

## **Research** Article

# Self-Management Social Support in Type 2 Diabetes Mellitus: A Concept Analysis

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Aims. The aim of this concept analysis was to clarify the conceptual characteristics, antecedents, consequences, definition, and proper use of self-management social support in the context of type 2 diabetes. Background. Self-management social support has been found to be positively correlated with improved patient outcomes and a reduced occurrence of type 2 diabetes complications. In the context of type 2 diabetes, there is no uniform definition of the concept of self-management social support. In addition, the attributes of the concept and the antecedents, as well as the outcome consequences, should be identified. Design. A concept analysis. Methods. Walker and Avant's (2019) framework for concept analysis. Results. Self-management social support could be defined as the presence of a supportive social network that exhibits supportive reinforcing behaviors that could facilitate positive behavioral change and promote disease self-management that leads to improved biobehavioral and psychosocial outcomes for patients. Conclusions. The findings suggest that self-management social support promotes self-efficacy, self-competence, and selfconfidence in the self-management of type 2 diabetes. Patient characteristics, attributes of social support sources, patient-caregiver relationships, and disease severity should be taken into consideration when studying the relationship between social support and patients' outcomes. Effective social support will lead to improvements in the biological, psychological, and social well-being of type 2 diabetes patients. Self-management social support should be preceded by the formulation of a supportive network that provides patients with active reinforcement. Implications. Self-management social support can promote self-efficacy, selfcompetence, and self-confidence in the self-management of type 2 diabetes and thereby improve health outcomes among type 2 diabetes patients.

## 1. Introduction

Type 2 diabetes is a chronic debilitating disease often linked to several negative physical and psychological health outcomes that are the result of the improper metabolism of glucose, which has an impact on various body systems such as the nervous system, causing neuropathy, which may lead to other problems such as the amputation of lower limbs. Kidney and vision problems are also among the other negative consequences [1]. Globally, type 2 diabetes is a disease affecting approximately 422 million adults and causing 1.6 million deaths annually [2]. The self-management of type 2 diabetes is the cornerstone of preventing further complications and stopping the deterioration of health outcomes [3, 4]. Self-management is thought to be affected directly by social support [5] and indirectly through the mediation of self-efficacy and adherence to therapeutic regimens [6–8]. Improvements in self-management capabilities have been found to be greatly associated with informational and emotional support [9].

In addition, social support networks have facilitated the self-management of type 2 diabetes through instrumental assistance in patients' daily care (e.g., monitoring of blood glucose) besides informational and emotional support [8]. Schiotz et al. [10] asserted that poor functional social support is associated with the poor self-management of type 2 diabetes and negative emotional responses. Relatively speaking, Bhattacharya [11] concluded that improper social support harms patients' self-competence and self-confidence in following type 2 diabetes management guidelines, which leads to poor self-management of the disease [11]. By using the Walker and Avant [12] methodology of concept analysis, this research aims to (1) define the concept of *selfmanagement social support* within the context of type 2 diabetes; (2) identify its attributes, antecedents, and consequences; and (3) consider a model case, borderline case, related case, and contrary case.

#### 2. Background

2.1. The Role of Social Support in Improving Diabetic Patients. The emotional and psychological well-being of type 2 diabetes patients is markedly affected by effective social support [11, 13, 14]. A previous systematic review conducted by Strom and Egede [14] indicated that higher levels of social support were associated with fewer depressive and stress-related symptoms. In addition, Strom and Egede found that effective social support led to improved adherence to therapeutic regimens, increased motivation to change behaviors, and improved mental stability. Improved type 2 diabetes self-management related to social support has also been associated with improved glycemic control, measured by improvements in hemoglobin A1C levels (A1C) [6, 13, 14].

