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DIABESTIES: HOW DIABETIC SUPPORT ON CAMPUS CAN ALLEVIATE DIABETIC BURNOUT

By

KASSANDRA ELIZABETH MARTIN

B.A. of Arts in Communication Studies, Merrimack College, Andover, MA, 2013

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Approved by:

Sandy Ross, Dean of The Graduate School
Graduate School

Betsy Bach, Faculty Advisor
Communication Studies

Stephen Yoshimura, Committee Member
Communication Studies

Annie Sondag, Committee Member
Health and Human Performance

Martin, Kassandra, M.A., Spring 2015

Communication Studies

Diabesties: How Diabetic Support on Campus can Alleviate Diabetic Burnout

Chairperson: Dr. Betsy Bach

Committee Members: Dr. Stephen Yoshimura, Dr. Annie Sondag

The purpose of this study is to determine what types of supportive communication Type One diabetic students need when entering college to decrease diabetic related distress. A training program for students living with Type One Diabetes was created on the barriers they face to effective disease management on campus. This training plan was developed using Beebe, Mottet, and Roach's (2013) Needs-Centered Training Model. The main issue that appeared from the Needs Assessment was that students are feeling high distress when it comes to keeping with a strict medical regimen. What they expressed interest in was a need for information from the transition between high school and college. While students expressed the need for emotional support and to feel "not alone," a main concern was information to increase the effectiveness when managing their disease in college. The topics that students requested are: time management, nutrition, stress, and alcohol.

According to Shalom (1991), college students living with Type One diabetes often ignore their illness. This lack of adherence to their medical regimen is typically due to both managing their illness for the first time, as well as having the lack of knowledge and expertise to managing their disease effectively. Albrecht and Adelman (1987) suggest a central component of social support is that it functions to reduce uncertainty. When individuals receive supportive messages it has the ability to reduce their anxiety and stress and increase a sense of perceived control. This training attempts at providing students living with Type One diabetes informative and emotional supportive messages. Informative support can be communicated by providing advice, factual input, and feedback regarding ones actions; while emotional support consists of messages that communicate caring, concern, sympathy, and empathy centering the training around advice on how to effectively manage their disease in college it communicates informative support. In addition, the training will allow students to meet others living with Type One Diabetes and share their experiences during the training. This provides them with the opportunity to feel emotionally supported, and emotionally support others.

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Introduction

The connection between social factors and physical health has been extensively researched dating back to the 1950's. Historically, researchers viewed health as the absence of disease. However, in 1947 the World Health Organization changed their definition of health to “a state of complete mental, physical, and social wellbeing and not merely the absence of disease” (WHO, 1947). In 1977 researcher George Engel reinforced this definition when he created the biopsychosocial model of health and disease that biology is not the sole factor that could affect an individual's health, but also that there are a multitude of factors that are influential to health such as psychological and social factors (Engel, 1977). This definition as well as the biopsychosocial model was the advent of research on social support. According to Uchino (2004), the subject of social support has been measured in numerous ways as well as investigated by researchers in anthropology, epidemiology, medicine, nursing, psychology, and sociology. As such, the literature focusing on the concept of social support and health is extensive. Furthermore, social scientists probe into the relationship between individuals, types of supportive messages, how they are communicated, and its overall effects on individuals who suffer from a chronic disease.

Statement of the Problem

According to the International Diabetes Federation (IDF), Diabetes affects more than 371 million people in the world (IDF, diabetes atlas, 2012). In the United States 26 million people, approximately 8.3 percent of the world's population, suffers from diabetes. Out of these individuals, around three million are affected by Type One Diabetes (JDRF, Type One Diabetes facts, 2011). For the purpose of this study, Type One Diabetes will be the main focus. The WHO

defines Type One Diabetes as “a chronic illness characterized by deficient insulin production and requiring daily administration of insulin” (WHO, 2013, diabetes factsheet).

The Burden of Diabetes Management

Kim and Lee (2014), describe the magnitude of living with diabetes and its effects. They argue that “chronic diseases such as cardiovascular disease, cancer, chronic respiratory disease, and diabetes, have increased over the years to become the leading causes of death in the world. People with chronic disease face a complex set of physical and psychological challenges” (Kim & Lee, 2014, p. 775). Type One diabetes requires constant management by the individual. Individuals with Type One diabetes are constantly checking their blood glucose, giving injections, watching their diet, and dealing with the symptoms brought on by their constant fluctuating blood sugar. A diabetic’s ability to self-manage his or her own health behavior is imperative due to the fact that they provide over ninety percent of their own daily care (Miller & DiMatteo, 2013). Without this management, there are numerous long-term health consequences, which include: damage to the heart, blood vessels, eyes, kidneys, and nerves (WHO, 2013). This constant attention needed for their disease can cause a medical condition called diabetic burnout that is a condition where individuals often feel fatigued and overwhelmed by their disease.

A diabetic’s constant management of his or her blood sugar levels and self-care often causes the symptoms of burn out. People living with diabetes report feeling “angry, guilty, or frightened by their disease” (Polonsky, 2002, p.1). As a result of becoming “burnt out” with diabetes, individuals often have poor glycemic control. Glycemic control refers to an individual’s levels of blood glucose. Poor glycemic control can result in limb amputation, the progression of retinopathy (which leads to blindness), and even death (Oh & Lee, 2012). Diabetics with poor glycemic control report high levels of psychological distress, depressive symptoms, as well as

feel the management of their disease is burdensome (Van der Ven, et al., 2005). When an individual with diabetes is feeling “burnt out,” there are life events that can intensify these symptoms. For example, an event such as entering college for the first time can enhance feelings of burnout because individuals are leaving the daily routines that ensure glycemic control which are: health eating habits, a set schedule for the intake of medicine, and frequent exercise. They are also leaving the support and supervision of their parents, and now have to manage the disease without the daily support and assistance to which they have become accustomed.

College Students and Diabetes

According to Shalom (1991), college students with Type One diabetes often ignore their illness. This lack of adherence to their regimen is typically due to both managing their illness for the first time, as well as having the lack of knowledge and expertise to manage their disease effectively. In addition, Shalom (1991) has focused on why diabetics tend to lack glycemic control. Some of these factors include stress, lack of time management, and social stigma, which are all barriers to effectively managing an individual’s diabetes. When individuals with diabetes enter college the above mentioned barriers could have detrimental effects. Not only are students treating their diabetes on their own for the first time, they have to deal with erratic schedules for classes and eating, as well as with managing a different and typically a heavier workload than they are used to. All of these can impact their disease, and in turn, may lead to “burn out.” With such a large population diagnosed with Type One diabetes in the United States, and the negative effects that can occur from lack of control, it is imperative to understand how first time college students experience, as well as deal with, diabetic burnout. As such, it is important to examine the effects that implementing a supportive network on a college campus can have on both

decreasing potential stress within the diabetic college community, as well as improving management of disease.

Purpose of the Study

The purpose of this study is to gather information about the causes of diabetic burnout and the barriers to good self care among diabetic students on a college campus. Second, the purpose is also to determine the potential benefits of supportive communication on burnout. The information gathered on barriers, burnout, and support will be used as a needs assessment to determine a training plan for Type One diabetics on a college campus. This training will increase support for these Type One diabetic college students, as well as provide information and tools for college students on ways to improve their diabetes care on campus. This training is likely to diminish any current or future symptoms of diabetic burnout, and in turn, create improved medical adherence among Type One diabetics.

Chapter One: Literature Review

In reviewing the literature on Type One diabetes, college, medical burnout, and social support, several topics necessitate further discussion. These topics include the description of barriers that diabetics face when entering college, the definition of medical burnout, the definition of social support, the consequences of burnout, and the benefits of social support.

Barriers to the Maintenance of Type One Diabetes among College Students

As previously stated, Type One diabetics face a variety of barriers to effective control of their diabetes. Some of the psychosocial barriers related to the lack of Type One diabetic management is stress, time management, and social stigma. According to Ho, O'Connor, and Mulvaney (2014), stress is a common factor for lack of medical adherence for type one diabetics. Miller and DiMatteo (2013) define medical adherence as “the extent to which patients do not follow treatment recommendations by their health care professional” (p. 422). Stress can stem from many issues one of them being the constant need for attention to their disease. “Time management, feeling pressured, or the unwillingness to take time for self-care” has all been reported as barriers to adherence (Mulvaney et al., 2011, p. 78). Clearly, in a college setting, time management is already a difficult task. When adding the college workload to a diabetic schedule, it could make time management difficult and deepen this barrier.

Finally, social stigma can affect the self-care of an individual with diabetes. Social stigma or embarrassment is well documented among people with chronic illness such as HIV/AIDs, cancer, and epilepsy. Social stigma may have a negative influence on “quality of life, self-care, and medical outcomes” (Mulvaney et al., p. 78). Social stigma may also affect the ability for the individual to ask for help, or perform self-care tasks in public. Although past research has focused on chronic illness, there has been a lack of research on the stigma attached specifically

to diabetes. However, this study will assume that entering college for the first time would intensify this stigma because individuals does not know their peers as well as they had at home.

Burnout

According to Benbow (1998), burnout is a common term that was first introduced by Freudenberger in 1974. Freudenberger used the term burnout to “describe a syndrome which he had believed to be common amongst health care workers” (Freudenberger, 1974, p. 159).

Burnout has three related components: emotional exhaustion, depersonalization, and a decreased sense of accomplishment (Maslach & Jackson 1986).

Definitions of burnout have changed and evolved since the term was first introduced in 1974. Kuremyr, Kihlgren, and Norberg (1994) characterize burnout as physical, emotional, and mental exhaustion that is caused by long-term involvement in situations that are emotionally demanding” (p. 671). Lee and Ashforth (1990) describe burnout as “a syndrome of emotional exhaustion, depersonalization, and feelings of low personal accomplishment in one’s job” (p. 744). The definition of who is affected by burnout has changed slightly from pertaining only to those in the helping industry, to one pertaining to all workplace environments, and finally occurring under any situation that is emotionally demanding.

Regardless of the definitional shift of burnout, what remains are three universal symptoms: emotional exhaustion, depersonalization, and a decreased sense of accomplishment. Past research has mainly focused on occupational burnout, however, for the purpose of this study the particular burnout that will be examined will be that which occurs when managing a chronic condition.

Burnout and chronic illness. Pines and Aronson (1988) presented a broader definition of burnout that goes beyond the typical workplace burnout. They contend that burnout “is a state of physical, emotional, and mental exhaustion caused by long-term involvement in situations that are emotionally demanding” (p. 9). Farber (1983) mentions that burnout occurs as a result of being stressed and not having an out. In addition, Justice, Gold, and Klein (1981) contend that far-reaching life events, such as severe health problems, may be related to burnout. Due to the fact that diabetes is a severe chronic condition, with dangerous health consequences, and the daily demands it has on an individual, it exemplifies why burnout would be a common occurrence with individuals diagnosed with this illness.

The concept of diabetic burnout is fairly recent. The three key dimensions of burnout overwhelming exhaustion, cynicism, and the sense of a lack of accomplishment, although highly studied in workplace settings, can also be seen in patients who are experiencing “diabetes burnout” or “emotional distress.” According to Fritschi and Quinn (2010), “when patients do not experience positive results from their efforts at diabetes self-management, or when they experience unanticipated negative results, they may experience a sense of ineffectiveness or lack of accomplishment. Over time, they may experience emotional fatigue, cynicism, and reluctant detachment from their health care providers’ recommendations” (p. 33). Burnout and chronic illness can have severe consequences and can negatively affect an individual’s ability to manage their disease and negatively affect their overall quality of life. Thus, it is imperative to know the ways in which an individual can decrease symptoms of burnout.

Communication and burnout. Miller, Ellis, Zook, and Lyles (1990) note that communication serves “a critical role in many stress models for reducing burnout” (p. 304). There are two types of communication that are said to reduce the effects of burnout; these are

participation in decision making (PDM), and social support. Perception of participation in decision-making has been found to reduce burnout. PDM decreases role ambiguity and role conflict by “providing more accurate knowledge of formal and informal expectations in the workplace as well as held by others”(Jackson,1983,p.6). In addition, employees who participated more in the workplace, or perceive they have the ability to participate, feel a greater sense of influence as well as control over their work.

Although the literature suggests these two communicative factors to cope with *workplace* burnout, this study will primarily focus on and suggest that communicating social supportive messages can alleviate burnout from a chronic condition. Social support has been seen to protect individuals from the major stresses of life (Albrecht, Burlison, & Goldsmith, 1995). Past research focusing on burnout has found that both perceived as well as functional support within the workplace has reduced occupational stress as well as burnout (Ray, 1993; Ray & Miller, 1991). Miller (2012) suggests three major types of supportive messages that alleviate burnout: emotional support, informational support, and instrumental support. Emotional support (letting another person know they are loved) can enhance a person’s self-esteem. As mentioned above, one of the main factors of burnout, especially in chronic illness, is the sense of lack of accomplishment. By an individual receiving support that ultimately boosts their self-esteem, it may lead them to a greater sense of accomplishment or a feeling that they are capable of handling a situation. Informational support (giving advice to an individual to help them cope) was suggested to decrease “job-related stressors such as role conflict and workload” (Miller, 2012, p. 212). In regards to communicating informational support to individuals with a chronic disease, gaining information from others within a group may allow them to make more informed decisions about their disease (i.e., explaining a different way to administer insulin therapy i.e.

good insulin pump companies versus injections). Finally, instrumental support (physical or material assistance to help an individual cope) is suggested to alleviate burnout. An example of instrumental support would be helping an individual by giving them an injection or waking them up to test their blood sugar throughout the night.

