

**What am I writing about?:** Start a gratitude journal. This is just a diary of things you are grateful for. For the next week, reflect and write down 1 thing you are grateful for each day before you go to sleep. If you think of more than 1, that's great – write as many as you want! Bring them in to the next group.

**Why am I writing about this?:** Research shows that keeping a gratitude journal helps you focus on the things you are grateful for, and therefore, you begin to notice them more in your life. It also increases your overall positive feelings.

## Session 4

### Awareness “What am I experiencing?” pillar group #3 – FLEXIBILITY

- 1) Opening Ritual: Check-In on Mood, Stress, and Resiliency Level During the Past Week (*Pass out session card for each group member to record*).
  - b. Check in on how the week went
    - i. **Facilitator:** “Let’s start with a check-in on how you’ve been doing this past week. I want you to think about what has been stressful for you in the different areas of your life and how the stress affected you. Give your stress level a number between 0 and 10 with “0” meaning no stress at all and a “10” meaning really intense stress that felt like it was too much to handle. Write the number down on your Session Card. Next, I’ll ask you to think about how resilient you have felt, your ability to keep feeling good despite stress. Think about how you have used your strengths and resilience to manage any stress you have been feeling. Give your resilience a number between 0 and 10 with “0” meaning no resilience, felt your worst and nothing seemed to help, and a “10” meaning highly resilient, you used your resilience skills, or skills that helped you bounce back, to manage stress very well and made you feel your best. Write the number down on your Session Card.”
      1. “My stress level this past week was a \_\_\_ (0-10).”
      2. “My resilience level was a \_\_\_ (0-10).”
    - ii. *Participants write ratings on Session Card*
    - iii. **Facilitator:** “Now, I’m going to pass around the Feelings chart, and I want each of you to share your name, one word for how you are feeling, and what your stress and resilience numbers are for this week. If you’re comfortable, you can share a sentence or two about why your numbers are that way. Who would like to start?”
      - a. *Pass the Feelings chart to whoever volunteers. If a participant is talking for more than thirty seconds, gently interrupt and redirect to continue the check in process.*
- 2) Transition
  - a. **Facilitator:** “Thank you everyone for sharing. Let’s keep in mind both the resilience and the challenges that each of us have and support each other throughout the group today.”
- 3) Check in on homework from last session
  - a. **Facilitator:** “Who all was able to complete the gratitude activity at least a few nights before you went to bed? How did it go?”
  - b. *Discuss as a group, including barriers that prevented some group members from completing the assignment.*
- 4) Psychoeducation: Flexibility
  - a. **Facilitator:** “What is Flexibility? Of course, we are not speaking about physical flexibility. Let’s think about flexibility here to mean adapting to a new situation, trying something new, doing something in a way that is different than how you usually do it, or making changes to something because of a unique situation. Why is it important to be Flexible?” *Allow 2-3 minutes for discussion.*
  - b. **Facilitator:** “Let’s watch a short video about Flexibility.”

- i. Dr. Seuss' The Zax: <https://www.youtube.com/watch?v=dZmZzGxGpSs>
    - ii. **Facilitator:** "Thoughts? Reactions?" *Facilitate maximum five minute discussion about videos.* "Why might flexibility be important particularly for diabetes management?"
  - c. Take away: The Zaxs never made it to their destinations because they both refused to do anything different. And they were the only ones who lost out. The world kept going on around them. Everyone around the Zaxs were able to adapt, building roads around them so they could still get where they needed to go. The Zaxs were standing in their own way by not being willing or open to trying something new. We can all be stubborn sometimes. However, when we fight against things that are out of our control, and we refuse to adapt, accept, compromise, or make a different choice, we can get stuck. Flexibility can help us understand and accept the thoughts, feelings, and situations that are out of our control. For example, a diagnosis of diabetes and the thoughts and feelings related to that and the ongoing management of it. Not accepting diabetes can make you feel bad for a very long time, because you might not take care of it. Flexibility involves being open to, or accepting, that sometimes you will have thoughts and feelings and things that happen to you that don't feel good. But part of being flexible is that even when this happens, we can still make choices for how to act based on what is important to us – based on our values. Feeling bad when hard and stressful things happen is totally normal and understandable. It's okay to feel bad sometimes – we all do, because part of being a human is that we feel lots of things! Feeling bad can help signal when something is wrong, so we need to feel it from time to time. Sometimes when we feel bad, we do things that make it worse. Learning to be flexible opens up the possibility to do things that are good for us, EVEN WHEN WE FEEL BAD (e.g. feeling sad → isolating → feeling more sad vs. feeling sad → reaching out to talk to someone → feeling better.
    - i. **Facilitator:** This is probably a new way of thinking about flexibility for most of you. What do you think about it? Does it make sense? Who still has questions?
- 5) Music Sharing Exercise
- a. **Facilitator:** "We're now going to switch gears, and have XXXX share a song that they associated with this week's strength of Flexibility. XXXX, before you play the song, why don't you tell us a little about why you chose this song?"
  - b. *Adolescent assigned to this week introduces and plays song.*
  - c. **Facilitator:** "What does that bring up for everyone?"
- 6) Interactive or Experiential Activity
- a. Intervention with the group that is developmentally and culturally appropriate.
  - b. Example 1: Sentence Completion: 5 shoulds.
    - i. Write down "I should" 5 times, and fill in something after each one (e.g. "I should eat healthier"; "I should get more sleep"). Sense into how you feel reading over all of your "shoulds." Is it your voice that you hear saying these things to yourself? Is it someone else's? Where did these shoulds come from? Are they based on what is important to you, or are they to move away from unpleasant feelings?



- ii. Then, make a new column next to it, writing “I would like to” or “It’s important to me to” and then write the same things you filled in in the first column (e.g. “I would like to eat healthier”; “It’s important to me to get more sleep.”). Now, sense into how you feel as you read over those. Do they ring true to you? If not, **cross them out**. Write in a new stem, and fill in something that IS important to you, or something that you WOULD like to do more of in your life. For example, instead of “I should play video games less → I would like to play video games less,” you could say, “I would like to spend more quality time with my family.” You are changing the sentence from “You should” or “I would like to” do less of this one thing into what you would actually like to do instead. Sense in to how this makes you feel.
      - iii. *Discuss as a group.*
    - c. Example 2: Discuss as a group times when a situation did not go your way, related to diabetes (e.g. wanting to go to a party, fighting with parents about checking blood sugar). Have a few members provide anecdotes to use as examples. What was the situation? What were your thoughts and feelings related to it, and what were your behaviors? How could you practice flexibility in that moment and make a different choice that might have turned out better?
- 7) Debrief
  - a. Private writing/reflection: Each member of the group will reflect on the current strength and how it can be useful to promote resiliency in the face of the stress that they are currently experiencing. **Facilitator:** “Let’s all take five minutes to reflect on the group today. Just write down two things you have learned or noticed in group today.”
  - b. Reflect further: Participants will now write about one stressor in their lives and one way they can engage in resiliency using the strength of Flexibility.
- 8) Song for next week
  - a. **Facilitator:** “Thank you everyone for your Flexibility today. Go ahead and fill out the last part of your session cards. Before we end for the day, can I have a volunteer to bring in a song related to next week’s strength of Connection?” When you feel connected to someone or something, you feel closer, have a deeper relationship, and are usually more comfortable being vulnerable. *Choose whoever raises their hand first and record it.*
  - b. **Facilitator:** “Thank you all for coming today!”

