

The Stigmatising Nature towards Type One Diabetic Students in the Education System, Their Coping Strategies and Necessary Interventions

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Abstract

This paper investigates the lived experiences of students with type one diabetes. It seeks to understand how their medical condition plays a role in their educational attainment. The paper highlights Goffman's theory of stigmatization to explore how diabetic students cope with stereotypes placed on them, and how this affects their relationships and educational path. Investigating what diabetic students in Kuwait struggle with academically, and how an array of bodies such as students themselves, their parents, school staff, and Educational institutions can support type one diabetic students succeeding on their academic journey.

Keywords

Type One Diabetes, Stigma, Coping, Sick-Role, Capital, Label, Hypoglycemia, Hyperglycemia

1. Introduction

The problem statement that will be further delved into in this paper is "Students with type 1 diabetes struggle with their medical condition which is not addressed in most educational systems and hence can play a role in hindering their academic performance." This medical condition includes low and high blood glucose levels, also referred to as hypoglycaemia and hyperglycaemia. Hypoglycaemia means there is a lack of sugar in the blood, and this results in symptoms like hunger, headaches, poor concentration, shaking, heart palpitations, confusion, weakness, coordination problems, argumentative behaviour and in serious cases

seizures or a coma (Brazier, 2019). While hyperglycaemia means there are high levels of sugar in the blood. Symptoms include frequent needing to pass urine, thirst, headaches, fatigue, blurred vision, shortness of breath, and in severe cases high fever and vision loss (Felman, 2019). To deeply explore this problem statement, the paper will seek to answer the research question; What are the situational obstacles type one diabetic students face within the educational system, and what are effective interventions and coping strategies to improve school-based diabetes care? To answer this research question and hence investigate the problem statement, this paper will delve into three main points: the educational problems experienced by diabetics, what the school can do, and what parents can do to reduce these difficulties and how type one diabetics cope with these stigmatising hardships.

However, before striving to answer this research question through an explorative and informative literature review and methodology section there needs to be a clear and concise understanding of what type one diabetes is. Simply put, type one diabetes is a chronic autoimmune disease, usually detected in childhood. It is where beta cells in the pancreas are destroyed and therefore, the pancreas is no longer able to produce insulin, a hormone needed for glucose to enter the cells and produce energy (Hashemian, Kouhnavard, & Nasli-Esfahani, 2015: p. 1). This chronic disorder has many physical, psychological, and sociological implications which are to a large extent affected within the educational system.

Understanding how type one diabetics cope with the difficulties of their illness within the education system is important due to the societal and scientific relevance of this topic. It serves as a teaching tool to those who are unaware of this topic. This is theoretically relevant and has an interdisciplinary lens mainly sociological but also political. Through a societal lens it looks at; the stigmatising nature of society as explained by Goffman (1963) and indicates how type one diabetic students are forced to cope with the stereotypes placed on them. This is relevant as a society can learn and understand how the stereotypes and stigma, they place on chronically ill people, may harm them. For instance, inducing a self-fulfilling prophecy that can detrimentally affect their physical and mental health. Understanding that the perceptions society has of type one diabetics as being incompetent members of society can force them to play a sick role as identified by Parsons (1975). Understanding that the actor-network theory coined by Latour (1996) clearly shows the role type one diabetics are forced to take to avoid being stigmatised. This may hinder their performance in society and thus their academic achievements. Learning about Bourdieu's (1978) theory of capital and how economic, social, and cultural capital can play a key role in the health and success rates of type one diabetics. This topic is relevant to society and is necessary to be written about and understood due to the clear and distinct effects it has on type one diabetic students. It is also relevant and important in the scientific realm as it fills gaps in existing scientific knowledge. Most research about type one diabetics and education focuses on academic achievements. Yet there is a lack of research on their coping strategies within the education system based

on stigmatising and health-based factors that affect their academic achievements. There is also a lack of knowledge on necessary interventions that need to be taken, specifically on the policy level, which fills gaps in scientific knowledge about type one diabetes and educational facilities.

This paper will explore the problem statement and research question by focusing on taking a qualitative approach as it seeks to attain valid and detailed data. As this is a unique topic of research with limited knowledge, it is important to have first-hand information from type one diabetic students who experience being stigmatised and having educational limitations set on them. Explaining what interventions, they believe are necessary inside and outside the education system, which can give them an equal opportunity at academically achieving. As well as being able to provide clear and concise coping strategies they use to deal with the hardships that come alongside type one diabetes and education. This will be done with a semi-structured interview to ensure the comfort, trust, and validity of respondents. Therefore, the use of thematic analysis is the most appropriate for this research to critically review codes and responses.

This paper will be structured as follows. First, I will review previous literature about type one diabetes within the education system. Then I will discuss the methods used to answer the research question designed and why. Lastly, I will conclude by discussing my findings and the implications these findings may have in understanding how type one diabetics are affected within the education system, what their coping strategies are, and what interventions can be taken to reduce these situational obstacles.

2. Literature Review

2.1. Challenges Type-One Diabetic Students Face

Type one diabetic students face a challenging medical condition that has been shown to negatively impact their academic performance as well as the level of education can achieve (Persson, Persson, Gerdtham, Carlsson, & Swedish Childhood Study Group, 2019: p. 2606). There are multiple reasons behind this, one of which is a self-fulfilling prophecy by Merton (1948), where type one diabetics reprimand themselves by undervaluing their academic abilities. They provide themselves with a perception of difficulty, which they believe and ultimately their poor academic performance becomes true. A clear and strong correlation has been found between perception of difficulty and blood glucose levels, where the more difficult they believe their educational tasks to be as type one diabetic students the more their long term glucose levels increased, which has led to; higher levels of depression, shorter attention span, weaker memory, slower ability to process information and poorer verbal functioning (Potts, Nguyen, Ghai, Li, & Perlmutter, 2015: pp. 527-532). Therefore, making it difficult to manage their diabetes, while also managing their responsibilities as students. Hence, they do not perform to their greatest ability academically and do not achieve their desired educational goals.

A further indication of type one diabetics doing worse in the education system would be shown within the Grossman (1972) model, where health depreciation shows there is not an adequate amount of time available for type one diabetics to invest in their education. There is a huge amount of time allocated to strict diabetes management and doctor visits. The awareness of the vast array of diabetic complications and risks reduces many type one diabetic students' incentive to invest in their education due to a lack of certainty in their future. The strict diabetes management is very costly, which means that investments in better and more expensive educational institutions are set aside for medical care (Persson et al., 2019: p. 2608).

This indication of having to choose medical care over education due to financial strains can be linked to Bourdieu's (1978) theory of capital in education. Here there is a focus on economic capital, where money is needed to open doors, it is based on time and investment. Economic capital facilitates both social capital (networking) and cultural capital (accumulation of knowledge, behaviour, and skills). The school system is gradually getting rid of students who originate from poorer, less privileged backgrounds and hence students with lower economic capital who cannot afford to invest in better educational levels (Bourdieu & Passerson, 1979: p. 8). Bourdieu shows that differences in economic capital lead to differences in intelligence and talent, where those with lower capital are seen to be less intelligent and less talented as opposed to those with higher capital (Bourdieu, 1978: p. 178). Therefore, type one diabetics who do not have high economic capital, so do not attend the best schools have their self-deprecating ideologies of task difficulty and inability to perform well in the educational system confirmed.

Type one diabetes has been found to harm students' final grades in different schooling programmes. It is still found to correlate to several challenges of completing education (Persson et al., 2019: pp. 2616-2617). They are found to struggle with symptoms of their diabetes (weak mental agility, slower reaction time, difficulty concentrating...) more during exam seasons as stress triggers this, which means they are more likely to perform poorly (Diabetes UK, 2018: p. 4). Many diabetic students suffer from "diabetic burnout" which is the emotional distress and frustration of having to manage diabetes. It is caused by the rigorous mundane lifestyle of coping with diabetes, as well as feeling useless when unable to reach certain goals such as an optimum glucose level (Diabetes.co.uk, 2014). Furthermore, type one diabetics are more likely to suffer with depression, which leads to poorer glucose control, hence higher risks of diabetic complications such as kidney failure, blindness, heart disease, nerve damage etcetera (Trief, Xing, Foster, Maahs, Kittlesrud, Olson, & Beck, 2014: pp. 1563-1567).

Students with diabetes and depression are more likely to struggle focusing on school, notice their grades suffer, have lower school attendance, lower graduation rates, and poorer educational attainments. Research has shown students with diabetes are 6% more likely to drop out of high school, 4% - 6% more likely to not attend college and 50% more likely in comparison to their nondiabetic

peers to not graduate from university. This means that the future earnings of diabetics are significantly lower than those who do not have diabetes, which links back to Bourdieu's theory of economic capital and access (Owens-Gary & Allewis, 2013: pp. 15-16).

Many students with type one diabetes have had negative experiences in school due to educators' lack of knowledge and understanding of their chronic illness. For instance; not being allowed to eat or drink in class and therefore treat hypoglycaemia (low levels of blood glucose), being stigmatised and treated as sick or different by their teachers in front of their peers, not being allowed to participate in certain class activities or eat certain foods, creating segregation between type one diabetic students and their non-diabetic peers, creating emotional repercussions as well as academic repercussions due to the difficulty of managing and treating their diabetes at school (Browne, Ventura, Mosely, & Speight, 2014: p. 6). They feel treated differently to other non-diabetic students (Schwartz, Denham, Heh, Wapner, & Shubrook, 2010: p. 49). Therefore, there needs to be a better understanding of diabetes and how to treat it within educational institutions such as schools and universities, to push forward these students' chances to excel academically as opposed to inhibiting their educational levels due to a lack of knowledge and understanding of type one diabetes.