Although the literature on burnout focuses on workplace burnout, above mentioned communicative components to alleviate burnout in the workplace may also be utilized to alleviate diabetic burnout. In this study, I will emphasize social support, its health benefits, and how this type of communication can effectively help individuals with diabetes deal with medical burnout.

Social Support

According to Albrecht and Adelman (1987), social support refers to “verbal and nonverbal communication between recipients and providers that reduces uncertainty about the situation, the self, the other, or the relationship, and functions to enhance a perception of personal control over one’s life” (p. 19). Two specific models have linked social support to health outcomes: the buffering and main effect models. The most well known stress-related model is known as the buffering model. The buffering model of social support proposes “the primary reason in which social support is healthy is because it diminishes or buffers the deleterious effects of stress in a person’s life” (Unchino, 2004, p. 34). The “buffer” essentially means that it protects individuals from a current stressor in their life. The second model, the main effect model, contends that “membership in a social network may improve an individual’s overall well-being and better enable the individual to manage stressful events” (Raines & Keating, 2011, p. 513). The distinction between these two models is that the direct effect model extends to a wide range of circumstances. Essentially, the direct effect model is beneficial

regardless of stress in an individual's life. Whereas the buffering model begins with a potential life stressor, and suggests that social support can diminish the effects of this stress or protect an individual from future stress.

Cohen and Wills (1985) made the connection that functional measures of support (emotional, informational, instrumental) are more likely to be linked with stress-buffering effects because it fulfills an individual's needs during specific stressful events, for example an event that increases an individual's uncertainty. For the purposes of this study, with its focus on functional messages of support and how they decrease symptoms of burnout, I will draw from the buffering model. The buffering model is the most well-known and utilized model that focuses on the health benefits of supportive messages. This model explains that supportive messages can decrease the mental and physical effects of stress (Cohen & Herbert, 1996). Because burnout is a psychological response that is caused by overexposure to stressful situations the use of this model best fits this study by explaining how certain supportive messages (emotional, informational, instrumental) can aid in the alleviation of diabetic distress, or diabetic burnout.

Social Supportive Messages

Most definitions of supportive messages have a functional element to them. In other words, supportive messages do something beneficial for both the recipient and the providers. According to Albrecht and Adelman (1987), a central component to the conceptualization of support is the idea that it functions to reduce uncertainty from the individual. Uncertainty is "a cognitive response that will occur when one is unsure why events are occurring" (Albrecht & Adelman, 1987, p. 24). Supportive communication helps an individual to decrease anxiety and stress caused by an unknown experience. Furthermore, supportive communication not only reduces uncertainty, but also increases a sense of *perceived* control over stressful circumstances.

Mishel (1988) focuses on these beneficial effects in terms of illness. She states there are four factors of uncertainty that occur when an individual is diagnosed with an illness: (a) ambiguity, (b) complexity, (c) lack of information, and (d) unpredictability. Ambiguity is the concept that there are multiple interpretations of an individual's situation. Complexity is the managing and coping of the stressors of illness, which can increase confusion and overload. Finally, lack of information and unpredictability concerns an individual's present and future situation. With supportive communication, an individual will have access to more resources and information, which will decrease the uncertainty associated with disease.

Research on the functional components of social support has been grouped into two different categories: (a) what support is perceived to be available and (b) what support is provided by others. In addition to the two different categories that an individual has for support, there are different functions of supportive messages. These supportive messages are grouped into the functions of informative, emotional, tangible, and belonging support. According to Uchino (2004), (a) informative support is defined as the "provision of advice and guidance," (b) emotional support is defined as "expressions of comfort and caring" (c) "tangible support is the provision of material aid" and finally, (d) supportive messages of belonging is "shared social activities and sense of social belonging" (p. 17).

For the purpose of this study, informative, emotional, and instrumental supportive messages will be examined. The protocol for this study will depend on what type of support the participants need. For example, if the participants feel that they have a lack of *knowledge* and *skills* to manage their diabetes in their new college environment, the training will provide information and skills to accomplish this. The knowledge from the training will act as informational support to the participants. The skills from the training will act as tangible support.

On the other hand, if participants feel they have a lack of emotional support in regards to their diabetes, training on how to communicate emotional supportive messages to others will be conducted. Overall, the goal is to create a supportive network on campus.

Both informative and emotional supportive messages have received a great deal of attention within support group literature. Information support involves “advice, factual input, and feedback regarding one’s actions; emotional support consists of messages that communicate caring, concern, sympathy, and empathy” (p. 513). The type of supportive message has a large impact on the benefits an individual can receive, but in addition, the person who provides the support also can affect the positive or negative experience for an individual.

Strong Versus Weak Tie Support

The type of network in which an individual receives support can influence the perception of support available as well as the benefits an individual receives from support. Strong-tie relationships are voluntary, as are the intimate connections an individual has (i.e. spouse, family or friends). According to Albrecht and Goldsmith (2003), most individuals tend to turn to close family members and friends for support during times of stress as well as when they have health concerns. This support may, at times, be sufficient. However, individuals may find it difficult to obtain the right type of support from their family and friends because of the feeling that his or her closer ties lack experience or have limited information about certain problems (Wright & Miller, 2010). An individual who is suffering from a chronic condition may find it difficult to find support from family and friends and may benefit more from turning to their weak-tie networks that are going through similar experiences. Weak tie relationships are with individuals who “communicate on a relatively frequent basis, but who do not consider themselves members of a close personal network (i.e., neighbors, members of a support group). Granovetter (1973)

claims weak-tie networks can be a stronger support system than an individual's strong tie network due to the sharing of information. Due to the close relationships in strong tie networks the same information will be shared repeatedly. On the other hand, with weak tie networks an individual could receive new information. With health this is essential because the individual will be able to find others with the same health issue and have gone through the same if not more experiences.

In addition to an increase in information exchange, weak-tie support networks also are more willing to talk about the unpleasant topics related to one's health. When individuals turn to their close ties they may "steer conversational topics away from emotional talk about problems, refrain from in-depth discussion of such topics, or avoid consequent interaction altogether" (Wright & Miller, 2010 p. 503). On the other hand, weak-tie relationships, are less emotionally involved, and are more willing to be open and honest about unpleasant health concerns. According to Wright and Bell (2003), weak tie support networks are less likely to judge individuals and be are more likely to encourage individuals to share their concerns and feelings about their health issue.

Another reason why a weak tie network would be beneficial to individuals with a chronic illness is the ability to exchange familiar experiences. "Weak ties are more likely to share similar experiences with a health condition, offer greater objectivity, present less risk associated with self-disclosure, and have fewer role obligations and social complications" (Wright & Miller, 2010, p. 609). Although an individual can receive support from both close tie networks as well as weak-tie networks, students entering college for the first time may sense a decrease in their strong tie support networks (family), and may have a desire for support from other Type One diabetic peers on campus. For example, Honcharuk (2010) found that when students met in

groups to discuss Type One diabetes related topics their glycemic control improved. Students who participated in this study reported “they felt comfortable expressing feelings that they had considered unacceptable to share with non-diabetic peers” (Honcharuk, 2010, p. 10).

The need for information, the exchange of similar experiences, and the lack of judgment on emotional or troubling issues suggest that weak-tie networks are a beneficial outlet for individuals who suffer a long-term health condition such as diabetes. By focusing on building a weak-tie support network on a college campus it not only can help improve glycemic control, but also provide an outlet for students to discuss adjusting to managing their diabetes as a first time college student.

Study

Overall, researchers have discovered that social support has a multitude of benefits. Social support has been linked to buffering an individual from stressful life events, and leads to reports of lower mortality, morbidity, and better subjective well-being (Uchino, 2004). For individuals with a chronic illness such as diabetes, social support results in better medical adherence to disease management, and less feelings of being “burnt out.” As such, in this study, I will first assess the overall perception of Type One student diabetics regarding the on campus support from their weak tie networks. Second, in this study I will seek to discover the extent to which students with Type One diabetes experience burnout related to manage their disease. Finally, I will investigate how the communication of supportive messages is related to the alleviation of burnout within these student diabetics. I hope to add to the knowledge of the communicative health functions of social support, its effects on the condition of burnout, as well as to apply this knowledge to conduct a training for Type One diabetic students, in regarding

communicating social support or providing them informative support to overcome barriers to managing their disease found in the study.

Research Questions

RQ1: To what extent does stress, time management, and social stigma affect diabetes management in a college campus? What additional barriers to diabetes management may occur?

RQ2: To what extent are Type One diabetic students new to campus experiencing burnout?

RQ3: To what extent do Type One diabetic individuals perceive social support messages about their diabetes on a college campus?

RQ 4: What Types of supportive messages do Type one diabetic students want during their time at college?

Both quantitative and qualitative methods will be used for this study functioning as a needs assessment. Quantitative methods will be used to assess the degree to which Type One diabetic students are experiencing burnout symptoms, and the perception of the current amount of social support they receive from friends when they come to campus. After this initial assessment, qualitative methods, specifically interviews, will be used to explore challenges that Type One diabetic students face when managing their disease on campus and their perceptions of current support they receive at school. After this initial assessment a training plan will be put in place to either train students on how to create supportive messages for each other, or information to help them manage their disease.

Chapter 2: Methods

To further understand the barriers that Type One diabetics face when entering college for the first time, the degree of diabetic burnout they experience, and the effects of social supportive messages, quantitative and qualitative methods will be used. A quantitative approach (survey) and qualitative approach (focus groups) will serve as a needs assessment to determine the scope of the training developed for this project. This needs assessment will follow Lawson's (2008) five steps to conducting an individual needs assessment. These five steps are: (a) identify the general nature of the problem or need, (b) determine what method to use for gathering data to pinpoint the skills that need to be developed, (c) collect data from trainees, (d) analyze the data to identify what skills are needed, (e) summarize the findings in a meaningful way that prioritizes the trainees needs (Lawson, 2008, p.12).

As demonstrated in the review of literature, college students have a difficult time managing their disease and are at greater risk of experiencing diabetic burnout. This lack of management can cause future health problems. Thus, the barriers to management as well as the degree of diabetic burnout are assessed as the general problem. Once data are collected, I will identify what type of support/ skills the diabetic participants will need in order to improve the management of their disease and decrease diabetic burnout. Prior to conducting a needs assessment, permission to advance with the study was received from the Institutional Review Board (Appendix A).

Participants

For this study, participants consisted of 17 individuals with Type One diabetes, between the ages of 18-25. The number of participants was limited due to type of population as well as the qualitative nature of this study. Among the 17 participants, 7 were male and 10 were female

(41% female, 59% male). Participants were recruited using a snowball sample method. According to Tracy (2013), “the use of snowball sampling is used for reaching populations that are difficult to access or marginalized” (p. 136). Type One Diabetes is mainly a juvenile disease, which makes finding a population above 18 years of age and above difficult. This sample begins by identifying a few participants who fit the criteria, and then have them suggest a colleague, friend, or family member whom also meets the criteria for the study. In addition to the hard to reach population, the core of the study was based on qualitative interviews.

The study was advertised through announcements in COMM 111A, the Introduction to Public Speaking course at the University of Montana, social media networks, and through the Communication Research and Theory Network. This network is an email listserv for subscribers of the National Communication Association. In addition, a diabetes educator, affiliated with a Northern Rocky Mountain local hospital, provided the researcher’s contact information for those who fit the study criteria and who expressed interest in participating. To be included, participants had to be Type one diabetics, be attending a university, and above 18 years of age. The study was advertised, and those, who wished to volunteer and fit the criteria, were included (See Appendix B).

Individuals who expressed interest to participate were sent a link to an online survey that assessed the symptoms of burnout and the perception of current support the student has for their diabetes on campus. After the survey, interviews were conducted with the individuals who indicate that they wished to participate. Among the 17 participants, 8 expressed interest in being interviewed further. The purpose of the interview is to receive more detailed and rich data on the types of barriers in regard to effective disease management, types of support they need, and what they desire as an outcome of the training. By using interviews, ensured that the participants

would respond favorably to the training or program implemented, as well as provide any additional details they would like covered during the training session.

Procedures

Individuals who wished to participate in the study used the researchers contact information to express interest. The researcher's contact information was found on the flyers that either advertised the study, was posted on CRTNET, or on the flyer their primary care physician gave to them. When the researcher was contacted, the participant received an email with a link to the online survey (Appendix C). This survey served, as the initial needs assessment to determine the scope of the training developed for this project. Before they began the online survey, an introduction informed participants that: (a) participation in this study is completely voluntary, (b) no penalty would occur for deciding not to participate, (c) they can opt out of the survey at any point in time, and (d) their responses will remain confidential. The second page of the online survey was an online consent form that included information on (a) the purpose of the study, (b) how long the survey will take to complete, (c) the benefits of participating in the study, (d) any potential risks/discomforts, (e) assurance that all of the data retrieved from the study will remain confidential, (f) and a final space for the participant to consent to taking the survey (see Appendix D). The consent form also informed participants that any identifying information the participant provided will not be connected to the other data for any reason other than contacting the participant about the interview. Only the researcher and the faculty supervisor accessed the data collected for this study.