## Session 5

### Allies “What/who will I connect with?” pillar group #1 – CONNECTION

- 1) Opening Ritual: Check-In on Mood, Stress, and Resiliency Level During the Past Week  
(*Pass out session card for each group member to record*).
  - c. Check in on how the week went
    - i. **Facilitator:** “Let’s start with a check-in on how you’ve been doing this past week. I want you to think about what has been stressful for you in the different areas of your life and how the stress affected you. Give your stress level a number between 0 and 10 with “0” meaning no stress at all and a “10” meaning really intense stress that felt like it was too much to handle. Write the number down on your Session Card. Next, I’ll ask you to think about how resilient you have felt, your ability to keep feeling good despite stress. Think about how you have used your strengths and resilience to manage any stress you have been feeling. Give your resilience a number between 0 and 10 with “0” meaning no resilience, felt your worst and nothing seemed to help, and a “10” meaning highly resilient, you used your resilience skills, or skills that helped you bounce back, to manage stress very well and made you feel your best. Write the number down on your Session Card.”
      1. “My stress level this past week was a \_\_\_\_ (0-10).”
      2. “My resilience level was a \_\_\_\_ (0-10).”
    - ii. *Participants write ratings on Session Card*
    - iii. **Facilitator:** “Now, I’m going to pass around the Feelings chart, and I want each of you to share your name, one word for how you are feeling, and what your stress and resilience numbers are for this week. If you’re comfortable, you can share a sentence or two about why your numbers are that way. Who would like to start?”
      - a. *Pass the Feelings chart to whoever volunteers. If a participant is talking for more than thirty seconds, gently interrupt and redirect to continue the check in process.*
- 2) Transition
  - a. **Facilitator:** “Thank you everyone for sharing. Let’s keep in mind both the resilience and the challenges that each of us have and support each other throughout the group today.”
- 3) Psychoeducation: Connection
  - a. **Facilitator:** “What is Connection? Why is it important to Connect/have Connections?” *Allow 2-3 minutes for discussion.*
  - b. **Facilitator:** “Let’s watch a couple short videos about Connection.”
    - i. Building Social Connections: <https://www.youtube.com/watch?v=8az-gfljEbg>
    - ii. Social Well Being – Importance of Social Connections: <https://www.youtube.com/watch?v=RijQpsWEdrE>
    - iii. OPTIONAL 3<sup>rd</sup> video (if time, or if the assigned participant does not bring a song this week): OneRepublic – Connection Music Video: <https://www.youtube.com/watch?v=iJUM11goXAU>

- c. **Facilitator:** “Thoughts? Reactions?” *Facilitate maximum five minute discussion about videos.* “Why might connection be important particularly for diabetes management?”
  - d. Take away: Connection helps improve mental and physical health. Lack of connection has a lot of negative consequences. Feeling connected to others make it easier to ask for help, and receive support when we need it. Diabetes creates a lot of extra stress, so it is important to discuss this with people you trust and get support from them.
- 4) Music Sharing Exercise
- a. **Facilitator:** “We’re now going to switch gears, and have XXXX share a song that they associated with this week’s strength of Connection. XXXX, before you play the song, why don’t you tell us a little about why you chose this song?”
  - b. *Adolescent assigned to this week introduces and plays song.*
  - c. **Facilitator:** “What does that bring up for everyone?”
  - d. **Facilitator:** “On your session card, take a moment to write down the name and artist of the song.”
- 5) Interactive or Experiential Activity
- a. Intervention with the group that is developmentally and culturally appropriate.
  - b. Example 1: Behavioral Activation Bingo (see end of session). Facilitator will pass out Bingo card to each participant, and they all have to get up, walk around, and ask each other questions that are on the Bingo card. If the square they ask about is true for that person, they can sign their initials on the person’s Bingo card who asked the question. Participants cannot have anyone’s initials on more than 2 squares, and they cannot add themselves. The idea is for them to get up, walk around, and get to know one another a little bit. Make sure to leave at least 5 minutes to debrief and reinforce the notion that getting to know someone a little helps to feel more connected.
  - c. Example 2: Playing a short game together in which participants have to collaborate to achieve a shared goal (e.g. Oregon Trail card game).
  - d. Example 3: Partner share. Participants pair up and share a fact about themselves that their partner doesn’t already know about them. Provide examples like “I am half Korean” or “I secretly love the Backstreet Boys.” Discuss in pairs, and then come together as a group to talk about the experience. What was that like? What thoughts and feelings came up before or during sharing? How did it feel after?
  - e. The Facilitator will supervise activities, participate, or pair up with a participant if there is an odd number in the group so in-vivo feedback can be provided.
- 6) Debrief
- a. Partner share: Each member of the group will reflect on the current strength and how it can be useful to promote resiliency in the face of the stress that they are currently experiencing. **Facilitator:** “Let’s all take five minutes to reflect on the group today. I’d like you each to pair up with someone you have not interacted with yet today, and take turns sharing what you are taking away from the session.”
  - b. Reflect further: “Now, I’d like you to change partners, and share one way you can increase Connection in your life. This could mean connecting to a person or an

animal or a group or anything else you identify strongly with. (Give examples of different types of connections).

7) Homework

- a. Homework assignment worksheet provided at the end of this session.
- b. **Facilitator:** “Starting tonight, I’d like all of you to spend a few minutes reflecting on the sources of support in your life. These could be friends, coaches or nurses at school, or your parents. Anyone who asks how you’re doing and knows what to do if you’re low. You can even make a list of them. Then, over the course of the next week, see how often you’re reaching out to them for support. This could even be just sharing a current struggle you’re having when you see them in passing. Afterwards, reflect on how it felt to talk to them about it. We can discuss how it went next week. Any questions about that?”

8) Song for next week

- a. **Facilitator:** “Thank you everyone for your Connection today. Go ahead and fill out the last part of your session cards. Before we end for the day, can I have a volunteer to bring in a song related to next week’s strength of Compassion?”  
*Choose whoever raises their hand first and record it.*
- b. **Facilitator:** “Thank you all for coming today!”

# Find Someone Who...

Has a pump	Plays a musical instrument	Has more than 2 siblings	Likes video games
Dislikes chocolate	Likes vegetables	Plays a sport in school	Has had stitches
Has a pet	Knows someone else at school with diabetes	Likes seafood	Is afraid of snakes
Speaks another language	Was diagnosed before age 5	Broke a bone and wore a cast	Is an only child

## **In-between Group Project:**

**What am I writing about?:** Reflect on the sources of support in your life. These could be friends, coaches or nurses at school, or your parents. Anyone who asks how you're doing and knows what to do if you're low. Make a list of them. Then, over the course of the next week, see how often you're reaching out to them for support. Keep a tally for each one. This could be in the form of sharing a current struggle you're having when you see them in passing, or something deeper. Then, reflect on how it felt to talk to them about it.

