The following are exemplary research papers by students in PSY 363, shared with permission and names redacted to preserve student privacy.

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Behavior Intervention

Psy 363

4/18/11

Abstract

I have found through researching this project that diabetes is an issue that is becoming more and more prevalent in the United States and the world today. It should not be taken lightly, and people should not disregard the fact that this is going on. We need to find more effective ways to help people and prevent this from becoming an epidemic. Millions and millions of people are diagnosed with diabetes every year, and we should find more ways to prevent it from becoming bigger than it already is today. The way people eat and exercise, the studies have been found that people who are more active, even with the risk of being diagnosed with diabetes, can help the cause by working out and taking the precautionary measures to make sure it does not occur. The methods used in this project were finding effective ways to exercise and get the patient to get his health in order since he has been diagnosed with type II diabetes. Finding effective ways to get the patient to cooperate is essential to his health.

Literature Review

This project is based on trying to find ways to better someone's life with type II diabetes. It is essential to find ways to help them with their exercise while allowing them to get the proper treatment to help with their lifestyle and keep diabetes from affecting their lives too much. Diabetes is a metabolic disorder. It affects how the body uses digested food for energy. Most of the food you eat is converted into glucose, which is the name for sugar in your blood. Glucose is the main source of fuel for the body. Once food is digested and converted to simpler forms, glucose passes into the bloodstream, where it is used by cells for energy and growth. If you have diabetes, your pancreas produces either little or no insulin. In essence, your body is starving

because it has lost its main source of fuel. Diabetes is one of the top ten causes of death in the United States. (According to whatisdiabetes.us)

Currently, we know a lot about the state of diabetes; the state, the effects, what we are capable of doing to prevent the diagnosis and prevent diabetes to come about. Diabetes is the leading cause of kidney failure and new case of blindness among adults in the United States. It can be said that heart disease and stroke are major causes of diabetes. (According to diabetes.niddk.nih.gov) Diabetes is a subject that should be taken very seriously. Among U.S. residents age 65 and older, almost 11 million were either diagnosed or had diabetes in 2010.

It seems that people around the world seem to take diabetes lightly. It is a life-altering disorder that can easily take over someone's body if not acted on immediately after the diagnosis. Diabetes hinders people's ability to live life the way they used to.. Eating habits are changed; exercise has to become more prevalent and more involved with their life in order to maintain the level of health that may be desired for life to not become a hassle for a patient. Diabetes has become a serious matter stemming from children to older adults. This can affect people's lives from a young age and can be prevented by knowing more about the subject, and taking the dieting and exercise serious. Health is a major factor, outside of it being a genetic factor. (This can be passed on, putting people at more of a risk than others.) While this may be possible, being more aware can easily help take away some of the risk and prevent this disorder from growing more and more throughout our country and the world today. Diabetes is becoming more and more of a factor each day, and we as a country need to do more to stop what is going on, which is why we come up with methods to try and keep it to a minimum.

