CONCEPT ANALYSIS PATIENT CENTRED CARE IN DIABETES MELLITUS WITH HEART DISEASE COMPLICATION

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Disubmit: 24 November 2024 Diterima: 31 Mei 2025 Diterbitkan: 01 Juni 2025
Doi: https://doi.org/10.33024/mahesa.v5i6.18495

ABSTRACT

PCC of patients with diabetes mellitus with heart disease is a patient-focused service with a holistic approach (bio-psychosocial-spiritual) to provide respectful and individualized care, enabling negotiation of care and offering choice through a therapeutic relationship where patients with diabetes mellitus with heart disease complications are empowered to be involved in health decisions at whatever level is desired by the individual receiving care. However, the application of this concept in services has not been comprehensively clarified. The purpose of this analysis is to describe and explain the concept of PCC in patients with diabetes mellitus with heart disease complications. Walker and Avant's concept analysis process was used to analyze the PCC concept. Six main defining attributes were identified: " autonomy support; shared decision making; cooperation and collaboration; communication and education; emotional support, involvement of family and others. The predecessor analysis included several options with different possible outcomes, substantial patient-focused care conflicts, the need to recognize the health situation of patients with diabetes mellitus complicated by heart disease, and the willingness to participate in care. All of these factors are directly associated with different patient outcames and indirectly associated with outcames through patient activation.

Kata Kunci: Patient Centred Care, Diabetes Mellitus, Heart Disease

INTRODUCTION

Chronic diseases are defined as conditions that one last year or more and that require on going medical attention, limit activities of daily living or both (Marques et al., 2021). Patient-centered care (PCC) is a prominent and emerging healthcare reform effort designed to provide respectful and preferential care that aligns with personal values in decision- making (Williams et al., 2016). Diabetes is a chronic condition requiring continuous medical care and patient education to prevent severe complications and long-term risks. Managing diabetes involves addressing various aspects of the patient's health, including blood glucose monitoring, monitoring and managing carbohydrate intake, regular engagement in physical activity, and medication management (Aldaghi & Muzik, 2024)

The major heart diseases associated with diabetes mellitus

Include ischemic heart disease, heart failure (HF), stroke, coronary artery disease (CAD), and peripheral artery disease, and these complications can result in death for at least 50% of patients with diabetes mellitus. Therefore, heart diseases are of great concern in the disease progression and prognosis of diabetes mellitus. Diabetes mellitus is characterized by insulin resist-ance and hyperglycemia, which is usually, but not always, accompanied by abnormal lipid metabolism (Ma et al., 2022). Micro- and macrovascular complications resulting from elevated blood sugar levels in individuals with diabetes significantly impact functional ability, quality of life and healthcare demand leading to a national economic burden (Kintzoglanakis et al., 2024). Nowadays, patients play an important role in the management of chronic diseases as patient factors influence the quality of care. This phenomenon demonstrates the importance of patient-centered care (PCC), which emphasizes individualized care, participation and empowerment in self-care.

Patients need to make a concerted effort and motivate themselves to adopt a healthy lifestyle because pharmacological therapy alone cannot achieve the goal. Since diabetes mellitus accompanied by cardiac complications is a complex disease involving various risk factors, including behavioral, social components that must be fought by individuals, families and communities the consensus report of the American Diabetes Association recommends PCC to increase Therefore patient involvement in self-care activities and to provide individualized care regarding patient values, needs, and beliefs associated with better health outcomes. The foremost aim of the current concept analysis was to elucidate the concept of PCC in pasien diabetes mellitus dengan heart disease complication in setting by identifying "attributes, antecedents, and consequences" that contributed to understanding its application within the healthcare system and provided an operational definition for upcoming studies and investigations.

TINJAUAN PUSTAKA

Diabetes mellitus type 2 is a disease whose essential system is caused by insulin resistance. Other diseases such as heart disease and stroke are one of the complications caused by type 2 DM. In addition, type 2 DM has a relatively high mortality rate. The etiology and risk factors of type 2 DM according to (Bhatt et al., 2016) are: age, gender, obesity, high blood pressure, genetics, diet, alcohol, smoking, and inactivity, and waist circumference (Oktaverawati, 2019).