After participants completed the survey, they received another chance to opt-out or submit their data. After they have made this choice, a debriefing page appeared explaining the full nature of the study (Appendix E). The page explained diabetic burnout, support on college

campuses, and the purpose of the study, which was to examine the degree to which students feel burnout with their diabetes as well as their overall perception of support they feel while they are at college. In addition to this page, there was an initiation to participate in an interview that focused on the type of barriers that the students have towards effectively managing their diabetes, participants current feelings of the availability of support on campus, as well as their possible motivations for attending a support group if it were to be implemented. In exchange for participation in the interview, participants received the choice of food, beverage, or a diabetic related goodie bag.

Measures

Burnout. To measure the degree of burnout for the Type One diabetic participant Polonskys (2005) Diabetes Distress Scale (DDS17) was administered. As mentioned previously, the three key dimensions of burnout are overwhelming exhaustion, cynicism, and the sense of a lack of accomplishment; these are seen in patients who are experiencing “diabetes burnout” or “emotional distress.” Diabetes burnout has also been called diabetic distress. In addition, burnout “is a state of physical, emotional, and mental exhaustion caused by long-term involvement in situations that are emotionally demanding.” The diabetes distress scale, although not a common scale used to determine burnout, will assist me in identifying the unique stressors that occur for Type One Diabetics as well as aid in the research of a fairly new phenomenon of “diabetes burnout.”

The (DDS 17) scale measures the diabetes related stress in four domains: (a) emotional burden, (b) physician-related distress, (c) regimen-related distress, (d) and diabetes related interpersonal distress. The (DDS 17) asks participants to answer the severity of the items that have occurred in the last month. Each item is rated on a six-point Likert response (1=no problem,

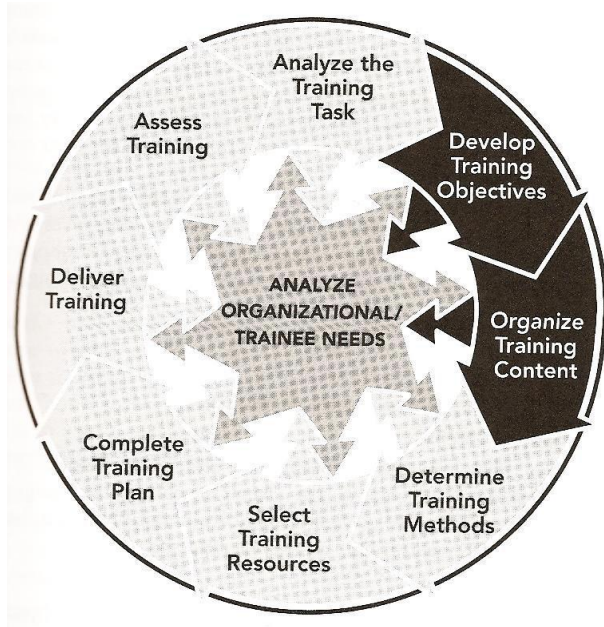
6=a serious problem). The (DDS 17) is reliable with a Cronbach's $\alpha=0.93$. (See Appendix F)

Interviews. To assess barriers to effective management, and a need for support for Type One diabetics on campus, interviews were conducted. Interviews are “a method used to gather detailed information because it allows the researcher to ask follow up questions and probe for explanations” (Beebe et al., 2013, p. 66). The use of interviews or focus groups allows the researcher to determine participant “attitudes, values, and behaviors to identify deep feelings and motivations” (Hocking, Stacks, & McDermott, 2003, p. 204). In order to make the implementation of training successful, the researcher must first discover whether the participants would be motivated to attend a group, learn more about their current attitudes towards a campus training made for Type One diabetes, and to determine what other topics they would like to see in a training developed for them. The interviews took 15-30 minutes of the participant's time. Questions for the interviews can be seen in (Appendix G).

Training Methods

After the needs assessment data are gathered and analyzed, this project will follow Beebe, et al's., (2013) Needs-Centered training model (NCTM), which includes analyzing participant's needs, the training task, developing training objectives, organizing training content, determining training methods, selecting training resources, completing training plan, and delivering training (p. 19). Based on the results of the needs assessment, the training task, objectives, and content will be developed. This will include defining what topics will be included in the training, what type of support the students need, what skills the students need in order to increase effective diabetes management, and minimize symptoms of burnout (See figure 1).

FIGURE 1



Analyze trainee needs. The first step in the Needs Centered Training Model (NCTM) is to identify participant needs. The identification of participants needs is the most vital component to a successful training. The analysis of trainee needs drives every step of designing and delivering the training presentation (Beebe et al., 2013). I conducted this analysis using two assessments: an online survey and interviews. If the initial assessment (online survey) shows a high degree of burnout, and the second assessment, the interviews, reveals a need for support, training will be conducted on how to communicate supportive messages. If students in the second assessment (interviews) express a need for more informational support on ways to adjust to college and managing their diabetes, the training topics will focus on providing the tools and information for overcoming those barriers. Regardless of the results the needs of the trainee will determine the training plan and presentation.

Analyze the training task. The second step in the NCTM is to analyze the training task. To do this, I will conduct a task analysis, which is “a detailed step by step description of

precisely what the trainee should do and know in order to perform a desired skill” (Beebe, et al., 2013, p. 18). Included in the task analysis is (a) analyze the audience to whom I will be speaking (b) conduct an attitudinal analysis of the audience, (c) determine the specific objective for the training, (d) conduct research that is appropriate for the training, (e) develop a training outline, (f) gather appropriate supporting materials, (g) deliver the training. During this step in my study I will collect the data on what my trainees need, and I gathered additional research to gather content that is necessary for training. For example, if students identified alcohol use as a barrier to managing their diabetes; I will need to gather content that I would present during the training session.

Develop training objectives. After I have figured out the steps of the skill I am teaching, on either training students to be effective peer supporters or training them on how to overcome barriers to their management, training objectives meeting Beebe et al.’s (2013) four objective-writing criteria (objectives that are observable, attainable, measurable, and specific) will be outlined. These objectives are outlined for the trainer for two reasons: to help guide the training as well as to ensure the trainings effectiveness once the session has ended. Objectives focus on what trainees should know about the topics as well as what they should be able to do by the end of the training session, and will be detailed later in this paper.

Develop training methods. Once the assessment, training content, and training objectives have been organized, training methods will be chosen. According to Beebe and colleagues (2013), adult learners are not classified by their chronological age but are determined based on maturity. “Maturity refers to the degree of experience that a trainee brings to the classroom” (p. 33). This group of trainees has already been diagnosed with Type One Diabetes and some may have already been through their first year of college, so they might be able to

bring personal experience to the training session that may help others. When teaching adults the trainer will need to make sure to draw on the trainees experiences, rely on internal motivation, and make the training problem oriented. It is also imperative to remember that adults have different learning styles. Thus, this training will vary methods used to address those different learning styles.

The three different training methods used for these participants will be lecturing, simulation, and discussion. The advantages of lecturing, according to Beebe et al. (2013), are that it is efficient, and can be adapted to the trainees needs. By either lecturing on the effective components of a socially supportive message, or steps to improve their management on campus it will allow the trainees to have steps they can follow in the future. The second method, simulation is beneficial because it actively involves the trainees, helps maintain their interest, and enhances the trainees ability to convey the content (Beebe et al., 2013). By having the trainees practice the material being taught, they will be able to replicate these behaviors in the future. Finally, discussion will be used in the training to allow trainees to share experiences, participate, to learn from each other, and allow honest opinions to be shared throughout the training.

Complete the training plan. The sixth step of the NCTM is to complete the training plan. This will include creating a written plan that includes all of the information used in the training. In addition to the information, the training plan includes what types of materials are needed for that segment, how long the training segment will last, and what teaching method is used for that segment (Beebe et al., 2013). A description of the training objectives is also included in the beginning of the training plan. These objectives are included to help guide the content of the training and allows the trainees to take these objectives into consideration.

Assess the training process. When the training session is over, I will evaluate how effectively the training was received. I will assess if the trainees liked the training and most importantly what they learned from my training. This assessment uses questions that reflect each objective made for the training. If training is unsuccessful future research is needed to determine aspects of the training that resulted in low assessment scores, and new content or new teaching methods should be substituted in order to increase the trainings effectiveness for the future.

Final assessment. In addition to the final assessment of training after two weeks has passed the researcher will provide the same survey that was distributed as the initial needs assessment. The purpose of this study was to see how functional supportive messages would decrease the participant's stress and symptoms of burnout. This survey will allow the trainer to see if burnout symptoms have decreased since the training ended. Whether it be training on how to be an effective peer supporter, and the elements of supportive messages, or how to overcome the barriers college students face to managing their diabetes, this survey will show if this information or increased support had an effect on the students burnout symptoms.

Chapter Three: Results

Both the online survey and participant interviews produced helpful results that guided the direction of the training. Responses were coded using emergent themes.

Online Survey Student Demographics Questions

Participants in the online survey were 17 individuals living with Type One Diabetes (41% female, 59% male). Participant ages ranged from 18-25 years. The majority of participants (29%) have been attending university for 1-2 years. Among the 17 participants, three were out of school for 1 year and now attending a masters program. When asked if participants lived on or off campus, 53% responded that they were located on campus, and 47% responded that they were living off campus.

Online Survey Diabetes Questions

To receive more background on the participant diabetes, the online survey asked questions regarding the length of the disease and treatment. The online survey revealed that most student participants have been living with Type One diabetes for over 13 years, with 35 % of participants 4-12 years, and 11 participants have been living with Type One Diabetes for 13-19 years (64%). The majority of participants (88%) reported maintaining their disease through insulin pump therapy, and only (12%) responding to treating their disease through the use of insulin injections.

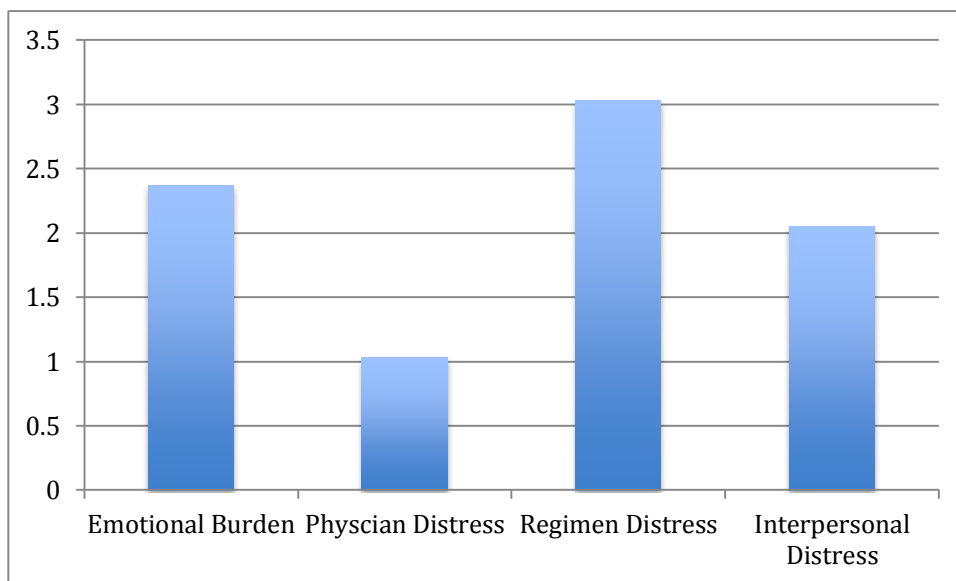
In addition to background information on the participant's disease, a question was added inquiring about the ideal A1C range is for Type One diabetes, which was asked to ensure their diagnosis. An A1C is a test is a common blood test that is checked during every diabetic appointment and demonstrates an individual's average blood glucose levels over the past three months. During this time the doctor informs the patient about where their ideal range should be (National Institute of Health, para 1). The ideal A1C range is between 6-7, the participants were

given the choice of 6-7, 8-9, and 8-10. The majority of participants (88%) answered this question correctly, with only (12%) answering this question incorrectly. Given the majority of participants answered this question correctly, their Type One diabetes diagnosis was confirmed.

Polonsky's Diabetes Distress Scale Results

The Diabetes Distress Scale 17 measures an individual's level of diabetes distress. The scale has four domains that include emotional burden, physician distress, regimen distress, and interpersonal distress. The results indicate the level of distress an individual is experiencing with their Type One Diabetes. Results vary from little to no distress (< 2), Moderate Distress (2-2.9), and high distress (≥ 3). The DDS (17) revealed that the 17 participants were on average experiencing moderate distress (2.12) with their diabetes. The 17 participants reported a moderate level of emotional burden (average 2.37), a low level of physician distress (average 1.03), high regimen distress (average 3.03), and a moderate level of interpersonal distress (average 2.05). Interestingly, the three highest levels of distress for the Type One Diabetic participants were regimen distress, emotional burden, and interpersonal distress (See Table 1).

Table 1 Diabetes Distress Results



Interview Results

Participant responses to interview questions were analyzed using a constant comparison method (Glaser and Strauss, 1967). This method finds categories and themes by comparing participant's answers to each other. The results are the emergent themes that occurred across the eight interviews. The findings helped determine the topics covered in the training.

Barriers to managing Type One diabetes in college. Approximately 62.5% of the interview respondents expressed time management as a major barrier to managing their diabetes in college. One participant reported the difference in the high school environment versus college environment when managing his diabetes.

After entering college, there have been two main barriers to managing my diabetes. The first is the lack of a concrete schedule as compared to high school. It was easy to fall into a constant routine with much daily change in high school, but now I have more freedom and less of a routine I am in, and this has made managing diabetes a bit more challenging (Participant 1).