**Why am I writing about this?:** 1) Recognizing who you already have in your life that is supporting you, 2) Seeing how often you are already reaching out to them for help, and 3) How it feels to share your burden with others and connect to them when you are in pain. Anything, even your own arm, will get heavy after a while if you have to hold it alone. And you don't have to hold diabetes alone.

## Session 6

### Allies “What/who will I connect with?” pillar group #2 – COMPASSION

- 1) Opening Ritual: Check-In on Mood, Stress, and Resiliency Level During the Past Week  
(*Pass out session card for each group member to record*).
  - d. Check in on how the week went
    - i. **Facilitator:** “Let’s start with a check-in on how you’ve been doing this past week. I want you to think about what has been stressful for you in the different areas of your life and how the stress affected you. Give your stress level a number between 0 and 10 with “0” meaning no stress at all and a “10” meaning really intense stress that felt like it was too much to handle. Write the number down on your Session Card. Next, I’ll ask you to think about how resilient you have felt, your ability to keep feeling good despite stress. Think about how you have used your strengths and resilience to manage any stress you have been feeling. Give your resilience a number between 0 and 10 with “0” meaning no resilience, felt your worst and nothing seemed to help, and a “10” meaning highly resilient, you used your resilience skills, or skills that helped you bounce back, to manage stress very well and made you feel your best. Write the number down on your Session Card.”
      1. “*My stress level this past week was a \_\_\_\_ (0-10).*”
      2. “*My resilience level was a \_\_\_\_ (0-10).*”
    - ii. *Participants write ratings on Session Card*
    - iii. **Facilitator:** “Now, I’m going to pass around the Feelings chart, and I want each of you to share your name, one word for how you are feeling, and what your stress and resilience numbers are for this week. If you’re comfortable, you can share a sentence or two about why your numbers are that way. Who would like to start?”
      - a. *Pass the Feelings chart to whoever volunteers. If a participant is talking for more than thirty seconds, gently interrupt and redirect to continue the check in process.*
- 2) Transition
  - a. **Facilitator:** “Thank you everyone for sharing. Let’s keep in mind both the resilience and the challenges that each of us have and support each other throughout the group today.”
- 3) Check in on homework from last session
  - a. **Facilitator:** “Who all reflected on their connections over the past week, and made it a point to try to connect to their support network? How did it go?”
  - b. *Discuss as a group, including barriers that prevented some group members from completing the assignment.*
- 4) Psychoeducation: Compassion
  - a. **Facilitator:** “What is Compassion? Why is it important to have Compassion?”  
*Allow 2-3 minutes for discussion.*
  - b. **Facilitator:** “Let’s watch a couple short videos about Compassion.”
    - i. Have Compassion – Empower Tools | Mindfulness Videos for Students:  
<https://www.youtube.com/watch?v=oEplqZYUUvk>

- ii. Where Does Compassion Really Come From?:  
<https://www.youtube.com/watch?v=A4a66aFaIME>
  - c. **Facilitator:** “Thoughts? Reactions?” *Facilitate maximum five minute discussion about videos.* “Why might compassion be important particularly for diabetes management?”
  - d. Take away: It can be hard to have compassion for people who annoy you (think parents or siblings!). It’s also hard to have compassion when you are stressed and don’t feel good. However, having compassion for others and being kind to others is a choice you can make every day, and it actually makes you feel good to do it. Having compassion for yourself is REALLY important too, especially when you catch yourself being hard on yourself.
- 5) Music Sharing Exercise
- a. **Facilitator:** “We’re now going to switch gears, and have XXXX share a song that they associated with this week’s strength of Compassion. XXXX, before you play the song, why don’t you tell us a little about why you chose this song?”
  - b. *Adolescent assigned to this week introduces and plays song.*
  - c. **Facilitator:** “What does that bring up for everyone?”
  - d. **Facilitator:** “On your session card, take a moment to write down the name and artist of the song.”
- 6) Interactive or Experiential Activity
- a. Intervention with the group that is developmentally and culturally appropriate.
  - b. Example 1: How Do You Typically React? Worksheet (at the end of the session). Complete prompts “If your friend was struggling with something, what might you tell them/do?” and “Now think about yourself. What do you tell yourself/do for yourself when you are struggling?” After completing prompts, turn to a partner to share with one another, and discuss if there were differences in the compassion you showed for your friend vs. yourself. Then come together as a group and each pair share what their takeaway was.
  - c. Example 2: Write a letter expressing your well wishes and gratefulness for someone who annoyed you or made you angry lately. Was this a momentary annoyance? Is it ongoing? Either way, reflect on the challenges in their lives that may be going on for them, and practice feeling compassion for them. Come together as a group and share how that was.
  - d. Example 3: Positive Affirmation Activity
    - i. Ask for a volunteer, but tell them that you cannot yet reveal what they are volunteering for
    - ii. Have this volunteer sit in a chair at the front of the room
    - iii. Tell the volunteer that they may not talk during this first part of the activity. Ask the rest of the group to come up with as many strengths or positive qualities that they know about this person. Emphasize that these suggestions must be HONEST and that they are not just saying it to put something on the board. Write all the suggestions on a whiteboard or piece of paper. While people are suggesting things you can also ask them to provide additional reasoning why they are suggesting that particular item.



- iv. After a couple of minutes, ask the group to remain silent and have the volunteer react to the experience.
  - v. What was that like? Were there any words/phrases that you find hard to believe (may help to verify from the group again that these were all truthful responses)? What would it be like if you focused on these positive qualities and strengths? How might you begin to do this?
  - e. The Facilitator will supervise activities or pair up with a participant if there is an odd number in the group so in-vivo feedback can be provided.
- 7) Lovingkindness Meditation or Soothing Touch Meditation
- a. If time, read this Loving Kindness Meditation adapted for teens:  
<https://drjameswellborn.com/wp-content/uploads/2016/12/Handout-meditate-loving-kindness-1.pdf>
  - b. If short on time, read the Soothing Touch worksheet (at the end of the session) aloud. You will likely have to explain the Butterfly Hug in more detail. Use the description below (Artigas & Jarero, 2014):
    - i. Cross your arms over your chest, so that the tip of the middle finger from each hand is placed below the collarbone and the other fingers and hands cover the area that is located under the connection between the collarbone and the shoulder and the collarbone and sternum or breastbone. Hands and fingers must be as vertical as possible so that the fingers point toward the neck and not toward the arms. If you wish, you can interlock your thumbs to form the butterfly's body and the extension of your other fingers outward will form the Butterfly's wings. Your eyes can be closed, or partially closed, looking toward the tip of your nose. Next, you alternate the movement of your hands, like the flapping wings of a butterfly. Let your hands move freely. You can breathe slowly and deeply (abdominal breathing), while you observe what is going through your mind and body such as thoughts, images, sounds, odors, feelings, and physical sensation without changing, pushing your thoughts away, or judging. You can pretend as though what you are observing is like clouds passing by."
  - c. If VERY short on time, read this Mindful Self-Compassion Exercise
    - i. First, close your eyes and take a few deep breaths. Now hold your arms out in front of you. Next, clench your fists as hard as you can. Hold it for a moment and feel the heaviness of your arms and the sensation of your nails digging into your hands. This is what it is like when we hold on to suffering. Keep your eyes closed and, drop your arms down and open your palms. Notice the difference. This is what our suffering becomes if we become mindful of it. Now extend your arms in front of you and open your palms. This is what it is like when we are open to the common humanity to reach beyond you. Finally, place both hands over your heart. Feel the warmth of skin against skin between your two hands. This can make you feel loved, safe and comfortable. This simple exercise shows us what it is like when we suffer and how much easier it is when we accept these feelings and emotions, and not fight against them.