Type 2 DM is a collection of side effects that appear in a person caused by increased blood glucose levels due to reduced dynamic insulin release against the basis of insulin resistance. Multifactorial risk factors for type 2 diabetes include factors from genetics, lifestyle, and the environment that affect how beta cells and insulin-sensitive tissues (muscle, liver, adipose tissue, and pancreas) work. However, the exact mechanism by which the two disorders interact is still unknown (Iklima, 2024).

RESEARCH METHOD

This written paper provides an operational definition of PCC as the first step in the analysis concept. Applying the method

described by Walker & Avant (2018), this analysis study identifies a systematic eight-phase analytical procedure that includes: "1) selecting a concept; 2) determining the purposes of analysis; 3) identifying all uses of the concept; 4) determining of the defining attributes; 5) identifying a model case; 6) identifying additional related concepts; 7) identifying antecedents and consequences, and 8) defining empirical referents". The first and second phases of Walker and Avant's method are mentioned in the earlier section, while the subsequent phases are described in the following result and discussion sections.

This analysis used "Patient Centred Care" as a concept of interest, which is articulated in diverse terminologies in the literature, including: "cooperation," "collaboration," "communication," and "education" between healthcare providers and patient or their surrogates. These terminologies were reflected to have similar characteristics with the selected concept. For the analysis, the resource finding was limited to nursing literarure from various bibliographical databases such as "Google Scolar, Proquest, CINAHL, and PubMed". Peer-reviewed English research articles published between 2014 and 2024 were identified and evaluated. Additional relevant resources that supplemented and enhanced the study analysis were also discovered and appraised. A total of 118 publications were identified in the preliminary search. After eliminating duplications using Endnote, the relevant title and abstract were assessed. Fifteen publications that fit with the inclusion criteria were retrieved. Moreover, these articles were carefully analyzed and evaluated to identify the "attributes, antecedents, and consequences"of PCC.

RESEARCH RESULTS

Identifying Uses of The Concept'

The concept Patient-centered care (PCC) is defined as care that establishes a partnership among practitioners, patients, and their families to ensure that the care needs, values, and preferences of patients are satisfied. PCC is characterized by empathy, respect, engagement, relationships, communication, shared decision making, holistic approaches, individual- ized focus and coordinated care. From this perspective, the relationship between the patient and the caregiver is strengthened and is characterized by information sharing, empathy, and empowerment. In the partnerships established, the team's sensitivity to the patient's needs and their engagement in care stand out. In health promotion, the following dimensions are essential: case management and patient empowerment (Marques et al., 2021)

Conceptualization of Patient-Centred Care Our findings show that providers had varied perceptions and understanding of what PCC was about. That is what we follow." For some, the concept of PCC was understood based on the name, which conveyed the idea of prioritizing the patient's needs and putting their interests first. As one doctor explained, "PCC means that the patient and their needs should be at the core of care." PCC was also seen as recognizing the patient as a person—someone who, despite being ill, can still participate in social

activities and lead a normal life (Bosire et al., 2021).

PCC is certainly an essential part of diabetes care especially patients with complications of heart disease and is mandatory if we are to achieve optimal results. However, there may be certain clinical situations where PCC has certain limitations. There include case scenarios which are potentially limb-, sight-, organ-or life-threatening. However, the concept of PCC has evolved to address these and other issues as well. The impact of PCC can be strengthened if we work toward patient empowerment by improving individual, and community, diabetes literacy and diabetes numeracy (Kalra et al., 2012).

Diabetes is a long-term condition that necessitates ongoing medical attention and patient education to avoid serious complications and long-term risks. Effective management of diabetes requires attention to various aspects of the patient's health, such as monitoring blood glucose levels, controlling carbohydrate intake, maintaining regular physical activity, and managing medications (Damara & Ariwibowo, 2021). By gaining a deeper understanding of the disease and identifying signs of worsening symptoms, individuals can take proactive measures to safeguard their health. Therefore, early diagnosis of diabetes and its potential complications is essential for both patients and healthcare providers, particularly for those with heart disease-related complications (Aldaghi & Muzik, 2024).