A second student also expressed the difference in time as a major barrier to managing his disease. He also mentions being away from home contributing to his management. He expresses his experience as follows:

I would say having a busy schedule. In high school you would know what classes you have and they would be from 8 to whenever. In college, your schedule is different you could be in night class or doing group stuff. I would say just getting on a set schedule and also remembering to check and do things without my parents around (Participant 7).

Four out of the 8 participants (50%) reported nutrition as a barrier to managing their diabetes when entering college.

Being in a place where the café is an all you can eat. In your freshman year it is really overwhelming and you are like, I cannot eat over one hundred carbohydrates each meal, I am going to die (Participant 7).

The lack of nutrition labels available on college campuses also emerged throughout the interviews; one participant expressed this barrier and talks about the difficulty of estimating her carbohydrates for each meal as a major barrier to managing her diabetes. She reports her feelings as follows:

My barriers are the lack of food in the dining hall, not having the carb counts and really having to estimate the carbs because there is a lot less carb counts available (Participant 3).

Another student respondent discusses what her experience was like for available healthy options and how that affects her management.

So this is going to sound silly, but there is a Starbucks on our campus so I was always like if I am tired I could get a coffee, but there is just straight sugar in their coffee so I try not to get that because it is so much insulin to cover and stuff (Participant 8).

From these responses it is clear that there are two major barriers for Type One Diabetic students on campus: time management and nutrition. Most respondents mentioned the difference between being in high school versus the college environment and how that affected their management behavior. Included in time management was also the fact that they did not have someone to “remind them” to test and give their insulin.

Comfort level when managing Type One diabetes in public. Interestingly, all of the interview participants expressed that they were comfortable managing their diabetes in public. In addition, all participants stated that if they were having a diabetic reaction, those around them could identify the signs and assist them. However, three out of the 8 participants did mention feeling embarrassed or that they would be a distraction if they were to test, administer insulin, or treat a low blood sugar in front of others. One of the participants discussed her feelings on being a distraction to her fellow students.

As far as pricking my finger I do not mind doing it. I just don't like being a distraction. In a learning environment I do not like being that distraction. I have no problem doing it in between my classes or the hall (Participant 4).

One student discussed that she feels comfortable but sometimes gets embarrassed when her blood sugar goes low in public.

Yeah, I feel pretty comfortable with it. I normally am a little embarrassed by it. But I will check my blood sugar in public and I have a pump. I worry about getting low in public a lot more often (Participant 3).

When probing her about this concern, the student expressed that when she is in the middle of activities, she does not like getting low in front of other people because that requires her to leave her activity to manage her blood sugar. This was reinforced by another student who talks about how the reactions of others made him feel uncomfortable managing his disease. For example,

There was definitely the social aspect. Trying to take time out of my schedule to check my blood sugar or change my pump site... It's different to others because it is not what they normally see so it is weird for them. So thinking about that made me not want to do it in front of them or do it at all (Participant 6).

The student did express that this discomfort was only in the first year of his college experience and now he is comfortable managing his diabetes in front of others.

The impact of stress on diabetes management. All student participants acknowledged that stress impacts their diabetes management and that their blood sugar levels tend to spike. 50% of participants expressed that when they are stressed their diabetes management takes a "back seat," and their course work becomes their top priority.

If I have a lot of work to do, I will put off other things. I've had days where I should eat a test my blood sugar that I will completely ignore and get the work done. I think stress does impact it. My last endocrinology appointment, I got bad results and not the ones I wanted to and that was stressing me out too. However, that helped me because it made me want to step my game up, but school stress does not help me. It's a vicious cycle (Participant 7).

Not only does stress have students "putting off" diabetes management it also causes them to forget about managing their diabetes completely.

Some days I will completely forget to check my blood sugar because I am so stressed out, and running around doing a bunch of work and meeting with a bunch of people. If I am stressed I am not thinking about my diabetes as much (Participant 6).

Some student participants mention becoming more frustrated when having to manage their diabetes and stress. One student expresses this experience as follows:

It makes my glucose go up like crazy. So the more stress I get for personal reasons or academic reasons it makes my glucose go up. So it makes me have to keep a closer watch on my glucose. If that means testing more that I would if I am running the 200s I will test a lot so I am not over administering my insulin. That makes me more tired and frustrated (Participant 4).

Type One Diabetic training. When asking students if there was a training that addressed some of the barriers they mentioned what information would they like to see covered, the majority of them (75%) focused on time management, stress, and nutrition topics. For example two students emphasized the need for information on the transition from high school to college.

I would like to see this training cover the transition from being at home to being on your own in college and how stress can be a huge factor in diabetes management. Also I would like to see the training focus on how to create a routine in college. I feel like it took me a while to fall into a constant schedule and it would have helped to be able to do that sooner (Participant 1).

Just learning to manage it on your own. And how to deal with the changes in college (Participant 3).

One student expressed a general overview for how to handle diabetes in college.

I would say, time management skills, ways to deal with stress, and also I would say making healthy choices. Just a general thing that covers all bases (Participant 7).

In regards to stress one student discussed wanting to learn about how it affects your diabetes in general and how quickly stress can impact your blood sugar. Students appeared as if they wanted a general understanding of the different barriers, and advice on how to mitigate some of the effects it has on their disease.

Who do you talk with about your Type One Diabetes? Four out of the eight participants agreed that they talk about their diabetes with their friends, family, and teachers.

When asking participants what topics they discuss with family, participants agreed that they discuss everything diabetes related but the majority of respondents discuss that their family communicates reminders of management tasks to them.

We talk about how my blood sugars are doing... My family members talk to me and send me reminders via text and phone calls to see how I am doing and everything diabetes related (Participant 1).

My parents a lot. Not really anyone on campus. They ask me if I tested my blood sugar and how they have been. They have seen some of the days where I do not test my blood sugar so they will call and ask how many times I have checked. They really keep me on top of it (Participant 6).

If I ever come home from school and my face looks flushed or something like that, my mom will be like "Did you test your blood sugar... what are you? Or if we are out for dinner and we are having pizza or pasta or something my mom will be like "Don't forget your insulin" I respond, "I know mom I won't forget. Just things like that (Participant 8).

When asked how these reminders make the participants feel there was a mixed response.

Participants expressed being annoyed but also feeling cared for that their parents were looking out for them.

I know she is just doing it to remind me because she loves me and stuff but sometimes I am just like "Okay mom, I am 21 years old I know how to take care of my body." And at the same time I know she is just doing it because she loves me and cares (Participant 8).

One participant mentions feeling a sense of anger and guilt when her parents ask her about her blood sugar.

Sometimes I am okay with it but there are times when I am having a bad day and I just get annoyed. Did you have to poke your finger 8 times a day? No I do not think you did. Or when I am usually in a bad mood it is a high blood sugar day and I have had a mountain dew or something. They say "how's your sugar" I feel guilty and respond "um...not good (Participant 2).

When asking participants what types of topics they discuss with friends, they explain that the majority of topics are to educate their friends about their disease. For example,

We talk about how my blood sugars are doing, what a high and low blood sugar means, how to treat highs and lows, and what my pump and glucometer do and how they work and how I can control them (Participant 1).

With friends from school it is usually explaining what each part of the management process does like explaining testing, blousing, insulin to car ratio's and stuff like that (Participant 7).

Interestingly, when discussing friends, four out of the eight participants (50%) mentioned that the majority of their friends are not from their school but a summer camp that is dedicated specifically to Type One diabetics. The topics they discussed were being stressed with their diabetes. Their feelings towards these conversations were positive and left them feeling cared for.

With my camp friends its usually anything; what I am struggling with, what I am doing...My camp friends give me hints on how to fix problems that I am having. They are pretty much helpful hints (Participant 7).

One participant even described the difference in discussing her diabetes with her camp friends in comparison to her friends from school.

My camp friends understand what I'm talking about when we discuss diabetes, they understand what it is and what it feels like, and the emotions that come with it. So it is definitely different level of understanding with my camp friends then with my friends from school (Participant 3).

Well I was actually really lucky for the longest time I had gone to a Type One diabetic sleep camp which was a week long. And from there I met a great group of friends whom I still talk with and they are Type One diabetic. So if I am having a rough day I can just call my friend and she is totally there and understands my vent to her (Participant 8).

These responses demonstrate that the participants who have found a network of other Type One Diabetics are able to expand their conversations beyond the technical side of diabetes (testing blood glucose, administering insulin) to the emotional aspect of it (venting about a bad day).

How do your friends and family help you with your diabetes? 75% of participants responded that family provides them with assistance through reminding them to test, administer insulin, and reorder their diabetes supplies. Friends assisting participants with their diabetes was rare. 50% of respondents stated that they do not believe they have anyone on campus that encourages them to take care of their diabetes.

What types of support do you wish you had available on campus for your diabetes? 50% of participants expressed that they wish for people around to share their diabetes experiences with. One participant expressed that a class discussing diet and stress would be

interesting to take for support on campus. Two participants described his/her desire for a group of people on campus:

I suppose I would wish that the campus has a group for people with diabetes to join and talk to each other about their experiences and thoughts so that we could bounce ideas and support off one another (Participant 1).

I think for me what would be ideal would be having someone on campus with diabetes who I know and I can talk to on campus. Because I have my camp friends but I just talk to them on the phone. I feel like it would be nice to talk to someone who has experienced the transition to college and everything I must be going through. Just to have that type of support closer to where I am (Participant 3).

Only one participant did not express interest in any type of support. He explained that he was okay with what he has (his camp friends and family) and would not go out of his way to talk about it with others.

What motivations would you have to attending a group on campus specifically for meeting and supporting others with diabetes? Overall, 62.5 % of participants expressed that they would be motivated to attend a group specifically for Type One Diabetes for knowledge, helping others, and sharing their experiences. This first participant expressed his desire to help others in this response:

The motivation I would have would be able to talk with others about diabetes (although I do this with friends from other colleges), and be able to see if my experiences or thoughts could help someone have an easier time with diabetes (Participant 2).

Another student discusses that he would benefit but also would be motivated to attend also to help others:

I would probably say the betterment of myself. Just improving my overall wellbeing. I like helping others as well, so being a tool for others (Participant 7).

Two participants would be motivated mainly for knowledge from other individuals with Type One diabetes. They express this interest below:

I would really want to hear how other people manage it. Like I exercise on a daily basis and I am still really stressed. So what other tips can you give me? And how not to stress eat. That is really bad too (Participant 2).

The knowledge, I really want to learn more about my illness and to share what I know with others. Like hey this works for me it may not work for you. Being able to talk to

someone who knows what it feels like. Like some day's I say " I don't want to test today, I want to hide my glucose meter and not think about it. Or not put in an infusion set today... Being with someone who understands (Participant 4).

Only one participant did not express the motivation for a group on campus. This individual states that he does have a campus group for diabetics but does not go because he has all the support he needs from camp friends. It appears this additional supportive network is helping students feel supported. However, the majority of participants do have a desire to attend a group to gain more knowledge, and to impart their knowledge on others.

What barriers prohibit you from attending a group on campus specifically for Type One Diabetes? 5 out of the 8 participants expressed that time would be the main barrier to attending a group specifically for Type One diabetics. Two individuals discussed that the topics/goals of the group may influence their willingness to attend. For example one individual expresses this barrier when explaining:

The goals I would look for is a group that will support each other and become friends and discuss issues but not any type of specific information things (Participant 3). Through this question it appears that the majority of participants would be interested in a group, but time would be a determining factor.

If training did exist to help you with support, what would you hope to gain from it. Out of the eight participants, four expressed the need for a training providing them with more information on college and diabetes. Three out of the eight participants just wanted to be surrounded by a group of people to feel less lonely in their disease. Only one participant felt they did not need training. For those who felt they needed more information regarding college and diabetes, one participant reports:

I would say just stay on track or maybe improve what you are doing with your diabetes in high school because it is definitely harder in college, to keep up the same level, or better with diabetes management. Also, a big part of it for me is the drinking because it messes with my blood sugars (Participant 3).

I would say, probably a how to dummies guide to diabetes management. Like overall, a course to manage your diabetes in college. Helpful hints and pretty much anything like that. Tiny pointers in your everyday routine that would help you improve things so much more (Participant 7).

One student discusses the process of stress as being important information that she would like to explore:

Probably, someone to explain how stress and being busy...you know before going to college it is going to have some effect on your blood sugar. But I think if I were to go to one of those, it would be really interesting and beneficial to see how stress does have such an impact on your blood sugar. I mean I did know that before, but when I am really stressed and up late studying for an exam, my blood sugar is most likely going to be high when I test at the end of the night. So for someone to do a meeting, and actually breaking down how you will see some of those changes in college would definitely be really helpful (Participant 8).

Not only did participants express they would like more information as support but they did express this feeling of having others surrounding them as something that would benefit them. For example one student explains:

I would hope to gain the security of knowing that there are others on campus who know and feel what I could be going through with diabetes and they we could talk more in depth about diabetes than we could possibly with friends (Participant 1).

In addition, to the perception of having others available to talk to one person also suggests it would be nice to have someone that she could hold herself accountable to:

I think a support group would be great. Because if you do not have anyone you feel alone. And I feel like when you are alone with this you tend to hide it more. I don't want to have to hide this, I would rather talk about it and be open about it and be held accountable (Participant 2).