Methods

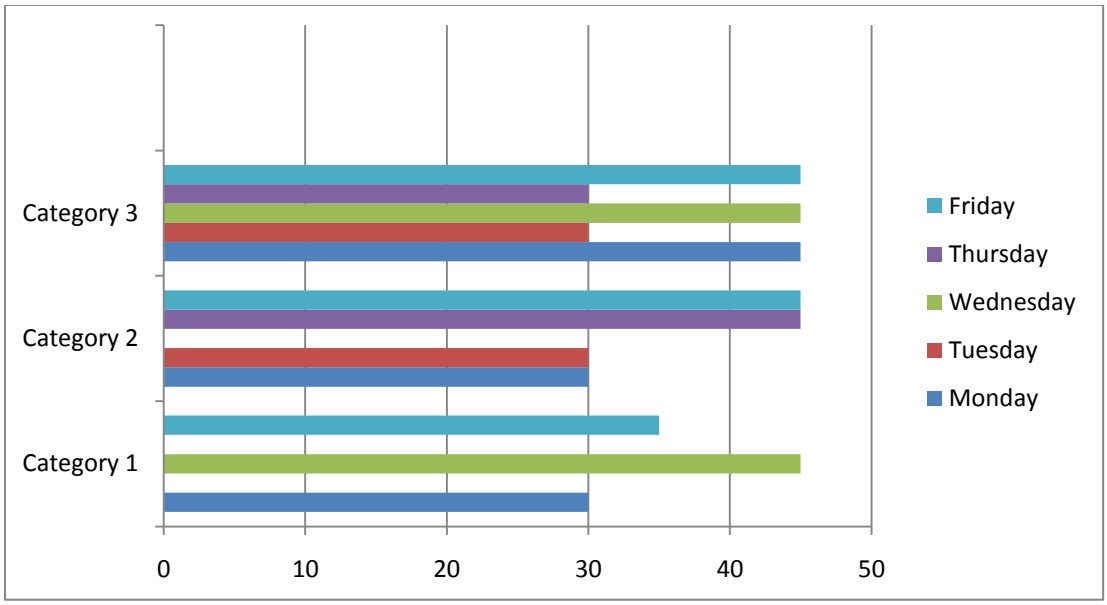
The patient I am studying has type II diabetes. The patient has a series of characteristics and problems that are associated with it. Sam is an older adult. He is 55 years of age and was diagnosed with diabetes a couple of months ago. We are implementing this exercise into his regimen to help get his health in order and let the effect of diabetes kept to a minimum. They have low blood sugar stemming from their bodies becoming resistant to glucose and sometimes insulin. Dealing with the intervention specifically, I want to get the patient to exercise more to keep their blood sugar up, and to help get them to become healthier overall as a person. This can significantly reduce the chances of the patient having complications dealing having a low blood sugar; allowing the patient to not be hindered by the disease to let them live a more desired lifestyle.

We implement this intervention by getting the patient to try and exercise every day. In the beginning, to get Sam accustomed to exercising and working out again, for the first two weeks there will be light training and exercising throughout the week. We will start with Sam working out every other day doing various things for about 30-45 minutes to keep exercise and health up to par. On Monday's we will work on strength training for 30 minutes, Wednesday's will be aerobic fitness for about 45 minutes, while Friday's will be more of a leisure day, which will include Sam swimming laps for 35 minutes. This exercise regimen should be resourceful and useful to help keep health and blood sugar at a reasonable rate, allowing mishaps and health to be more unlikely. During weeks 3-5, Sam will increase his exercise and it will become more intense. He will now workout four times a week, twice a week with moderate intensity for about 35 minutes. On Monday and Tuesday, he will do strength training and walking. Instead of exercising on Wednesday, that will be his day off, and Thursday and Friday will be the days where the intensity is increased some. During the last 3 weeks of this therapy. Weeks 6-8, this

will be where exercise is becoming a daily habit, where he exercises 5 days a week, 3 days with moderate intensity. On Monday, Wednesday, and Friday this will be the moderate intense days, which will include: Monday's strength training, Wednesday's, jogging to light running, and Friday's swimming exercises that are more intense. Tuesday and Thursdays will be light workouts just to get the heart rate pumping and it will help tremendously with keeping his blood sugar at a steady rate.

Results

Trying to implement this plan to Sam, he seemed reluctant to want to complete the therapy as the exercises got more intense. Through the first 5 weeks he was going through the exercises swiftly and completing the workouts, enjoying the progress he is making, along with how well he is feeling while keeping himself very healthy throughout the treatment. Once we got into the more intense workouts, Sam started to slack off some because he did not want to complete them through the first week. Even though he did not enjoy working out every day, in the final week he finally broke through and worked out the entire week, doing every exercise, which has helped his health tremendously. He has not had any recent problems with his blood sugar. This shows that the effects are effective in helping patients with type II diabetes keep a healthy lifestyle.



Conclusion

Assessment

At the beginning of the project, we were going to see progress in exercise in our patient Sam as the therapy went on. The goals were met in the objective; he has gotten more exercise and has a better regimen now and is significantly better than when we first started. This is because the patient virtually had no choice to want to get this done unless he wanted his diabetes to take control of his body and lifestyle which he assured me was not something he wanted. The exercise was imminent if he wanted to live a more successful and healthier life with his age progressing and him not getting any younger. Reaching our goal became a priority and him getting away from the regimen could have really taken a toll on his health, with him going back to the lifestyle before he was diagnosed is not acceptable, which made this even more important to do.