2.2. Determinants of the Effective Social Support. Effective social support has been attributed to such variables as the personal characteristics of the social support networks and the patients themselves [6, 8, 11, 15–17]. These personal characteristics may be affected by culture [6], race [11, 17, 18], and gender [17]. Strom and Egede [14] asserted that minorities such as African Americans exhibit different modes of social support delivery than non-Hispanic Whites, such as their preference for telephone, group, and Internet-delivered social support. In addition, they exhibit greater affinity for social support provided by family members (e.g., spouses and children) or peer groups, whereas non-Hispanic Whites tend to use informative media as a source of social support [14].

#### 3. Methods

3.1. Methodological Framework. Walker and Avant's [12] methodology was used as a theoretical framework for defining the concept of *self-management social support*. Several reasons were behind choosing this methodology, including clarity, structure, emphasis on defining attributes, identification of antecedents and consequences, and consideration of model, borderline, related, and contrary cases. To define the concept of interest, the following components should be included: defining attributes, antecedents, consequences, model case, borderline case, related case, contrary case, empirical referents, and definition of the concept. The

structure of the Walker and Avant [12] framework matches the aims of this study.

3.2. Data Sources. Nursing interventions designed to improve type 2 diabetes self-management and adherence to diabetic regimens should consider the impact of social support and the need for further investigation into social support to improve the health status of people with type 2 diabetes [19]. In addition, variables affecting the effectiveness of *self-management social support* to improve type 2 diabetes outcomes should be studied.

To study these variables, preexisting or antecedent factors should be identified, the attributes of *self-management social support* should be delineated, and the consequences of effective support should be examined. For this conceptual analysis, the concept of *self-management social support* was reviewed within the context of type 2 diabetes. The literature was reviewed between June and August 2022 using the following search terms: *social support, self-management, type* 2 diabetes, glycemic control, and psychosocial outcomes. Medline, PubMed, PsycINFO, and Google Scholar were searched for relevant literature that was limited to the past 10 years and included quantitative and qualitative studies published in English.

3.3. The Purpose of the Analysis. No uniform definition of self-management social support was found in the reviewed literature. Most of the studies reviewed had not been published in nursing journals; rather, they had been published in medicine, public health, and psychology journals. The major purpose of this analysis was to define the concept of *self-management social support* within the context of type 2 diabetes. The other aims included (a) identifying the uses of the social support concept in the context of type 2 diabetes self-management, (b) identifying the contributing variables that may impact type 2 diabetes self-management social support, (c) delineating preexisting conditions for effective social support, (d) identifying the consequences of social support on type 2 diabetes patients' adherence to therapeutic regimens, (e) differentiating between effective and noneffective social support, and (f) identifying the effects of advanced communication means, especially the Internet, on social support.

## 4. Overview of the Concept

Self-management social support has been used in different ways in studies specific to type 2 diabetes. For example, Bhattacharya [11] used the concept to describe patients' expectations of social support from family, peers, and community members following a diagnosis of type 2 diabetes [11]. In addition, she described the ways that patients' adherence to therapeutic regimens could be affected by the amount of social support received. Cosansu and Erdogan [6] used the concept to describe patients' perceived diabetesrelated social support. They developed a model by using this concept to predict glycemic control and found that social support was positively related to improved self-efficacy and self-care, both of which determined glycemic control [6].

Among other functions of *self-management social support* has been the misuse of social networks as a substitute for social support. Some researchers [8, 13, 17] have used the term *social support network* to describe the concept of social support within the network of patient relationships. Langford et al. [20] differentiated between social networks and social support. They described social networks as the structure to provide social support and social support as the function of social networks.

On the other hand, Onyango et al. [21] described a very specific use of the concept, referring to it as diabetes *self-management social support* [21]. This term conveyed a narrow description of the social support directed towards helping patients to take control of their management of diabetes. However, this description was not specific to type 2 diabetes support because diabetes conveys type 1 and type 2 diabetes mellitus. Distinguishing between the types is crucial because each one requires different sorts of social support due to several variables.