A final interesting response to training was to demonstrate to others how to open up the conversation about Type One diabetes to others. One participant describes this feeling below:

One of the things I most wish is for people who have diabetes to be more open about it and for people who do not to ask more questions. So teaching diabetics to be more open and be able to communicate what they have to other people who may not understand (Participant 4).

From the online survey assessment and the interview responses it is evident that Type One diabetic college students need training about diabetes and college. The highest amount of diabetes related distress for participants was for their regimen. Regimen distress is the feeling

that an individual is not sticking close enough to their diabetes management. An example question from the distress scale is Feeling that I am not sticking closely enough to my meal plan. Due to the overwhelming response for a need to understand how to overcome barriers in college such as time, nutrition, and stress it is clear that students need a training on these barriers and tips to overcome them in order to decrease this type of distress.

This type of training will provide students with informative support. However, students also expressed a need to meet others at their college that have Type One diabetes to give and receive advice from other student's experiences. Through this training they will be presented the opportunity to meet other students with Type One diabetes and there will be chances to discuss experience. Not only will students receive information from the trainer, but also through the experiences of the other trainees. Thus this training will serve as both informational support as well as emotional support through conversations with other trainees.

Chapter 4: Training Plan

Develop Objectives

Based on the responses to the needs assessment questionnaire and the qualitative interviews, four topic areas appeared to be desired in a training program. These topics were time management, nutrition, stress, and alcohol use. The topic of alcohol was not a large finding in the needs assessment but was mentioned by various participants as something that affected their blood sugar and that they did not have a lot of information on. Once these topics were chosen, objectives were created to measure the behavior or performance that participants should exhibit after the training is complete.

Time Management Objectives

1. Students identify and explain in their own words 3 out of 5 time management techniques for diabetics.
2. Students will create a “daily” schedule using the time management techniques discussed to plan their week around their Type One diabetes.

Nutrition Objectives

1. Students will be able to identify and explain 4 out of the 7 essential food groups and the typical amount of carbohydrates for one serving of those four different groups.
2. Students will provide an accurate estimate of carbohydrates is in 3 out of the 4 items presented.

Stress Objectives

1. Students will define stress and the process of what happens to your body when you become stressed.
2. Students will list 3 out of 4 effects of becoming stressed and its 2 long-term effects on their diabetes.

3. Students will be able to identify 5 out of 10 symptoms of stress symptoms.
4. Students will find explain three out of the four relaxation techniques and be able to describe/ show how to implement them.
5. Students will be able to describe a stressful college situation and their response and brainstorm/create a healthier way they could have handled that situation.

Alcohol Objectives

1. Students will be able to describe how your body processes alcohol and what it does to your diabetes.
2. Students will be able to list 5 out of the 10 tips for drinking and diabetes
3. Students will share experiences of drinking and diabetes and how different drinks have affected them and why.

Assessing Objectives. Beebe, Mottet, and Roach (2013) argue that training objectives adhere to four criteria they are: (a) observable, (b) measurable, (c) attainable, and (d) specific. The above-mentioned training objectives meet these four criteria in a variety of ways. Beebe et al., (2013) assert that for a training objective to be observable, the trainer must be able to articulate a specific behavior that they can observe throughout the training. These objectives focus on the ability to articulate and act out the learning objective rather than focus on the trainees emotional state, which would be difficult to assess the validity and reliability of the training material (Beebe et al., 2013). All of the objectives for the four different topics adhere to being observable. As one can see from the above-mentioned objectives, they ask for trainees to list, describe, explain, brainstorm, and show. These objectives allow the trainer to be able to see if the trainee can or cannot enact the behaviors requested of them. For example, if a trainee

cannot list five out of the 10 tips for drinking and diabetes they have not learned the behavior upon which the training is focused.

In addition to the training objectives being observable, they also need to be measurable. For a training objective to be measurable, a trainer must be able to assess how accurately and effectively the requested behavior is being performed (Beebe et al., 2013). By using the terms such as “list three out of the four symptoms” the trainer can accurately measure if the trainees have learned that behavior. If the trainee cannot list three out of the four symptoms, they are not exhibiting the behavior effectively. Beebe et al., (2013) also argues that in training, objectives should be attainable or realistic. The objectives used in this training are attainable because the objectives are not requiring the trainee to memorize all of the material covered in the training. For example, by stating, “trainees will be able to list 3 out of the 4 time management techniques from the lecture.” By asking trainees to only recall 75% of the material presented to them, it is demonstrating a realistic and attainable goal. Individuals will not have to remember all of the material, just a portion of it to succeed in the training.

Finally, training objectives need to be specific. All of the above-mentioned objectives are specific because they set criteria that the trainee should expect as well as exhibit as an outcome. Being able to list, or describe a specific among of processes is observable, measurable, and attainable, but also demonstrates that the trainer has a set of criteria that trainees should meet at the end of the training.

Organize training content. The content of the training will be centered on what students will need to know to accomplish the training objectives. The topics do not need to be structured in a specific order because they are independent from one another. However, choosing to address the topic of alcohol may be beneficial if discussed at the end, because it is a more sensitive topic.

By allowing trainees to get to know the trainer and other individuals in the group, it will allow the participants to feel more at ease when talking about sensitive topics. Each section of the training content will begin with a mini lecture on the behavior that is the desired outcome of the training. Beebe et al., (2013) describe this process when discussing how to teach a skill in training. They argue that the first step is to “tell” trainees what to do. This typically is done by describing a skill or giving a short lecture. Due to the content of the training, it will be beneficial to give an overview of the topic and then allow for trainees to show what they have learned by either describing, listing, or acting out the behaviors from the objectives. In addition, during the topic of stress, trainees will take the learning process one step further by simulating the real experience when we discuss different techniques in reducing stress.

The majority of the training will focus on opening up the topic to the group for brainstorming and sharing stories as well as activities for them to put the content into practice. Beebe et al., (2013) argue that participants are most active and tend to remember more when they are demonstrating what they have learned instead of passively listening to information.

Determine Training Methods. While determining the methods to be used in the training it is imperative to keep in mind the demographic of the trainees. The demographics from this study suggest that the training will be aimed at an age group ranging from 18-25 years, making the audience adult learners. Knowles (1980) suggests that adult learning, or andragogy, consists of six learning techniques for how adults learn: (1) The need or reason to learn something, (2) experience (including error) that students bring to the classroom, (3) taking personal responsibility of their own actions, (4) learning has the immediate relevance to their work, (5) problem-centered instruction rather than context-oriented, (6) internal motivation rather (a self-desire to learn) rather than external motivation. Beebe, Mottet, and Roach (2013) believe these

assumptions will assist the trainer in constructing a training with the learner's perspective in mind.

All participants in this training are living with Type One Diabetes and have all expressed the need for more information on how to manage their diabetes in school. As such, the trainer does not need to go into depth about how this training will relate to their current problems. The training is designed to combat the problems found on the needs assessment. However, it would be beneficial to mention the findings from the survey to establish that everyone in the group is experiencing similar issues in their college environment. The second assumption about adult learning argues that adult learners bring years of experience to the classroom. These specific adult learners have years of experience in living with Type One Diabetes, which allows the trainer to start at a more advanced level (Beebe et al., 2013).

In addition, there is more opportunity for the trainer to use the trainee's experiences to facilitate the learning process. These experiences will help the trainees to apply the concepts from the training to their own lives. The participants in this training are already self-motivated because this information will directly affect their potential health outcomes in managing their diabetes in the college environment.

The fourth assumption applies to these students because they may see their lack of control attributing to the four ways to manage your diabetes in college and thus will be engaged in the training. Finally, the fifth and sixth assumption applies to this training based on the needs assessment. Participants already voiced that they would be interested in gaining more information to succeed at managing their diabetes in college, thus they already have an internal motivation to learn more to change their lifestyle and they acknowledge that their current lifestyle is problematic for their Type One diabetes. In addition to the six assumptions of adult

learners, andragogy is beneficial because it encourages trainers to “involve learners in as many aspects of their education as possible and in the creation of a climate in which they can most fruitfully learn” (p. 30). For this population specifically, it is imperative for instructors to involve learners in all aspects of this training because it is setting them up for healthy behaviors in which they have to practice daily.

Beebe, Mottet, and Roach (2013) provide three main training methods: lecture, experiential activities, and discussion, which will be used during the training session. The training will incorporate all three of the training methods, however the majority of the time will be spent on lecture and discussion with activities throughout. The reason for using the three different training methods is to ensure that the trainer is accommodating for the diverse learning styles of the trainees. Fleming (1986), created the VARK model for learning styles. VARK is an acronym that stands for Visual, Aural, Read/Write, and Kinesthetic. For the purposes of this training, I will focus on Visual, Aural, and Kinesthetic. “Visual learners process information best when they can see it, so graphs, flow charts, and pictures work best for these learners” (Khanal, Shah, and Koirala, 2014, p. 2). In addition, if the training is mainly structured around listening, visual learners will get frustrated (Beebe et al., 2013, Fleming 1986). This training will aid visual learners by the use of PowerPoint and a white board. Presenting material through PowerPoint and a whiteboard will allow these learners to visualize the facts being presented. In addition, the trainees will be given a participant’s guide, which will have space to take notes throughout the training. The use of a participant’s guide will allow the visual learners to follow along with “the ideas and concepts along with space to jot down notes and write down follow up questions” (Beebe et al., 2013, p.41).

The second learning modality is aural learners who process information through hearing and speaking (Khaanal, Shah, & Koirala 2014, Beebe et al., 2013, Fleming 1986). To accommodate aural learners this training will provide opportunities for discussion and group work. By starting the four different sessions with a mini lecture they are hearing the concepts. In addition, to ensure that these trainees fully understand the concepts, this training will present the trainees with the opportunity to discussion with the group or partnering up for activities it will allow these learners to articulate the ideas from the lecture and apply it to their own lives.

The third learning modality is kinesthetic learners who process information by touching and doing (Beebe et al., 2013). To ensure that the training reaches this type of learner, there will be opportunity to practice concepts. Some examples for this hands-on practice will be when trainees make their own schedule to demonstrate time management, as well as a situation in which they will have to practice mindful meditation for stress. Experiential learning is important for trainees who need to experience the training content and is also an opportunity for the trainer to provide them with feedback as they are practicing these concepts.

Select Training Resources. To accommodate for diverse training modalities a variety of resources were chosen. The first is a PowerPoint presentation that will follow along with the lecture format. Beebe et al., (2013) argue that presentation aids allow the training to clarify, demonstrate, and enhance retention. This training has four sessions and covers a variety of concepts, by having a PowerPoint presentation it allows the trainer to explain the complex concepts. In addition, the PowerPoint will demonstrate the diabetes behaviors desired by incorporating videos as well as example schedules to assist them in their diabetes management. Finally, the use of visual aids enhances retention. Beebe et al., (2013) assert that retention “is the amount of material a trainee remembers when the training session is over” (p. 175). The

PowerPoint will be simple and only use key words and phrases to ensure that trainees are not feeling confused or having information overload (Beebe et al., 2013).

Along with the PowerPoint will be a white board with a variety of utensils, in case one fails. Beebe et al., mention that a trainer should not depend solely on technology in case it fails. Thus, having a writing instrument will be useful in case the technology fails as well as for brainstorming. By having two visual aids it allows trainees to remember the information because “seeing, hearing, and doing are more likely to create a vivid memory for trainees, which in turn tends to promote the memory of training content” (Beebe et al., 2013, p. 175).

Participation Guide. A participants guide is a hard copy handout for the training (Beebe et al., 2013). This guide will include a hardcopy of the PowerPoint that has room for the participants to take notes throughout the training. In addition, the guide will have an agenda for the training sessions, the training objectives, as well as a page of resources so the trainees can learn more about the material on their own time. Finally, the guide will have hard copy handouts that will aid the trainees in their diabetes management.

The handout for the trainees includes a blank schedule in which they can use the concepts of effective time management to write their weekly schedule to include managing their diabetes. A second handout will provide fun facts about drinking alcohol and managing diabetes (See Appendix I).

Complete training plan. During this step in the training process, trainers are encouraged to write a detailed training plan. The purpose of a training plan is to “connect what the trainee needs to learn (needs assessment) with training objectives. The second purpose of a training plan is to connect the training objectives with the methods the trainer uses to help trainees master the objectives” (Beebe et al., 2013, p. 198). In addition to detailing the objectives and methods used,

the training plan will include the time that each section will take as well as the resources needed to get that information across to the trainee.

Elements of the training plan. Training plans come in a variation of formats (descriptive, outline, and multicolumn). The training plan used in this training will be multicolumn. A multicolumn format includes four sections that focus on (time, content, method, and materials). The first column, time refers to “the time frame for each training event or activity” (Beebe et al., 2013, p. 208). As the trainer develops the plan, these time estimates may change. The column of the training plan content refers to “information from the participants guide, that summarizes essential training content. Or may include the information presented on the PowerPoint slides” (Beebe et al., 2013, p. 208). For this specific training the content focuses on the information on the PowerPoint slides which trainees have access to in their participant’s guide. The third column displays the method used by the trainer to convey the content, which would include (lecture, discussion, activity). Finally, the materials or resources refer to the materials that will be utilized to convey the content. For example, it may refer to a specific page in the participants guide or a slide number. The multicolumn format provides the trainer with more detail and structure when planning their training sessions (Beebe et al., 2013)(See Appendix J).

