

## CHAPTER 4

### MAJOR CONCLUSIONS AND RECOMMENDATIONS

#### 4.1 INTRODUCTION

This chapter contains a summary of the investigation into the developmental and learning needs and the assets of the learner with diabetes in the foundation phase. Firstly the literature survey is assessed and conclusions are drawn. Secondly, major conclusions are drawn from the study. Thirdly, recommendations based on needs and assets are made regarding this investigation. Finally the limitations of the study and implications for future research are noted.

#### 4.2 CONCLUSIONS DRAWN FROM THE LITERATURE SURVEY

The foundation phase learner with type I diabetes does not exist in isolation. The ecological perspective shows that the learner with diabetes is involved at different levels of the social context and therefore the researcher refers to the ecosystemic approach. There are interdependent and interacting relationships between the learner, his/her family, friends, school, teachers and the community.

From an ecosystemic perspective, taking a need-based and asset-based approach, this approach helped to contribute to an understanding of the needs and complex problems that learners with type I diabetes encounter in the foundation phase (Ebersöhn & Eloff, 2003:4). Once their needs have been established their families, friends, school, teachers and the community can deal with and help to meet these needs. Using the asset-based approach, which is relationship-driven, the researcher focused on the strengths and talents of these learners. Both approaches were valuable in identifying the developmental and learning needs and the assets of the learner with type I diabetes in the foundation phase.

Diabetes mellitus is caused by the body's inability to produce or use insulin. Because little or no insulin is secreted from the pancreas, the glucose that passes into the bloodstream from digested food cannot penetrate the body's cells and the body cannot perform normal functions. The rising levels of unutilised glucose (blood sugar) in the bloodstream can damage sensitive organs such as the retina of the eyes, the coronary arteries of the heart, other blood vessels, the nerves, kidneys and brain. Because the body needs energy it converts stored fat cells into energy. As this continues, the waste products from fat metabolism accumulate in the bloodstream and are eliminated through the kidneys. In uncontrolled diabetes, the concentration of ketones becomes very high and leads to ketoacidosis which is a life-threatening condition (Petray, *et al.* 1997:58).

As mentioned in Chapter 1, people with type I diabetes depend on insulin injections to maintain their health. Insulin-dependent diabetes usually starts in childhood and is generally more severe than the other two types of diabetes (American Diabetic Association, 2001:1). Wilson (1998:1) points out that learners with diabetes need to take shots of insulin every day so that their bodies can use the glucose (blood sugar) that feeds their body cells and gives them the energy to act and think. It is important to keep the blood sugar levels of diabetics at about the same range as people without diabetes in order to maintain good health and avoid the complications of diabetes. However, most of these complications can be avoided when friends, family, school, teachers and the

community know and understand how important it is for diabetics to control their blood sugar carefully.

#### **4.2.1 Development**

Learners in the foundation phase undergo several physical changes. They acquire new skills and concepts. They need to create a satisfying place for themselves in the social group. During this phase, learners develop moral judgement and form positive values.

#### **4.2.2 Learner**

The learner with diabetes should be encouraged to lead as normal life as possible. A normal life for such learners means good control of their blood sugar. It also means having realistic expectations of the learners' development at their individual age, a commitment to learning, positive values and the forming of a positive identity and self-concept.

#### **4.2.3 Family**

Diabetes is an emotional challenge for the members of the learner's family as they have to cope with differing emotional reactions. The family provides love and support for the child and a diabetic child will seek help from his/her parents to control his/her diabetes. The family also often has support from grandparents and other members of the extended family. The mother tends to make better contact with the child, as mothers are probably calmer, more reassuring and absolutely devoted to their children. However, parents of diabetic children may also become over-protective.

#### **4.2.4 Friends**

Diabetes influences relationships. The illness may isolate the diabetic learner from other learners and friends. When learners with diabetes are absent from school they lose their status in the group. Then the realisation often dawns that other children can replace them as friends, losing them their place in the circle of friendships and relationships with classmates.

#### **4.2.5 Learning, school and teacher**

If a teacher is uninformed, the diabetic learner tends to go unnoticed. Most teachers do not believe they have sufficient information about diabetes. In order to meet the needs of the diabetic learner effectively, the teacher and school ought to be well informed about diabetes and the correct diet, as well as the danger signs and symptoms of possible complications.

The knowledgeable teacher will help the learner with diabetes to maintain good metabolic control and will support the parents of such a learner. When they understand the illness properly, misconceptions will be eliminated. The teacher should not focus on the learner and ignore the illness.

Danger signals that teachers should be aware of are the signs of impending diabetic (hyperglycaemic) coma:

- The smell of acetone on the diabetic child's breath warns that the child may be developing ketoacidosis, a life-threatening condition which begins with drowsiness and great thirst with excessive urination, followed by deep, sighing breathing with the breath smelling of acetone (sweet apples). Due to dehydration the child has cold hands and feet, sunken eyeballs, dry skin and a shrivelled tongue
- If the child does not obtain emergency medical help, diabetic coma and death may occur.

Equally as dangerous is low blood sugar (hypoglycaemia) which is liable to occur when meals are delayed or irregular, when the diabetic child does unusual exercise or when the insulin dose is excessive.

- The earliest symptoms are sweating, mental confusion, a feeling of hunger or weakness, palpitations and trembling, particularly just before it is time for a meal or snack. The child may have a vacant look, and is pale and sweating with a rapid pulse. The child should be given a glucose drink or glucose tablets immediately to prevent him/her from going into hypoglycaemic or insulin coma.
- If the child does go into a high-insulin coma, medical help should be obtained immediately to prevent brain damage from the lack of blood sugar.

#### **4.2.6 Community**

The diagnosis of diabetes has socio-economic implications for the family. Medical bills, the maintenance of a healthy diet and often the lack of transport place pressure on the family. They may have to travel long distances, especially in smaller towns and rural areas, to access and receive appropriate health care.

Parents living under poor socio-economic conditions have limited opportunities in the community to learn more about diabetes, or become part of a diabetic support group. Parents with poor learning skills in such communities have difficulty with mastering the proper control of diabetes.

Learners with diabetes who have parents with poor learning skills may take longer to master the task of diabetic control. Even when the implications and complications of diabetes and the guidelines for controlling the disease are simplified, the parents and their diabetic child may find them difficult to understand.

### 4.3 MAJOR CONCLUSIONS

In this section the major findings of the study are synthesised and presented within the framework of the research question generated during the conceptual phase of the study.

The study was aimed at answering the following research question: What are the developmental and learning needs and the assets of the learner with diabetes in the foundation phase?

After identifying the needs and assets of the learner with type I diabetes in the foundation phase, the main aim of the study was achieved. The secondary aim was to provide knowledge and understanding of learners with type I diabetes in the foundation phase and to rally their friends, family, school, teachers and the community to become external and internal asset builders in developing the potential of the learner with type I diabetes in the foundation phase.

When studying the three participants' lives, it is clear that they do not live in isolation. The family provides the learner with love, support and guidance. Children interact with one another and make friends who give one another support. At school, children interact with teachers and other learners. All learners have to acquire social skills and need to be accepted by other learners. It is important for them to have a commitment to learning, to be motivated and responsive to learning.