#### 5. Results

5.1. Defining Attributes. The aforementioned uses of selfmanagement social support confirmed that a uniform description of the attributes of *self-management social support* was needed to be identified to delineate the concept. In their systematic review of the measures of type 2 diabetes social support, Al-Dwaikat and Hall [22] found that the most frequent measures were (1) the Medical Outcomes Study Social Support Survey (MOS-SSS) [23], (2) the Multidimensional Scale of Perceived Social Support (MSPSS) [24], and (3) the Social Support Questionnaire Shortened Version (SSQ-6) [25]. These three measures are multidimensional scales intended to assess perceived social support and its relationship to self-management and type 2 diabetes outcomes. Furthermore, the dimensions of these three measures aid in delineating the attributes of self-management social support.

The MOS-SSS [23] has four dimensions: informational-emotional support, tangible support, positive social interaction, and affectionate support. The MSPSS [24] has three dimensions: family, friends, and significant others. The SSQ-6 [25] measures two dimensions: the number of support persons and satisfaction with support persons. The review of these measures led to the conclusion that *self-management social support* attributes could be regarded as structural, functional, or qualitative.

The other important attribute of *self-management social support* among people with type 2 diabetes is the structure of support, that is, the source of support. Schiotz et al. [10] concluded that self-management abilities were higher if individuals with type 2 diabetes were living with partners, having families, and/or having frequent contact with friends. They associated these three sources of support with better outcomes and fewer negative psychosocial and physical consequences.

To summarize, the three attributes of *self-management social support* are essential to define the concept. All of them should be assessed to examine the impact of social support on self-management behaviors and the outcomes of type 2 diabetes. Different measures could be used to assess the ways which social support structure, function, and quality affect self-management. However, critical evaluations of any measures to be used should be performed before capturing the multidimensionality of social support.

5.2. Antecedents. Walker and Avant [12] defined the antecedents of a concept as the prerequisite events that precede the occurrence of the concept [12]. In other words, the occurrence of *self-management social support* should be preceded by a diagnosis of type 2 diabetes to ensure proper self-management leading to a good prognosis and avoiding negative consequences.

To achieve the status of proper self-management, patients need a battery of information that could be delivered through continuous patient education on self-management [26]. According to the Standards of Care (2019), the goal of diabetes education is to improve effective self-management and the quality of life [26]. The following antecedents were identified: (1) diabetes regimen-specific support, (2) gender and ethnicity/race, (3) personal characteristics, (4) health needs, (5) characteristics of support, (6) environmental resources, (7) healthcare systems, and (8) the severity of type 2 diabetes.

5.3. Consequences. The impact of self-management social support on type 2 diabetes outcomes has been quite well documented. These consequences were identified as the following: (1) increase in social support, (2) improvement in patients' adherence to therapeutic regimen, (3) improved physiological and psychological outcomes, and (4) positive behavioral changes.

5.4. Model Case. A model case of self-management social support was developed to delineate the attributes of the concept. For self-management social support to occur, it should be preceded by the aforementioned antecedents and followed by the previously illustrated consequences. Mrs. Smith is a 65-year-old cashier working at a grocery store.

She was diagnosed with type 2 diabetes eight years ago; she lives with her husband and her son at their townhome. She used to monitor her blood glucose daily. Her son, who holds a health associate degree, used to assist her in interpreting the blood glucose reading. He also encouraged her to keep a record of her readings and show them to her primary care provider during scheduled appointments. Her husband accompanied her on her evening walk in their neighborhood.

On her last visit to the physician, her A1C was within normal limits, her kidney function test results were normal, and her eye exam results were also normal. The physician assured her of the positive results of her tests and exams and appreciated her ability to keep up with her medications, diet, and exercise. During a family visit with her neighbor, Mrs. Smith expressed satisfaction with her job and her health status, thanks to the help that she received from her husband and son. This model case illustrated every aspect of *self-management social support*.

5.5. Borderline Case. Mr. Codi is a 67-year-old retired engineer who was diagnosed with type 2 diabetes 20 years ago. He lives with his 59-year-old wife. He used to jog every morning with his dog. His wife works as a professor, 80 miles away from their household. She used to prepare dinner for the family based on the dietary recommendations of her husband's diabetes care nurse.