Topics. The topics covered in this training will include time management, nutrition, stress, and alcohol. These topics were chosen through the needs assessment and their prominence through qualitative interviews. The research for these topics came from a variety of sources, with the majority of information gathered from popular diabetes websites such as the College Diabetes Network, Joslin Clinic, and the Juvenile Diabetes Association. Other sources used in

the research were from articles put out by academic institutions such as University of California at San Francisco, and Rutgers University.

The training for each of these topics will begin with 15-20 minute lecture on important and relevant information pertaining to the topics mentioned above. After this lecture the rest of the training will consist of either activity or discussions. In total each session will last 30 minutes -1 hour. The sessions will take place over three days. Appendix I includes a sample-training plan, which includes time, the relevant content, and the materials that will be used. Interestingly, while all students agreed that they would like to meet others with Type One Diabetes their main concern was on gathering information on the transition between high school and college. This need for information can also be confirmed with the burnout survey. The burnout survey had the highest degree of stress with regimen. It is clear that students are unaware how to manage time, stress, nutrition, and alcohol with their diabetes upon entering college.

Chapter 5: Summary

When participant's were asked what they would like to see in a training, the majority of participants were interested in a course that assisted with the transition from high school to college. Participants experienced time, nutrition, stress, and alcohol as barriers to managing their disease. In addition, when surveying burnout among Type One diabetic college students the highest degree of distress was with their regimen. These results suggest that Type One diabetic students entering college are not adequately prepared to deal with the changes that come to their diabetes management. By implementing training to incoming freshman on these changes it may prevent this type of distress all together.

Albrecht and Adelman (1987) assert that a central component to the concept of social support is that it functions to reduce uncertainty. Specifically, emotional and informative support function as "stress buffers" because they reduce stress and anxiety caused by situations that

increase uncertainty and allow an individual to perceive they have more control over a situation. Students entering college for the first time are likely to have an increase in uncertainty. They are in a new environment, and often times this can be stressful. For individuals living with Type One Diabetes, their stress will be higher because not only do they have to get used to the new college environment but also changes to their daily routine. By providing students with a training that provides them with information about these changes, it may buffer some of these stressful experiences and prevent some of the barriers they have experienced as well as allow them to take more control over their diabetes in college.

In addition, this training will also provide students with emotional support by introducing them to other students living with Type One diabetes and provide an opportunity to share their experiences. This training will show students they are not alone in their disease. This desire for students to meet other individuals living with the same disease is noted by the following participant:

Because if you do not have anyone you feel alone. And I feel like when you are alone with this you tend to hide it more. I don't want to have to hide this, I would rather talk about it and be open about it and be held accountable (Participant 2).
By using supportive communication through the training, it will reduce student's uncertainty about their new situation, and buffer them for the stress of managing their diabetes in college.

Limitations/ Future Research

Although this training may be beneficial to students living with Type One diabetes, it is important to note that the sample was limited. While it is important to create a supportive network on campus for Type One diabetics it may be beneficial for doctors to inform students entering college on some of the major changes to their disease. When interviewing students, the majority of them expressed not knowing how to manage their nutrition, as well as the effects of

alcohol, when arriving to college. With open communication between doctor-patient it may assist in reducing some of the barriers these students face.

When conducting this training it will be ideal to survey burnout at the beginning and halfway through the semester to be able to examine the effects the training had on stress levels. This training is not only needed but also valuable to universities to ensure that students living with diabetes do not get “burnt out” in the first years of coming to college. In addition, student’s college years and managing diabetes is often their first years alone in managing their disease. In turn, this will be a predictor in how well they manage their disease later on in their adult lives. By communicating this information to students it will ensure future success in the management of their disease.

Finally, it may be interesting to extend this study to other individuals living with a chronic illness besides Type One diabetes and see some of the differences/similarities there.

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Appendix A: IRB Form

Form RA-108

THE UNIVERSITY OF MONTANA-MISSOULA
 Institutional Review Board (IRB)
for the Protection of Human Subjects in Research
 CHECKLIST / APPLICATION

IRB Protocol No.:

At the University of Montana (UM), the Institutional Review Board (IRB) is the institutional review body responsible for oversight of all research activities involving human subjects outlined in the U.S. Department of Health and Human Services' Office of Human Research Protection and the National Institutes of Health, Inclusion of Children Policy Implementation.

Instructions: A separate application form must be submitted for each project. IRB proposals are approved for no longer than one year and must be continued annually (unless Exempt). Faculty and students may email the completed form as a Word document to IRB@umontana.edu, or submit a hardcopy to the Office of the Vice President for Research & Creative Scholarship, University Hall 116. Student applications must be accompanied by email authorization by the supervising faculty member or a signed hard copy. *All fields must be completed. If an item does not apply to this project, write in: n/a.* Questions? Call the IRB office at 243-6672.

1. Administrative Information

Project Title: Diabetsties: How Diabetic Support on Campus Can Alleviate Diabetic Burnout	
Principal Investigator: Kassandra Martin	UM Position: Graduate Student
Department: Communication Studies	Office location: LA339
Work Phone: 406-243-6604	Cell Phone: 904-524-1248

2. Human Subjects Protection Training *(All researchers, including faculty supervisors for student projects, must have completed a [self-study course on protection of human research subjects](#) within the last three years and be able to supply the "Certificate(s) of Completion" upon request. If you need to add rows for more people, use the [Additional Researchers Addendum](#).)*

All Research Team Members (list yourself first)	PI	CO-PI	Faculty Supervisor	Research Assistant	DATE COMPLETED Human Subjects Protection Course
Name: Kassandra Martin Email: kassandra.martin@umontana.edu	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Name: Betsy Bach Email: betsy.bach@umontana.edu	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10/03/13

3. Project Funding *(If federally funded, you must submit a copy of the abstract or Statement of Work.)*

Is grant application currently under review at a grant funding agency? <input type="checkbox"/> Yes (<i>If yes, cite sponsor on ICF if applicable</i>) <input checked="" type="checkbox"/> No		Has grant proposal received approval and funding? <input type="checkbox"/> Yes (<i>If yes, cite sponsor on ICF if applicable</i>) <input checked="" type="checkbox"/> No		
Agency	Grant No.	Start Date	End Date	PI on grant

For UM-IRB Use Only

Note to PI: Non-exempt studies are approved for one year only. Use any attached IRB-approved forms (signed/dated) as "masters" when preparing copies. If continuing beyond the expiration date, a continuation report must be submitted. Notify the IRB if any significant changes or unanticipated events occur. When the study is completed, a closure report must be submitted. Failure to follow these directions constitutes

IRB Determination:

- Not Human Subjects Research
 Approved by Exempt Review, Category # _____ (*see memo*)
 Approved by Expedited Review, Category # _____ (*see Note to PI*)
 Full IRB Determination
 Approved (*see Note to PI*)
 Conditional Approval (*see memo*) - IRB Chair Signature/Date: _____
 Conditions Met (*see Note to PI*)
 Resubmit Proposal (*see memo*) Risk Level: _____
 Disapproved (*see memo*)

Final Approval by IRB Chair/Manager: _____ Date: _____ Expires: _____

4. Purpose of the Research Project: Briefly summarize the overall intent of the study. Your target audience is a non-researcher. Include in your description a statement of the objectives and the potential benefit to the study subjects and/or the advancement of your field. **Generally included are literature related to the problem, hypotheses, and discussion of the problem's importance.** Expand box as needed.

<p>The objective of this research project is to study the degree of medical burnout that Type One Diabetic students face on a college campus, barriers they face in managing their diabetes, and how supportive messages can alleviate this burnout. Type One diabetics will be the focus of this study because with their new and often erratic college schedule, along with their intensive insulin therapy, stress and burnout can cause future negative health issues.</p> <p>Three research questions guide this project:</p> <ol style="list-style-type: none"> 1) To what extent are the barriers of stress, time management, and social stigma prevalent to Type One diabetics on a college campus? What additional barriers to diabetes management may occur? 2) To what extent are Type One Diabetic students new to campus experiencing burnout? 3) To what extent do Type One diabetic individuals perceive social support messages about their diabetes on campus? In exchange for participating in the online survey and focus group participants will be provided food, beverage, and a diabetic related gift. They will also get the chance to explore barriers they face everyday to effective management, and by exploring supportive messages they may also alleviate some symptoms of burnout. 	
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4.1 What do you plan to do with the results? If not discussed above, include considerations such as whether this is a class project, a project to improve a program/school system, and/or if the results will be generalized to a larger population, contribute to the general field of knowledge, and/or be published/presented in any capacity.

The data from my initial assessment of diabetic burnout will be used to develop a training program in handling burnout and designed to meet the needs of my Type One diabetic participants.
Is this part of a thesis or dissertation? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes If yes and other than the PI's, then whose?

5. IRB Oversight

Is oversight required by other IRB(s) [e.g., tribal, hospital, other university] for this project? Yes No
If yes, please identify IRB(s):

6. Subject Information:

6.1 Human Subjects (*identify, include age/gender*):

6.2 How many subjects will be included in the study? 6-12

6.3 Are minors included (*under age 18, per Montana law*)? Yes No

If yes, specify age range: to

6.4 Are members of a physically, psychologically, or socially vulnerable population being specifically targeted?

Yes No

If yes, please explain why the subjects might be physically, psychologically or socially vulnerable:

6.5 Are there other special considerations regarding this population? Yes No

6.6 Do subjects reside in a foreign country? Yes *Specify country:* _____ No

If yes, please fill out and attach Form RA-112, Foreign Site Study Appendix (<http://www.umt.edu/research/compliance/IRB/Docs/foreign.doc>).

6.7 How will the subjects be selected or recruited? Include a bulleted list of inclusion/exclusion criteria. **(Attach copies of all flyers, advertisements, etc., that will be used in the recruitment process as these require UM-IRB approval)**

Subjects will be recruited by a provider at St Patricks Hospital who will pass along information about the research and a way to contact the researcher. In addition, a advertisement will be put up around school bulletin boards.

6.8 How will subjects be identified in your personal notes, work papers, or publications: *(may check more than one)*

Identified by name and/or address or other

(Secure written [e.g., ICF] or verbal permission to identify; if risk exists, create a confidentiality plan.)

Confidentiality Plan

(Identity of subjects linked to research, but not specific data [e.g., individuals identified in ICF but not included in publications]; identification key kept separate from data; or, data collected by third party [e.g., Select Survey, SurveyMonkey, etc.] and identifiers not received with data.)

Never know participant's identity

*(An ICF may be unnecessary [e.g, anonymous survey, paper or online] **unless** project is sensitive or involves a vulnerable population.)*

6.9 Describe the means by which the human subject's personal privacy is to be protected, and the confidentiality of information maintained. If you are using a Confidentiality Plan (as checked above), include in your description a plan for the destruction of materials that could allow identification of individual subjects or the justification for preserving identifiers.

All data will remain confidential. Any identifying information my participants decide to provide me will not be connected to the other data for any reason other than contacting my participants that expressed interest with the location and time of the focus group. The data retrieved from my study will only be accessed by myself and my faculty supervisor. Participants will be explained that participation/non participation will not impact their relationship with the University of Montana. The focus groups will be audio taped, and will be destroyed by May 2015.

6.9a Will subject(s) receive an explanation of the research – separate from the informed consent form (if applicable) – before and/or after the project? Yes *(attach copy and explain when given)* No

7. Information to be Compiled

7.1 Explain where the study will take place (physical location not geographic). If permission is required to conduct the research at the location or to use any of the facilities, indicate those arrangements and attach copies of written permission:

The initial assessment survey will be conducted online. The participants will receive a flyer with the researchers email, once the researcher is contacted they will send the link to their email. The focus group and training will take place on campus. The focus group will take place in a room reserved in the graduate student seminar room in the Liberal Arts Building 339. The focus group will take place also in the Liberal Arts room.

7.2 Will you be working with infectious materials, ionizing radiation, or hazardous materials? Please specify. (Do not include here standard biological samples, such as blood, buccal cells, or urine; specify those in #7.6.)

[Empty box for 7.2 response]

7.3 Subject matter or kind(s) of information to be compiled from/about subjects:

[Empty box for 7.3 response]

7.4 Activities the subjects will perform and how the subjects will be used. Describe the instrumentation and procedures to be used and kinds of data or information to be gathered. Provide enough detail so the IRB will be able to evaluate the intrusion from the subject's perspective (expand box as needed):

[Empty box for 7.4 response]

7.5 Is information on any of the following included? (check all that apply):

- Sexual behavior, Drug use/abuse, Alcohol use/abuse, Illegal conduct

Information about the subject that, if it became known outside the research, could reasonably place the subject at risk of criminal or civil liability or be damaging to the subject's financial standing or employability.

7.6 Means of obtaining the information (check all that apply). Attach questionnaire or survey instrument, if used:

- Field/Laboratory observation, In-person interviews/survey, Blood/Tissue/Urine/Feces/Semen/Saliva, Telephone interviews/survey, Sampling (IBC Application must be submitted), On-site survey, Medical records (require HIPAA form), Mail survey, Measurement of motions/actions, Online survey (attach Statement of Confidentiality)

- Use of standard educational tests, etc. Examine public documents, records, data, etc.
- Other means (*specify*): Examine private documents, records, data, etc.

7.7 Will subjects be (*check all that apply*):

- Videotaped Audio-taped Photographed N/A

(securing an additional signature is recommended on consent/assent/permission forms)

Explain how above media will be used, who will transcribe, and how/when destroyed:

The participants will be audio taped in the focus group. I wil transcribe the recordings and then destroy them after the training, by May 2015.