Determining Of Attributes

According to the previous literature review described in the earlier steps, the next phase of concept analysis was exploring the concept's attributes. Outlining attributes, “similar to signs and symptoms”, are essential elements that assist to discriminate one specific concept from another associated concept and elucidate its meaning (Walker & Avant, 2018). Six key defining attributes have been identified for the concept of the PCC are setting such as “(1) autonomy support, (2) share decision making, (3) cooperation and collaboration, (4) communication and education, (5) emotional support, and (6) involvement of family and others”. Those defining attributes are described as follows:

Autonomy support,

as defined by Williams et al., refers to healthcare providers taking the time to fully consider patients' perspectives during interactions. This involves offering choices, sharing relevant information, encouraging self-initiation, explaining the reasoning behind recommendations, and respecting patients' decisions.

The aim of autonomy support is to empower patients to effectively manage their chronic conditions. Research has demonstrated that person-centered support for diabetes can positively influence A1C levels. Goal-setting in diabetes care includes identifying personal objectives and creating a tailored action plan to motivate and guide individuals toward achieving these goals, leading to behavioral changes. Diabetes care goals are typically categorized into seven areas: optimizing daily self-care, improving long-term health, learning about diabetes, achieving measurable objectives, managing medications, regulating diet, and utilizing healthcare services. Personal and life-related goals are usually prioritized, while medical goals often receive less focus.

In diabetes management, goal setting is typically carried out by physicians in collaboration with patients to establish specific, short-term goals like those related to diet, with nurses providing feedback. Involving patients in collaborative goal-setting helps build trust in the patient-clinician-nurse relationship, boosts patients' sense of competence, and leads to improved A1C outcomes.They used structured education to empower and support patients in embedding self- care in their lives (Goh et al., 2024).

SDM (Share Decision Making)

In Shared Decision Making (SDM), healthcare providers share decision-making responsibilities with patients, providing relevant information to inform and empower them regarding interventions or the management of their health conditions. SDM is based on the principle of respecting patient autonomy and can help achieve both life-related and medical goals, as mentioned earlier. This approach fosters a partnership between the provider and the patient. Research has indicated that SDM can lead to lower A1C levels in diabetic patients and increase satisfaction. However, a systematic review revealed that the impact of patient-provider partnerships remains unclear due to a shortage of high-quality studies.

For the illustration, Stacey et al., (2008) conceived “decision coaching” as the “key feature mediating effective SDM”. Decision coaching efficiently assisted patients “consider their informed values, which directed them through the decision-making practice” (Jull et al., 2019). Some healthcare providers can implement it as the patients’ guideline through decision-making and assist them elucidate their personal principles using evidence-based outcomes of the presented treatment preferences(Vranada et al., 2022).

Cooperation And Collaboration (A System-Level Approach For Integrated Care)

refer to the coordination of various services through the integration of multiple specialties. For instance, managing the complexities of diabetes and chronic kidney disease requires patient-centered collaborative care, which may involve integrating a clinical pharmacist into medication management programs. The World Health Organization (WHO) defines integrated care in a broad sense, covering areas such as health promotion, disease prevention/diagnosis, treatment/management, rehabilitation, and end-of-life care. It supports cross-organizational and professional coordination based on patients' needs. This integration includes organizational, funding, and implementation strategies for health-related activities, with the shared goal of improving patient outcomes, experiences, and resource use across different sectors.

Essentially, the WHO’s definition encompasses both vertical integration (coordinating care across different organizations, such as in community and hospital settings) and horizontal integration (enhancing overall health from a patient-centered approach within the same organization through professional or peer collaboration). Systematic reviews indicate that collaborative care is effective in reducing depression and enhancing quality of life (QoL) for patients with diabetes and comorbid depression. Incorporating metabolic specialists into primary care can result in moderate improvements in A1C levels, blood pressure, and weight

management for diabetic patients. PCC delivery to patients with multi- morbidity in the pri- mary care setting and the relationships among patient-centered care, co-creation of care, satisfaction with care, and physical and social (Kuipers et al., 2019).