Contributions

The contributions that this project has helped in the field of psychology, is the fact that it will help bring more treatments to therapist who want to help people who have been diagnosed with diabetes. The treatments can help with their psychological and mental state, along with helping their physical state if they follow the plan that you have advised them to do. The results of this research show that his health is in better shape now that he is able to exercise 5x a week, and even though Sam has diabetes, he is now able to live a better lifestyle that he can take with him for the rest of his life, instead of having to worry about the risk of what can happen with him not doing anything to take action on his unfortunate disorder. This will be very helpful if people want to follow a regimen to get people to exercise more.

Future Research

For future research, people can find more effective ways to get treatment done for diabetes, but this way is just as effective as any way that u can find. Exercise and finding ways to gain intensity in them is one of the best ways in my opinion, to figure out how well the therapy will be for the patient, and can also be a good indicator of how the workout will contribute to his disorder and how it will help future patients in the long run.

Future research may include going more in depth with the workout, doing more and making sure that there will not be a relapse in the treatment, and find motivational sequences that will help keep the patient interested in getting it done, besides knowing that it “has to be done”. Improving this will be giving more incentives to completing his regimen, and also following the given plan just like it has been outlined. It can also go more in depth with just more than exercise; it can compose of two or three components that will help it, and it can be more successful because you can work on more than one aspect that needs to be identified and allow

the patients and researchers to get more out of what is being put in. This future research will help put things more into perspective and make this more effective when put to use in later therapy sessions.

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Diabetes Within the Family System

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Western Carolina University

Introduction

Diabetes

Diabetes is a common pediatric disease that may manifest in two different forms: Type 1 and Type 2. However, diabetes is different from other common chronic illnesses in that a high degree of responsibility lies with the patient and their family to monitor and manage their symptoms on a daily basis (Soloweijczyk, 2004).

Type 1 diabetes involves an autoimmune reaction that destroys the insulin-producing beta cells in the pancreas. This destruction results in the body's inability to produce insulin, which is necessary for survival. Insulin is necessary to metabolize glucose (i.e. sugar) in the blood system, which is the body's main source of energy. Without insulin, glucose remains in the blood, resulting in starvation of the cells and high blood sugar. Onset of Type 1 diabetes may develop anywhere between infancy and middle adulthood, but most often emerges during middle childhood (Nansel & Hood, 2008; Wilson, Posey & Schneider, 2009).

Type 2 diabetes involves separate physiological processes, but has corresponding physical symptoms and outcomes. Type 2 diabetes is not the result of immune abnormalities, but rather insulin resistance. The body is able to make insulin efficiently, yet the body is not able to appropriately use the insulin due to increased presence and decreased sensitivity to insulin. Type 2 diabetes is commonly associated with obesity, unhealthy diet, and an inactive lifestyle. At one time, Type 2 diabetes was very rare in childhood, but with the increase in obesity in the recent years, Type 2 diabetes has become a prevalent issue. Because the presence of Type 2 diabetes has only recently been

diagnosed in the pediatric population, not a great deal of research has been conducted regarding its effects and symptoms. Therefore, much of the findings regarding Type 2 diabetes has been used in place of research regarding Type 1 diabetes. However, this practice should be done with caution, because there still remain distinct differences between the two types of diabetes (Nansel & Hood, 2008; Wilson et al., 2009).

Health Complications

Common symptoms prior to diagnosis of diabetes is increased blood sugar, frequent urination, extreme thirst and/or hunger, weight loss, hyperglycemia (i.e. elevated blood sugar), glucose in the urine, and a significant increase in ketones (i.e. a chemical secreted when the body burns fat due to insufficient insulin) found in the blood and/or urine (Wilson, et al., 2009).

Those with diabetes must check their blood sugar levels multiple times per day, using a blood glucose meter. If insulin is needed, it will be administered through an insulin pump or insulin injection. The amount of insulin needed is determined by the amount of carbohydrates consumed and the blood sugar fluctuations. Therefore, children and families with diabetes must learn to “think like a pancreas” and anticipate the impacts of food, physical activity, and other factors (e.g. illness, stress) on their blood sugar levels, and compensate for fluctuations in blood sugar as they occur (Nansel & Hood, 2008; Wilson et al., 2009).

If blood sugar levels are not appropriately maintained, the child may experience hypoglycemic (i.e. when blood glucose is too low) or hyperglycemic (i.e. when blood glucose is too high) episodes. During these episodes, the child may experience confusion, increased appetite, trembling, sweating, fatigue, inability to speak, and/or blurred vision.