- **Development**

Participant A who had been diagnosed as diabetic when he was a baby, developed more slowly than the norm. The peer group rewarded the learner who had mastered the skills necessary for play. All the participant learners with diabetes in the foundation phase valued their health and recognised the importance of healthy choices about eating and necessary rest. When their blood sugar was low at night they had to eat something and wait, or when their blood sugar was high they had to inject insulin and wait before they could go back to sleep. They fulfilled their responsibility for testing their blood sugar and injecting themselves with insulin and understood the consequences of behaving irresponsibly and not controlling their illness. However one of the participants feared her daily injections of insulin, which sometimes compromised good metabolic control.

These participants showed a capacity for self-evaluation and became more aware of the adult world. They developed a range of interests in class activities, reading, games and sport, although they did not always participate. They knew right from wrong and were able to make up their own minds. A good academic self-concept had been formed when they experienced success in school and received positive feedback from their teachers and parents. They responded well to merited praise.

They left the safe haven of the family to find their place in the peer group at school. Two of the participants had good interpersonal relationships with their friends. The third participant diagnosed as a baby stated that the other learners did not want to play with him. This had also been a problem for him during his pre-school years and he tended to rely on his twin sister for companionship.

The participants had formed moral values and norms. They avoided conflict and always tried to find a peaceful solution to a problem. They found it difficult to express their feelings at school. Their management of their diabetes, such as testing their blood sugar, injecting

their insulin and maintaining good eating habits had a positive effect on them as well as on their families.

- **Family**

When the participant learners were diagnosed with diabetes the parents had experienced feelings of grief, depression and sadness. Members of the extended family did not always give the support the mother or father needed. The parents of the three participants in this study were supported by at least one other adult in the extended family, such as a grandparent or sister outside the home.

Other siblings in the family were jealous of the extra attention given to the participants with diabetes, as well as of their special meals and the diabetic foods bought for the participants. There were serious financial implications for some of the families. One participant's mother had to resign her full-time job to take care of her diabetic child. It was not always possible for every family to belong to a medical aid scheme.

The mothers were the primary caregivers, and in one of the three cases, the mother was the only caregiver. In the case of the participant whose parents were both diabetics, the father was also as closely involved in his daughter's health care as her mother was.

The parents stated that their children were caring and willing to help with tasks at home. They believed it was important for their children to be hopeful and have a positive view of the future. Despite diabetes, children can live a virtually normal life and their future can be favourable.

All the parents in the study provided clear boundaries for activities and visits outside the home. They monitored the diabetic child's activities and whereabouts. Good metabolic control of the child's blood sugar was always a priority. As this monitoring could interfere with the child's development of relationships with peers, the parents believed it was important for the participants to take personal responsibility for controlling their diabetes.

- **Friends**

All the participants valued friendship. Two of the participants had good interpersonal relationships with their classmates and friends, but it was more difficult for the third participant to make and keep friends.

All the participants enjoyed doing stimulating and creative activities with friends and classmates. Their friends showed empathy for their diabetes and appreciated their friendliness, good humour and caring attitude. Friends accepted these diabetic learners, but absence could isolate them from their classmates and friends.

- **Learning, school and teacher**

Participant A had attended nursery school and said he had loved his nursery school teacher. He relied on his twin sister to help him with tasks. He cared about his present school and was engaged in learning. He had achieved most of the outcomes in the different learning areas with outstanding success. When he was absent from school due to his illness he completed the work as homework but did feel angry and impatient. He avoided conflict with other learners. He enjoyed stimulating activities although he did not

always complete the activity. He performed tasks at school as explained elsewhere in the study. He had a good interpersonal relationship with his teacher as he could express his feelings to her. She was caring and showed concern for his health as she had a knowledge of diabetes. The learners in class understood diabetes.

Participant B had not attended nursery school. He enjoyed school greatly. His work was always neat and he had achieved all the outcomes in the different learning areas with outstanding success. When he had been absent from school he completed the work he had missed as soon as he returned to school. He enjoyed stimulating activities greatly and sport was important to him. He avoided conflict. He would have liked to perform tasks at school. He had good interpersonal skills with his classmates and his teacher as he interacted with other learners and could express and articulate his feelings appropriately. He knew how much fun it was to be part of a team. His teacher had a good knowledge of diabetes. The learners in class understood diabetes

Participant C had attended nursery school and the staff there had contacted the diabetic clinic whenever she felt ill. At her present school she was engaged in learning and was responsive and attentive in class. Her parents felt satisfied with her performance at school and she had achieved the outcomes in the different learning areas. She felt unhappy at her present school, which she compared unfavourably with her previous school. She enjoyed stimulating and creative activities at school, such as drawing and gymnastics. She was not permitted to participate in extramural activities. She avoided conflict. Her teacher knew nothing about diabetes. The learners in class did not know about her diabetes.

## • **Community**

The parents of the three participants expressed a need for support from the community. The support they needed included awareness by community members of the socio-economic implications of diabetes and the effects of poor learning skills on the management of diabetes.

The learners would like to have contact and interaction with other learners with diabetes. It was important for these learners to help other people, and in this way they showed an interest in making the community a better place. They visited the diabetic clinic regularly. Parents wanted people in the community to think of their diabetic child as normal.

The teachers involved in the study expressed a need to obtain more information and knowledge about diabetes. If they were better informed they could in turn inform the learners in their classrooms. If the learners in class were empowered with knowledge of diabetes they could share their knowledge with their parents and extended families. Eventually this could help to empower the community to understand diabetes as a chronic illness and to support these learners as valued members of the community.

### **4.3.1 Developmental and learning needs of learners with diabetes in the foundation phase**

The major findings on the developmental and learning needs of the learner with type I diabetes are presented within the framework of the research question.

The learner with diabetes in the foundation phase is generally between seven and nine years old and has a lifelong, incurable illness requiring insulin treatment and a special diet. Throughout these learners' physical, emotional, social, moral and cognitive development they have to live with their chronic illness and try to prevent complications such as hyperglycaemia, hypoglycaemia and diabetic ketoacidosis.

Throughout this study the importance of understanding the learner with type I diabetes in the foundation phase holistically and in a social context has been emphasised. The ecosystemic perspective in addition to the needs-based and asset-based approach helped to provide knowledge and understanding of learners with diabetes. The needs assessment was important because it focuses on the needs of the learner with type I diabetes in the foundation phase in the broader social context in which the needs are manifested. The needs assessment also contributed to an understanding of the interrelatedness of these needs. The learner with type I diabetes mellitus in the foundation phase tends to meet the requirements for the milestones of developmental tasks. Achieving these milestones is possible with the aid of the people involved in the life of each learner.

Like other foundation phase learners, the learner with type I diabetes has interacting relationships with friends, family and teachers. All foundation phase learners leave their home and family for the first time, but in addition the foundation phase learner with type I diabetes has to have the development and emotional competence to control their diet and insulin treatment. These learners have several needs to which their family, friends, school, teachers and community should be sensitive.

Table 4.1 shows the relationship between the participants and their ecosystems, which was taken in account when identifying the following developmental and learning needs of the learner with diabetes in the foundation phase.