- 8) Debrief
  - a. Partner share: Each member of the group will reflect on the current strength and how it can be useful to promote resiliency in the face of the stress that they are currently experiencing. **Facilitator:** “Let’s all take five minutes to reflect on the group today. I’d like you each to pair up with someone you have not interacted with yet today, and take turns sharing what you are taking away from the session.”
  - b. Reflect further: “Now, I’d like you to change partners, and share one stressor in your lives and one way you can engage in resiliency using the strength of Compassion.
- 9) Song for next week
  - a. **Facilitator:** “Thank you everyone for your Compassion today. Go ahead and fill out the last part of your session cards. Before we end for the day, can I have a volunteer to bring in a song related to next week’s strength of Positivity?” Positivity means looking for the good things, the “bright side,” and trying to pay more attention to it. *Choose whoever raises their hand first and record it.*
  - b. **Facilitator:** “Thank you all for coming today!”

### How do you typically react?

What do you do when someone you know (e.g., a friend or family) is struggling in some way or feeling really bad? How do you respond? What do you say? How do you say it?

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Now think about yourself. What do you do when you are struggling in some way or feeling really bad? How do you respond to yourself? What do you say? How do you say it?

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## **SOOTHING TOUCH**

*Adapted and reprinted with permission from Kristin Neff, author of *The Mindful Self-Compassion Workbook: A Proven Way to Accept Yourself, Build Inner Strength, and Thrive**

One easy way to soothe and comfort yourself when you're feeling badly is to give yourself a gentle hug or caress, or simply put your hand on your heart and feel the warmth of your hand. It may feel awkward or embarrassing at first, but your body doesn't know that. It just responds to the physical gesture of warmth and care, just as most people have responded positively to caring touch since we were babies. Our skin is an incredibly sensitive organ. Research indicates that physical touch can even release "love" hormones in your brain! Physical touch also provides a sense of security, soothes distressing emotions, and calms cardiovascular stress. So why not try it?

You might like to try putting your hand over your heart during difficult periods several times a day for a period of at least a week.

### ***Hand-on-Heart***

- When you notice you're under stress, take 2-3 deep, satisfying breaths.
- Gently place your hand over your heart, feeling the gentle pressure and warmth of your hand. If you wish, place *both* hands on your chest, noticing the difference between one and two hands.
- Feel the touch of your hand on your chest. If you wish, you could make small circles with your hand on your chest, or pat your chest gently with your hand.
- Feel the natural rising and falling of your chest as you breathe in and as you breathe out.
- Linger with the feeling for as long as you like.

Some people feel uneasy putting a hand over the heart. Feel free to explore where on your body a gentle touch is actually soothing. Some other possibilities are:

- One hand on your cheek
- Cradling your face in your hands
- Gently stroking upper arm with the opposite hand, or both of your arms
- Crossing your arms and giving a gentle squeeze
- Gently rubbing your chest, or using circular movements
- Hand on your abdomen
- One hand on your abdomen and one over heart
- Cupping one hand in the other in your lap
- Resting your hand on the opposite shoulder and gently patting it
- "Butterfly hug"

Hopefully you'll start to develop the habit of physically comforting yourself when needed, taking full advantage of this surprisingly simple and straightforward way to be kind to ourselves.

## Session 7


### Allies “What/who will I connect with?” pillar group #3 – POSITIVITY

- 1) Opening Ritual: Check-In on Mood, Stress, and Resiliency Level During the Past Week  
(*Pass out session card for each group member to record*).
  - e. Check in on how the week went
    - i. **Facilitator:** “Let’s start with a check-in on how you’ve been doing this past week. I want you to think about what has been stressful for you in the different areas of your life and how the stress affected you. Give your stress level a number between 0 and 10 with “0” meaning no stress at all and a “10” meaning really intense stress that felt like it was too much to handle. Write the number down on your Session Card. Next, I’ll ask you to think about how resilient you have felt, your ability to keep feeling good despite stress. Think about how you have used your strengths and resilience to manage any stress you have been feeling. Give your resilience a number between 0 and 10 with “0” meaning no resilience, felt your worst and nothing seemed to help, and a “10” meaning highly resilient, you used your resilience skills, or skills that helped you bounce back, to manage stress very well and made you feel your best. Write the number down on your Session Card.”
      1. “My stress level this past week was a \_\_\_\_ (0-10).”
      2. “My resilience level was a \_\_\_\_ (0-10).”
    - ii. *Participants write ratings on Session Card*
    - iii. **Facilitator:** “Now, I’m going to pass around the Feelings chart, and I want each of you to share your name, one word for how you are feeling, and what your stress and resilience numbers are for this week. If you’re comfortable, you can share a sentence or two about why your numbers are that way. Who would like to start?”
      - a. *Pass the Feelings chart to whoever volunteers. If a participant is talking for more than thirty seconds, gently interrupt and redirect to continue the check in process.*
- 2) Transition
  - a. **Facilitator:** “Thank you everyone for sharing. Let’s keep in mind both the resilience and the challenges that each of us have and support each other throughout the group today.”
- 3) Psychoeducation: Positivity
  - a. **Facilitator:** “What is Positivity? Why is it important to have Positivity?” *Allow 2-3 minutes for discussion.*
  - b. **Facilitator:** “Let’s watch a couple short videos about Positivity.”
    - i. Quick funny video – Jessica’s “Daily Affirmation”:  
<https://www.youtube.com/watch?v=qR3rK0kZFkg>
    - ii. The Power of Positivity | Brain Games:  
<https://www.youtube.com/watch?v=kO1kg10p-Hw>
    - iii. The Power of Words | Jovanka Caires (2:15-4:40):  
<https://www.youtube.com/watch?v=6GpH3dbSMok&t=297s>