Interaction and learning.

Patient-centered communication is defined as actively listening to individual preferences and empowering patients to guide conversation topics and decision-making. This type of communication is closely linked to the concept of education. Studies have shown that person-centered diabetes self-management education can improve A1C levels, quality of life (QoL), and reduce the occurrence of microvascular complications and hospitalizations. However, attending more educational sessions does not necessarily lead to better QoL. In addition, higher-quality communication between providers and patients is linked to a greater sense of personal control, reduced diabetes-related distress, and increased satisfaction, while poor communication is associated with worse A1C control.

Enhanced patient-centered communication has been shown to improve adherence, and better provider-patient communication is also connected to better self-management and self-efficacy. Moreover, “patient decision aids” improve “knowledge and realistic insight of benefits and risks, reduce decisional conflict and improve the match between patients’ informed values and chosen options” (O’Connor et al., 2003). Many researchers suggest that nurses are well positioned to use patient decision aids and decision coaching strategies to identify decisional conflic (Williams et al., 2016).

Psychological Assistance.

Over 40% of individuals with diabetes and heart disease complications experience diabetes distress, which refers to a negative emotional response to managing and living with diabetes. However, emotional support is often not routinely included in diabetes care.

Patient-centered care (PCC) emphasizes the importance of seeing the patient as a whole person, taking into account their biopsychosocial needs and the personal context of their daily life. Therefore, providing emotional support to patients dealing with daily challenges is vital, as research shows it contributes to better patient outcomes. Studies have found that diabetes-related distress is linked to poor glycemic control, increased complications, and higher mortality. These factors can interact with the influence of spouses and lead to further difficulties in managing blood sugar.

Additionally, diabetes distress is associated with poorer self-management, particularly among disadvantaged adults. For individuals with diabetes, addressing emotional distress and concerns about the potential negative effects of treatment is crucial for improving adherence to management plans.

Involvement And Support From Family, Caregivers, Close Friends, And Peer Groups

Dyadic patient-support interventions, which involve family members and close others, have been shown to increase family engagement in diabetes self-management and enhance the use of support techniques without causing additional caregiver stress. Over time, patients benefit from social and emotional support, leading to

increased self-awareness in the short term, improved self-care skills, and greater use of healthcare services, as well as more active participation in their treatment process. However, research indicates that dyadic interventions may need to address the negative impact of peer supporters' involvement, as well as their own diabetes distress. Peer support involves social, emotional, and practical assistance from non-professionals to help individuals maintain healthy behaviors. There is an increasing trend to incorporate peer support to strengthen healthcare systems in providing better assistance.

Diabetes management plans often highlight the importance of involving family and close individuals, as noted in PCC-related studies. However, we expanded this involvement to include peer group support, recognizing that individuals with diabetes can gain valuable insights from others with similar experiences. A systematic review and meta-analysis conducted in 2021 indicated that peer support could improve A1C control in diabetic patients. Specifically, peer support in small group settings, short-term interventions, and weekly meetings was found to produce more favorable results. Empirical studies suggest that long-term participation in peer support programs helps reduce A1C levels, enhance quality of life, and alleviate distress, particularly for individuals with lower socioeconomic status. Additionally, volunteers who act as peer supporters—people who also have diabetes—tend to experience better health outcomes as a result of their involvement in these activities.

Identifying The Antecedents and Consequences'

Walker & Avant (2018) describe "antecedents as events or incidents that must occur before the occurrence of a concept, while consequences are events that occur as a result of it. Identifying antecedents and consequences can shed light on the social contexts within which the concept is used and help in refining the defining attributes; an attribute cannot be an antecedent or consequence at the same time".