Additionally, due to stigma, many diabetic students are increasingly sensitive to classmate responses, creating a sensation of fear, embarrassment, and annoyance when being intensely questioned about their disease. Therefore, many diabetics keep their disease a secret to avoid drawing attention and judgement to themselves and hence provide a sense of emotional comfort, but this could lead to the jeopardization of their physical health (Wang, Brown, & Horner, 2010: pp. 260-261). Some diabetic students explain that they do not mind questions from their peers and that curiosity is okay, however, assumptions about their conditions or certain judgement-based questions such as "can you eat that?" or "doesn't that hurt?" are frustrating and become tiresome to respond to (Carroll & Marrero, 2006: p. 249). Even assumptions made by their classmates can feel quite judgemental as some diabetic students are allowed to leave class early to manage their blood glucose levels but their peers think they use their disease as an excuse to have longer lunch break times or skip classes which can be frustrating for diabetic students to have to constantly explain that this is not the case (Carroll et al., 2006: p. 249).

Students struggling with their blood glucose levels are likely to have learning difficulties that prevent them from concentrating for up to two hours, which must be taken into consideration in the classroom. Research shows that students with diabetes do worse compared to their non-diabetic peers in demanding classroom settings (Edge, O'Hickey, Haest, Breton, & Johnson, 2017: p. 6). Chronic exposures to risks of diabetes are linked to students facing poorer learning abilities and poorer memory development. Episodes of severe hypoglycaemia and hyperglycaemia (low and high blood glucose levels) are even linked to, lower

IQ levels, poorer language skills, shorter attention span, worse phonological processing skills, poorer verbal intelligence, and slower motor skills. Therefore, healthcare professionals and school staff must monitor diabetic students and identify subtle learning difficulties, so they do not take a major educational or mental toll on the student (Edge et al., 2017: p. 5).

2.2. Summary of Challenges

In summary, type one diabetic students face a wide arrange of difficulties when it comes to the interlinkage of their chronic conditions and their academic careers.

These students can be placed in struggles where they must decide between their health or education, with not ample time to dedicate to their academia, hence leading to lower attendance and lower grades (Grossman, 1972).

While there are clearly challenges for type one diabetic students, these challenges are even more explicit for students from lower socio-economic backgrounds who cannot afford to invest in both healthcare and a good education. Therefore, struggle even more with their academic and professional careers (Bourdieu & Passerson, 1979: p. 8).

Furthermore, perception of difficulty academically can lead to stress and hence higher glucose levels, which in turn can affect a students' memory, attention span, and ability to process information (Potts, Nguyen, Ghai, Li, & Perlmutter, 2015: pp. 527-532).

Additionally, educators with a lack of knowledge and understanding of type 1 diabetes, may stop students from managing their diabetes in classroom or exam settings, leading to students feeling misunderstood and burnt out with their grades suffering as a consequence (Diabetes.co.uk, 2014).

Fearing judgement many students do not share their diabetes with educators or classmates, which in result can lead to chronic exposures to the risks of diabetes. These chronic exposures due to not treating their condition in a safe and inclusive environment can result in lower IQ levels, poorer language skills, shorter attention span, worse phonological processing skills, poorer verbal intelligence, and slower motor skills (Edge et al., 2017: p. 5).

2.3. The Role and Identifying Features of Type-One Diabetic Students

To further explain the identities type one diabetics are pushed into, there needs to be an understanding of the sick role and chronic illness as identified by Parsons. As money is the recognition of human labour, this is convertible through a healthy working body. Therefore, money-based health is linked to Bourdieu's notion of physical capital (Varul, 2010: p. 7). The sick role exempts ill people from having to conform to the single role of healthy people and thus do not have the same expectations, which means that their illness is taken into account and may be seen as an opportunistic side effect from society (Varul, 2010: p. 7). Even though the opportunistic right to be exempt from obligations of everyday life is

evident for type one diabetics, they must show the healthy society that they are doing everything to be healthy and are persistent with medications and doctor appointments. They can regress into a sort of childlike dependency, however, that also means the autonomy of a child alongside it (Varul, 2010: pp. 8-9). Diabetics must comply with their chronic sick role to avoid sanctions from a disapproving health-based environment. With a chronically unhealthy body, diabetics must still show that they are driven by a healthy mind. Therefore, type one diabetic students need to strike a balance between doing too little and too much, to not fall under the stigmatization of being reckless or invalid (Varul, 2010: pp. 11-13).

This sick role they are forced to mediate with health care providers, education systems, families, and friend links with stigma type one diabetics seek to avoid. Even within the medical field, stigma is prevalent in the attitude of doctors and nurses towards their patients. Caretakers take on their dominant role in this hierarchy and seek to control their patients. This can be linked to actor-network theory, where everything exists in the social world based on shifting networks of relationships. Therefore, this links to Goffman's (1970) interaction theory, where social interaction is like an act on stage, everyone plays their roles, so every interaction is a performance. Hence this is a performance between the doctor/nurse and the patient, who must submit to their roles and accept the labels and treatment they are given.

The central feature of those being stigmatized is the desire for acceptance, for their contaminated social identity to be accepted by the rest of society. However, when this person tries to solve or work on their "contaminated social identity" they are prone to victimization as they are still seen as someone with a record of a contaminated social identity (Goffman, 1963). Therefore, many stigmatized individuals are likely to use their stigma for "secondary gains" as an excuse for success; for instance, using the support and protection of a handicap label (Goffman, 1963).

The labels placed on type one diabetic students, the roles they are forced to play, and the educational limitations placed on them indicate the need for intervention. Some interventions have already been discussed previously by describing necessary actions that should be taken by both parents and educational facilities. These interventions could be implemented through the adequate use of policies. For instance, on the state level, laws should be set to protect diabetic students in the education setting. Additionally, laws set to avoid the mistreatment of diabetic students in the school setting due to discriminating behaviors which threaten their health and safety making them struggle to safely participate in school activities (Jackson, O'Neil, Butler, Chiang, Deeb, Hathaway, Kraus, Benchell, Yatvin, & Siminerio, 2015: p. 1959).

Additionally, policies must be set to ensure the training of school nurses and staff to be able to aid diabetic students and guarantee their safety. Even if the diabetic student is independent and able to self-care, the student, their guardian,

and the educational facility must safeguard the provision of diabetic care and supervision at school, through an individualized diabetes medical management plan (Jackson et al, 2015: p. 1961). To warrant this safety and independence, policies and modifications to the education system should be set by the state to make slight changes from all stages of education, hence pre-school and post-secondary school settings. This also means that policies should be set to legally protect type one diabetic students in the school setting (Jackson et al., 2015: p. 1962).

There have been many studies that investigate the side effects of type one diabetes and the academic performance of diabetic students. However, there is a lack of research that explores how different forms of capital significantly affect type one diabetic students. Bourdieu's (1978) theory of capital indicates the unequal access to institutional resources people have based on different factors such as social and economic class as well as minority labels. This is linked to students with diabetes who are seen as a minority and therefore have different experiences in the educational institution.

Furthermore, amongst this diabetic student cohort, some are from different economic and social classes, which also implies a difference in the resourcefulness and support provided to them by institutions such as the medical and educational institutions. There is also a general lack of research on how diabetic students cope with the difficulties they are confronted within the educational system.

This literature review and future methodology section will attempt to discover what strategies type one diabetic students use to handle the obstacles they face in their academic acceleration. It will also attempt to understand the struggles and opportunities they are confronted with due to their chronic sick role. It does not only explain ways the education system and parents can improve to accommodate type one diabetic students but also explores the agency of diabetic students and how they actively manage their situation.

2.4. The Role of Educational Institutions

Educational institutions must understand that type one diabetic students have rights to their education alongside care for their illness. Schools have a responsibility towards their students and should help them achieve their educational levels. For instance, in the UK equal treatment of students with diabetes is ensured by the law, it falls under the "2010 Equality Act" and the "1995 Disability Discrimination Act" (Diabetes UK, 2018: p. 5). There is a large array of potential issues diabetics can struggle within the school which will impact them in the classroom. Diabetes can impact their ability to learn, participate, and perform well in school. Therefore, there needs to be designed strategies and support within educational facilities to compensate for the struggles diabetic students face in education.

Diabetic students can face slower processing speeds and hence struggle with understanding and staying on track with new tasks provided. This can cause

homework to take longer to solve, slower ability to make notes, not able to show all knowledge when under a time limit and being frustrated so seeking short term gratifications in school. Schools can help with this by reducing homework given, making sure there is enough time allocated to take notes, providing extra time during exams, if need be, providing rewards for the quality of work, not quantity alone and encouraging diabetics to type rather than write their notes and homework (Edge et al., 2017: p. 6).

Furthermore, diabetic students may struggle with their attention span. Struggling to divide attention between reading and writing, therefore being selective in what they pay close attention to. To help keep diabetic students focused and on track, educators should provide one task at a time, short and simple instructions, try to eradicate most distractions, and provide one to one teaching or group work (Edge et al., 2017: p. 6).

These students can face memory problems. This affects them in the classroom as they can only hold short-term information, struggle with remembering homework tasks and information, and do poorly in generalising and summarising information from one setting to another. To help combat this, educators can allow diabetics to use calculators for maths, encourage students to show working out, repeat instructions carefully, provide small amounts of information at a time, allow the use of diaries, checklists, and phones, encourage the use of lesson plans and discuss what has been learned in class afterwards, pushing students to repeat and rehearse, connect new information to that they already know and to use visual teaching methods for sequenced tasks (Edge et al., 2017: p. 6).

Additionally, students with diabetes can have trouble with executive functioning. Finding it difficult to; plan, organise, self-monitor, initiate tasks or problem-solve. To help them better perform these functions, schools can provide clear structures, encourage the use of mind maps to help revise and perform written tasks, push forward the use of planning calendars, using technology like mobile phones to set reminders, reward students for checking their work, provide students with clear and concise expectations as well as feedback to their work, setting realistic goals for students and showing students model step-by-step approaches to problem-solving in and outside of the classroom (Edge et al., 2017: p. 6).