**TABLE 4.1: Developmental and learning needs of the learner with diabetes in the foundation phase**

<b>DEVELOPMENTAL AND LEARNING NEEDS OF THE LEARNER WITH DIABETES IN THE FOUNDATION PHASE.</b>	
<b>FAMILY</b>	<ul style="list-style-type: none"> <li>• Needs love and support from both parents and family</li> <li>• Needs the family to create a sense of security and trust at home</li> <li>• Needs the support of other adult relatives such as grandparents or other members of the extended family</li> <li>• Needs the family to know he/she feels a sense of incapacitation due to this chronic illness</li> <li>• Needs the family to help keep his/her emotional balance by managing feelings of frustration, fear and isolation</li> <li>• Needs the family to help prepare him/her for a certain future</li> <li>• Needs all family members to understand that taking insulin makes him/her more dependent</li> <li>• Needs the other siblings in the household to have knowledge of diabetes</li> <li>• Needs the family to participate in therapy sessions after diagnosis, to empower the whole family to neutralise potential conflict</li> </ul>
<b>FRIENDS</b>	<ul style="list-style-type: none"> <li>• Needs friendships</li> <li>• Needs to learn interpersonal skills to make friends in class and at school</li> <li>• Needs his/her friends to know about diabetes so they can understand better</li> <li>• Needs friends to understand that his/her diet has to be strictly controlled</li> <li>• Needs to learn skills to resist negative reactions from other learners</li> <li>• Needs his/her friends and classmates to visit in hospital to help him/her deal with the hospital environment</li> </ul>



- Needs self-identity and self-respect
- Needs success, achievement and recognition
- The learner and the parents need a high level of support from the school, especially from the teacher
- The learner, parents and teacher ought to communicate frequently and positively
- Needs a caring away-from-home environment in class
- Needs to feel safe at school
- Needs to be given useful roles and tasks in the class
- Needs the opportunity to develop useful interpersonal skills for interacting with other learners in class
- Needs the class to have knowledge of diabetes to show understanding
- Needs to eat lunch and snacks at a specific time, sometimes during classes
- Needs to test his/her blood sugar before any physical activity
- Needs teacher to understand that learning may be affected on specific days. When these learners' blood sugar is low they may think about how hungry they are or that they are dizzy and shaky and want to go home
- Needs the teacher to understand that occasionally he/she might have problems with reading and writing clearly because of blurred vision. This is a temporary condition caused either by high or low blood sugar levels
- Needs the teacher to know that the learner's behaviour may sometimes be affected by diabetes
- Needs help to manage difficult feelings
- Needs the school to know attendance may be a problem because high and low blood sugar affects all learners differently
- Low blood sugar levels may have an effect during the night while sleeping. If the learner is lucky he/she wakes up when blood sugar falls to a low level. If not the learner may go into insulin shock, which is extremely dangerous. Sometimes a learner may be awake for a half an hour to an hour in the middle of the night waiting until the blood sugar level is safe enough to go back to bed. By the time the clock alarm goes off in the morning the learner's blood sugar may be high because of the rebound effect of eating too much. On these days the learner may come late for school either because he/she does not feel well from the unstable sugar during the night or from the headaches and fatigue resulting from low blood sugar. Sometimes those extra minutes of sleep are essential so that the rest of the day will go smoothly (Rosenthal-Malek & Greenspan, 1999:41)
- Needs the school and teacher to help him/her keep a positive self-image
- Needs the teacher to make an effort to gain knowledge and empower herself so that the teacher knows what to do in an emergency

<b>COMMUNITY</b>	<ul style="list-style-type: none"> <li>• Needs to be valued by the community</li> <li>• Needs the community to have appropriate knowledge and understanding of diabetes as a chronic illness</li> <li>• Needs the support of and interaction with neighbours</li> <li>• Needs to feel of service to others in the community</li> <li>• Needs community members to help the learner deal with the hospital environment</li> <li>• Needs to develop relationships with hospital staff</li> <li>• Needs collaboration between the school and the community, for example community members such as health workers and psychologists, and in some cases social workers could play a role at schools to help build knowledge and understanding of diabetes mellitus. The school could also provide community members with information essential for the diabetic learner's developmental and learning needs, for example by holding individual or parental meetings.</li> <li>• Needs contact with other learners with diabetes</li> <li>• Needs the assets in the community that can support learners from poor socio-economic circumstances, families with poor learning skills and community language</li> </ul>
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#### **4.3.2 Assets of the learner with diabetes in the foundation phase**

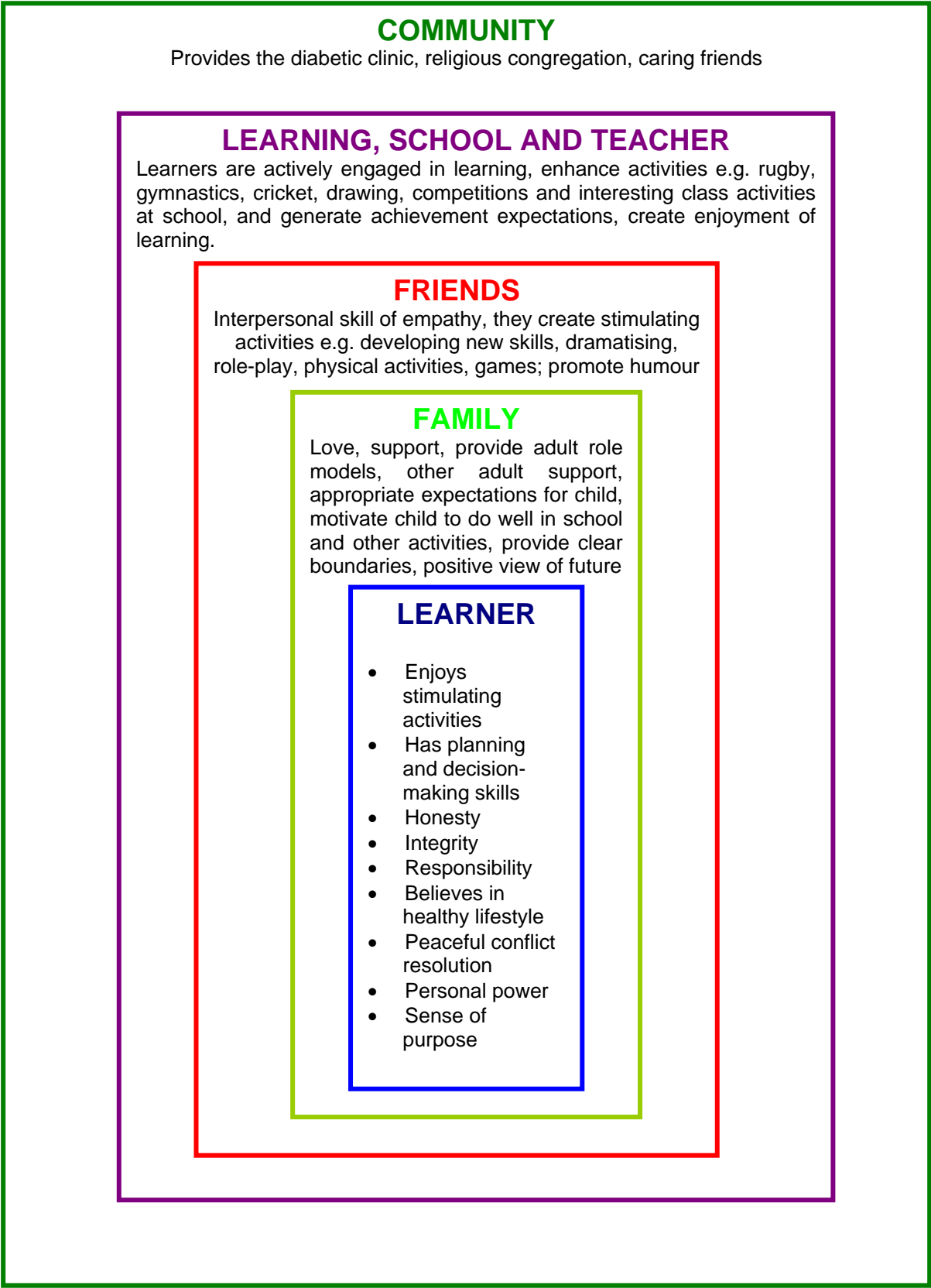
The major findings on the assets of the learner with diabetes in the foundation phase are also presented within the framework of the research question.