During hyperglycemic episodes, the child may resort back to prediagnosis symptoms. During hypoglycemic episodes, the child may become shaky, pale, sweaty, confused, and may experience impaired cognitive functioning. When these episodes happen, the child will require their blood glucose levels to return to normal, sometimes through Glucagon injections (i.e. hormone that raises blood sugar). If stability is not maintained after a hypoglycemic episode, the child may loose consciousness and seizure. Hyperglycemic episodes may not appear to be as serious; however, prolonged high blood sugar may lead to hospitalization, excessive blood acidity, dehydration, cardiovascular disease, blindness, kidney failure, and painful nerve damage (Nansel & Hood, 2008; Wilson et al., 2009).

Psychological Effects

When a child is experiencing a hypoglycemic or hyperglycemic episode, they may experience mood changes. During a hypoglycemic episode, they may experience drops in motor speed, attention, mental efficiency, slowed reaction times, and an inability to perform school tasks. During a hyperglycemic episode, he/she may experience emotional and/or behavioral changes, and it may also have a negative impact on his/her mental efficiency (Wilson et al., 2009).

Chronic hypoglycemia, even if mild, may result in long-term deficits on fine motor development, visuospatial functioning, and slowed processing speed. Severe chronic hypoglycemia may result in long-term effects on verbal and nonverbal memory, attention, and other executive functions (especially selection, focus, and inhibition control) (Wilson et al., 2009).

Children and adolescents with diabetes also run a higher risk of having internalizing disorders, including depression and anxiety. Depression in particular tends to manifest during the first year after initial diagnoses, then will abate, but return again one year later. Depression and lower ratings of quality of life are common among children and adolescents with diabetes. Anxiety is often experienced due to the ever-present possibility of frightening and harmful episodes and effects of diabetes. Also, children with diabetes may show varying behavioral problems due to treatment compliance, mood changes, and fatigue. In addition, children with diabetes may experience social problems due to their differences to their peers and complications with participating in social activities (e.g. not being able to play sports due to hyperglycemia/hypoglycemia episodes) (Nansel & Hood, 2008; Wilson et al., 2009).

Common Family Factors in Diabetes

Effect on Parents

Not only do parents of children with diabetes have to deal with typical developmental and parenting issues, but they also have to deal with a disease with many emotional, cognitive, and behavioral issues. Previously observed reactions in parents have included shock, depression, anxiety, sorrow, grief, frustration, guilt, insecurity, and post-traumatic stress disorder. (Landolt, Vollrath, Laimbacher, Gnehm & Sennhauser, 2005; Lowes & Lyne, 2000). This fear and concern may continue for years after diagnosis, and continued anxiety will often be placed on the child's future health (Haugstvedt, Wentzel-Larsen, Rokne, & Graue, 2011). Parents are particularly vulnerable when nighttime care is needed (e.g. nighttime blood monitoring), resulting in greater probability for parental depression, stress and fatigue (Haugstvedt et al, 2011).

Parents are confronted with the awareness that their child has an unalterable chronic disease. They also must deal with the constant possibility of the consequences of both low and high blood sugar. With low blood sugar comes the risk of loss of consciousness or seizure. With high blood sugar comes the fear of long-term, serious effects (Nansel & Hood, 2008). Mothers tend to experience more emotional distress and perceived burden than fathers (Haugstvedt et al, 2011).

Diabetes creates a greater amount of responsibilities for families. Families must adapt to daily blood glucose measurement and management, insulin administration, meal planning, carbohydrate counting, and predicting and responding to low and high blood sugar (Nansel & Hood, 2008), However, most families adapt well to the new responsibilities, yet place most stress on the long-term health concerns of their child. Mothers tend to show more concern for the future emotional wellbeing of the child (Haugstvedt, 2011). Parents often also report feeling a great amount of responsibility for the diagnosed child, and a lack of self-efficacy in fulfilling daily diabetes responsibilities (Streisand, 2005).

Effect on Siblings

Little research has been done on the siblings of children with diabetes. However, a small amount of research has been done on siblings with chronic illness in general. While this may provide insight into the life of a diabetes-sibling, there are still many aspects of diabetes that will make their experience unique (Sharpe & Rossiter, 2002; Tritt & Esses, 2010).