Moreover, Diabetic students may have trouble with their perceptual skills. Meaning that in the classroom setting they grapple with; spatial awareness, locating specific information on a messy or busy worksheet, scanning work, copying from the board, shape, numbers, letter recognition, and motor planning. To help, educators could; use simple minimalistic worksheets, encourage the use of highlighters to help with scanning information, use multi-sensory learning methods, provide a consistent routine to teach, a smooth transition from verbal to written prompts and laying tasks out in simple sequences (Edge et al., 2017: p. 6).

For any student exams are a stressful period. However, for students with type one diabetes stress usually makes blood sugar levels rise. Studying for long hours equates to minimal physical activity and more snacking which means higher

blood sugar levels, and this impacts concentration (Diabetes UK, 2018: p. 14). On the other hand, worrying and panicking about exams can put diabetic students off eating which may lead to their blood sugar levels dropping, hence dealing with hypoglycaemia which also affects concentration and memory (Diabetes UK, 2018: p. 14). Diabetic students should be allowed to request special considerations during exam periods as low or high blood glucose levels can affect a student's exam performance. This does not only have to be while taking the exam but may be experiencing hypoglycaemia or hyperglycaemia before exams which leaves students less able to concentrate. Therefore, under special considerations, the exam board may be able to consider the quantity of work completed in the exam by the student, their course-work, and previous exams (Diabetes UK, 2018: p. 10). Educators can ensure diabetic students feel supported and not set back during exam periods by; allowing them to have drinks and snacks during exams to avoid or to treat a hypo and hyper, to be able to monitor their glucose levels and administer insulin treatment in an exam, being given time to treat their blood glucose levels and go to the toilet whenever necessary and to have supervised breaks where the time stops while the student manages their diabetes or goes to the toilet. This must also be taken into consideration if the student has the following exams the same day (Diabetes UK, 2018: p. 7).

Students are encouraged to be independent in managing their diabetes within the school setting but only to the extent that works with their experience and functional cognitive ability. This goal towards independent diabetes management should be consulted by a cooperation between the students' guardians, school staff, the students' diabetes care team, and the student (British Columbia, 2015: p. 4). Most young students that are in secondary school are independent in most diabetic-related tasks but may need reminders to carry out demanding self-management tasks. Therefore, school staff must be aware of this and aware of the needs of the diabetic student (Edge et al., 2017: p. 1).

Schools must have a set of provincial standards to help students with type one diabetes. However, students who struggle to manage and cope with their diabetes should be assigned a delegated nurse to help administer insulin, measure blood glucose levels, and create a diabetes support plan as well as a medical alert information form for them (British Columbia, 2015: p. 5). These designed plans should be explained to school staff, who need to be aware of how to deal with a diabetic emergency. There should be posters on how to manage low blood sugar around the school, alongside school staff being trained to administer glucagon (a hormone used to increase the concentration of glucose in the bloodstream) in case of dangerously low blood glucose levels (British Columbia, 2015: p. 5).

Educational facilities are meant to be supportive and inclusive environments, where students struggling with diabetes feel comfortable and able to pursue their educational goals (British Columbia, 2015: p. 6). It is difficult for diabetic students to maintain their glucose levels within the target range, so may have dangerously low blood glucose levels during class and should hence be supported by their teachers, by allowing them to measure their blood glucose levels any mo-

ment and to respond to these results however necessary, as simple as having unrestricted access to food (British Columbia, 2015: p. 6).

The Boards of education have a humanitarian responsibility towards all their students including those with diabetes. Therefore, to ensure this responsibility is safeguarded, educational institutions must align their rules and policies with a provincial standard of diabetes care in the educational setting (British Columbia, 2015: p. 8). These Boards of education need to ensure all the educators employed within their educational facilities are familiar with diabetes care by attending general information seminars about the disease to have the ability to aid students struggling with the disease and even have educators learn to administer glucagon (an emergency glucose injection) when a student is facing hypoglycaemia which can save their lives. Educators must be provided with delegated care plans of their diabetic students to be able to act accordingly and ensure the safety and well-being of their students (British Columbia, 2015: p. 8).

Educators must realize that diabetes should not stop students from participating in school activities, they should be involved in all aspects of school life. Such as participating in physical activities and that these diabetic students should be allowed to represent their school in sports teams. There just needs to be active precautions taken to avoid hypoglycaemia, for instance by checking their blood sugar levels before participating in physical activities and ensuring they stay hydrated and have a snack (Diabetes UK, 2018: pp. 31-32). Additionally, when going on school trips diabetic students will need to effectively manage their glucose levels, taking their insulin, and checking their blood sugar regularly. This must be encouraged and supported by staff on these trips, ensuring that their students can participate on trips by learning, enjoying, and staying safe. To further ensure the safety of diabetic students' staff on trips are obliged to have the individual health care plans of these students, knowing how to act accordingly if necessary (Diabetes UK, 2018: p. 34).

While the educational board and educational staff must uphold a large responsibility towards their diabetic students, much of this responsibility falls on school nurses who attain the medical and social knowledge of this chronic illness. However, this illness is quite complicated with psychological side effects that are sometimes difficult to associate with diabetes. Therefore, nurses need to be aware of the association between risky behaviour, depression, and diabetes and have the resources to deal with diabetic students suffering from the combination of these conditions (Owens-Gary & Allewis, 2013: pp. 15-16). This risk-taking behaviour could include alcohol use, which is concerning as this contributes to blood glucose-related complications and makes it harder to upkeep rigorous self-management behaviours. Additionally, approximately 40% of women suffering from type one diabetes do not take their insulin as a way to purge and thus lead to weight loss, this can be very prevalent in young diabetic women at school who not only struggle with the societal difficulties and expectations of being women but must also topple their difficulties of managing diabetes on top of that (Owens-Gary & Allewis, 2013: p. 16).

Nurses must realize that many students with diabetes and depression may often come and see the school nurse with physical complaints such as headaches and abdominal pain that may be linked to depression. It is also important for nurses to be able to distinguish chronic complaints from acute episodes such as Diabetic ketoacidosis (high blood glucose levels lead to an acidic substance called ketones to build up at dangerous levels in the blood), where symptoms not only include abdominal pain but also fruity breath, extreme thirst and urination and blood glucose levels above 240 mg/dl (Owens-Gary & Allewis, 2013: p. 16). To understand if these somatic complaints are associated with depression, school nurses must provide depression screening and referrals for treatments to raise awareness, provide interventions, and early recognition for mental health concerns. It is important to seek early recognition of depression in young students with diabetes to reduce or even avoid the risk of diabetic complications that may be linked to depression, to confront psychological and social health problems that may impact students' performance at school and to improve the overall quality of life of students struggling with type one diabetes (Owens-Gary & Allewis, 2013: pp. 16-18).

Even though school nurses should provide physical and social aid to their diabetic students, help them become more resilient and overcome obstacles, diabetic students must realise that they are also responsible for managing their glucose levels (Wang et al., 2010: pp. 258-260). Sometimes diabetic students even face stigma and judgement for seeing the nurse when struggling with their diabetes as they are made to stay in the nurses' office till their blood glucose levels stabilize, which takes some time and hence are believed to be using their disease as an excuse to skip class. However, this means that diabetic students miss a lot of lessons that they need to catch up on and hence have more work overall (Carroll & Marrero, 2006: p. 250).

2.5. The Role of Parents

Parents play a prevalent role in their children's diabetes management. Parents hold a large responsibility to help care for their children's disease not only in the primary institutional setting of the family but also in the secondary institution of schooling, as the choice of schools and the type of educators can have a large influence on the physical, social, and psychological realms of type one diabetes (Schwartz et al., 2010: p. 49). Parents must pay close attention to several aspects of schools before deciding to send their children to a specific educational setting. For instance, many factors need to be taken into close consideration. Firstly, the insufficiency of diabetes training and knowledge amongst educators. Especially physical education teachers who should be able to deal with a diabetic emergency such as hypoglycaemia or hyperglycaemia because these emergencies are more likely to occur with a lot of activity. Secondly, the lack of a standardized and clear diabetic care plan for each student can majorly affect diabetes management for each student. Thirdly, an incompetent number of school nurses or educators who are trained to deal with diabetic emergencies and help support

students with administering insulin or checking blood glucose levels which guarantees the safety of diabetic students. Lastly, the scarceness of proper nutritional services and nutritional information which are needed to plan insulin dosage requirements to maintain a stable blood glucose level and avoid diabetic-related emergencies (Schwartz et al., 2010: p. 49).

Type one diabetic self-management is intensely affected by their development in school. Therefore, they need to receive a great amount of support and aid from all school personnel, which parents must pay close attention to (Wang et al., 2010: p. 263). Many students struggling with type one diabetes and their parents reports insufficient knowledge, support, and preparations by school-teachers. Also, a lack of knowledge about diabetes and its dangerous risks by other school staff like substitute teachers, bus drivers, and coaches. Therefore, the responsibility of the diabetic student's health is shouldered by their parents as schools have not been found to lift this weight off (Al Duraywish & Nail, 2017: pp. 31-32).