Antecedents

Identifying "antecedents" assists to "delineate attributes or events that emerge before the embodiment of the concept" (Walker & Avant, 2018). Rodgers & Knafl (2000) explained "antecedents as preceding causes associated with the concept of interest". In this study analysis, the main antecedent to PCC in DM with HDC setting was "*the existence of several options with different outcomes:* substantial decisional conflict". Meadand Bower introduced the PCC framework, which encompasses a biopsychosocial perspective, the concepts of patient-as-person, shared power and responsibility (encouraging patients to participate in decision-making), and therapeutic alliances. In Langberg et al.'s framework, the final element was substituted with coordinated care.

Since 1988, the Picker Institute has consistently tracked patient experiences, revealing that patients generally define the PCC framework through eight key aspects of inpatient care: respecting patients' preferences, values, and needs; providing information, education, and communication; ensuring coordinated and integrated care; offering emotional support; ensuring physical comfort; involving family and close others; facilitating continuity and transitions from hospital to home; and ensuring

access to care and services. The Institute of Medicine endorsed PCC as one of six primary goals for improving healthcare in the 21st century.

PCC emphasizes providing care that is compassionate, empathetic, and responsive to each patient's needs, values, and preferences, while keeping patients informed about decision-makers in their care, as outlined by the eight dimensions from the Picker Institute and Gerteis's definition. The proposed six dimensions of the PCC framework include respecting patients' values, preferences, and expressed needs; ensuring coordinated and integrated care; delivering information, communication, and education; ensuring physical comfort; offering emotional support; alleviating fear and anxiety (uncertainty); and involving family and friends.

Therefore, to effectively practice PCC, healthcare providers must have strong communication skills and the ability to facilitate constructive discussions. Training in medical communication, as proposed by Kurtz, Silverman, and Draper (2005) PCC should be an integral part of continuing professional education and development. This not only improves the ability of doctor-patient-nurse interactions but also strengthens the overall effectiveness of healthcare by ensuring that treatment decisions are taken with full consideration of the perspectives and preferences of the patient (Rumintjap et al., 2024).

CONSEQUENCES

In concept analysis, “consequences are defined as situations following the occurrence of a concept” (Walker & Avant, 2018). The analysis indicated “decreasing decisional conflict” as the most frequent outcome or concequences. In most studies, family or patient’s surrogates expressed reduced uncertainty regarding the patient’s future health status (Chen et al., 2024) emphasized that when treating diabetes patients with heart disease complications, healthcare providers, including medical staff and nurses, should prioritize supporting patients' autonomy by listening to their preferences before suggesting any changes to their lifestyle. This integrated care approach should encompass various stages, extending beyond disease treatment and management to include health promotion, disease prevention, rehabilitation, and end-of-life care for diabetes patients with heart disease complications.

Nursing staff should ensure that their explanations are clear and understandable for patients, respect their expressions, and be willing to dedicate time to effective communication (communication and education). In terms of emotional support, nurses should address patients' concerns and fears. Furthermore, nurses should engage family members and others in the care process by providing essential information about the patient’s symptoms and treatment, as well as creating opportunities for further discussions on the subject (involvement of family and others).

These elements of PCC collectively enable patients to actively participate in managing their care, empowering and motivating them to take ownership of their health. Moving forward, it is essential to design systems that facilitate the incorporation of PCC principles. Better health processes and services that involve patients and families. Therefore, integrating patient experience measurement and improvement into healthcare

quality improvement strategies not only supports the achievement of better health outcomes but also ensures that the healthcare provided is in line with patients' needs and preferences. A focus on patient experience recognizes the intrinsic value of every interaction in the healthcare system, leading to more holistic and patient-centered care. A patient-centered approach drives policy and practice making that ultimately improves the quality of care and strengthens the health system as a whole (Aldaghi & Muzik, 2024).

Model Of Concept Analysis

According to the explanation mentioned and described above in the previous steps of concept analysis, the model concept of PCC in DM with HDC setting can be defined in figure.