- iv. OPTIONAL 4<sup>th</sup> video (if time) – Public School Character Development: Overcoming Adversity with a Positive Attitude:  
<https://www.youtube.com/watch?v=31X58sZYhZA>
  - c. **Facilitator:** “Thoughts? Reactions?” *Facilitate maximum five minute discussion about videos.* “Why might positivity be important particularly for diabetes management?”
  - d. Take away: Positive thinking can help shift your thoughts to something more helpful, which can build your self-esteem and self-confidence. However, these thoughts should still be realistic. Positive thinking does not mean wishful thinking. It means finding the good things, the “bright side” even in negative situations, and paying more attention to them.
- 4) Music Sharing Exercise
- a. **Facilitator:** “We’re now going to switch gears, and have XXXX share a song that they associated with this week’s strength of Positivity. XXXX, before you play the song, why don’t you tell us a little about why you chose this song?”
  - b. *Adolescent assigned to this week introduces and plays song.*
  - c. **Facilitator:** “What does that bring up for everyone?”
  - d. **Facilitator:** “On your session card, take a moment to write down the name and artist of the song.”
- 5) Interactive or Experiential Activity
- a. Intervention with the group that is developmentally and culturally appropriate.
  - b. Example 1: Identifying thought distortions using CCC: Catch It, Check It, Change It. Teach cognitive triangle of thoughts, feelings, and behaviors. Make sure to explain how thoughts, feelings, and behaviors all impact each other. We can’t stop a thought from coming up, but we can examine a thought when it does to see if it is accurate, and create a more balanced thought if it is not accurate and/or being influenced by our mood. Then use example thought: “No one understands what I’m going through,” which can lead to feeling overwhelmed, sad, and lonely, and withdrawing behavior. Go through CCC to see how they can catch the thought (using mindfulness!), check the accuracy of the thought (outside themselves, meaning the accuracy cannot be determined by just saying “well it’s accurate because that’s what I think and how I feel. Checking it outside yourself involves asking a friend, parent, etc. For example, “no one knows what I’m going through” isn’t accurate because you can look around you right in this room and see people who know what you’re going through).). Then, you can change it to make it a more balanced thought. Example alternative thought: “There are other teens dealing with this diagnosis,” which can lead to feeling calm, relieved, and connected, and seeking out support as a behavior.
  - c. Example 2: Have members in the group identify challenging situations lately related to diabetes, and teach the cognitive triangle to help them identify unhelpful thoughts and try to turn them around to be more positive/helpful. Pass out “Thoughts on Trial” simple thought record worksheet (at the end of the session), have them fill out individually and then discuss as a group.
- 6) Homework
- a. Homework assignment worksheet provided at the end of this session.

- b. **Facilitator:** “We’ve talked a lot about positive thinking today, and how we can generate alternative thoughts that are positive, but also true and more helpful. We can also cultivate positive time with ourselves and others to help build resilience, so we can call upon these memories during times of stress. This week, I want you to think of one activity you could do that brings you joy, and schedule it into your week. I also want you to spend positive time with someone you care about. We can discuss how it went next week.”
- 7) Debrief
- a. Partner share: Each member of the group will reflect on the current strength and how it can be useful to promote resiliency in the face of the stress that they are currently experiencing.
  - b. **Facilitator:** “Let’s all take five minutes to reflect on the group today. I’d like you each to pair up with someone you have not interacted with yet today, and take turns sharing what you are taking away from the session.”
  - c. **Facilitator:** “Now, I’d like you to change partners, and share one stressor in your lives and one way you can engage in resiliency using the strength of Positivity.”
- 8) Song for next week
- a. **Facilitator:** “Thank you everyone for your Positivity today. Go ahead and fill out the last part of your session cards. Before we end for the day, can I have a volunteer to bring in a song related to next week’s strength of Empowerment?”  
*Choose whoever raises their hand first and record it.*
  - b. **Facilitator:** “Thank you all for coming today!”

## Putting Thoughts on Trial

 In this exercise, you will put a thought on trial by acting as a defense attorney, prosecutor, and judge, to determine the accuracy of the thought.

**Prosecution and Defense:** Gather evidence in support of, and against, your thought. Evidence can only be used if it's a verifiable fact. No interpretations, guesses, or opinions!

**Judge:** Come to a verdict regarding your thought. Is the thought accurate and fair? Are there other thoughts that could explain the facts?





 <b>The Thought</b>	
 <b>The Defense</b> <i>evidence for the thought</i>	 <b>The Prosecution</b> <i>evidence against the thought</i>
 <b>The Judge's Verdict</b>	

Figure 2. Putting Thoughts on Trial worksheet. From *therapistaid.com*. Reproduced with permission. © 2017 Therapist Aid LLC



## **In-between Group Project:**

**What am I doing?:** 1) Think of one activity you could do that brings you joy, and schedule it into your week. 2) Spend positive time with someone you care about. Be prepared to discuss next week.

**Why am I doing this?:** Scheduling in short activities shows you that you do have time for them, and makes sure you get to them since you protected time for them. Also, who doesn't like to feel joy? The experience of joy creates strong memories that can be called upon in times of stress to help boost your mood. Spending positive time with loved ones also increases resilience, lowers cortisol levels and reduces the impact of stress.

## Session 8

### Action “What choices will I make?” pillar group #1 – **EMPOWERMENT**

- 1) Opening Ritual: Check-In on Mood, Stress, and Resiliency Level During the Past Week  
(*Pass out session card for each group member to record*).
  - a. Check in on how the week went
    - i. **Facilitator:** “Let’s start with a check-in on how you’ve been doing this past week. I want you to think about what has been stressful for you in the different areas of your life and how the stress affected you. Give your stress level a number between 0 and 10 with “0” meaning no stress at all and a “10” meaning really intense stress that felt like it was too much to handle. Write the number down on your Session Card. Next, I’ll ask you to think about how resilient you have felt, your ability to keep feeling good despite stress. Think about how you have used your strengths and resilience to manage any stress you have been feeling. Give your resilience a number between 0 and 10 with “0” meaning no resilience, felt your worst and nothing seemed to help, and a “10” meaning highly resilient, you used your resilience skills, or skills that helped you bounce back, to manage stress very well and made you feel your best. Write the number down on your Session Card.”
      1. “*My stress level this past week was a \_\_\_\_ (0-10).*”
      2. “*My resilience level was a \_\_\_\_ (0-10).*”
    - ii. *Participants write ratings on Session Card*
    - iii. **Facilitator:** “Now, I’m going to pass around the Feelings chart, and I want each of you to share your name, one word for how you are feeling, and what your stress and resilience numbers are for this week. If you’re comfortable, you can share a sentence or two about why your numbers are that way. Who would like to start?”
      - a. *Pass the Feelings chart to whoever volunteers. If a participant is talking for more than thirty seconds, gently interrupt and redirect to continue the check in process.*
- 2) Transition
  - a. **Facilitator:** “Thank you everyone for sharing. Let’s keep in mind both the resilience and the challenges that each of us have and support each other throughout the group today.”
- 3) Check in on homework from last session
  - a. **Facilitator:** “Who all was able to spend some positive time with themselves and someone they care about? How did it go?”
  - b. *Discuss as a group, including barriers that prevented some group members from completing the assignment.*
- 4) Psychoeducation: Empowerment
  - a. **Facilitator:** “What is Empowerment? Why is it important to be Empowered?”  
*Allow 2-3 minutes for discussion.*
  - b. **Facilitator:** “Let’s watch a couple short videos about Empowerment.”
    - i. Make An Impact – Inspirational Video:  
[https://www.youtube.com/watch?v=pb7\\_YJp9bVA](https://www.youtube.com/watch?v=pb7_YJp9bVA)