The asset-based approach focused on what was currently present in the environment. It set out to identify the capacities inherent in each participant in his/her environment. This approach is relationship-driven and based on the strengths and talents of the participants involved.

Every one of these participants was unique. They had developmental assets in their lives and people who were helping them build and strengthen these assets.

The relationship between the participants and their ecosystems was taken into account to identify their assets. The participants' environment was relationship-driven and included people such as family, friends, the school, teachers and the community.

Figure 4.1 is based on both the internal and external assets of the learner with diabetes in the foundation phase, as identified in the study.



**Figure 4.1 Assets of the learner with type I diabetes in the foundation phase**

## **4.4 RECOMMENDATIONS**

Emanating from the major conclusions drawn from this study, the following recommendations are made.

### **4.4.1 Recommendations based on needs**

The learner with type I diabetes is in a relationship with his/her total ecological system. The environment within the ecological system includes family, friends, teachers, the school and the community. Based on the learner's needs, it is proposed that these people should consider the following recommendations, as well as the additional recommendations made regarding learners with other chronic illnesses:

- When a child is diagnosed with diabetes, the child and the family should have access to a multi-disciplinary and professional team, including health workers, psychologists and social workers, to explain the implications and complications of diabetes. This should include follow-up sessions to establish a firm support network.
- Age-appropriate diabetic information about diabetes should be given, for example by the diabetes specialist nurse from the local clinic, to all family members, especially younger siblings.
- Family therapy should be arranged for the family and individual counselling for the mother as primary caregiver, adopting an approach of empowerment, capacity building and team building.
- It should be compulsory for both parents to attend diabetic education sessions.
- The life skills of the learner with diabetes should be purposefully developed, preferably by a team whose members could include health workers, educators and a specialist diabetic nurse.
- Reliable statistics on children with diabetes should be obtainable from the South African Diabetes Association, as no reliable statistics are currently available for this group.
- Statistics should be compiled and made available at schools, concerning data on learners with chronic illnesses, as there are currently no statistics available in schools or from the Department of Education concerning the number of learners with diabetes in South African schools.
- In-service training programmes at a school and between schools should be presented collaboratively to share information and knowledge of diabetes. The programmes could also include parents of learners with diabetes and a specialist diabetic nurse from the diabetic clinic in the community.
- Special arrangements should be made at schools for parents with poor learning skills to ensure effective communication between the parents and the teacher. This could include a standardised form which the school could photocopy and distribute to the parents' homes, requiring the parents to complete only limited and essential information to enable the school to take the appropriate steps to help these learners.

- Community members such as the family, friends and church members should accept responsibility for informing schools and teachers about the socio-economic circumstances and language barriers in families which have a diabetic child.
- Questionnaires similar to those administered to the parents, learners and teachers in the present study should be used by other researchers to identify the needs and the assets of learners with chronic illnesses other than diabetes mellitus.
- Communities should value and appreciate their children, possibly through collaboration between the school, teachers and members of the community as this could be an opportunity to exchange expertise. Such collaborative efforts might for example be aimed at improving the hospital environment in state hospitals where sick children have to spend time under unacceptable conditions.
- The community should play a role in building networks to support parents and families with chronically ill children. Community members could share their skills and resources, whether physical, emotional and financial.

#### **4.4.2 Recommendations based on assets**

All of the participants in the present study had developmental assets in their lives and people who were helping them build and strengthen these assets. Assets indicate the important role that families, friends, teachers, the school and the community play in shaping each learner's life.

External assets include the positive experiences children had with people and institutions in their lives. Internal assets guide children's choices and create a sense of being centred, as well as a purpose and focus.

Although external and internal assets were identified regarding what was currently present in the participants' environment, these assets could be further developed and strengthened. Since assets are relationship-driven, the family, friends, school, teachers and the community could be part of a joint effort to build new assets and capacities to enhance the healthier and more effective development of learners with diabetes.

A learner who has difficulty in making and keeping friends is an example of the need to build assets.

- This example refers to the internal asset of interpersonal skills. To build this asset, the learner should be given an explanation that interpersonal skills mean making friends, as well as expressing and articulating feelings in appropriate ways and being able to empathise with others. The following ideas could help parents, teachers, the school and the community to develop and strengthen this asset:
  - Help the learner to understand how much fun it is to be part of a team
  - Find out why other children do not want to play with the learner
  - Help the excluded child to deal with his/her feelings
  - Teach the learner the words for describing his/her feelings
  - Allow children to handle their relationships themselves, but always in an appropriate way.

The following building blocks or assets of healthy development as listed in Tables 4.2 and 4.3 could help these and other foundation phase learners to grow into healthy, caring and

responsible citizens. Parents, friends, schools, teachers and members of the community could use these building blocks to identify, develop and strengthen these learners' assets. These building blocks could also give foundation phase learners an opportunity to build positive relationships, to develop age-appropriate behaviour and to accomplish age-appropriate developmental tasks.

- **External assets**

Table 4.2 shows the external assets identified by the Search Institute (1997). Roehlkepartain and Leffert (2000) identify several ideas for building on these external assets.

**TABLE 4.2: External assets and ideas for building on these assets**

CATEGORY	ASSET NAME AND DEFINITION	IDEAS FOR BUILDING THESE ASSETS
<b>EXTERNAL ASSETS</b>		
<b>SUPPORT</b>	<b>Family support</b> Family life normally provides high levels of love and support	<ul style="list-style-type: none"> <li>• Follow your child's passions and interests.</li> <li>• Answer your child's questions. If you do not know the answer, admit it. Find out the answer</li> <li>• When you and your child disagree, respect the child's opinion and let him/her know you still care</li> <li>• Ask you child about his/her collections. Talk about the things you collect too</li> <li>• Spend time with your child, doing things that are fun (Roehlkepartain &amp; Leffert, 2000:31).</li> </ul>
	<b>Positive family communication</b> Parents and children communicate positively. Children seek out their parents for help with difficult tasks or situations	<ul style="list-style-type: none"> <li>• Do not always ask your child, "How was your day?". Instead say, "Hello, it's great to see you", or "I'm glad you're here"</li> <li>• Be sensitive to the type of physical contact your child prefers</li> <li>• Engage your child in conversation</li> <li>• Make mealtime a time for talking</li> <li>• Ask questions that help your child get in touch with his/her feelings</li> <li>• Find out what your child is interested in (Roehlkepartain &amp; Leffert, 2000:36)</li> </ul>
	<b>Other adult relationships</b> Children have support from at least one adult other than their parents. Their parents have support from people outside the home	<ul style="list-style-type: none"> <li>• Make a strong connection with children you know. Intentionally build an ongoing relationship with a child you like</li> <li>• Send postcards to children when you are travelling</li> <li>• Find out about a child's interests</li> <li>• Attend a child's sport event, play or concert. Afterwards, go out of your way to congratulate the child and let him/her know you were there (Roehlkepartain &amp; Leffert, 2000:40)</li> </ul>
	<b>Caring neighbourhood</b> Children have support from caring neighbours	<ul style="list-style-type: none"> <li>• Find out what the neighbourhood children like doing. Let children play in your yard when you are around to supervise them</li> <li>• Ask children in your neighbourhood about their pets</li> <li>• Join neighbourhood children's football or games (Roehlkepartain &amp; Leffert, 2000:44)</li> </ul>