Identifying Related Concepts

The elements of person-centered care (PCC) involve fostering communication, delivering care with respect and empathy, involving patients in their care management, and offering coordinated care.Walker & Avant (2018) encouraged "identification of related concepts, which bear some relationship to the concept of interest but do not share the same attributes, to clarify concepts further". The result Individual care needs associated with aging and chronic illnesses, biopsychosocial factors, communication between clinicians and patients, clinician characteristics, the clinician-patient relationship, the involvement of family and friends, care coordination and continuity, and access to healthcare are key considerations. From various perspectives, Jaensch et al. suggested that identifying the agreement on PCC elements between healthcare professionals and patients is essential for creating accessible, supportive, and flexible environments that facilitate information exchange.

The shift from a biomedical model to a patient-centered care model may necessitate more effective patient engagement, collaboration on an individual care plan, and motivation of patients to adopt self-management behaviors. Therefore, PCC is characterized as a care that is tailored to the patients' specific needs, values, and preferences. PCC is an important factor in the self-management of diabetes with heart disease complication and is associated with improved health outcomes such as quality of life and self-care behaviors in this population.

The American Diabetes Association (ADA), in their consensus report, also advocated PCC to enhance patient engagement in self-care activities for type 2 diabetes self-management . Moreover, PCC improved patient activation in terms of knowledge, motivation, confidence, and skills, as well as better illness perception and a lower level of distress, in people with diabetes (Asmat et al., 2022). This underscores the importance of considering diverse viewpoints and highlights that, while overarching concepts may seem uniform, exploring the details of service perspectives is crucial for understanding their nuanced opinions. Effective education should integrate these insights, focusing on tailored communication, interactivity, active monitoring, patient involvement and patient centered care (Soleimani et al., 2024).

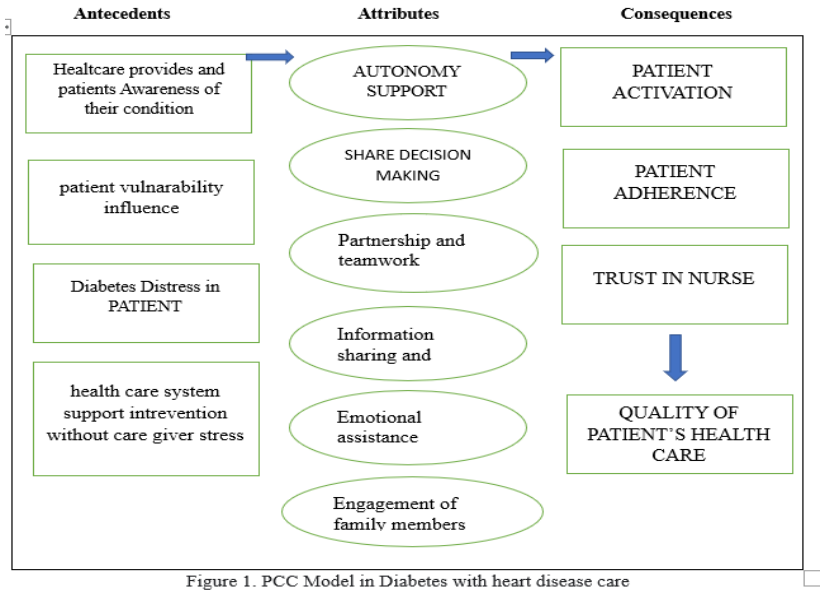

Figure 1. PCC Model in Diabetes with heart disease care

Identifying Case Studies

To broaden expand the analysis of concept PCC with HDC in settings, three classifications of case studies are described. "The model case demonstrates all of the defining attributes of the concept", while "the borderline case contains most of the attributes, but not all of PCC attribute are mentioned". Both of these two cases studies help to articulate the concept's meaning more fully. The last case study is contrary case that reflects an absence of the attributes of PCC (Avant & Walker, 2014).

Model case

Mrs. A, a 45-year-old woman, was diagnosed with Type 2 Diabetes Mellitus (T2DM) two years ago. She came to the clinic with complaints of blood sugar that was difficult to control despite taking medication prescribed by the doctor. In addition, she felt tired easily, had an irregular diet, and rarely exercised due to the demands of work as an office employee.