Mr. Codi's recent lab work indicated that his A1C was within the normal range. One night, when Mr. Codi's wife was reading for one of her classes, she noticed that her husband was crying. When she approached him, he started blaming her for staying up late at night and making him go to bed alone. The borderline case exemplified most, but not all, of the characteristics of *self-management social support*.

5.6. Related Case. Mrs. Somann is a 45-year-old clerk and office manager who was diagnosed with type 2 diabetes six years ago. She has a lot of coworkers at the office, and she used to spend her lunch break chatting with them in the cafeteria. A coworker stated that she was a beloved colleague, noting that "on her birthday, she received a lot of birthday cards from them." Back at home, her husband and two sons surprised her with a nice birthday party. She used to go to her medical appointments alone; however, none of her family members knew about her diagnosis, and she always wondered why her family members and coworkers did not seem to care about her diagnosis and treatment. The related case exemplified a diabetic patient getting partial social support.

5.7. Contrary Case. Mr. Kaplan, a 69-year-old husband, was diagnosed with type 2 diabetes 15 years ago. At his monthly visit with his primary care provider, the doctor noticed that Mr. Kaplan's A1C was high and that he was complaining of changes in vision along with impaired kidney function. Mr. Kaplan complained of increased tingling sensations in his feet and fingertips. During the conversation, Mr. Kaplan expressed his dissatisfaction with the way that his family treated him because of his diagnosis. He was depressed because his son complained about the types of food that he used to prepare for himself, and his wife refused to accompany him on his afternoon walks. This contrary case exemplified the opposite of *self-management social support*.

5.8. Empirical Referents. Self-management social support could be empirically studied and identified in the context of chronic illnesses because of the manifestation of several characteristics: (1) the presence of a social network comprising proximal members (i.e., family members and spouse) or distal ones (i.e., peers and coworkers); (2) network members should display positive supportive behaviors and avoid negative criticisms; (3) existence of positive feelings toward *self-management social support* that fosters connectedness and relatedness in a climate of social support; (4) exchange of instrumental, informational, and physical aid in the medium of social support; and (5) emotional or moral support displayed in social network interactions with patients.

The defining attributes and characteristics of *self-management social support* have been measured through well-established tools in the nursing literature [20]. The interpersonal relationship inventory, Norbeck et al.'s Social Support Questionnaire [27], and the Personal Resources Questionnaire are just a few examples of valid and reliable measurement tools cited in and discussed by Langford et al. [20]. Other nurse researchers, such as Cosansu and Erdogan [6], developed their scales to measure social support in the context of type 2 diabetes self-management.

5.9. Definition of the Concept. Self-management social support could be defined as the presence of supportive social networks that exhibit supportive tangible or intangible reinforcing behaviors to make positive behavioral changes and promote disease self-management that leads to improved biobehavioral and psychosocial outcomes for patients. Social network members may be healthcare professionals; spouses, children, and other family members; coworkers; clergy; community members; and Internet support groups.

The Internet could be one medium to promote behavioral changes in type 2 diabetes patients [13]. Positive reinforcing behaviors include instrumental, informational, emotional, and appraisal support. Biobehavioral outcomes are observed via behavioral changes and improved biomarkers (A1C, random blood sugar, and body mass index). Psychosocial outcomes, as identified earlier, include less depression, anxiety, stress, and more positive emotional status.

What this definition of *self-management social support* adds to the body of research is the link between social support as a concept and self-management as a mediator of improved outcomes. *Self-management social support* could be discussed in the realm of chronic illnesses such as congestive heart failure, hypertension, and chronic obstructive pulmonary disease. These conditions are often associated with complications that could be prevented or minimized through behavioral changes and regimen adherence that are important to self-management. Social support would improve self-management practices which could lead to improved patient outcomes. Companionship, empowerment, and perceptions of social support are implicit qualities that should be considered when studying *self-management social support*.