Parents are rightfully concerned about diabetes management in schools; however, they may not realize that their ethnic and socioeconomic status differences can create adequate differences in diabetes management in schools (Jacquez, Stout, Alvarez-Salvat, Ferrandez, Villa, Sanchez, Eidson, Nemery, & Delamater, 2008: p. 1). This once again can be linked back to Bourdieu's (1978) theory of capital where those with poor economic capital are also more likely to have poor social and cultural capital, therefore, do not have networking abilities and do not have access to knowledge such as federal laws about diabetes care and equality in the education system. This means that minority students are more likely to receive less care and have worse diabetic management compared to non-minority children whose parents are more likely to have more knowledge about their children's rights within these federal laws and hence be more able to protect their children (Jacquez et al., 2014: p. 2). This claim is supported as studies have found that amongst type one diabetic students, African American youth and Latino youth are significantly more likely to have worse metabolic control in comparison to their white diabetic counterparts. Even black parents were more likely to claim that their diabetic children were denied access to extra food and bathroom breaks compared to white or Hispanic students, indicating again that minority children are more likely to have poorer metabolic control (Jacquez et al., 2014: pp. 2-7).

Many parents report being afraid about their children struggling with low or high blood glucose levels at school as they feel quite unconfident in their children's school's ability to care for their diabetes, assess the dangers present and take action (Jacquez et al., 2014: p. 4). Especially as many parents are unaware of federal laws that protect and defend their diabetic children at schools, this makes them feel practically helpless and constantly worried about their children's health and well-being at school (Jacquez et al., 2014: p. 5). Parents have many reservations about educational facilities being able to provide diabetes support for their children, therefore lack of knowledge and training of school staff is a

major theme that needs to be addressed within educational facilities (Jacquez et al., 2014: p. 6).

Diabetes requires lots of time and adequate self-management care; diabetics need to have a well-balanced diet that can help them maintain a target range of glucose level. Diabetics need to know the number of carbohydrates, proteins, and sugars their food has to calculate the insulin they will administer. Many parents report a lack of proper nutrition services for their children at school meaning that maintaining a proper glucose target range is practically impossible. Therefore, parents end up sending their children to school with lunch from home which has all the nutritional values and information necessary for their diabetic children to administer the correct amount of insulin and better maintain a healthy and safe glucose level (Schwartz et al., 2010: p. 50).

Parents of diabetic students report being aware that their children feel humiliated by diabetes-related issues even to the extent of their children not partaking in school activities or even wanting to quit school (Schwartz et al., 2010: p. 50). During adolescence, diabetic students start to stray away from their parents' control to push for their self-identity and try to feel more "normal" like their non-diabetic peers (Carroll & Marrero, 2006: p. 246). Diabetic students are found to feel quite annoyed and stressed out with their parents who over-worry as it feels overbearing and stressful. Their parents become over-protective constantly calling their children's schools, or panicking if their children do not answer their phones and even though it comes from a place of love and care makes these students feel abnormal (Carroll & Marrero, 2006: p. 247). Therefore, to avoid parental conflicts many diabetic students make the decision not to check their blood glucose levels when they feel it is too low or high to avoid a negative response and reaction from their parents. This also feels quite frustrating for diabetics as their parents are not confident in their knowledge and ability to treat their disease (Carroll & Marrero, 2006: pp. 247-249).

3. Empirical Research

Qualitative research is a form of systematic inquiry about social phenomena in a natural setting (Teherani, Martimianakis, Hayes, Wadhwa, & Varpio, 2015: p. 669). This includes how people experience specific aspects of their lives and how groups behave accordingly (Teherani et al., 2015: p. 669). This can be applied here to the inquiry of type one diabetic students, their personal opinions, their experiences, and what their opinions and emotions towards situational obstacles are. Therefore, for this explorative research, I used a qualitative approach as I am looking into type one diabetic personal experiences of coping with their diabetes within the education system and what interventions they believe are necessary to help ensure they have an equal opportunity to achieve academically as their non-diabetic counterparts. Therefore, this approach would help me understand the perceptions of diabetic students, the reasoning behind their behaviour, certain coping strategies, and why they believe certain interventions within the educa-

tion system are necessary. This is a sensitive topic because it deals with the personalised medical and educational experiences of students. Therefore, when trying to answer the research question “What are the situational obstacles type one diabetic students face within the educational system and what are effective interventions and coping strategies to improve school-based diabetes care?” This requires a relationship of trust and comfort to develop the methodology with valid and detailed data as respondents are required to speak of their personal experience of type one diabetes within the education system. They are speaking of a personal and sensitive topic that cannot be studied or properly grasped through a quantitative approach. It requires a detailed look into their emotions, thoughts, and perspectives. Requiring valid responses which can be examined, explored, and compared as opposed to reliable data that is only needed to be generalized.

Even though there are many positive aspects of using qualitative research, the downfalls must be addressed. One potential threat to validity would be researcher bias. This is where in qualitative research the researcher only looks for and finds what they seek to find and writes up their results (Johnson, 1997: p. 283). This a common problem as the research is open-ended, explorative, and less structured as opposed to quantitative research, so it is more open to interpretation (Johnson, 1997: p. 284). Additionally, qualitative research is prone to selective observation and selective recording of information, whereby personal views can influence how data is interpreted and how the research is conducted as a whole (Johnson, 1997: p. 284).

To reiterate, the use of primary qualitative research was chosen for this research, to obtain comprehensive and truthful results tailored to this specific topic of type one diabetic students and their educational opportunities. Qualitative research is a necessary approach here as it focuses on the outcomes of certain events from the outlooks and personal experiences of those involved, here being type one diabetic students (Teherani et al., 2015: p. 669). Qualitative research is perceived to be valid here as it is a plausible, credible, and trustworthy approach (Johnson, 1997: p. 282). Additionally, qualitative research allows researchers to provide theoretical explanations to why and how subjects behave, think, and feel (Johnson, 1997: p. 282). Hence, I used qualitative research to understand why type one diabetic students think, behave, and feel the way that they do about coping strategies and educational interventions when it comes to their illness. This methodology section will seek to extend on existing research about type one diabetes and education and either accept or reject results found in previous research based on results found.

3.1. Sampling and Gaining Access to Respondents.

Purposive sampling is used here, meaning that as a researcher I use my judgment to select the sample I believe to be most applicable to the research study. This is to gain a more detailed insight into a specific phenomenon being studied,

such as type one diabetic students and their coping strategies in the education system rather than just making statistical inferences (McCombes, 2019). Additionally, purposeful sampling is used, in which self-selection of interviewees is made instead of a random selection as this paper is looking into a specific cohort. This approach requires interviewee permission and hence ensures ethical standards of research are met (Alsaawi, 2014: p. 152). This qualitative structure will ensure maximum variation is employed and hence sufficiency of respondents which can be judged by the researcher as well as the saturation of information, where respondents provide similar answers and therefore, emphasise the importance of certain topics that are either mentioned or not mentioned within the research (Alsaawi, 2014: p. 152).

Therefore, I began searching for a sample of type 1 diabetic students, either in high school or university. This was because I wanted to ask respondents about their experiences with type one diabetes, coping within the education system, and differences between experiences overtime in the education system. Additionally, asking questions concerning, parental relationships, stereotyping, educational difficulties or opportunities, possible interventions, and demographic factors that may play a role in these type one diabetic students' educational achievement. Meaning that older students (older than 11 years old) were preferable to expand on these specific and sensitive questions as well as provide responses indicating experience and the development of their emotions and coping strategies overtime in education. First, I contacted the Universiteit Ziekenhuis (UZ) hospitals in Brussels by sending emails, on phone calls, and in-person explaining the goal of my research, my intentions behind why I need this specific sample and what I am trying to find out. Mentioning practical and ethical cautions that would be taken and that these interviews would only be conducted if the subjects were willing. I also asked a doctor who worked in UZ hospital in Ghent, hoping an insight into the hospital could provide an opportunity to access this sample, however, that was unsuccessful. I also provided a sheet explaining the goal of my research that could be handed to type one diabetic patients, who if willing to be interviewed could contact me. Therefore, this would be a written document proving the explanation behind my research and the consent of subjects participating. However, all attempts were proven unsuccessful as this information is considered private and only accessible to doctors. Therefore, I was not allowed to contact the patients or have them contacted by the hospital itself. Next, I emailed four international schools within Belgium but due to tight ethical laws, many declined me interviewing their type one diabetic students or did not even have any type one diabetic students in their schools.

Due to these piling pragmatic concerns, I decided to conduct my methodology section of a questionnaire and semi-structured interviews in Kuwait as I knew access to this cohort would be more accessible. I also know due to living in Kuwait for 18 years that there is a state difference in the treatment of Kuwaiti and non-Kuwaiti diabetics, this means that the state treats Kuwaiti and non-Kuwaiti

citizens differently and provides different healthcare benefits and access according to their ethnicities, which I believed linked to Bourdieu's (1978) theory of capital, which I explained previously in the literature review.

Therefore, I began by contacting the Al-Saggar clinic in Kuwait as I am a patient there and am therefore able to contact the facility more easily as I am still recorded on their online system. I explained the purpose of my research, providing invitation letters as well as letters of confidentiality and letters of consensual agreements to take part in the interviews to be signed by the participants. The clinic contacted some of their type 1 diabetic patients who were students and of the four patients who agreed to take part, I could conduct these structured interviews within the clinic office. I wanted to broaden the number of diabetic students interviewed to have a more valid and reliable data set, so I contacted my high school. I emailed the director of the school explaining that I was researching the relationship of type one diabetics with the education system and their coping strategies. I sent the invitation letter, and this was forwarded to the five types one diabetic students in high school, and of these five three agreed to participate. I provided these students with drop off questionnaires prior to the interviews and went through all the formalities of consent, confidentiality, and ethics. I was then able to conduct the semi-structured interviews in the headmaster's office. All forms used can be found in the annex (pp. 3-9).