7.8 Discuss the benefits (does not include payment for participation) of the research, if any, to the human subjects and to scientific knowledge (*if the subjects will not benefit from their participation, so state*):

Participants will receive food and beverage for participating in both focus groups, and in training. The use of supportive messages will also be beneficial in alleviating current burnout symptoms they feel.

7.9 Cite any payment for participation (payment is not considered a benefit). If grant funding is not indicated in item #2, please specify the source of the funding and in what form it is to be dispersed.

7.9a Outline, **in detail**, the risks and discomforts, if any, to which the human subjects will be exposed (*Such deleterious effects may be physical, psychological, professional, financial, legal, spiritual, or cultural. As a result, one can never guarantee that there are no risks – use “minimal.” Some research involves violations of normal expectations, rather than risks or discomforts; such violations, if any, should be specified*):

There are only minimal emotional risks associated with participating in the questionnaire and focus group. The participants will be asked to think abou their feelings on their disease, which may create some emotional discomfort and at times will be unpleasant.

7.9b Describe, **in detail**, the means taken to minimize each such deleterious effect or violation::

Participants can opt out at any time and will be advised to speak with my faculty advisor.

8. Informed Consent

An informed consent form (ICF) is usually required, unless subjects remain anonymous or a waiver is otherwise justified below. (*Templates and examples of Informed Consent, Parental Permission, and Child’s Assent Forms are available at <http://www.umt.edu/research/compliance/IRB/forms.php>*).

- A signed copy of the consent/assent/permission form **must be offered to all subjects**, including parents/guardians of subjects less than 18 years of age (minors).
- Use of minors
 - All minor subjects (under the age of 18) must have written parental or custodial permission (45 CFR 46.116(b)).
 - All minors from 10 to 18 years of age are required to give written assent (45 CFR 46.408(a)).

- Assent by minor subjects: All minor subjects are to be given a clear and complete picture of the research they are being asked to engage in, together with its attendant risks and benefits, as their developmental status and competence will allow them to understand.
- Minors less than 10 years of age and all individuals, regardless of age, with delayed cognitive functioning (or with communication skills that make expressive responses unreliable) will be denied involvement in any research that does not provide a benefit/risk advantage.
 - Good faith efforts must be made to assess the actual level of competence of minor subjects where there is doubt.
 - The Minor Assent Form must be written at a level that can be understood by the minor, and/or read to them at an age-appropriate level in order to secure verbal assent.

- Is a written informed consent form being used? Yes (*attach copy*) No (*justify below*)

To waive the requirement for written informed consent (45 CFR 46.117), describe your justification:

- Is a written parental permission form being used? Yes (*attach copy*) No
(*If yes, will likely require minor assent form*)
- Is a written minor assent form being used? Yes (*attach copy*) No
(*If yes, will likely require parental permission form*)

Principal Investigator's Statement

By signing below, the Principal Investigator agrees to comply with all requirements of The University of Montana-Missoula IRB, the U.S. Department of Health and Human Services Office of Human Research Protection Guidelines, and NIH Guidelines. The PI agrees to ensure all members of his/her team are familiar with the requirements and risks of this project, and will complete the Human Subject Protection Course available at <http://www.umt.edu/research/compliance/IRB/hspcourse.php>.

I certify that the statements made in this application are accurate and complete. I also agree to the following:

- I will not begin work on the procedures described in this protocol, including any subject recruitment or data collection, until I receive final notice of approval from the IRB.
- I agree to inform the IRB in writing of any adverse or unanticipated problems using the appropriate form. I further agree not to proceed with the project until the problems have been resolved.
- I will not make any changes to the protocol written herein without first submitting a written **Amendment Request** to the IRB using form RA-110, and I will not undertake such changes until the IRB has reviewed and approved them.
- It is my responsibility to ensure that every person working with the human subjects is appropriately trained.
- All consent forms and recruitment flyers must be approved and date-stamped by the IRB before they can be used. The forms will be provided back to the PI in PDF format with the IRB approval email. Copies must be made from the date-stamped version. All consent forms given to subjects must display the IRB approval date-stamp.
- I understand that it is my responsibility to file a **Continuation Report** before the project expiration date (does not apply to exempt projects). This is not the responsibility of the IRB office. *Tip: Set a reminder on your calendar as soon as you receive the date.* A project that has expired is no longer in compliance with UM or federal policy.
- I understand that I must file a **Closure Report** (RA-109) when the project is completed, abandoned, or otherwise qualifies for closure from continuing IRB review (does not apply to exempt projects).
- I will keep a copy of this protocol (including all consent forms, questionnaires, and recruitment flyers) and all subsequent correspondence with the IRB.

- I understand that failure to comply with UM and federal policy, including failure to promptly respond to IRB requests, constitutes **non-compliance** and may have serious consequences impacting my project and my standing at The University of Montana.

Signature of Principal Investigator: *Kassandra Martin*

Date: February 6, 2015

(Type for electronic submission; sign for hard copy)

As the student's **faculty supervisor** on this project, I confirm that:

- 1) I have read the IRB Application and attachments.
- 2) I agree that it accurately represents the planned research.
- 3) I will supervise this research project.

Faculty Supervisor: Betsy Bach

(Type or print name)

Faculty Supervisor Signature: *Betsy Bach*

Date:

(Sign for hard copy)

Department: Communication Studies

Phone:

Appendix B: Flyer for Study**Type One Diabetic VOLUNTEERS NEEDED FOR
RESEARCH ON****Diabetic Burnout and Perceptions of Support**

We are looking for type one diabetic college student volunteers to complete an online survey on current feelings of problems or hassles that you face when dealing with diabetes, and your perceptions of support that you currently receive from friends and family on campus. As a participant in this survey, you would be asked to: discuss current feelings on managing your diabetes in college. The study will take approximately 10-20 minutes for you complete. After the survey you will be invited to participate in a interview to hear your thoughts about managing your diabetes in college, and your perceptions of support on campus, as well as get the chance to learn something new! In appreciation of your time, you will receive a college diabetes survival kit!

If you are interested, please email [Kassandra Martin @ kassandra.martin@umontana.edu](mailto:kassandra.martin@umontana.edu)

Thank you!

**This study has been reviewed and approved by the
The institutional Review Board, University of Montana.**

Appendix C: Online Survey

Demographic Information

Thank you for taking the time to participate in this survey. Before we begin I would like to gather more information about you

Q1 What is your gender?

- Male (1)
- Female (2)

Q2 What is your age?

Q3 How many semesters have you been attending the university?

- 1-2
- 3-4
- 5-6
- 6-7
- over 8

Q4 How many years have you had Type One Diabetes?

Q5 Where are you from?

Q6 Do you live on campus or off campus?

Q7 Do you treat your diabetes with insulin injections or an insulin pump?

Q8 What is the ideal range for an A1C?

- 10-8
- 8-9
- 6-7

Directions: Living with diabetes can be tough/ There may be many problems and hassles concerning your diabetes and the problems can vary in severity. They may range from minor hassles to major life difficulties. Listed below are 17 potential problems that individuals with diabetes may experience.

Consider the degree to which each of the items may have distressed or bothered you during the past month and select the appropriate number. Please note that I am asking you to indicate the degree to which each item may be bothering you in your life, not whether the item is merely true for you. If you feel a particular item is not a bother or a problem for you, you select (1-2) "not a problem." If it is very bothersome to you, you might circle (5-6) for a "serious problem. "

- ___ Feeling that diabetes is taking up too much of my mental and physical energy everyday. (1)eb
- ___ Feeling that my doctor doesn't know enough about diabetes and diabetes care. (2)pd
- ___ Feeling angry, scared, and/or depressed when I think about living with diabetes. (3)eb
- ___ Feeling that my doctor does not give me clear enough directions on how to manage my diabetes. (4)pd
- ___ Feeling that I am not testing my blood sugars frequently enough. (5) rd
- ___ Feeling that I am often failing with my diabetes regimen. (6) rd
- ___ Feeling that friends or family are not supportive enough of my self-care efforts (e.g. planning activities that conflict with my schedule, encouraging me to eat the "wrong foods"). (7) id
- ___ Feeling that diabetes controls my life. (8) eb
- ___ Feeling that my doctor doesn't take my concerns seriously enough. (9) pd
- ___ Not feeling confident in my day-to-day ability to manage my diabetes. (10) rd
- ___ Feeling that I will end up with serious long-term complications no matter what I do. (11) eb
- ___ Feeling that I am not sticking closely enough to a good meal plan. (12) rd
- ___ Feeling that my friends and family don't appreciate how difficult living with diabetes can be. (13) id
- ___ Feeling overwhelmed by the demands of living with diabetes. (14) EB
- ___ Feeling that I don't have a doctor who I can see regularly about my diabetes. (15)pd
- ___ Not feeling motivated enough to keep up with my diabetes management. (16) rd
- ___ Feeling that my friends or family don't give me the emotional support I would like. (17) id

If you would like to participate in a focus group or set up a time for an additional interview type your email in the slot below. Shortly, you will receive an email with the date, time, and place of the focus group, or we can arrange a time for the interview. This focus group or interview will focus on barriers you currently face to managing your diabetes in college as well as the types of support you feel you have available to you. The information

from the focus group as well as this survey will be used in developing a training template on campus that will provide you with the support and aid you need to effectively manage your diabetes while in college. Thank you again for your time.

Appendix D: ONLINE SURVEY CONSENT FORM

Study Title: Burnout and Support in Type One Diabetic College Students

Sponsor: Betsy Bach

Investigators: Kassandra Martin

Contact Information:

Department: Communication Studies

Email: betsy.bach@umontana.edu

Phone: 406.243.6119

Address: Communication Studies

LA 415

32 Campus Dr. MS 6048

Missoula MT, 59812

Purpose: You are being asked to participate in a research project examining the phenomenon of diabetic burnout and perceptions of support as a Type One Diabetic on a college campus. The purpose of this research is to study the symptoms and causes of diabetic burnout. The results from this study will be used to create a training program that will be used to alleviate symptoms of diabetic burnout and increase support on campus for individuals with Type One diabetes.

Procedures: If you agree to take part in this research study, you will be given an online survey that will take approximately 20 minutes to complete. This survey is designed to assess your perceptions of support that you currently receive from family and friends in regards to your diabetes. This survey will also assess any stressors or emotions that you currently feel about your Type One diabetes. After the online survey is complete, you will be asked if you would like to participate in a focus group that will take place at a different time and date.

Benefits: At the end of the survey you will be asked if you would like to participate in a focus group. You will only have to provide the researcher with an email so the researcher can contact you with the date, time, and location of the focus group. If you wish to not participate in a focus group and would rather set up an interview time you will also be contacted. In exchange for participating in the focus group, or interview, you will be provided food, beverage, and a diabetic related gift. Your identification information will be removed before the researcher analyzes the responses, and destroyed as soon as the project is complete (approximately May, 2015). Your name and contact information will not be connected to the information obtained and all data will remain confidential.

Benefits and risks/discomforts: There are only minimal emotional risks associated with participating in this questionnaire. You will be asked to think about your feelings for your disease, which may create some discomfort and at times may be unpleasant.

Confidentiality: All data will remain confidential. Any identifying information you decide to provide us with will not be connected to the other data for any reason other than contacting you about the focus group. All data will remain confidential, with only the researchers and the faculty supervisor having access to it. Participation or nonparticipation will not impact your relationship with The University of Montana. Submission of the survey will be interpreted as your informed consent to participate and that you affirm that you are at least 18 years of age.

Further Contact/Additional Questions: If you have any questions about the research, please contact the supervisor, via email Dr. Betsy Bach at betsy.bach@umontana.edu. If you have any questions regarding your rights as a research subject, contact the UM Institutional Review Board (IRB) at (406) 243-6672.

Voluntary Participation/Withdrawal: Participation is completely voluntary, at any time you may choose to withdraw from the study without penalty. You also have the option to skip or not respond to any item that raises discomfort for you.

Statement of Consent: I have read the above description of this research study. I have been informed of the risks and benefits involved, and all my questions have been answered to my satisfaction. Furthermore, I have been assured that any future questions I may have will also be answered by a member of the research team. I voluntarily agree to take part in this study.

Please print or save a copy of this page for your records.

Appendix E:Debriefing Form

Thank you for participating as a research participant in the present study assessing your current views of available support in regards to your Type One diabetes and any current emotions you face in managing your disease. The present study tests the perceptions of support and symptoms and causes of diabetic burnout also known as diabetic distress. The results from this study will be used in a training program to enhance support for Type One diabetic college students and assist these students in identifying and alleviating symptoms of diabetic burnout.

Again, I thank you for your participation in this study. If you know of any friends or acquaintances who are eligible to participate in this study, I request that you not discuss it with them until after they have had the opportunity to participate. Prior knowledge of questions asked during the study can invalidate the results. I greatly appreciate your cooperation.

In addition, if you would like to participate in a focus group or interview that will aid in the researchers training program please provide your name and email on the next page.

If you have any questions regarding this study, please feel free to contact the researcher at this time (email: kassandra.martin@umontana.edu), or contact the researchers supervisor Dr. Betsy Bach (email:Betsy.bach@umontana.edu; phone:406.243.6119).

In the event that you feel distressed or experience any discomfort by participation in this study, we encourage you to contact the researcher Cassandra Martin or her supervisor Betsy Bach.