	<p><b>Caring away-from-home climate</b> School and other activities provide a caring, encouraging environment for children</p>	<ul style="list-style-type: none"> <li>• Find out how your child feels about his/her school Do they think it's a caring place? Why or why not? Ask your child to use specific examples to explain his/her feelings</li> <li>• Recognise the work that teachers do</li> <li>• Learn the names of the children in your child's class</li> <li>• Let your child plan ways to improve his/her school (Roehlkepartain &amp; Leffert, 2000:50)</li> </ul>
	<p><b>Parental involvement In away-from-home situations</b> Parents are actively involved in helping children succeed in school and other situations outside the home</p>	<ul style="list-style-type: none"> <li>• Attend school meetings. Think of ways your skills can help the school</li> <li>• Ask your child about his/her homework each day and check to make sure it has been done. Set aside time to help when it is needed</li> <li>• Ask your employer to support children and education</li> <li>• If you can, donate supplies for the classroom (Roehlkepartain &amp; Leffert, 2000:54)</li> </ul>
<b>EMPOWERMENT</b>	<p><b>The community values children</b> Children feel that the family and community value and appreciate them</p>	<ul style="list-style-type: none"> <li>• Give your child some control over a part of his/her day. Set aside time for him/her to do an activity he/she chooses to do</li> <li>• Ask for your child's opinion and suggestions. Use some of his/her ideas</li> <li>• When you see a family you know, talk to each person – including the children</li> <li>• Tell your child when you see him/her doing something you appreciate or value (Roehlkepartain &amp; Leffert, 2000:66)</li> </ul>
	<p><b>Children are given useful roles</b> Children are included in age-appropriate family tasks and decisions and are given useful roles at home and in the community</p>	<ul style="list-style-type: none"> <li>• Find ways to put your child in charge, for example he/she can plan his/her birthday party</li> <li>• Have your child help you with projects such as painting the bedroom or planting bulbs in the garden</li> <li>• Ask your child to teach you new things, for example he/she can show you a new swimming stroke or a magic trick</li> <li>• Let your child make choices, such as occasionally deciding what the family will have for dinner or setting a time for a visit to the library (Roehlkepartain &amp; Leffert, 2000:70)</li> </ul>
	<p><b>Service to others</b> Children serve others in the community with their family or in other settings</p>	<ul style="list-style-type: none"> <li>• Ask your child to list some ways he/she can serve others. Help to act on the idea</li> <li>• Your child and family could help a relative or neighbour by running an errand, raking leaves or taking out the garbage</li> <li>• Encourage your child to keep a journal of stories and pictures about his/her experiences as a volunteer. Let your child draw a picture of what he/she did. Let your child tell you or show you what he/she has written or drawn (Roehlkepartain &amp; Leffert, 2000:74)</li> </ul>

	<p><b>Safety</b> Children are safe at home, at school and in the neighbourhood.</p>	<ul style="list-style-type: none"> <li>• Talk to your child about strangers</li> <li>• Help your child to feel comfortable when he/she is away from home – at school, during after-school activities or at a friend's home</li> <li>• Make sure your child has the appropriate protective gear for the sport he/she plays</li> <li>• Tell your child how much you appreciate it when he/she buckles the safety belt in the car</li> <li>• Teach your child the correct spelling of his/her first and last name as well as your phone number</li> <li>• Have your child play or go to places in pairs or groups (Roehlkepartain &amp; Leffert, 2000:80)</li> </ul>
<b>BOUNDARIES &amp; EXPECTATIONS</b>	<p><b>Family boundaries</b> The family has clear rules and consequences for disobeying these rules, and monitors children's activities and whereabouts</p>	<ul style="list-style-type: none"> <li>• Help your child develop a daily routine</li> <li>• When your child exaggerates and acts dramatically, acknowledge his/her feelings. Listen to what the child is trying to say instead of correcting him/her</li> <li>• Pay attention to the messages you are sending. Your child can sense when you are stressed or distracted. Children often act inappropriately when they do not get enough attention or when they think you are concerned about something else</li> <li>• Talk to the child about the behaviour shown on television. Ask the child whether he/she thinks it is appropriate or inappropriate, and why.</li> <li>• Teach children to listen to their bodies. Help children to take care of themselves. Teach the child to make a simple snack or meal</li> <li>• Anticipate an increase in inappropriate behaviour during stressful family times and when family members are ill. By understanding you can help the child find healthy ways to cope (Roehlkepartain &amp; Leffert, 2000:95)</li> </ul>
	<p><b>Away-from-home boundaries</b> Schools and other away-from-home environments provide clear rules and consequences.</p>	<ul style="list-style-type: none"> <li>• Learn about school rules and boundaries</li> <li>• Give children opportunities for role-playing situations and discuss appropriate and inappropriate ways to respond to actions and anger (Roehlkepartain &amp; Leffert, 2000:100)</li> </ul>
	<p><b>Neighbourhood boundaries</b> Neighbours take responsibility for monitoring children's behaviour</p>	<ul style="list-style-type: none"> <li>• Let children know you have noticed when they act inappropriately. Tell them you expect more from them</li> <li>• Have children accept some consequences for their behaviour. Do not always step in and rescue them, but do not abandon them either (Roehlkepartain &amp; Leffert, 2000:105)</li> </ul>
	<p><b>Adult role models</b> Parents and other adults model positive, responsible behaviour</p>	<ul style="list-style-type: none"> <li>• Talk about the adult role models you had as a child and what you liked about them</li> <li>• Give children access to many kinds of role models – young, old, rich, poor, single, married, silly or serious</li> <li>• Send for pictures and information about your child's favourite role models. Talk about what they have in common and how they differ. Let children see that these role models are ordinary people</li> <li>• Help children to meet adults who are good role models, and who behave like a role model worth following (Roehlkepartain &amp; Leffert, 2000:109)</li> </ul>



	<p><b>Positive peer observation</b> Children interact with other children who model responsible behaviour and have opportunities to play and interact in safe well-supervised settings</p>	<ul style="list-style-type: none"> <li>• Allow children some independence when they are playing. but make sure they are safe</li> <li>• When children argue and disagree let them find their own solutions. Step in to help only when you feel concerned about the child's safety</li> <li>• Talk to children after they have played with friends. Ask questions, such as "Did you have fun with your friends? What did you like best? What didn't you like?" Talk about some of the behaviour you saw</li> <li>• Get to know your child's friends</li> <li>• Talk about the friendships you had as a child. For example if you had trouble with a bully, tell the child about it. Sometimes this helps children to open up</li> <li>• A lot of what children know about rules, beliefs, and attitudes and how to interact with other people comes from their friends. What are children learning? Talk to them and find out. For example you might ask, "What does your friend do when she is angry?" (Roehlkepartain &amp; Leffert, 2000:113).</li> </ul>
	<p><b>Appropriate expectations for growth</b> Adults have realistic expectations for children's development at this age. Parents, caregivers and other adults encourage children to achieve and develop their unique talents</p>	<ul style="list-style-type: none"> <li>• Teach children that sometimes things do not work out as we expected</li> <li>• Talk to a child about things that are difficult for him/her. Help the child work out how to break a big task down into manageable pieces</li> <li>• Involve children in activities that fit their abilities and encourage them to develop new skills</li> <li>• Have children compare themselves with ... themselves. How is the child doing now compared with the past? Is he/she finding new challenges? Is he/she improving? (Roehlkepartain &amp; Leffert, 2000:117).</li> </ul>
<b>CONSTRUCTIVE USE OF TIME</b>	<p><b>Creative activities</b> Adults have realistic expectations for children's development at this age. Parents, caregivers and other adults encourage children to achieve and develop their unique talents</p>	<ul style="list-style-type: none"> <li>• Introduce children to poetry</li> <li>• Talk to children about what instrument they might enjoy to play.</li> <li>• Introduce children to the work of famous artists.</li> <li>• Attend local concerts, art exhibits and plays.</li> <li>• Visits children museums on the Internet.</li> <li>• Experiment with different forms of art. Do several projects using the same method so children can improve their skills (Roehlkepartain &amp; Leffert, 2000:131).</li> </ul>
	<p><b>Away-from-home activities</b> Children spend one hour or more each week in extracurricular school activities or structured community programmes</p>	<ul style="list-style-type: none"> <li>• Let children experiment with different activities they like</li> <li>• Enrol children in activities that teach the children skills while giving them interesting, well-rounded experiences</li> <li>• Keep an eye on children's schedules. There should be more to a child's life than organised activities. Children also need family time, homework time, playtime and quiet time</li> <li>• Help children to make choices about what they like to do. Ask, "What are some good things about this activity? What are some bad things?"</li> <li>• Involve children in team activities (Roehlkepartain &amp; Leffert, 2000:136).</li> </ul>