Mrs. A also stated that she felt confused by the various advice given by different health professionals. She felt stressed due to her ignorance on how to properly manage her diabetes. Patient-Centered Care Approach:

1. Understanding the Patient's Condition and Needs:

   The doctor and nurse had an open discussion with Mrs. A to understand more about her living habits, diet, activity level, as well as the obstacles faced in managing diabetes. They also asked about the health goals that the patient wanted to achieve.

2. Patient Education and Engagement:

   After understanding her needs, the health worker provides information about diabetes, potential complications, and the importance of lifestyle changes. This information was delivered in a language that Mrs. A could easily understand, along with relevant brochures and educational videos.

3. Creation of a Customized Care Plan:

   The doctor worked with Mrs. A to develop a realistic treatment plan, which

included adjustments to medication doses, a simple diet plan that fit in with her busy work schedule, scheduling light physical activities that could be done in the office, such as walking for 10 minutes every 2 hours and Mrs. A was also involved in setting up a reconsultation schedule to monitor health progress.

4. Psychosocial approach

As Mrs. A was feeling stressed, the nurse offered a brief counseling session to help her manage stress related to her illness.

5. Ongoing support

The health team provided a contact number for Mrs. A to consult if she had any concerns or questions between visits. Mrs. A was also directed to join a diabetes support group in the local community. Outcome: In the follow-up visit after three months:

a. Mrs. A's blood sugar was better controlled (HbA1c dropped from 9% to 7.5%).
b. She felt more confident in managing her diabetes.
c. Her diet and physical activity were more regular.
d. Mrs. A reported less stress as she felt supported by the health team.

Conclusion:

The patient-centered care approach enabled Mrs. A to actively participate in the management of her health. With a focus on individual needs, clear education, and ongoing support, this model was successful in improving both health outcomes and patient quality of life.

Borderline case

Mrs. A, a 45-year-old woman, has been diagnosed with Type 2 Diabetes Mellitus for two years. She came to the clinic with complaints of uncontrolled blood sugar and HbA1c of 9%. The doctor provided a treatment plan of medication adjustment, low sugar diet advice, and moderate exercise.

Approach Taken:

1. Initial evaluation

The doctor conducted an interview to find out Mrs. A's diet and physical activity. However, this interview was rushed due to limited time. Mrs. A was not given much opportunity to talk or explain the barriers she faced in managing diabetes.

2. Limited Education:

The doctor provided a list of foods to avoid and suggested physical activities. This information was provided briefly without explaining the rationale or impact of the recommendations on Mrs. A's blood sugar. There was no assessment of whether Mrs. A understood the advice or felt able to do so.

3. Treatment Plan:

The doctor adjusted Mrs. A's diabetes medication, but did not involve Mrs. A in the decision-making process. The treatment plan was given in a top-down manner, and Mrs. A was only asked to follow the doctor's instructions.

4. Support and Follow-up:

The doctor arranged a revisit after three months, but there was no support mechanism in between. Mrs. A was not given a contact number or direction to seek help if she experienced

difficulties during this period.

Case Analysis:

This approach only partially reflects the principles of Patient-Centered Care (PCC). The following elements show the boundary between care that is truly patient-centered and that which is not:

a. Limited Patient Involvement: Mrs. A was not involved in the decision-making process regarding care. Her needs and preferences were not thoroughly explored.
b. Lack of Personalized Education: The education provided is not tailored to Mrs. A's understanding and life situation, so she may have difficulty implementing the recommendations.
c. Lack of Ongoing Support: There was no support system or communication between visits to help Mrs. A overcome barriers to her diabetes management.

Results:

After three months, Mrs. A's blood sugar remained uncontrolled. She admitted that she felt confused and had difficulty following the doctor's recommendations. Although she changed her diet, she found the recommendations unrealistic to implement consistently. Mrs. A also did not exercise as she did not clearly understand the benefits.

Conclusion:

This case is a borderline example as it included some elements of PCC, such as education and medication adjustment, but was not optimized. Limitations in patient engagement, personalization of care, and ongoing support suggest that this approach has not fully met the principles of Patient-Centered Care.