Thanks again for your participation.

Appendix F: Burnout Measure

Diabetes Distress Scale (17)

Please rate the severity of the following items that have occurred within the last month from 1-6
(1=no problem, 6=serious problem)

Feeling that diabetes is taking up too much of my mental and physical energy every day.	1-----2-----3-----4-----5-----6
Feeling that my doctor doesn't know enough about diabetes and diabetes care.	1-----2-----3-----4-----5-----6
Feeling angry, scared, and/or depressed when I think about living with diabetes.	1-----2-----3-----4-----5-----6
Feeling that my doctor doesn't give me clear enough directions on how to manage my diabetes.	1-----2-----3-----4-----5-----6
Feeling that I am not testing my blood sugars frequently enough.	1-----2-----3-----4-----5-----6
Feeling that I am often failing with my diabetes regimen.	1-----2-----3-----4-----5-----6
Feeling that friends or family are not supportive enough of my selfcare efforts (e.g., planning activities that conflict with my schedule, encouraging me to eat the "wrong" foods).	1-----2-----3-----4-----5-----6
Feeling that diabetes controls my life.	1-----2-----3-----4-----5-----6
Feeling that my doctor doesn't take my concerns seriously enough.	1-----2-----3-----4-----5-----6

Not feeling confident in my day to-day ability to manage diabetes.	1-----2-----3-----4-----5-----6
Feeling that I will end up with serious long-term complications, no matter what I do.	1-----2-----3-----4-----5-----6
Feeling that I am not sticking closely enough to a good meal plan.	1-----2-----3-----4-----5-----6
Feeling that friends or family don't appreciate how difficult living with diabetes can be.	1-----2-----3-----4-----5-----6
Feeling overwhelmed by the demands of living with diabetes.	1-----2-----3-----4-----5-----6
Feeling that I don't have a doctor who I can see regularly about my diabetes.	1-----2-----3-----4-----5-----6
Not feeling motivated to keep up my diabetes self-management.	1-----2-----3-----4-----5-----6
Feeling that friends or family don't give me the emotional support that I would like.	1-----2-----3-----4-----5-----6

Appendix G: Interview Questions

Introduction: This interview is being used to understand some of the difficulties you face when managing your diabetes as a college student. * Sub-questions serve as probing questions.

Barrier Questions

1. What barriers to managing your diabetes upon entering college have you experienced?
2. Describe your comfort level when managing your diabetes in public?
3. How does stress impact any of the factors previously discussed?
4. If training was developed to help you with some of these barriers what types of information would you like to see covered?

Support Questions

5. Who do you talk with about your Type One Diabetes?
 - a. What kinds of things do you talk about?
 - b. Who on campus do you have that encourages you to take care of your diabetes? How do they communicate this to you?
6. How do your friends and family help you with your diabetes?
 - a. Do they remind you to engage in positive maintenance behaviors such as reminding you to test your blood sugar? What else?
 - b. If so, how does this make you feel?
 - c. Do they remind you to eat healthy or unhealthy?
 - d. If you were having a diabetic reaction could they identify the signs/ give you assistance?
 - e. What types of support do you wish you had available on campus and in your life for your diabetes?

7. What would motivate you to attend a group on campus specifically for meeting and supporting others with diabetes?
8. What would keep you from attending a group on campus specifically for meeting and supporting others with Type One diabetes
9. If training did exist to help you with this lack of support, what would you hope to gain/learn from it?

Appendix H: Multi Column Training Plan

TIME	CONTENT	METHODS	RESOURCES
<p>Session 1: Time Management techniques for Diabetes and College (15 Minutes)</p>	<p>Managing time in college with your Type One Diabetes can at times be very difficult. By learning ways to manage your time around your diabetes, you will be able to create a consistent schedule. Here are some tips</p> <ol style="list-style-type: none"> 1. Plan 2. Assess 3. Organize 4. Prioritize 5. Schedule 	<p>Mini Lecture</p>	<p>PowerPoint Slides 4 Participants Guide page: 2-3</p>
<p>Session 1: Scenario on scheduling around Diabetes (15 Minutes)</p>		<p>Scheduling Activity (SHOW) Ask trainees to turn to page 3 in participants guide. Page 3 has a student scenario and schedule where the student feels they do not have the time to manage their diabetes Instruct trainees how that student could change their schedule to fit in diabetes management Rework schedule in front of group.</p>	<p>Participants Guide Page: 3 Flip Chart and Marker</p>

TIME	CONTENT	METHODS	RESOURCES
Session 1: Activity (20 Minutes)		Dialogue Activity (INVITE) Have each member think of a day where they forgot to check their blood sugar or eat a meal because they were too busy. Have the participants write down what their schedule looked like that day. Have the partners look over that schedule and help each other fit diabetes into that schedule. Open up the schedule to group discussion	Participants Guide page: 4 Powerpoint Slide 6.
Conclusion (5-10 Minutes)		Debrief Activity 1. Ask trainees What was the hardest part about fitting diabetes into your schedule? 2. Did you feel that this is something you could put together on a weekly basis? Why/why not?	
BREAK 10 MINUTES			
Session 2: Nutrition (20 Minutes)	Types of Carbohydrates Carbohydrate Counting Basic Carbohydrates in Starches, milk, and fruits Go over serving sizes using palm method	Mini Lecture	Powerpoint Slides 9-13 Participant's Guide Page: 6-7

TIME	CONTENT	METHODS	RESOURCES
Session 2: Nutrition Activity (10 minutes)		(Activity) Students will be presented with six food items and will have to estimate the amount of carbohydrates in lecture (also found in participant guide for future use).	Participant Guide Page: 7 Participant Guide Page 8: Chart to determine their carbs
Session 3: Stress and Diabetes (20 Minutes)	What is Stress? Stress and your Diabetes Symptoms of Stress Tips on Reducing Stress	Mini Lecture	Participant guide Page: 8-12
BREAK (15 MINUTES)			
Session 3: Stress and Diabetes (5 Minutes)		Demonstration (SHOW) Instructor will show one relaxation technique of practicing progressive relaxation therapy	PowerPoint Slide 8 Participants Guide Page 15
Session 3: Diabetes and Stress (15 Minutes)	NONE	ACTIVITY Students will get with a partner and describe a stressful situation, how they handled it, what happened with their diabetes, and get advice from their partner on how to handle it differently	NONE
Session 3 Conclusion		Debrief	NONE
BREAK 10 MINUTES			
Session 4: Diabetes and Alcohol (10 Minutes)	How does alcohol affect your blood sugar Drinking Tips and Diabetes	Mini Lecture	Participants Guide page 14; PowerPoint Slides 20

TIME	CONTENT	METHOD	RESOURCES
Session 4: Diabetes and Alcohol (15 Minutes)		Discussion Students will share experiences with drinking and incorporate the lecture as well as experience on how to manage diabetes.	Participants Guide Page 15 PowerPoint Slide 22
Session 4:Diabetes and Alcohol (5 Minutes)		Conclusion Administer end of training survey.	Participant's Guide Page 16

Appendix I: Participant's Guide

PARTICIPANTS GUIDE

Training by: Kassandra Martin

5/17/2015

**Training for College Students
with Type One Diabetes**

Kassandra Elizabeth Martin
A guide to successful management
during your college years

Background on your trainer

- Kassandra Martin
 - Bachelors in Arts with a focus in organizational communication
 - Masters in Arts in Communication with a focus in Interpersonal and Health Communication
 - Boston, Massachusetts

Training Agenda

- Four Sessions
 - 1 hour first session (Time Management)
 - 50 minute second session (Nutrition)
 - 40 minute third session (Stress)
 - 30 minute fourth section (Alcohol)

5/17/2015

Debrief

- What was the hardest part of fitting diabetes into your schedule?
- Did you feel this is something you could put together on a weekly basis why/why not?
- Did you find spots where you would have consistency throughout the week?
- What would you suggest differently?

Break

- Take a 10 minute break

3 Steps to Carbohydrate Counting

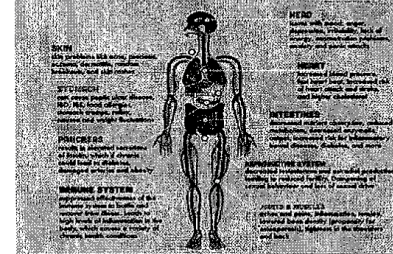
- Know your meal plan
 - Turn to page participant guide page 8
- Know your carbohydrate allowance and be consistent
- Use carbohydrate counting in meal planning

5/17/2015

No Nutrition Labels? Use your hands!



How STRESS Affects The BODY



Stress and diabetes

- Blood glucose increases
- Creates strong negative emotions
- Impairs sound thinking and decision making
- Tempting compulsive, poor eating
- Long term
 - May not have the energy to look after yourself
 - Stop exercising

5/17/2015

Activity

- Pair up
 - Discuss a stressful situation
 - How did you handle it?
 - What happened to your diabetes?
 - Use information provided to discuss what you think you could do in the future.

Alcohol and Diabetes

- While moderate amounts of alcohol can cause blood sugar to rise, excess alcohol can actually decrease your blood sugar level – sometimes causing it to drop into dangerous levels.
- Beer and sweet wine contain carbohydrates and may raise blood sugar.
- Alcohol stimulates your appetite, which can cause you to overeat and may affect your blood sugar control.
- Alcohol may also affect your judgment or willpower, causing you to make poor food choices.
- Alcohol can interfere with the positive effects of oral diabetes medicines or insulin.
- Alcohol may increase triglyceride levels.
- Alcohol may increase blood pressure.
- Alcohol can cause flushing, nausea, increased heart rate, and slurred speech.

Steps to managing diabetes and alcohol

- Turn to participant guide page 11

Time Management Activity

Objective: Students will create a daily schedule using the time management techniques discussed to plan their week around their Type One diabetes

Directions: Please fill out the weekly schedule around you diabetes care. Then get with a partner and using the time management techniques, discuss how you could implement this schedule effectively.

	SUN	MON	TUES	WED	THURS	FRI	SAT
6:00 AM							
7:00 AM							
8:00 AM							
9:00 AM							
10:00 AM							
11:00 AM							
12:00 PM							
1:00 PM							
2:00 PM							
3:00 PM							
4:00 PM							
5:00 PM							
6:00 PM							
7:00 PM							
8:00 PM							
9:00 PM							
10:00 PM							

Alcohol Activity

Objectives: Students will be able to list 5 out of the 10 tips for drinking and diabetes
 Students will share experiences of drinking and diabetes and how different drinks affected them and why.

DIABETES & ALCOHOL

DRINKING WITH DIABETES

1 BE SURE TO GET YOUR MEDICAL TEAM'S RECOMMENDATIONS ABOUT WHETHER DRINKING ALCOHOL IS SAFE FOR YOU.

CARRY IDENTIFICATION (MEDICAL ALERT BRACELET, WALLET CARD, ETC.) THAT SAYS YOU HAVE DIABETES.

3

2 **GLUCAGON WILL NOT HELP TREAT ALCOHOL-INDUCED HYPOGLYCEMIA.**

AFTER 1 OR 2 DRINKS, YOUR LIVER'S PRIMARY FUNCTION IS CLEANING THE ALCOHOL FROM YOUR BLOOD, NOT PRODUCING AND RELEASING GLUCOSE. GLUCAGON WILL NOT WORK UNTIL YOUR LIVER IS FINISHED THIS PROCESS.

4: KNOW YOUR DRINKS

- KNOW THE ALCOHOL LEVEL OF BEER AND WINES
- KNOW THE PROOF OF DISTILLED SPIRITS
- KNOW THE CARBOHYDRATES, JUICES, SODAS AND MIXERS

5 EDUCATE YOUR DRINKING BUDDIES

YOUR DRINKING BUDDIES SHOULD HAVE A WORKING UNDERSTANDING OF TYPE 1 DIABETES. THEY SHOULD KNOW YOU HAVE DIABETES AND WHAT TO DO IN AN EMERGENCY, ESPECIALLY BECAUSE INTOXICATION CAN LOOK LIKE HYPOGLYCEMIA.

NEVER DRINK ON AN EMPTY STOMACH. ONCE YOU START DRINKING, YOUR LIVER WILL STOP PRODUCING GLUCOSE AND YOU'LL NEED IT FROM FOOD TO PREVENT HYPOGLYCEMIA.

8 TEST YOUR BLOOD

(YOU KNOW WHY, JUST DO IT!)

EXERCISE & ALCOHOL DON'T MIX

BOTH EXERCISE AND DRINKING LOWER BLOOD SUGAR LEVELS. (PRO TIP: DANCING COUNTS AS EXERCISE!)

SEVEN: BE PREPARED

BRING YOUR BLOOD TESTING KIT.
 BRING GLUCOSE TABLETS OR GELS.
 MAKE SURE YOUR DRINKING BUDDIES KNOW WHAT TO DO IF YOU GO LOW.
 HAVE A PLAN TO GET HOME.

TEN: AFTER THE PARTY

REMEMBER ALCOHOL CAN LOWER YOUR BLOOD SUGAR HOURS AFTER YOU'VE CONSUMED IT. BEFORE YOU GO TO BED, CHECK YOUR BLOOD SUGAR AND HAVE A SNACK TO BE SAFE. IF YOU DRANK A LOT, CONSIDER SETTING AN ALARM TO WAKE YOU UP TO TEST YOUR BLOOD IN THE MIDDLE OF THE NIGHT.

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