The next diagram illustrates the direct or indirect relationships among the antecedents, the concept of interest, and the consequences. *Self-management social support* should be preceded by the formation of supportive social networks, social embeddedness, the proper social climate, and patients' positive perceptions of support. The direct outcomes are behavioral changes, adherence to prescribed regimens, emotional stability, and positive psychosocial outcomes. The indirect but strongly related outcome is glycemic control. To capture the multidimensionality of *self-management social support*, it was recommended to use a combination of the existing measures, such as MOS-SSS, MSPSS, and ARI [22] (Figure 1).

#### 6. Discussion

6.1. Defining Attributes. Functional support was identified by Langford et al. [20] as being either tangible (i.e., instrumental and informational) or intangible (i.e., appraisal and emotional). The instrumental support in the context of type 2 diabetes self-management could be described as providing persons with type 2 diabetes with the necessary tools and aid to adhere to their therapeutic prescriptions and perform such health-related behaviors as foot inspections and food preparation. Informational support entails the delivery of information regarding type 2 diabetes selfmanagement [28].

Praising adherence to self-management behaviors and appreciating patients' adherence to their self-management plans are the core concepts of appraisal support. This kind of support reinforces patients' behavioral modifications in keeping up with self-management [29]. Emotional needs for managing type 2 diabetes are necessary from the time of diagnosis. Emotional and psychological support are essential to help persons with type 2 diabetes accept the diagnosis, adhere to self-management behaviors, and cope with the prognosis of type 2 diabetes, including diabetes-related complications [16]. Thus, emotional support should be addressed to meet the self-management needs of patients with type 2 diabetes and prevent further deterioration in health outcomes [30].

Stopford et al. [31] asserted that the social support structure within the type 2 diabetes self-management realm can be best described by assessing the size of the individuals' social networks, their family relationships, and their community engagement. In their review [32], Schram et al. argued that the size of the social networks was not a determining factor in the management of type 2 diabetes; instead, the studies that they reviewed showed indecisive results that were congruent with Al-Dwaikat et al.'s findings [33] that quality was a more effective attribute than structure in defining the concept of social support and its impact on the self-management of type 2 diabetes.

The relationship between the quality of social support and the self-management of type 2 diabetes has not been well studied and needs to be further explored [14]. Strom and Egede [14] measured the quality of social support by assessing individuals' satisfaction with the support that they received. Ramkisson et al. [34] reported that satisfaction with support was not necessarily correlated with improved self-management and thus improved outcomes of type 2 diabetes [34]. Thus, Hall and Kiernan [35] argued that the quality of social support should be assessed in terms of individuals' evaluations of their relationships with their most intimate support persons. Al-Dwaikat et al. [33] found that self-management behaviors were positively related to the quality of primary intimate relationships [33]. Al-Dwaikat et al. used the Autonomy and Relatedness Inventory (ARI) [35] to assess the quality of social support received by a group of individuals with type 2 diabetes. They asked the participants to indicate whether they perceived their intimate relationships as supportive and autonomous, and characterized them by relatedness, acceptance, and listening (a positive quality) or by hostility, control, and rejection (a negative quality). Al-Dwaikat et al. found that the negative quality of support was correlated with poor selfmanagement outcomes [33].

6.2. Antecedents. In a study of the relationship between social support and self-management, Chan et al. [36] found that diabetes regimen-specific support was a stronger predictor of self-management behaviors than general social support among persons with type 2 diabetes [36]. Naqvi et al. [37] identified gender and ethnicity/race as crucial factors in predicting the relationship between diabetes-specific support and self-management behaviors. The women in Isaksson et al.'s [38] study expressed a higher need for selfmanagement social support and shared that they used interactive sources such as social groups and educational sessions; however, the men in the study used self-reading as a source of support [38]. Mathew et al. [17] noted that both men and women were in need of formal support from their physicians to improve adherence to self-management behaviors.