3.2. Data Collection

Semi-structured interviews are simply put a combination of structured and unstructured interview questions. For this type of qualitative interview questions are planned prior to the interview by the interviewer, however, the interviewer must provide the interviewee with the choice to respond to these pre-planned questions with as little or as much detail as they would like (Alsaawi, 2014: p. 151). This interview approach is appropriate as I have an overview of the topic at hand and can ask questions accordingly (Alsaawi, 2014: p. 151). Semi-structured interviews use open ended questions prepared in advance, to ensure the depth and richness of the interviewee's responses (Alsaawi, 2014: p. 151). The interview questions can be found in **Figure 1** below. Respondents could clearly expand on topics like necessary interventions on a parent and educational based level, coping strategies, personal experiences of coping with stigma, type one diabetes and the support or lack thereof provided by educational facilities.

I first sent in a drop off questionnaire, to ask my sample cohort closed-ended questions which would not be viable in an interview. These questions mainly explore basic information like the time span of being diabetic, their ethnic origin, whether or not they have a diabetic care team, how accessible diabetic tools are and their parent's occupations. These questions helped me gain access to information that could help enhance and link to aspects of their interviews. For instance, knowing their ethnic origin and their parent's occupation would help estimate their class position which could be used to discover how economic capital

Interview questions

Remember the first time you went to school, knowing that you were diabetic, how did you prepare?

What kind of challenges did you experience?

How did you deal with these then as opposed to now?

What do you think of the diabetic care you receive compared to people of different ethnicities?

In what way does the school nurse help you with your diabetes?

Based on the survey you said you did/didn't have a diabetic care team; why is this the case?

Do you feel like your school/university is understanding and helpful of your diabetes? How can you see this? Could you give an example?

How do you treat your diabetes in school/university?

Do you check your blood sugar or administer insulin during classes?

How do your teachers and classmates react to this? How does this make you feel?

How do you treat your diabetes during an exam? When having a hypo or hyper what do you do?
How do teachers help you when this happens?

Have you ever felt the need to hide your diabetes in school/university? When has this happened?
Can you describe the incident?

Have your classmates or teachers treated you differently because of your diabetes or not? Can you explain incidents of this?

How does diabetes personally affect your studies? Can you describe this? Give me examples.

Do you have classmates in school/university who are also diabetic?

If yes: What are similar experiences, you share as diabetic students? What coping strategies have you learnt from each other?

If No: How have you coped without diabetic peers in school? Has it been an obstacle or not to not have other diabetic classmates?

How are your parents with your diabetes?

In what ways are your parents and school involved in your diabetic care?

How do all the schools or universities you've been to compare to each other in terms of helping you with your diabetes?

How would you describe your access to diabetic tools? Is this affected by your ethnicity or not?

To recap, what are some positive and negative things your school/university has done to help you with managing your diabetes?

If you were the director of a school or university, how would you ensure diabetic students are given the full opportunity to succeed?

Figure 1. This figure shows the set of semi-structured interviews questions that were used with each respondent to navigate the discussion and understand their lived experienced, how they cope, how educational institutions and parents play a role in their diabetes and academic management, and what they believe should be done to create a more inclusive environment for them to succeed.

affects type one diabetic students. Semi-structured interviews use a list of prepared questions to ask all respondents, assuring reliable and comparable data. Questions can be added or altered depending on respondents' answers and could go in further depth on topics respondents found more enticing. It also allowed a sense of comfort, providing a free-range of conversation to discuss sensitive issues and hence more rich and valid data is provided.

When preparing questions for the semi-structured interviews, questions were drafted that would get to the core of this research and help answer questions that I am seeking to discover about type one diabetic students and what their educa-

tional experiences have been, what their experiences with classmates, teachers, nurses and their parents have been, how they feel diabetes has affected their studies if it has and their overall coping strategies. I also wanted to discover if their coping strategies within the education system differed overtime and if this was a conscious change or not. I tried to find this development in experience by asking questions such as “what kind of challenges did you experience?” “How did you deal with these then as opposed to now?” Trying to understand how the subjects feel about their diabetes playing a role with their studies was why I found it important to ask “How does diabetes personally affect your studies? Can you describe this? Give me examples?” Discovering the influence that parental and educational relationships have on coping with type one diabetes and studies was also an important factor and why I asked, “In what ways are your parents and school involved in your diabetic care?” The last question was “If you were the director of a school or university, how would you ensure diabetic students are given the full opportunity to succeed?” I found this an important way to end the interview as it helped indicate what subjects believed necessary educational interventions should be based on their own personal experiences with type one diabetes and education. It also helps reinstate what coping strategies they use are and what policies might be useful within the education system to further aid the equal opportunity of success for type one diabetic students.

However, this preparation and drafting of interview questions took five attempts. This began with several loaded or leading questions and some closed questions. Which was mainly a result of subconscious personal bias. I also needed to ensure these questions applied to the research study and allowed for open and varying responses. Which was difficult. This was because I expected questions to have lengthy answers or only saw my own perspective to answering these questions, meaning I had pre-existing ideas of what responses could be and drafted questions accordingly. When these issues were shown and addressed, I quickly became critical of each question, ensuring none of my personal opinions were shown or even suggestive through these questions. I also had to ensure that questions remained on topic and would seek to answer the research question “What are the situational obstacles type one diabetic students face within the educational system and what are effective interventions and coping strategies to improve school-based diabetes care?” rather than allowing curiosities to override answering the research question. With several edits came the final version of questions, I believed to be non-biased and the best way to prove or disprove the problem statement “Students with type 1 diabetes struggle with factors such as hypo- and hyperglycaemia which are not addressed in most educational systems and hence can play a role in hindering their academic performance.” As well as answer the research question.

Even though, this methodology section was intended to be addressed using a semi-structured interview approach. One interview was a coincidental focus group. A focus group may be defined as Gibbs describes “a group of individuals

selected and assembled by researchers to discuss and comment upon, from personal experience the topic that is the subject of the research” (Stokes & Bergin, 2006: p. 4). This was because the subject was anxious and not proficient in English, so had two family members in the room as a source of comfort and possible translators. Yet, their own perspectives and responses to questions were brought up opening up a discussion amongst the subject and his family members, with me acting as the mediator, ensuring conversation remained on topic.

This unexpected focus group was not without its worries. This was due to the awareness that the main subject would not share as much detail as in an individual interview, as focus groups have been found to not generate as many details and subtleties as would be discoverable in an individual interview (Stokes & Bergin, 2006: p. 2). Additionally, people participating in focus groups may feel social barriers to going into detail in discussion or over-claiming by agreeing to views of other participants while disagreeing to them privately due to social pressures (Stokes & Bergin, 2006: p. 4). Therefore, responses may be seen as misleading rather than detailed and truthful (Stokes & Bergin, 2006: p. 4).

Despite, this focus group being unexpected, this became a positive aspect to my research because focus groups provide synergy where the group interacting provides a wider range of information as opposed to individual interviews (Stokes & Bergin, 2006: p. 4). Additionally, focus groups encourage stimulation as respondents’ perspectives are brought out more by the process of a group discussing the topic at hand (Stokes & Bergin, 2006: p. 4). Furthermore, I was able to view family relationships and perspectives about type one diabetes, education and how views may differ between the diabetic student and their non-diabetic family members. This provided a deeper insight to familial relationships and the differing attitudes and points of views towards the problem statement “Students with type 1 diabetes struggle with factors such as hypo- and hyperglycaemia which are not addressed in most educational systems and hence can play a role in hindering their academic performance.”

3.3. Data Analysis

For this research, a thematic analysis approach was taken because it is a systematic method which can be used to identify, organise, and offer a more in-depth insight to themes that are found across the dataset (Braun & Clarke, 2012: p. 57). Additionally, thematic analysis is an accessible and flexible approach which guides the researcher to code and analyse data made available (Braun & Clarke, 2012: p. 58). Therefore, it makes clear the common experiences and shared meanings amongst all subjects, emphasising what the common coping mechanisms, experiences, and perspectives of educational interventions amongst type one diabetic students are (Braun & Clarke, 2012: p. 57). Hence, thematic analysis allows the researcher to identify what aspects are most important and what questions to focus most on, allowing the researcher to apply these patterns of meaning to answer the research question and problem statements at hand (Braun & Clarke,

2012: p. 57). The use of thematic analysis was seen as useful and applicable here, as the researcher is able to focus on analysing the meaning conveyed across the dataset, allowing an in-depth examination of specific aspects or phenomenon brought up throughout the research. It allows an understanding of latent and systematic meanings behind explicit statements made by subjects (Braun & Clarke, 2012: p. 58).

For this research, I used both an inductive and deductive approach. An inductive approach is a bottom-up approach that is driven by content derived from the data, therefore, codes and themes are derived from the data itself (Braun & Clarke, 2012: p. 58). For a deductive approach, on the other hand, a top-down approach is used to bring themes and ideas to the data, to be mapped out during the analysis and use codes to derive these concepts and interpret the data (Braun & Clarke, 2012: p. 58). For this exploratory and experiential based research topic that examines “What are the situational obstacles type one diabetic students face within the educational system and what are effective interventions and coping strategies to improve school-based diabetes care?” and tries to prove or disprove the problem statement “Students with type 1 diabetes struggle with factors such as hypo- and hyperglycaemia which are not addressed in most educational systems and hence can play a role in hindering their academic performance.” Thematic analysis was applied to the seven interviews. These consisted of type one diabetic students, some from different schools or universities, one from a different ethnicity and all of whom live in Kuwait. In the semi-structured interviews participants were asked an array of questions which related to educational interventions, how their type one diabetes affects their studies, how they are treated by fellow colleagues, views on diabetic care based on ethnicity and their perspectives on relationships with their medical practitioners, school nurses, and parents. These interviews were audio-recorded and transcribed. Indicating an experiential form of thematic analysis. Inductive thematic analysis was indicated through coding directly from the data received from participants, which did not place a barrier to their stories, for instance revealing codes of denial and positivity (Braun & Clarke, 2012: p. 60). While deductive thematic analysis drew on ideas of stigmatisation, capital, and the sick role, mentioned within the literature review, meaning that the data was interpreted within a theoretical and ideological framework represented in the previous literature review (Braun & Clarke, 2012: p. 60).