- ii. A Pep Talk from Kid President to You:  
<https://www.youtube.com/watch?v=l-gQLqv9f4o>
  - c. **Facilitator:** “Thoughts? Reactions?” *Facilitate maximum five minute discussion about videos. “Why might empowerment be important particularly for diabetes management?”*
  - d. Take away: Empowerment is about getting in touch with the power that you have to make a difference in your own life and in the lives of others. It is about believing that you can do something and then taking the action to do it. Empowerment can also help you recognize and use the resources available to you. For diabetes management, this would involve empowering yourselves with the knowledge and skills necessary to manage your diabetes or to do things that supports or informs others so that other youth with diabetes can be more empowered also.
- 5) Music Sharing Exercise
- a. **Facilitator:** “We’re now going to switch gears, and have XXXX share a song that they associated with this week’s strength of Empowerment. XXXX, before you play the song, why don’t you tell us a little about why you chose this song?”
  - b. *Adolescent assigned to this week introduces and plays song.*
  - c. **Facilitator:** “What does that bring up for everyone?”
  - d. **Facilitator:** “On your session card, take a moment to write down the name and artist of the song.”
- 6) Interactive or Experiential Activity
- a. Conduct a short activity that is developmentally and culturally appropriate.
  - b. Example 1: Facilitate a discussion about empowerment in diabetes care. How to talk to your providers (and parents!) about your diabetes care. Discussion of ways to empower yourself and involve your care team (doctors, family) in your diabetes management in a way that feels comfortable for you.
    - i. **Facilitator:** “Let’s have a discussion about how we can apply empowerment to diabetes care. Just a show of hands, who here gets frustrated about all of the people trying to tell you how to take care of yourself? Who here would like to be in charge of their own care?” *Allow a couple of people to comment.*
    - ii. **Facilitator:** “Okay, so let’s start with parents. Anyone have parents who nag them all the time? Let’s see what we can do about that. Has anyone found a system that works for you?” *Allow anyone to share, and if someone does, ask follow-up questions for how it is working for them. “Since your parents care about you and want to make sure you are taking care of yourself, how can you assure them that you are and minimize the times they have to nag you about it?” See what they come up with, but here are some optional things to suggest below.*
      1. *Discuss keeping a schedule on the fridge where, by the time you go to bed, you have filled out when you checked blood sugar, what the number was, and what you did about it.*
      2. *Another option would be setting aside 5-10 minutes, three times a week, where they sit down with parents and tell them how you have*

*been managing your diabetes, and they have the opportunity to ask three questions.*

3. *Create a system based on positive reinforcement. Set up a token economy/reward system where if you check blood sugar and give the appropriate remedy 4-5 times per day, each day receive a small reward and at the end of the week a big reward. Negotiate what you would like, but keep it non-monetary (e.g. 10 minutes extra of video game time per day, and at the end of the week, get to sleep over at a friend's house or pick out a movie to watch or a game to play as a family, for example).*
  4. *Final option is to grant full permission for parents to check your pump if you have a pump to see how often you checked and what your sugars were.*
- iii. **Facilitator:** “Now let’s talk about how to empower yourselves with your doctors. What would you like to be different? How could you get that? What is standing in the way of you receiving the best care, and what can YOU do about it?” *Facilitate discussion. Be careful to redirect if they begin co-ruminating about how terrible or annoying their doctors are.*
- c. Example 2: Create your own mantra. Share it with the group and discuss why it rings true for you.
    - i. **Facilitator:** “Now, we’re going to do a little exercise where we all write our own mantras. Does everyone know what that is? A mantra is a word or phrase that is repeated often or that expresses someone’s basic beliefs.
    - ii. Go through this article: <https://medium.com/@goodaker.d/the-power-of-a-personal-mantra-and-how-to-write-your-own-46a5531ec8aa>
    - iii. Optional other ways to facilitate this: “I want you to think about your favorite movies and your favorite songs. Go ahead and make a list if that is easier. I’ll give you five minutes to do that.” *Pause and allow time to think and create lists.* “Now, I want you to think about what you like about them. Which lyrics are your favorite? What quotes stick out to you from the movies? How do they make you feel? Use some of those to create a mantra for yourself.”
    - iv. Another optional prompt for this activity: “If someone were to make a movie about you at your best, what would you want it to be called? What would be in the description? What would you tell yourself every day so you can live your best life?”
  - d. Example 3: Discuss vignettes of challenging situations and how you might empower yourself with knowledge/ask for help. Focus on whether the stressor is controllable or not, and how you might make a different choice of how to handle it if it is controllable vs. if it is not.
    - i. **Facilitator:** “I’m going to throw out some scenarios, and I want us to discuss as a group what you might do.
      1. Checking your blood sugar 4-5x/day but not achieving a better A1c
      2. Going to a party where there is going to be a lot of unhealthy food or maybe even alcohol

3. You ask someone out and they say no, or someone asks you out and you want to say no
    - a. *Exercise clinical judgment with this one based on group maturity level. Some younger teens are going out with each other, and others are not there yet.*
  4. You are worried about a family member or friend
  - e. Example 4: Facilitate a discussion about connecting to the immediate benefits of diabetes management. Why is it important to manage your diabetes well now? How will it help you feel better, perform better, be happier, now? Discuss with the group in how you can use what is important to you NOW to empower yourself to make behavioral changes necessary to manage diabetes right now.
- 7) Debrief
- a. Group share: Each member of the group will reflect on the current strength and how it can be useful to promote resiliency in the face of the stress that they are currently experiencing. **Facilitator:** “Let’s all take five minutes to reflect on the group today. I’d like to go around the circle, and we will all take turns sharing what you are taking away from the session.”
  - b. Reflect further: “Now, I’d like you to share one stressor in your lives and one way you can engage in resiliency using the strength of Empowerment.”
- 8) Song for next week
- a. **Facilitator:** “Thank you everyone for your Empowerment today. Go ahead and fill out the last part of your session cards. Before we end for the day, can I have a volunteer to bring in a song related to next week’s strength of Creativity?”  
*Choose whoever raises their hand first and record it.*
  - b. **Facilitator:** “Thank you all for coming today!”