Race is the other important factor that affects *self-management social support*. Racial and ethnic differences may affect the delivery and perception of social support [14]. For example, Kountz [39] found that *self-management social support* could be delivered more efficaciously through community-based services and religious organizations to African Americans with type 2 diabetes [39]. In addition, ethnic minorities' need for *self-management social support* may be more specific and culturally sensitive [40]. Among the other factors that influence *self-management social support* needs are personal characteristics, health needs, characteristics of support and environmental resources, and healthcare systems [41].

In addition to the aforementioned antecedents, the severity of type 2 diabetes is of great importance and relevance to *self-management social support*. Persons diagnosed with type 2 diabetes tend to form fewer social relations than the general population because of the diagnosis and severity of the illness [15]. These factors are contextualized as preexisting circumstances for *self-management social support*.

6.3. Consequences. Self-management of type 2 diabetes improves as levels of social support increase; this impact is apparent in patients' adherence to their therapeutic regimens [6, 14]. Moskowitz and colleagues found that a peer support intervention was effective in improving medication adherence and self-management of type 2 diabetes [42].

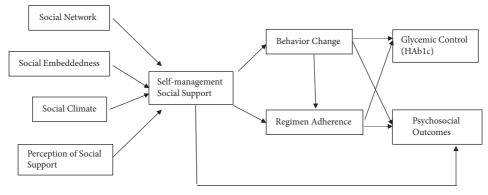


FIGURE 1: Self-management social support diagram.

In addition, positive behavioral changes are expected as the result of *self-management social support* [43]. Carpenter et al. [43] described the behavioral changes as a way to establish lifestyle modifications that include adhering to medication, exercise, diet, and stress management regimens. Lifestyle modifications could be induced through various media, including new technologies such as mobile applications [43].

Third, a notable improvement in the physiological and psychological outcomes of persons with type 2 diabetes is expected as the result of *self-management social support* [10, 13, 16, 44, 45]. Physiological improvement is most commonly measured by assessing A1C, body weight, body mass index, waist circumference, or lipid profile [43].

The psychological burden of type 2 diabetes diagnosis and management could be greatly reduced if early support for people with type 2 diabetes is initiated [16]. The psychological well-being of persons with type 2 diabetes is evaluated by assessing the levels of depression, anxiety, stress, or diabetes-related distress [46, 47].

It is noteworthy to mention that the nature of the relationship between psychological and physiological outcomes of type 2 diabetes is bidirectional [45, 47]. In a position statement of the American Diabetes Association, Young-Hyman and colleagues recommended that a *selfmanagement social support* network should be identified to aid in the prevention and/or treatment of patients' psychosocial problems [48].

Strom and Egede [14] wrote about the negative consequences of *self-management social support*. The negative impact of social support has been reported in the literature on type 2 diabetes self-management; usually, persons with type 2 diabetes complained of being a burden to their social network, stigmatized, criticized, or even harassed [31, 49]. These negative consequences can affect the self-management and health outcomes of type 2 diabetes [49]. Among patients with chronic illnesses, social support may lead to negative health outcomes and social withdrawal [50].

6.4. The Model Case. The model case showed that Mrs. Smith was an older woman who had been diagnosed with type 2 diabetes for eight years. Mrs. Smith had a social network of family members, and she engaged in the self-management

behaviors of monitoring her blood glucose and engaging in physical activity. The social support was directly related to her self-management practices, and its characteristics were explicitly obvious and implicitly embedded in the behavior of her social network members.

The woman in this case received informational and instrumental support from her son and her physician. Emotional support and empowerment were embedded in the behaviors of her son and husband. Companionship was also clear in her husband's supportive walking. The connectedness, relatedness, and feeling of social support were implicitly identified in Mrs. Smith's case. In addition, the outcomes were clear in that her health behavior change was supported and her regimen adherence was obvious through her biomarkers as well as in her psychosocial and emotional well-being.