As codes have been applied and derived throughout the analysis section, these codes are a shorthand combination of descriptive and interpretative explanations of the research (Braun & Clarke, 2012: p. 61). Codes can be used to both bring forth the researcher’s framework as well as reflecting the participants’ concepts (Braun & Clarke, 2012: p. 60). There is a shift from codes to themes, where a theme is intended to find important aspects to the data which relate back to the research question and problem statement. These themes can emerge from the data itself as broad topics where the codes can group into (Braun & Clarke, 2012:

p. 63).

Therefore, for this research a coding tree was put in place to further analyse and interpret the findings of the interview, which can be found in **Figure 2** below. Looking under the umbrella of type one diabetic students, the first theme is “situational obstacles” which through interviews conclusively developed into the codes hypoglycaemia and hyperglycaemia, study time, stigma, worried parents, and economic capital. The second theme applied is “coping strategies” which branched out to these codes open communication, healthy lifestyle, positive mindset, and confidence. While the third theme applied is “Educational interventions” which diverged into these codes educated staff, personalised diabetic cards, healthy food, and extra time.

3.4. Ethics

As a researcher ethical concerns were prevalent. Being aware that the research topic was sensitive as it related to people’s autoimmune diseases, their personal coping mechanisms, their relationships with their disease, family members, medical practitioners, friends, and school personnel. These are all delicate topics that needed to be handled tactfully.

Therefore, to ensure ethical standards are met, specifically in qualitative research demands on informed consent, confidentiality and privacy must be met (Shaw, 2003: p. 9). Hence, before conducting interviews emails were sent to all subjects explaining the purpose of this research and the reasoning behind wanting to conduct these interviews, I provided my contact details and if the subjects who were of legal age agreed to this, they could contact me or the clinic to ensure they would be available for interviews. For students I wanted to interview below 18 years of age, this letter was sent to the school to be shared with the subjects

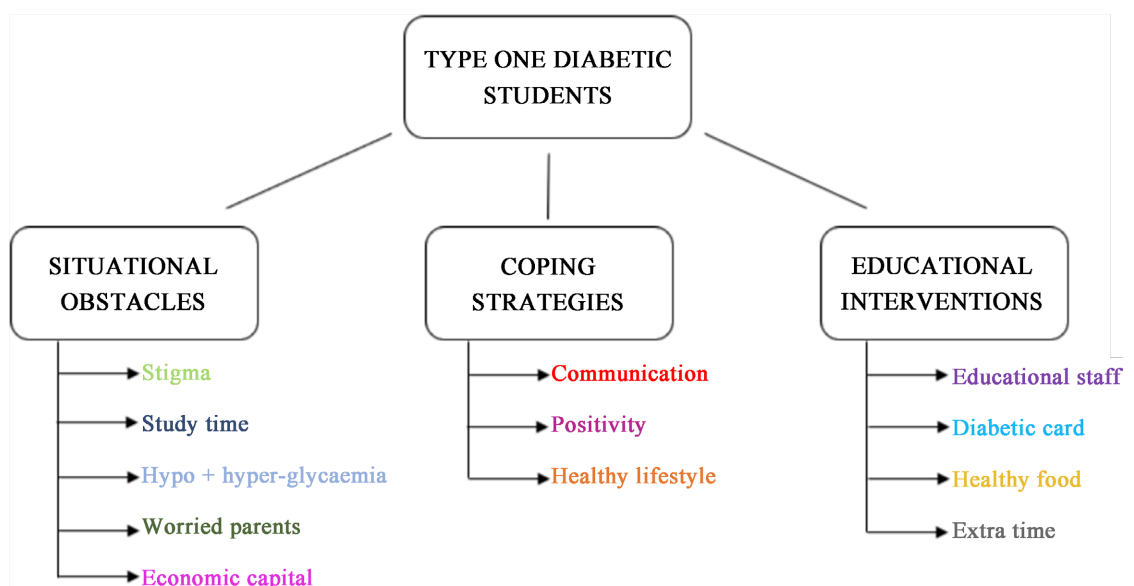


Figure 2. This figure indicates the coding tree explained above. Exhibiting the most common situational obstacles, coping strategies, and educational interventions discussed by the type 1 diabetic respondents.

and their parents, who if agreed could contact me or the school to ensure they were available and willing to be interviewed. These can be found in the annex (pp. 3-7).

On days of interviewing, ethical consent forms and confidentiality statements were provided to subjects who could sign if they agreed to the terms and conditions indicated. I explained the purpose of the research again and that their names and personal details would not be shared and remain anonymous, that interviews would be audio-recorded and ensured that they were aware and agreed with this.

3.5. Reflection on Personal Position of Researcher

Research bias was a large concern for me when conducting my methodology section as I am a type one diabetic student. In addition to this I was born and lived in Kuwait for 18 years, being considered an expatriate and so also have my own personal opinions about the different access and treatment of Kuwaiti and non-Kuwaiti type one diabetics have, which I believe clearly links to Bourdieu's theory of capital. With the knowledge that I am a type one diabetic student and have lived in Kuwait (where my interview sample is located), I have my own personal opinions based on my own experiences on how the education system handles diabetic students, what I believe educational interventions should be and what my own coping strategies are.

Even though, this is an extremely interesting research topic for me, I was fearful as I have strong opinions and was worried of being leading. However, this was something I was consciously aware of when approaching the methodology section and preparing to interview my subjects, so I attempted to ensure no or extremely limited research bias by not asking loaded or leading questions. Hence, being reflexive, where as a researcher I engaged in critical self-reflection about my potential biases and predispositions (Johnson, 1997: p. 284).

Additionally, I found it difficult to not allow my emotions to take over and comfort and provide personal advice to respondents who explained some of the struggles they faced with stigmatizing friends and parents but instead having to play a neutral role of a researcher. Even though I was aware of possible research bias, my opinions, and my emotions, I believe to have done this both critically and successfully as I was confronted with new findings that I was not expecting, hence guaranteeing that personal opinions did not play a role in influencing the research as well as providing an array of information, ensuring a detail filled research.

4. Findings

After conducting and analysing interviews, the results found should aim to answer the research question "What are the situational obstacles type one diabetic students face within the educational system and what are effective interventions and coping strategies to improve school-based diabetes care?" Also, prove or

disprove the problem statement “Students with type 1 diabetes struggle with factors such as hypo- and hyperglycaemia which are not addressed in most educational systems and hence can play a role in hindering their academic performance”.

Contradictory to what was found in the literature review, three respondents did not explicitly believe they were stigmatised based on their disease, believing that classmates and teachers treat them equally. However, when further questioned some students explained that they felt uncomfortable administering in class as it seemed inappropriate. For instance, Ahmed explained he received no reactions from classmates or teachers but later stated, “It’s uncomfortable, I feel judged by teachers, it is better to take insulin at the nurse because it is inappropriate in class and the nurse makes sure it is done right.” This raises a concern that some diabetic students like Ahmed convince themselves they are not stigmatised against and do not face situational obstacles. However, believing that treating one’s illness is seen as “inappropriate” and is done in private settings, indicates an obstacle to one’s educational routine, having to find loopholes to treat blood sugar levels outside of the classroom. This links back to [Goffman \(1963\)](#) who explained the central feature of those being stigmatized against is wanting acceptance, for their contaminated social identity to be accepted by the rest of society. While it must be noted that some respondents did strongly believe they were not stigmatised against. If people stared and whispered when using diabetic tools, they believed this was due to curiosity and not stigmatisation. For instance, when Kareem was asked how he felt about being stared at when taking insulin abroad, he responded “only feelings, ... lovely feelings between me and the others because I am too young, and I have insulin and they are older people, they see me, and they have feelings.” I interpreted this as instead of feeling stigmatised or judged, Kareem believed that people were not aware of what he was doing when administering insulin and were simply curious.

Additionally, students explained that stigmatisation did play a role in their school lives with a sense of jealousy and lack of trust, with classmates and sometimes teachers believing that they were using their diabetes as an excuse to leave class or use their phones. When phones are actually used to check glucose levels and leaving class to see the nurse is a necessity, not a luxury. Ahmed indicates this here “whenever I check my phone. I’m kind of uncomfortable when the teacher like sees me because I feel that maybe he doesn’t know that I’m checking my sugar.” As explained by [Goffman \(1963\)](#), this is the idea that those stigmatised use their illness for secondary gains. Classmates can push forth stigmatisation to their diabetic colleagues, some of whom explained that they felt they were judged by their disease rather than themselves as a whole. Further, explaining that it is difficult to be open with classmates about their illness because those who do not have type one diabetes do not understand the daily struggles and tend to judge the person by their illness seeing them as weak and incompetent. This links back to the literature review, which explains how type one diabetics are stigmatised and labelled to a sick role. One respondent explained that they

were happy to explain diabetes to others and have an open discussion but when this comes with pre-judgments, they feel more inclined to hide their illness by not telling friends, hiding their wearable technology, and not administering insulin to be treated normally.

Another situational obstacle is the affect type one diabetes has on studies, specifically with diabetic burnout. Respondents indicated the struggle to maintain their blood sugar levels at an optimum was difficult and time consuming. If this was too low or high, they found it difficult to concentrate on studying and had to spend time optimizing their glucose levels, which is a narrow range. Respondents explained when they have hypoglycaemia, they have to leave class and stay at the nurse. Meaning that they miss class and struggle studying and understanding aspects they missed out on. When struggling with hyperglycaemia, their ability to focus is hindered and memorisation becomes exceedingly difficult, meaning that both hypoglycaemia and hyperglycaemia affect their educational attainment. Respondents explained struggling with hypoglycaemia and hyperglycaemia can also affect exam performance. As explained by four respondents who found that the stress of exams either brought their blood glucose levels too high or low, making it difficult to perform their best during exams. Five respondents explained that their teachers provided them with extra time to bring their blood-glucose back to target range. While two others explained that they were not given extra time or some form of compensation and were used to not achieving their target goals due to their diabetes. For instance, Hala stated that some professors were not understanding, instead saying: "That's not my problem. That is your problem. You must take care of yourself." Indicating the stigma placed on her as a diabetic student and the lack of understanding towards struggles of low and high blood glucose levels that affect her understanding and concentration. Therefore, having to come to terms with her grades in university because of the lack of educational interventions available.