Siblings of chronically ill children have been found to have much higher rates of psychological difficulties and behavior problems, especially when sibling illness

interfered with their day-to-day life. However, consensus on the specific manifestations of psychological illness has not been reached. These siblings have also been found to have had positive impacts, such as great compassion (Sharpe & Rossiter, 2002).

Effect on Child as a Family Member

Not only is the child a family member, but also the identified patient. This does not mean that the family will place all blames and problems on the child, but that there is a complicated mix of roles involved in this specialized area.

The resiliency of the child to partake in the necessary medical assessments and procedures is effected greatly by the amount and type of support they receive from their family. Child distress regarding medical procedures can be heightened by maternal anxiety, responsiveness, discipline style, interaction, and the parental presence or absence during the process. If the child does have even one undesirable experience during a medical procedure, they may develop a phobic response to medical evaluations, increasing the possibility of a need to repeat the procedure, and less than desirable results from the procedure (Bradford, 1997).

Family members of patients with Type 2 diabetes tend view diabetes as a very serious condition. Family members oftentimes tend to view the condition more seriously than the family member with the diagnosis. This may prove helpful when the family member does not take the treatment seriously, because it may mean that the other family members will drive him/her to put more effort into the treatment (White, Smith & O'Dowd, 2007).

However, both those with the Type 2 diagnosis and family members tend to have many questions about diabetes that go unasked, and therefore, unanswered. Frequently,

convoluted ideas are developed in replace of factual knowledge regarding the illness. This provides a strong area of concern to be addressed during intervention (White et al., 2007).

Much of the adjustment of the identified patient is effected by maternal adjustment. Mother's perceptions and beliefs regarding their child's health outlook have more significant effects on the child's adjustment than specific health limitations. Therefore, the more hopeful the mother considers her child's case to be, the better the child will be able to adjust to the illness. This outlines the important role that parents, especially mothers, play in the child's adjustment to their situation (Bradford, 1997). Solowiejczyk (2004) also states that one of the greatest effects on diabetes management within a family is the mother's perception of how supported she feels as an individual within the family system.

Parents tend to relate most of the behavioral and emotional problems of the identified patient to their illness. Therefore, issues that may be caused by something other than the illness (e.g. sleep issues, ineffective parenting beliefs) may be dismissed as an aspect of the illness. So, there may be many instances in which a problem may be able to be effectively ameliorated or improved, yet the parents will disregard the issue as something that they have no control over and will let the issue remain as it is (Bradford, 1997).

Differences Among Family Types

Family types do tend to have varying impacts on children and adolescents with diabetes. Children from two-parent families typically have higher metabolic control than children from single-parent families. With two parents comes the ability to share

responsibilities and work associated with diabetes, which lessens the stress that would be placed on one partner (Streisand, 2005). Partners also provide invaluable social and emotional support from a source that truly understands the situation (Harris, Greco, Wysocki, Elder-Dance & White, 1999; Nansel & Hood, 2008).

Roles and Rules

The roles of the family are very important, and it is dire that rules regarding diabetes control are maintained precisely. There is a high degree of responsibility among the family members that effects the patient's life. Throughout all crises and stressors, responsibility must never waver, and diabetic management must persist (Solowiejczyk, 2004).

The level of family functioning has a significant impact on the well being of the child with the disorder, as well as the wellbeing and functioning on the family as a whole. A family's overall level of warmth, unity, support, communication, problem solving, and conflict resolution skills is significantly correlated with the quality of life, adherence to treatment, and metabolic control of the child with diabetes. A desirable family environment provides emotional support, adaptive coping skills, motivation, self-efficacy, positive outcome expectations, teamwork and appropriate levels of assistance and autonomy with the child with diabetes (Nansel and Hood, 2008; Wilson et al., 2009).

Solowiejcyk (2004) states that one of the most significant variables correlated to adjustment was the educator's (e.g. nurse, medical doctor, medical liaison) rating of the ease in which they were able to schedule meetings with the family after initial diagnosis. This signifies that a strong aspect of desirable diabetes management involves the family's ability to organize itself and adapt to a traumatic event.

However, undesirable family environments in which there are considerable amounts of conflict, both general and diabetes related, result in poor outcomes in the child with diabetes. Poor outcomes include lowered quality of life, adherence, and metabolic control (Bradford, 1997). Also, family conflict may affect diabetes control by damaging family communication and problem solving abilities, impairing emotional support and teamwork, and resulting in diabetes management tasks as an area for rebellion or power struggles (Nansel & Hood, 2008). Social and emotional support (including marital satisfaction) is related to maternal and patient adjustment (Wilson et al, 2009). In fact, Wilson found that the level of treatment control is directly related to the amount of diabetes-specific conflict with the family.