6.5. The Borderline Case. The borderline case represented an example illustrating most, but not all, of the attributes of *self-management social support*. It appeared that Mr. Codi was engaging in self-management behaviors and had a social network comprising his wife and his pet dog. He had received informational support from his nurse regarding dietary practices and instrumental support from his wife. The missing attributes were companionship, empowerment, and emotional support, in addition to the lack of individual appreciation of his self-management behaviors. As a result, the biomarker A1C was within normal limits, but the patient expressed a kind of sorrow, indicating that he was emotionally unstable. This consequence made the borderline case deviate from being a model case of the concept of *self-management social support*.

6.6. The Related Case. The related case was presented in relation to the model case and represented the concept of *self-management social support*. Mrs. Somann had been diagnosed with type 2 diabetes, but it was not clear if she had engaged in any self-management behaviors. She had a good social network that appeared to be supportive, but the type of support related to self-management was not evident in this case. Neither instrumental nor informational support was provided to the patient by her peers or family members. In addition, her biobehavioral outcomes were not clear, so the psychosocial outcomes related to her diagnosis were affected negatively.

6.7. The Contrary Case. This contrary case represented the absolute opposite of *self-management social support*. Although the patient had been diagnosed with type 2 diabetes, he had not received any kind of support. For example, his family used to criticize him for engaging in such self-management behaviors as preparing his food, and his wife was not a source of motivation of his efforts to make behavioral changes. As a result, he complained of acute and chronic complications of type 2 diabetes. This contrary case showcased the importance of social support in the self-management of type 2 diabetes and that social support should be directly related to therapeutic regimen adherence and management of the care of type 2 diabetes by the patient himself.

6.8. Implications. This concept analysis provides valuable implications for both nursing practice and research. For instance, healthcare providers, researchers, and policy-makers can utilize this analysis to better understand and address the role of *self-management social support* in managing type 2 diabetic patients. Furthermore, this concept analysis would inspire researchers to develop a valid tool to assess the level of *self-management social support* among type 2 diabetic patients. In addition, nurses should involve family members and friends in the care of their diabetic patients. This can be accomplished by educating patients and their relatives on type 2 diabetes mellitus and self-management, as well as fostering open communication between patients and their relatives.

## 7. Conclusion

To develop the best nursing interventions to improve type 2 diabetes patients' health outcomes, the relationship between social support and self-management should be clarified and described in detail. Researchers have asserted that selfmanagement social support can promote self-efficacy, selfcompetence, and self-confidence in the self-management of type 2 diabetes. Patient characteristics, attributes of social support sources, patient-caregiver relationships, and disease severity should be considered when studying the effects of social support on patients' health outcomes. Effective social support will lead to improvements in the biological, psychological, and social well-being of type 2 diabetes patients. The social support of type 2 diabetes self-management should be preceded by the formation of supportive networks that give patients active tangible or intangible reinforcement, resulting in improvements in behavioral, biomarker, and psychological outcomes.

### **Data Availability**

The data supporting the results of this study are available upon a reasonable request from the corresponding author.

## **Additional Points**

What Is Already Known? (i) Type 2 diabetes is a chronic incapacitating disorder usually coupled with numerous

physical and psychological complications. (ii) The selfmanagement of type 2 diabetes is the cornerstone of preventing further complications and stopping health deterioration. *What This Paper Adds?* (i) A concept analysis of *self-management social support* in type 2 diabetes. (ii) Explaining the role of *self-management social support* in improving the health outcomes of type 2 diabetes patients. (iii) Elucidation of *self-management social support* in type 2 diabetes to direct future research and education.

## **Conflicts of Interest**

The authors declare that they have no conflicts of interest.

## **Authors' Contributions**

All authors are responsible for the reported research and have approved the manuscript as submitted. Tariq Al-Dwaikat conceptualised the study, prepared the original draft, reviewed and edited the study, developed the methodology, administered the project, collected the resources, and supervised the study. Haitham Khatatbeh and Amira Mohammed Ali conceptualised the study and reviewed and edited the study.

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