	<p><b>Religious community</b> The family attends religious programmes or services for at least one hour per week</p>	<ul style="list-style-type: none"> <li>• Help children build relationships outside the religious services. For example, have a child invite a friend from the congregation over for dinner or playtime</li> <li>• Enrol children in the congregation's religious education classes. Help them get to know their classmates. (Roehlkepartain &amp; Leffert, 2000:140).</li> </ul>
	<p><b>Positive, supervised time at home</b> Children spend most evenings and weekends at home with their parents in predictable, enjoyable routines</p>	<ul style="list-style-type: none"> <li>• Take a family vacation from chores</li> <li>• Surprise a child by taking him/her out to enjoy an unexpected breakfast, movie or ice cream</li> <li>• Have reading rituals</li> <li>• Give children some time to themselves each day</li> <li>• Have a family cave day. Unplug the phone. Do not answer the door. Keep all the curtains and blinds closed. Unplug the television. Pretend you live in a cave and focus on the people in your home instead of on things (Roehlkepartain &amp; Leffert, 2000:146).</li> </ul>

- **Internal assets**

Table 4.3 shows the internal assets identified by the Search Institute (1997). Roehlkepartain and Leffert (2000) identify several ideas for building on these internal assets.

**TABLE 4.3: Internal assets and ideas for building on these assets**

CATEGORY	ASSET NAME AND DEFINITION	IDEAS FOR BUILDING ON THESE ASSETS
<b>INTERNAL ASSETS</b>		
<b>COMMITMENT TO LEARNING</b>	<p><b>ACHIEVEMENT EXPECTATIONS</b></p> <p>Children are motivated to do well in school and other activities</p>	<ul style="list-style-type: none"> <li>• Keep an eye on children’s study habits. Some children rush through their work and do not develop the skills they need. Others dawdle which also keeps them from learning. Intervene if it becomes a regular problem</li> <li>• When children are frustrated, resist the urge to take over and make everything better. Listen to a child’s feelings. Ask questions to help him/her work through the problem</li> <li>• Help children develop a sense of control over their lives, which will make them more motivated. They will be more interested in learning when they feel they are in charge</li> <li>• Teach children to persevere. Each day, work with them on their reading or maths skills and show them how helpful practice can be</li> <li>• Give spontaneous rewards with no strings attached. If you expect children to work hard and learn new skills, they probably will. Instead of saying “I’ll take you to the park if you finish your assignment”, say, “You have finished your assignment? Great! Let’s go to the park to celebrate”. (Roehlkepartain &amp; Leffert, 2000:160).</li> </ul>
	<p><b>CHILDREN ARE ENGAGED IN LEARNING</b></p> <p>Children are responsive, attentive, and actively engaged in learning</p>	<ul style="list-style-type: none"> <li>• Do not expect all of children’s learning to take place in school</li> <li>• When you talk about a child’s school, stay positive. Let the child know that you think school is fun and important</li> <li>• When children are bored and look for things to do, let them find their own solutions. Make sure there are plenty of interesting books, games and other materials to spark their interest</li> <li>• Engage children’s imagination (Roehlkepartain &amp; Leffert, 2000:165).</li> </ul>

	<p><b>STIMULATING ACTIVITIES</b></p> <p>Parents and teachers encourage children to explore and engage in stimulating activities. Children do homework when it is assigned</p>	<ul style="list-style-type: none"> <li>• Set up a special place for children to do homework.</li> <li>• Help children plan and chart long-term assignments</li> <li>• Help children to make homework a part of their routine</li> <li>• Be directly involved with younger children (ages 6 to 8 years) while they do homework. Give them plenty of advice and help, but remember the homework is theirs, not yours</li> <li>• Set an example of learning. While children do their homework, sit quietly nearby and take a few minutes to read a book or to practise skills (Roehlkepartain &amp; Leffert, 2000:169).</li> </ul>
	<p><b>ENJOYMENT OF LEARNING AND BONDING WITH SCHOOL</b></p> <p>Children enjoy learning and care about their school</p>	<ul style="list-style-type: none"> <li>• Children who feel a bond with their school have connections with their teachers</li> <li>• Wearing the right clothes to school helps children show their pride in their school</li> <li>• Help children to make friends with their schoolmates Let a child invite a special friend for dinner, for a sleepover, or just to play</li> <li>• Find out what children like most about school</li> <li>• Make informal learning experiences fun and exciting so that children realise learning is important and interesting, and so is school (Roehlkepartain &amp; Leffert, 2000:174).</li> </ul>
	<p><b>READING FOR PLEASURE</b></p> <p>Children and adults read together for at least 30 minutes a day. Children also enjoy reading or looking at books or magazines on their own</p>	<ul style="list-style-type: none"> <li>• Keep reading aloud to children, even when they can read by themselves. Reading together helps strengthen your relationship with your child. Have children read aloud to you too</li> <li>• Find books that get children excited about reading</li> <li>• Challenge children to use the newspaper to answer questions. You might ask, "Which animal was just taken off the endangered species list?" (Roehlkepartain &amp; Leffert, 2000:179).</li> </ul>