Differing from the common view of mothers as the primary caregiver of the family, Haugstvedt et al. (2011) claims that both mothers and fathers tend to have a high amount of responsibility in the daily management of diabetes. However, they suggest that fathers become more involved in the responsibilities to lower the mother's emotional distress and improve child well being and family functioning. They also suggest that unequal proportions of responsibilities among parents may lead to increased conflicts and emotional distress among the family. Additionally, Sharpe and Rossiter (2002) suggest that siblings may assist in this area and take on a pseudo-caregiver role.

An important transition in families with diabetes is the daily management of diabetic responsibilities. Typically, when diagnosis is first made, the parents often take on the role of the one responsible for most or all of the daily management of the disease. However, throughout development, the role is slowly transitioned over several years to the child, with the child slowly taking on more responsibility. However, if responsibility

is transitioned to the child prior to the development of the appropriate level of cognitive and social maturity, the child is more likely to have poorer adherence to treatment and increased occurrence of hospitalizations (Nansel & Hood, 2008).

The type of involvement that parents take in the control of diabetes is also critical. The support and assistance of parents must evolve throughout development. The parental roles should transition from a more directive role to a more collaborative and consultative role throughout development. Collaborative involvement has been found to be related to better outcomes among varying ages. However, intrusive and/or controlling involvement is related with worse outcomes among adolescents (Nansel & Hood, 2008).

Roles tend to be highly unstable and susceptible to change in the diabetic family. If the child is put in the hospital for any amount of time, both the child and any attending family members' roles will be taken away from the family system. Not only will the family be dealing with the emotional distress of having an ill family member, but they also deal with the arrangment and readjustment of roles (Bradford, 1997).

Families that are closed may experience more difficulty with this transition. Medical members that are involved with the treatment of the identified patient must become important people within the family system. While they may not be considered a member of the family system, they will set up very strict rules and regulation that must be followed in order for treatment to be effective. These medical personnel will have a significant impact on the family whether they accept the personnel or not (Bradford, 1997).

Assessment

A thorough assessment of the family is necessary when dealing with less than optimal management of diabetes. The assessment must take into consideration all aspects of family, personal, and situational factors. Family factors must be assessed to measure the level of encouragement or obstruction to effective management (Nansel & Hood, 2008).

Solowiedjzyk (2004) suggests using the first session as an assessment. This session is focused on assessing how the family handled the initial hospitalization and diagnosis. All family members must include their individual perception.

The assessment must cover three vital aspects: family emotional supportiveness, family organization, and effectiveness. Family emotional supportiveness involves evaluating emotional availability between parents and physical availability (e.g. close or open system, flexibility in schedule). Family organization includes examining how decisions are made in the family (especially between parents), hierarchy among parents, and communication patterns. Effectiveness involves assessing how family members react during crisis (e.g. initial responses), what family members are responsible for each task regarding diabetes management, and what the goals are for diabetes management (Solowiejcyk, 2004).

Lewin, Geffken, Williams, Duke, Storch & Silverstein (2010) found four factors to be important measurements regarding diabetic control and family functioning. The four factors include: parental support, coercion, monitoring, and diabetes-specific control.

These factors are included in their measurement, the Diabetes Family Adherence Measure (D-FAM).

Treatment

Treatment goals are often targeted toward building and improving family management processes such as diabetes-specific communication, problem solving, maintenance of daily routines (e.g. going to school, doing homework), high expectations, appropriate boundaries, and conflict resolution (Nansel & Hood, 2008). It is important that the treatment considers the "patient" as the entire family system versus an individual (Solowiejczyk, 2004).

While many interventions have been shown to be effective, no structured intervention has been successfully reproduced three times. The following methods have shown promising effects on improving familial processes regarding diabetes management, treatment adherence, and diabetes control (Nansel & Hood, 2008).

Behavioral Family Systems Therapy for Diabetes

Behavioral Family Systems Therapy (BFST-D) is an intervention for families that uses multidimensional methods of treatment to reduce parent-adolescent conflict. In BFST-D, families complete 12 sessions across six months with a BFST-D-trained psychologist. The sessions focus on problem solving training, communication, cognitive restructuring, and functional-structural family therapy (Nansel & Hood, 2008). BFST-D is centered on the concept of the developmental need for adolescents to seek autonomy, and the parental need for stability (McBroom & Enriquez, 2009).