Contrary Case

Background:

Mrs. A, a 45-year-old woman, was diagnosed with Type 2 Diabetes Mellitus two years ago. She came to the clinic with complaints of increasingly high blood sugar despite taking prescribed medications. Her HbA1c was recorded at 12%.

Approach Taken:

1. Approach Not Listening to Patient Needs:
   The doctor gave directives without asking about Mrs. A's complaints, living habits, or challenges in managing her diabetes. There was no attempt to understand the context of the patient's life, such as her daily diet, work, or social environment.
2. Unilateral Instruction:
   The doctor decided to increase the dose of diabetes medication and suggested a strict diet without involving the patient in the discussion or decision-making. Mrs. A was only given a list of restricted foods without explaining the reason or purpose of the restrictions.
3. Lack of Personalized Communication:
   The education provided was brief and generic without regard to Mrs. A's level of understanding or specific needs. The doctor used medical terms that were difficult for the patient to understand and made no effort to ensure that Mrs. A understood the recommendations.
4. No Emotional Support:
   When Mrs. A expressed that she felt stressed and overwhelmed with her diabetes management, the doctor simply replied that it

was part of living with diabetes without offering any solutions or support to reduce the patient's emotional burden.

5. Lack of Follow-up Plan:
   The doctor set up repeat visits in six months without providing a communication mechanism between the visits. There was no additional direction or attempt to evaluate the success of previous treatments.

Results:

a. After six months, Mrs. A's HbA1c remained high, and she reported not following most of the doctor's
b. recommendations.
c. Mrs. A felt confused by the instructions and frustrated at not being involved in her care planning.
d. Mrs A's stress and anxiety levels increased, and she became less motivated to actively manage her diabetes.

Conclusion:

This case completely contradicts the principles of Patient-Centered Care because:

a. There was no attempt to listen, understand, or involve the patient in decision-making.
b. Care was not tailored to the patient's specific needs, preferences or situation.
c. Poor communication, lack of emotional support, and lack of follow-up systems indicate an approach that focuses on the doctor, not the patient This approach can result in poor outcomes, both clinically and psychologically, while creating a negative experience for the patient.

Identifying Emprirical Referents

The last stage of the concept analysis method is determining empirical referents for the defining attributes. Empirical referents are “measurable ways to demonstrate the occurrence of the concept” (Walker & Avant, 2018). In Walker and Avant's opinion, “the existence of the concept through measurement must determined when a concept is unclear” (Walker & Avant, 2018).

Measurement of the concept is involving by using empirical referents. Patient personalized goals can measure goal setting through a client's self-report. The essence of the successful application of the concept can be seen from the presence of the patient's ability to process glycemic control accurately by control diet, exercise, and drink medication as regularly for the long term and be a habit in their life. We can assess it with the tool. Engagement in centerd care to patient can be measured by patient behavior.

This information would be based on the patient's preferences, personalized goals, and a physical outcome like blood glucose and HbA1c. Problem-solving and decision making can be measured by evaluating patient experience when their feel sign of hypoglycemia or hyperglycemia. Moreover, their health-seeking can be measure by evaluating patient knowledge about DM in general. Consequences of self-management can be measured by laboratory results, physical examination, changing of behavior and tool in self-efficacy, and the quality of life.

LIMITATION OF STUDY

This current study was conducted as a concept analysis by utilizing Walker & Avant’s

concept analysis method. In order to shed light on concept constructs, they proposes that researchers need to discover at least 20-25relevant articles. However, this current analysis study only involve 15 publications elaborating PCC in DM with HDC for this study. Thus, it might not be comprehended that the study reveals the entire construct of the concept.

CONCLUSION

In this concept analysis, six attributes, three antecedents and four consequences were extracted.In diabetes care, key elements of person-centered care (PCC) include supporting autonomy (recognizing patient individuality), fostering cooperation and collaboration (system-level approach), utilizing communication and education (behavior change strategies), providing emotional support (biopsychosocial approach), and involving family, caregivers, close friends, and peer groups for support. These factors are directly linked to various patient outcomes and also indirectly influence outcomes through patient adherence.

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