<b>POSITIVE VALUES</b>	<p><b>CARING</b></p> <p>Children are encouraged to help other people</p>	<ul style="list-style-type: none"> <li>• Taking care of animals is a good way to teach children about caring</li> <li>• If children see someone who needs help, talk to them about what they saw</li> <li>• Find ways for children to work directly with people who need care (Roehlkepartain &amp; Leffert, 2000:194).</li> </ul>
	<p><b>EQUALITY AND SOCIAL JUSTICE</b></p> <p>Children begin to show an interest in making the community a better place</p>	<ul style="list-style-type: none"> <li>• Treat children with respect. Ask for children's opinions. Listen to their ideas and respect their suggestions</li> <li>• Choose a region of the country, or another country for your child to study. Find out how people live together there. Is there poverty?</li> <li>• Help people show their concern for people who are hungry</li> <li>• Give children hands-on experience of helping those who do not usually receive equal treatment. What can you do to help people who are physically or mentally challenged?</li> <li>• Help children donate to organisations (Roehlkepartain &amp; Leffert, 2000:200).</li> </ul>
	<p><b>INTEGRITY</b></p> <p>Children begin to act on their convictions and stand up for their beliefs</p>	<ul style="list-style-type: none"> <li>• Teach children about people who are good role models of integrity (such as Helen Keller, Martin Luther King Jr., Marian Wright Edelman and Mahatma Gandhi). Learn about the things these people did and how they made a difference</li> <li>• Ask children what they support and what they reject (Roehlkepartain &amp; Leffert, 2000:204).</li> </ul>
	<p><b>HONESTY</b></p> <p>Children begin to value honesty and act accordingly</p>	<ul style="list-style-type: none"> <li>• Focus on the positive. When children are honest, let them know you approve</li> <li>• When you realise you have lied or stretched the truth, admit it. Apologise. This shows children that honesty is the best way to set a mistake right</li> <li>• Understand that children sometimes lie when they feel stressed. When it happens, talk about things the child might do to cope with stress (such as take a walk, play with a ball, write in a journal or talk to an adult about the problem)</li> <li>• Encourage children to tell the truth even after they have lied</li> <li>• Talk about stretching the truth and little white lies, and why people do these things. Say, " Have you ever told a lie so that you wouldn't hurt someone's feelings? How could you be honest instead?" Help children find ways to be both honest and caring</li> <li>• Keep your eye on the newspaper about people who choose to lie or tell the truth (Roehlkepartain &amp; Leffert, 2000:211).</li> </ul>

	<p><b>RESPONSIBILITY</b></p> <p>Children begin to accept and take personal responsibility for age appropriate tasks</p>	<ul style="list-style-type: none"> <li>• When children do not fulfil their responsibilities, use logical consequences to show them what could happen</li> <li>• Keep track of how well children fulfil their responsibilities</li> <li>• Let children choose what household jobs they will be responsible for</li> <li>• Give children a list of regular, clearly defined tasks to do, such as making the bed, packing their lunch, washing their hair</li> <li>• Let children find out what happens when they do not take care of their responsibilities. For example, if a child forgets to clear away his/her place after dinner, the dirty dishes may be waiting for him/her at breakfast</li> <li>• Talk about how being responsible shows people that you are dependable, hard-working and trustworthy (Roehlkepartain &amp; Leffert, 2000:215).</li> </ul>
	<p><b>HEALTHY LIFESTYLE AND SEXUAL ATTITUDES</b></p> <p>Children begin to value good health habits and learn healthy sexual attitudes and beliefs as well as respect for others</p>	<ul style="list-style-type: none"> <li>• Keep a strong connection to children. Love and support them in ways they appreciate</li> <li>• Help children make healthy choices about eating, sleeping, bathing and grooming</li> <li>• As children become ready to learn about sex and sexuality, give them accurate, appropriate information</li> <li>• Discuss how characters on television and in movies relate to one another. Talk about who is respectful, loving and empathetic – and who is not</li> <li>• Talk to children about gender roles</li> <li>• When children make inappropriate remarks about sexuality and body parts, stay calm. Let children know what is not acceptable, but do not reward them by giving their comments a lot of attention (Roehlkepartain &amp; Leffert, 2000:221).</li> </ul>
<p><b>SOCIAL COMPETENCIES</b></p>	<p><b>PLANNING AND DECISION-MAKING PRACTICE</b></p> <p>Children begin to learn how to plan ahead and make choices at appropriate developmental levels</p>	<ul style="list-style-type: none"> <li>• Teach children to break down large homework assignments into smaller, more manageable pieces</li> <li>• Children should learn to take care of their responsibilities before doing things they enjoy</li> <li>• Some decisions or plans may have many steps. Help children consider all of these steps and remind them about things they may have overlooked. Set a budget and a timeline. Find several options, and then pick the best one (Roehlkepartain &amp; Leffert, 2000:234).</li> </ul>

	<p><b>INTERPERSONAL SKILLS</b></p> <p>Children interact with adults and other children and can make friends. Children express and articulate feelings in appropriate ways and empathise with others</p>	<ul style="list-style-type: none"> <li>• Help children learn how much fun it can be to be part of a team</li> <li>• If other children will not play with a child, find out why. Talk to the excluded child about his/her feelings and help him/her find ways to solve the problem. Do not guess – ask</li> <li>• Increase children’s “feeling vocabulary”. Teach children words they can use to describe their feelings more precisely</li> <li>• As they get older, children’s relationships with members of the opposite sex change. Let children handle these relationships in their own way, but make sure they are behaving appropriately (Roehlkepartain &amp; Leffert, 2000:239).</li> </ul>
	<p><b>CULTURAL COMPETENCE</b></p> <p>Children know about and are comfortable with people of different cultural, racial, and/or ethnic backgrounds</p>	<ul style="list-style-type: none"> <li>• Go with children to visit museum exhibits featuring works by people from many cultures</li> <li>• Help children to feel comfortable with people who are different from them</li> <li>• Do not tell or laugh at jokes that make fun of a person’s race</li> <li>• Learn about faith traditions together</li> <li>• Perceptions and beliefs about other people – both positive and negative – are often passed from parents to children for many generations. Talk to children about their ancestors’ lives (Roehlkepartain &amp; Leffert, 2000:245).</li> </ul>
	<p><b>RESISTANCE SKILLS</b></p> <p>Children start developing the ability to resist negative peer pressure and dangerous situations</p>	<ul style="list-style-type: none"> <li>• Teach children positive methods to cope with frustration and disappointment</li> <li>• Help children consider all the possible solutions to a problem</li> <li>• Some children cheat, push others around, or use tears to get what they want. Let them know these behaviours are not acceptable. Teach children how to negotiate and make compromises</li> <li>• Talk with children about ways they can resist danger. For example, depending on the circumstances, they might ignore the situation, walk away, tell a caring adult or use humour</li> <li>• When helping children develop resistance skills, focus on the concept they need to learn most. Show a shy child how to be confident and express his/her needs clearly</li> <li>• Give children a round of applause when they use resistance skills in positive ways – especially when they do this without being prompted by adults (Roehlkepartain &amp; Leffert, 2000:249).</li> </ul>

	<p><b>PEACEFUL CONFLICT RESOLUTION</b></p> <p>Children try to resolve conflicts non-violently and peacefully</p>	<ul style="list-style-type: none"> <li>• Tell children violence is never a good way to solve problems. When they feel angry and frustrated, they need to find a peaceful way to share their feelings</li> <li>• Teach children to identify and cope with feelings that could create problems later</li> <li>• Children sometimes fight because they do not know how to put their feelings into words. Have children look for more creative, constructive ways to settle their differences (Roehlkepartain &amp; Leffert, 2000:254).</li> </ul>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);"><b>POSITIVE IDENTITY</b></p>	<p><b>PERSONAL POWER</b></p> <p>Children begin to feel they have control over things that happen to them. They begin to manage frustrations and challenges in ways that have positive results for themselves and others</p>	<ul style="list-style-type: none"> <li>• Respect the decisions a child makes. If you disagree, talk honestly to the child about your concerns. Having their choices respected gives children a sense of control over their lives</li> <li>• Children can control what they say and do, but they cannot control what other people say and do. Help children understand and accept this</li> <li>• Read about adults and children who overcame difficult situations. Say, "People can do wonders when they set their minds to it". Talk together about what you learn</li> <li>• Ask children about their dreams and passions. What are they doing to achieve them? Give children the space they need to follow their dreams, but also take steps to support them (Roehlkepartain &amp; Leffert, 2000:266).</li> </ul>
	<p><b>SELF-ESTEEM</b></p> <p>Children report having high self-esteem</p>	<ul style="list-style-type: none"> <li>• What do children like to do? Find out. Show you care by asking questions and then sharing their interests</li> <li>• Give children recognition when they do things well</li> <li>• Some children are sensitive about their appearance, especially if they feel they differ from other people around them. Talk to children about their thoughts and feelings on a variety of issues. Let them know that no two people are alike and that this makes the world interesting</li> <li>• When children act inappropriately, focus on the behaviour, not on the child (Roehlkepartain &amp; Leffert, 2000:271).</li> </ul>
	<p><b>SENSE OF PURPOSE</b></p> <p>Children report that their lives have purpose and actively engage their skills</p>	<ul style="list-style-type: none"> <li>• Create an atmosphere where children feel free to discover</li> <li>• Go out of your way to help children follow their passion</li> <li>• Teach children that pursuing their dreams is not always easy. It is normal to feel discouraged and sometimes want to give up</li> <li>• Ask children to describe the things they enjoy doing. Then have them rank these activities. How can they find more ways to do the things that top their list? (Roehlkepartain &amp; Leffert, 2000:274).</li> </ul>