When exploring parental relationships six out of seven respondents explained that they understood parental support but felt their parents over worried and nagged them about their glucose levels, creating a sense of frustration amongst these type one diabetic students. As shown previously, many diabetic students understand their parents worry comes from a place of love, but this makes students struggle to live a "normal" life (Carroll & Marrero, 2006: p. 247). One respondent explained the struggles they faced with over-protective parents, who would punish them when their glucose levels were too high or too low believing that they were being careless with their diabetes. Rather than trying to understand the diabetic burnout they are struggling with, they are stigmatised and blamed for their glucose levels. Indicated by Dalal who explained:

"Like the relationship with my parents, they do get mad at me, and they get like, this is the reason why my parents have not been as nice to me or as like very like gentle with me is because of my diabetes. I've noticed a change, when my diabetes is stable and good, I feel like happier because they feel

okay... So, I just like to try to like sometimes it's happened to me where I'm just like okay I'm not taking my medicine, I'm not diabetic anymore I'm just not going to take my medicine."

The literature review indicates, school nurses are important to the well-being of type one diabetic students. This was indicated by six respondents who explained the school nurse helped them when they had hypoglycaemia, providing them with glucose, allowing them to rest, treating their hyperglycaemia with the correct doses of insulin and providing a safe space to treat their diabetes. Students explained the school nurse supported keeping their blood-glucose levels in check, locating, and contacting students if they had not visited the nurse. This allowed them to feel cared for and develop a personal relationship with the school nurse that was based on trust and comfort. However, one respondent did explain that staying at the school nurse became a sort of obstacle as they missed out on break-times and spending time with friends, which created a sensation of not fully experiencing school life due to their diabetes. This was indicated by Dalal, who explained her struggles at first being diabetic "I remember during my first year of being diabetic... Uh, I missed out on a lot of things like that happened during breaks with my friends and I felt different I felt like I missed so much." However, it must also be stated that the respondent tried to see this positively, explaining that overtime she enjoyed staying at the nurse:

"If I'm outside all the time, I get tired very easily. When I'm inside I have air-conditioning and I'm more relaxed because it's comfortable... Um, she always checks up on me and even if I forget to come to the nurse during break, she will come to my class and make sure everything's okay. Even if my blood sugar is normal but I don't feel okay she lets me stay until I feel normal, which I find very helpful."

She adheres to her sick role and begins to reap the benefits of being diabetic by being able to stay indoors and relax (Varul, 2010: p. 7).

As explained previously economic capital plays a role in access to diabetic care, so people with higher economic capital have healthier glucose levels and hence better educational achievement. As shown by Longva (2018), all of the Kuwaiti respondents were of high economic and cultural capital as the country runs on a system of ethnic hierarchies. As Kuwait runs on the delineation of ethnic and social categories, with minority ethnicities struggling with cultural survival and material benefits, leading citizens to take on a policy of non-integration rather than integration (Longva, 2018: pp. 43-44). With Kuwaitis having higher economic capital to non-Kuwaitis, two respondents did not believe their access to diabetic tools and care was affected by their ethnicity. However, those who did believe access differed based on their ethnicities understood their privilege finding it unfair, explaining that all type one diabetics regardless of their ethnicities should receive free and accessible diabetic tools as this is an autoimmune disease. Understanding that many type one diabetics are unable to afford

all diabetic tools necessary for their well-being and that Kuwaitis are taken care of by the government. Capital is shown distinguishing between private and public schools. One respondent explained how in private schools they a school nurse had who understood diabetes and they could turn to, as well as a somewhat understanding school that allows them to contact home if they are facing diabetic complications, therefore, ensuring an overall healthier management of type one diabetes. Whereas diabetic students in public schools do not have a school nurse who helps them treat their blood glucose or administer medication, they do not have a safe space to treat their diabetes and are unable to call home if they are unwell. Further indicating that ethnic and socioeconomic status differences shown by Bourdieu (1978) can create adequate differences in diabetes management in schools (as cited in Jacquez et al., 2004: p. 1).

Moreover, each respondent indicates a positive trend with their diabetic experience in education overtime. Explaining they have more independence, are more educated and aware of their illness, have more confidence treating their disease and coping with difficulties that can be attributed with type one diabetes. For instance, Kareem stated “I do my things and I do my grandmother things also, I teach them, and I give them advice.” This shows that he felt confident in his diabetic experience and knowledge being able to care for himself and diabetic members of his family. When asked how he felt about having all this responsibility to care for himself, he explained, “I think, in my opinion, it will be good and independent to me.” Indicating that he believes having to cope with his diabetic responsibilities at school and speak to staff on his own aided him in becoming independent and comfortable with managing his own and others diabetes.

Each respondent explained their coping strategies, whether it be coping against stigma, coping with their emotions, coping with their studies, coping with their health or a means to cope with it all. Three respondents explained they cope by trying to be healthy, exercising and eating well as this plays a large role in their glucose levels. Explaining that if they ensure normal glucose levels that means better emotional well-being, more motivation to study and a more positive mindset thus creating a healthy cycle to cope with their illness. This is shown by Dalal who said, “When my glucose levels are normal, I feel the best emotionally, I am more positive and motivated to study.”

When respondents were asked how they thought educational facilities should intervene, to ensure type one diabetics are treated equally and not hindered, they believe teachers must create open communication with their students. Teachers should be understanding and aid students providing notes or extra time to explain a class that might have been missed due to diabetic problems. Additionally, ensuring a sense of trust amongst type one diabetic students and their teachers. Respondents explained the need to raise awareness amongst staff about type one diabetes, to have a basic understanding of how to treat students who are facing hypoglycaemia or hyperglycaemia, to understand the mental health affects type one diabetes can have and be more lenient with students. Moreover, implementing

a buddy system so if diabetic students are facing hypoglycaemia there is always someone to help get them safely to the nurse. As shown by Osama's experience "I just felt like, really dizzy so I had to, uh, I had to tell the teacher, I had to have two people help me down the stairs." Additionally, schools must provide more healthy and nutritious foods which contain nutritional facts so type one diabetic students can adjust their insulin levels to maintain healthy glucose levels and still blend in with their non-diabetic counterparts. Another intervention that some schools do already consider is a bathroom pass that allows diabetic students to leave class and be permitted to use the bathroom. This is because when facing hyperglycaemia diabetic students must drink water and urinate, as this is their means of excreting glucose. Another educational intervention should be personalised evaluations of each type one diabetic student, so specific nutritional, medical, and educational needs are met.

Therefore, results from the respondents prove the thesis statement true because five out of the seven respondents explained their glucose levels did affect their grades and studying. While some did have understanding teachers, who gave them extra time for exams or explained lessons to them privately, those who did not have understanding teachers had to come to terms with their glucose levels affecting their grades. Therefore, the results found extend on existing research about struggles type one diabetic students face. Respondents explained their coping strategies and how they thought educational institutions should intervene. This paper confirms results found in previous research that diabetic students with higher economic capital have better opportunities to succeed based on their access to medical care and their awareness of their anti-discrimination rights.

4.1. Interdisciplinary Lens

This research provides an interdisciplinary lens by intertwining both a sociological and political approach to understand the stigmatising nature towards type one diabetic students in the Education system, their coping strategies, and necessary interventions.

By exploring the sociological route, Goffman's theory of stigma explains the stereotypes and judgements placed on type one diabetic students. Goffman explains the repercussions of stigmatisation but also explores how people may take advantage of these labels (Goffman, 1963). This is shown with type one diabetic students who can take advantage of their label, linking to the sick role identified by Parsons (1975), who shows that it can be opportunistic not having the same societal expectations as those who are labelled "healthy" (Varul, 2010: p. 7). Type one diabetic students hence can be provided with more care by being allowed to leave class to treat their blood sugar, have extra time on an exam, or some form of reprimand not provided to non-diabetic students. Latour's (1996) actor-network theory, where everything exists in the social world based on shifting networks of relationships, indicates that stigmatization can even be placed by medical practitioners. Where Doctors are at the top of the hierarchy and type one

diabetic patients at the bottom, they therefore, must accept the critiques and judgments placed on them and adhere to their sick role. This ties back to [Goffman \(1970\)](#) who explains interaction theory, stating that social interaction is like an act on stage, everyone plays their roles, so every interaction is a performance. Hence this is a performance between the doctor/nurse and the patient, who must submit to their role and accept the labels and treatment given. Therefore, many diabetic students struggle with a self-fulfilling prophecy. Merton explains the consequences and meanings behind a situation, here being stigmatization against type one diabetic students, this has assigned meanings by those targeted which has consequential behaviors from the subjects who begin to adhere to the ascribed meaning and label placed on them ([Merton, 1948: p. 193](#)). This paper shows the sociological perspective of [Bourdieu \(1978\)](#) who explains how opportunities are provided to those with higher economic capital. Here being the health and well-being of type one diabetic students, where those with higher economic capital have access to better education and better health care and therefore better glucose control and diabetes management.