## Session 9

### Action “What choices will I make?” pillar group #2 – CREATIVITY

- 1) Opening Ritual: Check-In on Mood, Stress, and Resiliency Level During the Past Week (*Pass out session card for each group member to record*).
  - a. Check in on how the week went
    - i. **Facilitator:** “Let’s start with a check-in on how you’ve been doing this past week. I want you to think about what has been stressful for you in the different areas of your life and how the stress affected you. Give your stress level a number between 0 and 10 with “0” meaning no stress at all and a “10” meaning really intense stress that felt like it was too much to handle. Write the number down on your Session Card. Next, I’ll ask you to think about how resilient you have felt, your ability to keep feeling good despite stress. Think about how you have used your strengths and resilience to manage any stress you have been feeling. Give your resilience a number between 0 and 10 with “0” meaning no resilience, felt your worst and nothing seemed to help, and a “10” meaning highly resilient, you used your resilience skills, or skills that helped you bounce back, to manage stress very well and made you feel your best. Write the number down on your Session Card.”
      1. “My stress level this past week was a \_\_\_\_ (0-10).”
      2. “My resilience level was a \_\_\_\_ (0-10).”
    - ii. *Participants write ratings on Session Card*
    - iii. **Facilitator:** “Now, I’m going to pass around the Feelings chart, and I want each of you to share your name, one word for how you are feeling, and what your stress and resilience numbers are for this week. If you’re comfortable, you can share a sentence or two about why your numbers are that way. Who would like to start?”
      - a. *Pass the Feelings chart to whoever volunteers. If a participant is talking for more than thirty seconds, gently interrupt and redirect to continue the check in process.*
- 2) Transition
  - a. **Facilitator:** “Thank you everyone for sharing. Let’s keep in mind both the resilience and the challenges that each of us have and support each other throughout the group today.”
- 3) Psychoeducation: Creativity
  - a. **Facilitator:** “What is Creativity? Why is it important to be Creative?” *Allow 2-3 minutes for discussion.*
  - b. **Facilitator:** “Let’s watch a couple short videos about Creativity.”
    - i. Rosie Tries Wasabi for the First Time: <https://www.youtube.com/watch?v=eQqnJGGMA-0>
    - ii. Baby’s First Bacon: [https://www.youtube.com/watch?v=OtMVMNST\\_g4](https://www.youtube.com/watch?v=OtMVMNST_g4)
    - iii. Creativity as a Character Strength: <https://www.youtube.com/watch?v=cVRSndabQjw>
    - iv. Cleo’s Diabetes Story: <https://www.youtube.com/watch?v=IzcCPzguCEA>

- c. **Facilitator:** “Thoughts? Reactions?” *Facilitate maximum five minute discussion about videos.* “Why might creativity be important particularly for diabetes management?”
  - d. Take away: Sometimes you try something new, and it doesn’t work out. But you have to try the wasabis before you can get to the bacons. That involves creativity. Creativity is so much more than just art. It’s thinking outside the box. It’s thinking of something new and the openness to try it. Creativity is expressing yourself. Creativity can help you solve problems in ways no one else has thought of. It can help you show the world who you are and what you’re about. In a world with so many people, difference and creativity helps you stand out in a good way. Diabetes is something you will always have to manage, so it is important to find new, creative ways to work it into your life, motivate yourself, and keep yourself committed to a healthy life.
- 4) Music Sharing Exercise
- a. **Facilitator:** “We’re now going to switch gears, and have XXXX share a song that they associated with this week’s strength of Creativity. XXXX, before you play the song, why don’t you tell us a little about why you chose this song?”
  - b. *Adolescent assigned to this week introduces and plays song.*
  - c. **Facilitator:** “What does that bring up for everyone?”
  - d. **Facilitator:** “On your session card, take a moment to write down the name and artist of the song.”
- 5) Interactive or Experiential Activity
- a. Intervention with the group that is developmentally and culturally appropriate.
  - b. Example 1: Bring in magazines and have participants cut out pictures, words, colors, etc. to create their “resilience collage” – something they will enjoy making and looking at later to help remind them of the resources they have.
  - c. Example 2: Go around in a circle and have each person say 1-2 of their greatest strengths. Then, as a group, brainstorm new, creative ways to use this strength to help them manage diabetes care.
  - d. The Facilitator will supervise activities so in-vivo feedback can be provided.
- 6) Debrief
- a. Group share: Each member of the group will reflect on the current strength and how it can be useful to promote resiliency in the face of the stress that they are currently experiencing.
  - b. **Facilitator:** “Let’s all take five minutes to reflect on the group today. I’d like to go around the circle, and we will all take turns sharing what you are taking away from the session.”
  - c. Reflect further: “Now, I’d like you to share one stressor in your lives and one way you can engage in resiliency using the strength of Creativity.”
- 7) Homework
- a. Homework assignment worksheet provided at the end of this session.
  - b. **Facilitator:** “Over the next week, I want you to think about a way you can incorporate creativity in your life and implement it. Decide on one, new thing you will do every day for yourself this week, and try to do it each day. We can discuss how it went next week.”

## 8) Song for next week

- a. **Facilitator:** “Thank you everyone for your Creativity today. Go ahead and fill out the last part of your session cards. Before we end for the day, can I have a volunteer to bring in a song related to next week’s strength of Wholeness?”  
*Choose whoever raises their hand first and record it.*
- b. **Facilitator:** “Thank you all for coming today!”



## **In-between Group Project:**

**What am I doing?:** Think about a way you can incorporate creativity in your life and implement it. Decide on one, new thing you will do every day for yourself this week, and try to do it each day.

**Why am I doing this?:** Creativity is an essential resilience strength, and scheduling in something creative every day can boost mood and allow for an opportunity to use your strengths.

## Session 10

### Action “What choices will I make?” pillar group #3 – WHOLENESS

- 1) Opening Ritual: Check-In on Mood, Stress, and Resiliency Level During the Past Week (*Pass out session card for each group member to record*).
  - a. Check in on how the week went
    - i. **Facilitator:** “Let’s start with a check-in on how you’ve been doing this past week. I want you to think about what has been stressful for you in the different areas of your life and how the stress affected you. Give your stress level a number between 0 and 10 with “0” meaning no stress at all and a “10” meaning really intense stress that felt like it was too much to handle. Write the number down on your Session Card. Next, I’ll ask you to think about how resilient you have felt, your ability to keep feeling good despite stress. Think about how you have used your strengths and resilience to manage any stress you have been feeling. Give your resilience a number between 0 and 10 with “0” meaning no resilience, felt your worst and nothing seemed to help, and a “10” meaning highly resilient, you used your resilience skills, or skills that helped you bounce back, to manage stress very well and made you feel your best. Write the number down on your Session Card.”
      1. “*My stress level this past week was a \_\_\_\_ (0-10).*”
      2. “*My resilience level was a \_\_\_\_ (0-10).*”
    - ii. *Participants write ratings on Session Card*
    - iii. **Facilitator:** “Now, I’m going to pass around the Feelings chart, and I want each of you to share your name, one word for how you are feeling, and what your stress and resilience numbers are for this week. If you’re comfortable, you can share a sentence or two about why your numbers are that way. Who would like to start?”
      - a. *Pass the Feelings chart to whoever volunteers. If a participant is talking for more than thirty seconds, gently interrupt and redirect to continue the check in process.*
- 2) Transition
  - a. **Facilitator:** “Thank you everyone for sharing. Let’s keep in mind both the resilience and the challenges that each of us have and support each other throughout the group today.”
- 3) Check in on homework from last session
  - a. **Facilitator:** “Who all was able to do something creative for yourself on some of the days in the last week? How did it go?”
  - b. *Discuss as a group, including barriers that prevented some group members from completing the assignment.*
- 4) Psychoeducation: Wholeness
  - a. **Facilitator:** “What is Wholeness? Why is it important to be Whole?” *Allow 2-3 minutes for discussion.*
  - b. **Facilitator:** “Let’s watch a video about Wholeness.”
    - i. I’m a Teenager with Type 1 Diabetes:  
<https://www.youtube.com/watch?v=crluCkBIImjE>