	<p><b>POSITIVE VIEW OF PERSONAL FUTURE</b></p> <p>Children are hopeful and positive about their personal future</p>	<ul style="list-style-type: none"> <li>• Practise being positive. When children assume bad things will happen, talk about different ways the situation could work out favourably</li> <li>• When children behave well, reward them and thank them</li> <li>• Teach children how to identify their feelings and use specific words to describe them</li> <li>• Between the ages of 7 and 10 years, many children struggle with their self-image. They may compare themselves unfavourably with others. Do not dismiss children's uncomfortable feelings, rather help them see the big picture. Let them know they are valuable and special (Roehlkepartain &amp; Leffert, 2000:279).</li> </ul>
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## 4.5 LIMITATIONS OF THE RESEARCH

The possible limitations and methodology of this study are discussed below.

### • **Sample size**

Non-probability purposive sampling satisfied the researcher's need for this type of sample but the sample does not represent the wider population; it is deliberately selective and biased. It should be noted that the samples were hand-picked on the basis of their typicality in order to obtain in-depth information, and that this goal was adequately achieved in this study.

### • **Possible researcher bias**

The researcher consciously maintained an objective stance and presented the data obtained from the participants as accurately as possible. To this end, questionnaires were distributed, which the participants completed in the researcher's presence. The information obtained from the questionnaires formed the basis for the semi-structured interviews that improved the accuracy and validity of the data obtained from each participant.

### • **Participants' responses**

The open-ended questions in the questionnaires invited honest, sincere and personal comments from the participants. These responses brought richness and depth to the data that formed the basis for the semi-structured interviews. The participants might have responded in a certain manner, as they knew that they were participating in the study. However, Bender (2002:117) states that it is difficult to overcome such reactive effects in any research because it is unethical to engage in research without obtaining the participants' consent.

### • **Reliability and validity of research instruments**

The reliability and validity of the research instruments were important in order to obtain the best possible data. As Silverman (2000:188) describes, the requirements for reliability are that the researcher should document accurately and truthfully the procedures followed during the study, so that the research could be replicated by other researchers. It was also important to have a good fit between what the researcher recorded as accurate and comprehensive data and what actually took place in the natural research setting. The validity of the data obtained was addressed by the participants' honesty, depth and

richness in their responses and also by the participants' attitude to the study. The use of triangulation as explained in Chapter 3 of this study and the researcher's objectivity also contributed to the validity and reliability of the data. As described by Bender (2002:117) the researcher also explained and clarified questions when the participants required this. Some of the terminology in the questionnaires had to be explained to those participants whose literacy was limited. When examples were given, great caution was taken to prevent the participants from using that particular example in the information they gave.

Another factor contributing to the ecological validity of the study was the natural setting in which the research was conducted, as explained in Chapters 1 and 3 of this study. Consistency was also employed when analysing the data.

- **Limitations of the methodology**

The lack of generalisability of the findings could be a limitation of the methodology. However through the use of the triangulation method, data were gathered and analysed using multiple methods as explained in Chapter 3 of this study. The case studies offer a holistic portrayal, presented in a context that is necessary for understanding each case.

- **Limitations of data analysis**

It is possible that there may have been limitations in the method used for data analysis. This in turn may have affected the conclusions drawn in this study. This limitation was kept to a minimum because the researcher returned to the data several times to ensure that the data were accurately reflected.

- **Available statistics**

Another limitation on the research was that no statistics were available in a South African context regarding the number of learners with diabetes in South African schools. It was also not possible to obtain reliable statistics from the South African Diabetic Association regarding children with diabetes in South Africa. The relevance of statistics to the study is that they would enhance an awareness of how many diabetic learners attend school and to call attention to their needs and assets.

## **4.6 IMPLICATIONS FOR FUTURE RESEARCH**

It is recommended that the following should be taken into account for future research.

- Further research could include an investigation into the needs and assets of the adolescent with type I diabetes
- A longitudinal study is recommended, which should include the same participants in future research into the needs and assets of adolescents with type I diabetes. This would give a more holistic view of the development, needs and assets of learners with diabetes
- Age-appropriate education programmes should be presented to learners with diabetes. This could include their developmental and learning needs and their assets
- Further research should be done into the emotional and social implications of type 1 diabetes for the child and family, who have to cope with the challenge of a hospital environment
- Further investigation should be done into the effect that a child in the family, who has a chronic illness such as type I diabetes, has on other siblings.

## 4.7 CONCLUSION

The conclusion drawn from the study is presented within the framework of the aims of the study, namely to identify the developmental and learning needs and the assets of learners with type 1 diabetes in the foundation phase, to provide knowledge and understanding of these learners and to rally their friends, family, school, teachers and the community to become external and internal asset builders in the development of the learner with type 1 diabetes in the foundation phase.

Adopting a needs-based and asset-based approach within the ecosystemic perspective as theoretical framework, the emphasis was on studying the learner with type 1 diabetes in the foundation phase in an ecosystemic perspective. As individuals, these learners' environment included family, friends, the school, teachers and the community, with opportunities for interaction in a social context. The unique personal narrative of each participant revealed the meaning and experience of type 1 diabetes as a chronic illness. It captured the diversity, creativity, individuality, uniqueness and spontaneity of each participant and the social interaction of the participant with family, friends, the school, teachers and the community. The learner who deals best with his/her diabetes is the learner who shares his/her ecology with positive experiences, understanding and wisdom from family, friends, the school, teachers and the community.

For this reason, the relationship between the participants and their ecosystems should always be taken in account. It is essential to be sensitive to the developmental and learning needs of the learner with type 1 diabetes in the foundation phase. The focus should be on the assets that are currently present in each learner's diverse environment, and on identifying the capacities inherent in each unique participant. In an environment that is relationship-driven, it is important for family, friends, the school, teachers and the community to concentrate on identifying, developing and strengthening the learner's internal and external assets or building blocks, so as to help the learner to develop age-appropriate behaviour and accomplish age-appropriate developmental tasks.

The conclusion drawn in this study is that the learner with type 1 diabetes in the foundation phase should be encouraged to lead as normal a life as possible. Unnecessary restrictions on activities reduce these learners' enjoyment of life and may interfere with friendships, social development and activities. A normal life in this sense implies controlling the diabetes, having realistic expectations, keeping up with schoolwork, forming friendships and participating in the same activities as other learners whenever possible