[Bourdieu's \(1978\)](#) theory of capital links to the political aspect of power and ethnic divisions. As explained in the methodology section, Kuwait runs on a system of ethnic and social exclusion, which leads to ethnic minorities having to struggle with integrating due to a lack of cultural and material support ([Longva, 2018: p. 44](#)). This is applied to the methodological research held in Kuwait, where type one diabetic students, who are non-Kuwaiti lack the economic and cultural capital to afford all diabetic equipment and healthcare appointments that are provided to Kuwaitis by the government due to their higher economic capital and ethnic delineation.

Furthermore, this paper explores aspects of policymaking to concretely explore educational interventions necessary to ensure the equal treatment of type one diabetic students. This is shown in the requirement of policies that emphasize the necessary equal treatment of students with diabetes is ensured by the law. The paper explains that policies should be strongly implemented at all stages of education, applying the requirement for all staff to have basic knowledge on how to treat students with type one diabetes and ensure that educational facilities are a safe and prosperous place for diabetic students to academically achieve ([Jackson et al., 2015: p. 1962](#)).

4.2. General Conclusion

This paper explores an array of theoretical and practical perspectives to answer the research question "What are the situational obstacles type one diabetic students face within the educational system and what are effective interventions and coping strategies to improve school-based diabetes care?" Answering this question aids in proving or disproving the problem statement "Students with type one diabetes struggle with factors such as hypoglycaemia and hyperglycaemia which are not addressed in most educational systems and hence can play a role in hinder-

ing their academic performance.” This was done by indicating what situational obstacles type one diabetic students face and what educational interventions should be taken to improve the educational opportunities of these students. It also explains what personal interventions or coping mechanisms type one diabetic students take to make do with their situational obstacles. Answering this research question throughout helped to prove the problem statement that type one diabetic students do struggle with hypoglycaemia and hyperglycaemia, which is not addressed in most educational facilities and hence does hinder their academic performance. It also critically considers the scientific and societal relevance of this research topic. This is based on presenting the stigmatising and health-based situational obstacles that affect academic achievements. It is relevant to society, necessary to be written about and understood due to the clear and distinct effects it has on type one diabetic students. This topic is also relevant in the scientific realm as it fills gaps in existing scientific knowledge. Most research about type one diabetics and education mainly focus on academic achievements. This paper fills gaps in existing knowledge by exploring type one diabetic students’ coping strategies within the education system. Also, identifying necessary educational interventions to be taken, specifically on the policy level.

The literature review tries answering this research question by following the structure of exploring educational-based problems experienced by type one diabetics, what the school can do, and what parents can do to reduce these difficulties and how type one diabetics cope with this stigma. Applying Goffman’s theory of stigmatisation, it is clearly shown as an obstacle for diabetic students to treat and manage their diabetes (Goffman, 1963). Additionally, indicating type one diabetic students struggle with having a “sick role” as identified by Parsons (1975). This “sick role” may be stigmatizing but can also be used by diabetics as an opportunity to have fewer demands on them, in school, for instance. They must interact accordingly as explained by Goffman (1963) and accept stigma and labels placed on them, thus adhering to a self-fulfilling prophecy coined by Merton (1948). Type one diabetic students face an array of situational obstacles, which are further explored in the literature review. For instance, struggling to maintain their blood glucose at target range which contributes to their ability to concentrate and memorise, hence affecting their ability to study, complete assignments, or perform during exams. Bourdieu (1978) explains that situational obstacles may be tied to economic capital. Therefore, type one diabetic students who have lower economic capital may struggle to afford healthcare, so they are kept in a cycle of their glucose levels affecting their academic achievement. This situational obstacle further ties to the political explanation of ethnic divisions and material benefits, where type one diabetics at the top of the ethnic hierarchy have the economic and social capital to enjoy the accessibility of diabetic tools and be aware of their legal rights in the education system.

Furthermore, policies that must be implemented to ensure the safety, equal treatment, and well-being of type one diabetic students are identified. These poli-

cies must be set at all stages of the education system, providing a safe haven for type one diabetic students to academically achieve. These policies include anti-discrimination acts, where type one diabetics' illness is considered during examination periods or everyday classes and provided with extra time and understanding.

Moreover, the paper explains that educational interventions must begin with school staff, where all members should have basic knowledge about type one diabetes and know what actions to take if a type one diabetic student is struggling with hypoglycaemia or hyperglycaemia. It would also allow staff to be more aware of the obstacles their diabetic students face and help lighten these, giving them the equal opportunity to succeed.

It emphasises the need for communication between type one diabetic students, their parents, and the school nurse. This open dialogue would allow each diabetic student to have their own personalised routine that they are comfortable with and can have full independence or be dependent on the school nurse for their treatment. The school nurse must be aware of, physical and emotional obstacles type one diabetic students face and help treat and talk with them. Ensuring parents are aware of the struggles and provide a safe and comfortable setting at home as well. The interviews that took place also indicated the importance of school staff being aware of diabetes and the reliance many students have on the school nurse.

As the paper explains, when students have hypoglycaemia or hyperglycaemia, they struggle to concentrate and study, spending lots of time trying to bring their glucose levels back to the target range and hence lose time that could be spent studying. Therefore, implementing these educational interventions would better ensure that type one diabetic students are provided with an equal opportunity to succeed.

Type one diabetic students are forced to have their own coping strategies to grapple with the situational obstacles they face based on their illness. Open communication is seen as an important method to deal with obstacles, being able to explain frustrations and discuss what can be done to help avoid these obstacles with friends, teachers, parents, and the school nurse. This would aid students in feeling heard and understood and avoid diabetic burnout due to the support they receive from this open communication. Additionally, respondents explained having a positive mindset, and being confident is another important coping strategy. Rather than following a self-fulfilling prophecy and be brought down by some obstacles, having a positive mindset and being aware that diabetes is only an aspect of their lives and does not solely define who they are. Explaining that being positive also reduces stress which avoids hyperglycaemia, hence better glucose control and a better focus on studies. This paper therefore emphasises that more needs to be done on the educational level, policy level, and household level to lessen the situational obstacles type one diabetic students face and ensure that they are given an equal chance to succeed.

This thesis extends on existing research by confirming that economic capital can play a role in health and educational attainment. It both proves and disproves that stigma affects type one diabetic students. While four respondents indicated that stigma from classmates or teachers did affect them and play a role in hindering their academic achievements, others did not feel judged but rather believed people were curious and uneducated about their illness. It further extends on research about policies on type one diabetes and education, concretely indicating what educational interventions should be and legally placing anti-discrimination laws in favour of diabetic students. It also confirms and extends on research about type one diabetic students' hypoglycaemia and hyperglycaemia affecting their studies and academic achievements due to symptoms such as difficulty concentrating. This paper also confirms the importance of well-trained school nurses and how many type one diabetic students feel a sense of safety and support with the school nurse. This further confirms research which states that there should be a close alliance between type one diabetic students, their parents, and the school nurse. This research is also important as it provides insight into previous research about type one diabetes and education by exploring coping strategies of type one diabetic students and what these students themselves believe should be done to improve their situational obstacles which is not explored deeply in previous research.

The advantages of conducting this research are that it further extends on previous knowledge on diabetes and academics, proving or disproving conclusions of previous studies. It also sheds a light on an issue that is not known to many people. Which is how the health condition of diabetics playing a role in their ability to learn and exceed at school. It provides insights into the lives of type one diabetic students, explaining their struggles at school and home, how this affects their studies, how they cope with these struggles and what they think should be done so they are provided with an equal chance to succeed at school as their non-diabetic counterparts who do not have the same medical and situational obstacles are provided with. Also providing readers with a stance on the subject. Disadvantages are that subjects may have not been fully truthful as this was sensitive research and were asked about topics such as parental relationships, which could be difficult to elaborate on if this is negative. There is also a subjective choice on my part as a researcher on what to elaborate on in the findings, which means that aspects I may find more important to expand on than others may not be the case for other researchers or readers. Also, these findings can be open to interpretation. Another issue was the lack of respondents, it was difficult to gain access to these respondents, and hence results attained cannot be generalised.

Therefore, future researchers should aim to further explore coping strategies type one diabetics use, aiming to find a commonality that can be used to aid and advise type one diabetic students. As well as building on this research by creating a comparative study amongst type one diabetic students with higher economic capital and attending schools that conform to anti-discrimination policies and

are hence understanding and helpful to type one diabetic students. Compared to type one diabetic students with lower economic capital and who attend schools with staff who are uneducated on diabetes and unwilling to help. This would help prove or disprove that proper educational interventions can play a major role in improving type one diabetic students' academic achievements.

Educators can learn from this research by ensuring all staff have basic education on type one diabetes, know what to do in case of emergencies, and provide diabetic students with more lenience when it comes to lessons, assignments, and exams. The school nurse should not only look at physical related health issues but also the mental health of type one diabetic students and communicate these red flags to the school and parents, ensuring close communication and that the student is safe and healthy. This also links to the school nurse, diabetic students and their parents agreeing to a personalised diabetic card, which indicates medical treatment that must occur in school, being allowed to go to the bathroom or the nurse at any time and indicators on what educators must do in certain situations for the student. Educational facilities must ensure healthy food is provided with nutritional value as this plays a role in bettering the glucose levels of diabetic students and hence their ability to do well at school. Parents can learn from this paper by having close communication with their children and their school. They should aim to understand diabetic burnout and the difficulty of constantly maintaining a normal glucose level. Instead of blaming their children and being upset with them for their glucose levels, they should try and communicate with their children and understand why their glucose levels are not controlled, aiding them rather than judging them. Parents must also learn to provide their diabetic children with independence and not constantly panic over their children as this provides their children with the sensation of not being able to live a normal life. Lastly, type one diabetic students can also learn from this research by being more open and communicating their struggles with their educators, school nurse, and their parents. They can try and be more positive, understand that diabetes is a part of their life, and rather than fall into a self-fulfilling prophecy, understand that it is difficult but with a positive attitude and healthy lifestyle can achieve their academic goals.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

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