- c. **Facilitator:** “Thoughts? Reactions?” *Facilitate maximum five minute discussion about videos. “Why might wholeness be important particularly for diabetes management?”*
  - d. **Take away:** Wholeness means that there are a lot of different parts of you... you aren’t just a student, or a daughter, or a person who is good at video games, or a person who is tall, or someone who is funny, or a “diabetic”. People may not see all of the different aspects of who you are. What is important is that YOU get to know yourself and all of the aspects of what make you YOU. Even the things you want to improve or change. That’s okay. Being whole means having compassion for yourself, accepting the entirety of yourself, your identities and your experiences ...even if they seem to sometimes be opposites! When you make a mistake related to your diabetes management, or when you get stressed, sad, or frustrated, wholeness is recognizing that any of your actions or feelings are NOT WHO YOU ARE. It is part of being a whole person, and part of the human experience. However, you don’t have to dwell in it. Being whole means recognizing that since these things are part of life, but not ALL of you or all of your life, they will also pass. Sometimes we can get stuck on the things we don’t like about ourselves, and we think we won’t be okay until they change. When we get caught in these traps, it doesn’t leave enough room to be grateful for the things we love about ourselves. Being whole is accepting ourselves, even the things we don’t like as much, which then frees up time to appreciate the things we DO like about ourselves: our strengths! Being able to recognize and use your strengths is part of being resilient.
- 5) Music Sharing Exercise
- a. **Facilitator:** “We’re now going to switch gears, and have XXXX share a song that they associated with this week’s strength of Wholeness. XXXX, before you play the song, why don’t you tell us a little about why you chose this song?”
  - b. *Adolescent assigned to this week introduces and plays song.*
  - c. **Facilitator:** “What does that bring up for everyone?”
  - d. **Facilitator:** “On your session card, take a moment to write down the name and artist of the song.”
- 6) Interactive or Experiential Activity
- a. Conduct an interactive or experiential activity with the group that is developmentally and culturally appropriate.
  - b. Example 1: Review of all of the resilience strengths, and how they are all importance pieces of being resilient to manage diabetes in a “whole” way. Then, write down each theme on a piece of paper, put it in a hat, and have each participant pick one. Participants can then take turns acting out the theme charades-style until someone guesses what it is. When it is guessed correctly, the person who guesses it will share one way they have tried/will try to incorporate that resilience strength into their life.
  - c. Example 2: Create resilience marbles. Each strength can be written as the words, or any other words that remind them of the strength/words they associate with the strength. <https://www.youtube.com/watch?v=PUFfD2p4y0U>

- d. Read aloud: “I am a diabetic” vs. “I am someone who has diabetes.” Think about how each of these makes you feel, and thoughts that pop up when you hear this. Discuss with the group.
- 7) Gratitude, Connectedness, and Goodbye
- a. Energy Stick: <https://www.amazon.com/Be-Amazing-Toys-Energy-Stick/dp/B004K0DSDC> (When you hold both ends, it lights up and makes a noise).
- i. **Facilitator:** “I want us to do one more activity before you all go. Before you started this group, you might have felt like you were the “only one” with this struggle. However, as you have found through this group, there are lots of other teens like you. I don’t want you to forget that you aren’t alone, and the connection between you is powerful. I want you all to get in a circle, and hold the hands of the people to your left and right.”
    1. *Take out the energy stick. You can hold one end, and have the teen to your right or left hold the other end. If everyone is holding hands and the energy stick is part of the circle, it should start to buzz and light up.*
  - ii. **Facilitator:** “So, as long as we are all connected, the energy stick will light up and buzz. But if any one of us lets go, it will stop.” *Ask one person across the circle, who isn’t touching the energy stick at all, to let go of the hand of the person on their left. Everyone else stay holding hands. The energy stick will stop buzzing and lighting up.*
  - iii. **Facilitator:** “This can be a lesson going forward. As long as everyone stays connected, and that means reaching out to each other, leaning on each other, and using all of your resilience strengths, you’ll keep the energy and the light going. You’ve learned and grown in really big and special ways here, and I hope you all stay connected – to each other, and to the people who love and support you.”
- b. **Facilitator:** “Thank you all for your participation in this group. I am grateful for your vulnerability, your engagement, your kindness, and your openness. I wish you all the best, and hope this group has helped you begin to Live Your Best Life.”

## SAMPLE SESSION CARD

**MY SESSION CARD: “*Session Title*”**

**DATE:** \_\_\_\_\_

**THE STRENGTH WE ARE FOCUSING ON TODAY IS:**

\_\_\_\_\_

**CURRENT MOOD (one word):** \_\_\_\_\_

### **PART 1: PAST WEEK STRESS AND RESILIENCE**

Past Week Stress Level: \_\_\_\_\_ (0-10)  
(0=no stress --> 10=extreme stress/trauma)

Past Week Resilience: \_\_\_\_\_ (0-10)  
(0=no resilience --> 10=highly resilient/frequently used my resilience resources)

### **PART 2: INFO ABOUT THE STRENGTH – WHAT DID YOU LEARN?**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

### **PART 3: SONG**

Title: \_\_\_\_\_

Artist: \_\_\_\_\_

**PART 4: ACTIVITY:** \_\_\_\_\_ **[PRE-FILLED]** \_\_\_\_\_

What would you like to remember about the activity we did today?

\_\_\_\_\_

\_\_\_\_\_

# I'm feeling...

			
<b>Calm</b>	<b>Happy</b>	<b>Silly</b>	<b>Relaxed</b>
			
<b>Nervous</b>	<b>Annoyed</b>	<b>Sad</b>	<b>Shy</b>
			
<b>Surprised</b>	<b>Hungry</b>	<b>Angry</b>	<b>Confused</b>
			
<b>Sleepy</b>	<b>Sick</b>	<b>Hurt</b>	<b>Hot</b>

Figure 3. Feelings Chart. From *Teachers Pay Teachers*, by Lauren Walton. Reprinted with permission from creator, Lauren Walton.

For any questions about the intervention, Living My Best Life: A Resilience-Oriented Stress Management Intervention for Youth with Type 1 Diabetes, or using this Facilitator Manual, please contact Tamara Rumburg, M.Ed. at [tamara.rumburg@pepperdine.edu](mailto:tamara.rumburg@pepperdine.edu), or Shelly Harrell, Ph.D., Dissertation Chairperson at Pepperdine University, Graduate School of Education and Psychology, 6100 Center Drive, Los Angeles, CA 90045.

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