Several factors that are important in BFST-D include behavioral contracting that targets desirable diabetes management, goal setting, education regarding diabetes

specifics, psychoeducation, and a week-long parental simulation of living with diabetes. Behavioral homework is assigned at each session aiming to practice the target skills in the home environment (Nansel & Hood, 2008; McBroom & Enriquez, 2009).

It is also possible that this intervention be extended into the adolescent's social network, however the main aspect is family functioning. BFST-D has been found to have positive effects on treatment adherence, diabetes control, and the parental-adolescent relationship (Nansel & Hood, 2008; McBroom & Enriquez, 2009).

Family Therapy

Family therapy refers to a psychiatric intervention that focuses on ineffective family functions versus individual traits. Family therapy concentrates on hierarchical structure of the family, defining of family rules, and partnership building between individual members (McBroom & Enriquez, 2009).

This therapy also involves a strengthened diabetes educational component that includes the nature of diabetes, management, common problems, and emotional responses. This method has been found to increase family closeness, decrease family disorder, increase metabolic control and diabetic control, and improve behavioral symptoms and family connection (McBroom & Enriquez, 2009).

Family-Focused Teamwork Interventions

Family-Focused Teamwork (FFT) focuses on parent-child interactions and aims to enhance sharing of diabetes responsibilities while diminishing conflict. FFT components include traditional diabetes education, which focuses on the illness, diet, exercise, and stress. FFT also focuses on education and discussion of parent and teen responsibilities, sharing of diabetes responsibilities, and ending conflicts that compromise

family teamwork. Typically, this intervention is integrated into the existing model of care in a pediatric diabetes clinic. Oftentimes, a trained research assistant is the one to work with the families during their clinic visits. During these visits, he/she will cover various topics, including education regarding optimal diabetes management and family processes (e.g. conflict management strategies). The research assistance operates as a "care ambassador" and schedules appointments for the family to meet with the medical staff when necessary. FFT has been shown to improve adherence to treatment, decrease acute complications (e.g. emergency room visits), and increase or maintain family involvement (Nansel & Hood, 2008; McBroom & Enriquez, 2009).

Multisystematic Therapy

Multisystematic therapy is an intensive, individually tailored form of family therapy that is targeted toward children and adolescents with serious mental health issues and their families. Recently, multisystematic therapy has been focused toward children and families with poorly controlled diabetes (Nansel & Hood, 2008; McBroom & Enriquez, 2009).

Traditionally, this therapy takes place in the home and community settings. Multisystematic therapy involves one primary therapist that meets with the family two to three times per week until treatment goals are met. However, even if treatment goals are met early on in therapy, it is encouraged to continue with the therapy for six months (Nansel & Hood, 2008).

The specific goal of multisystematic therapy is to improve the mental health of the child or adolescent by focusing on individual needs within the setting of the family system and community. This therapy has been found to have positive effects on

adherence to treatment and metabolic control, as well as decreased diabetes-related stress (Nansel & Hood, 2008).

Self-Management Training

Self-Management Training (SMT) focuses on strengthening self-management techniques, reinforcing support for both children and parents, and behavior modification regarding diabetes care. Sessions occur once a week and the children and parents are separated to different sessions. Several components of SMT involve written lessons, discussions, modeling, and role-playing. This method has been found to increase treatment compliance and decrease diabetes-related conflict (McBroom & Enriquez, 2009).

Evaluation

Solowiejczyk (2004) suggests evaluation through a follow-up plan to track the family's ability to adhere to the strategy. Everyone's role must be evaluated, and the goals should have been established so that it is clear if each member is fulfilling their responsibilities.

Conclusion

Diabetes is a common illness that has many physical, mental, and emotional effects on the patient and their family. The patient goes through a dramatic transition that will continue to effect his/her life. The family plays a vital role in the efficacy of treatment and emotional support of the child. The family will also experience a major transition and must rearrange roles to account for the illness. Several interventions exist that focus on the operation of the family system to improve medical treatment and family

adjustment. However, much more research still needs to be done regarding diabetes family therapy, specifically with Type 2 diabetes.

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