

The Effectiveness Of Collaborated Efforts In Ensuring Diabetic Medication Adherence

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Effective medication for any disease is the foundation of prevention, the progress of a disease as well as treatment. However, only a small number of patients in Alaska adhere to their treatment as prescribed. This has resulted in an expensive health problem not only in Alaska but in the entire United States healthcare system. Since nonadherence to medication is a complex issue with numerous contributing factors, there can never be a single solution. The main objective of this paper is to describe the policy implemented in Alaska in order to improve medication adherence among diabetic patients. Moreover, we shall identify the key characteristics that make the policy more effective and scalable. The information provided in this research paper is intended to inform healthcare providers about the effectiveness of collaborative efforts in ensuring diabetic medication adherence.

Medication is the biggest therapeutic modality in treating diabetes. Just as patients have experience navigating the health care system, so do they have different experiences when taking their medication. The experience is often an individual's subjective account of taking medication in his or her daily life. The experience starts as soon as the patient begins the prescription. It is usually viewed as a reaction to the signs that a medication holds, the feeling that one has when using a substance to treat diseases. The experiences can either be positive or negative or have adverse implications for whether an individual patient chooses to continue with the medication. Therefore, for proper management of diabetes, it is vital that healthcare practitioners work to understand the meaning of taking medication from the perspective of each patient.

The Burden Of Medication Nonadherence

Nonadherence to medication in Alaska has been a common problem, which has led to a number of public health problems. It has been reported that approximately half of the diabetes medication is not taken as prescribed. Within a year, over 50% of diabetes patients are reported to discontinue their medication. The increase in nonadherence has brought serious consequences to many patients as well as the Alaskan healthcare system.

Nonadherence has been connected to poor treatment outcomes and constant progression of disease symptoms. This has resulted in a deterioration of health by a huge percentage. Non-adherence to diabetes has also been associated with increased hospital admissions. Moreover, the usual non-adherent patients in Alaska often require additional medical check-ups every year, thus resulting in an average increase in the cost of treatment by \$ 2,000. A recent study has estimated that the cost of nonadherence to diabetes medication has increased by approximately \$ 2 billion every year.

The complex medical frameworks needed in diabetes have made this an ideal condition to examine with regard to medication adherence. A study conducted among veterans in Alaska indicated that improving medication adherence could result in savings of approximately \$ 10 million to \$ 50 million annually. This requires proper healthcare planning and policy design, which might impact the general population. Diabetes was selected as a model for this paper for two major reasons. First, diabetes is a complex condition that needs individual management with a strict focus on adherence to medication in order to accomplish the required glycemic control. Second, intervention analysis is another context of the disease. Diabetes enables the comparison of unique interventions with the common goal of improving patients' conditions.

Medication adherence can be described as the extent to which patients comply with medical prescriptions. Today, the term "compliance" is not used often since it means that it is only the responsibility of the patient to monitor his or her medical treatment. Some patients might never start medication if they are left alone. Adherence to medication has also included the concept of persistence, considering the willingness to take prescribed medication through the entire duration of drug therapy. The degree of adherence to medication by a patient and a therapist is known as a concordance.

In 54,000 new insulin users in Alaska, adherence to medication for at least three years was associated with a 25% reduction in acute myocardial infarction with an even much better outcome of the patient taking higher doses. A similar study was conducted examining the impact of medication adherence on a cohort of 25,000 Canadian diabetes patients. In another study involving 300,000 patients in the mainland United States, the extent of the reduction in the diabetes mortality rate was directly associated with adherence to insulin medication. Another example of the significance of adherence outcome is the analysis of the CHARM study that examined the impact of adherence to insulin medication in 8000 diabetes patients. Proper adherence was defined as 80 % intake of the prescribed dose. The extent of risk reduction associated with good adherence was remarkably great.

Role Of Nurses

Nurses have a big role in the implementation of the policy. A thorough discussion of the advantages with the patients is considered the foundation of improving drug concordance. Moreover, motivational interviewing might be fundamental in framing an open discussion with the choices of the patient when the policy is considered. This should include the patient's fears and social pressure. The importance of patient choices enduring policy implementation must be reinforced. Rules for the collaborative framework should be clear. The concept of reminder under the policy of care coordination involved nursing practitioners, the relatives of the patients, and pharmacists. Under the policy, the patient and the healthcare practitioner not only get the necessary information on proper prescription but are also provided with a detailed explanation of the meaning and likelihood of potential impact. The policy was implemented in order to actively discuss various matters every time a patient returns to the caregiver. Several studies conducted after the implementation of the policy

pointed out that forgetfulness is a fundamental factor that has contributed to nonadherence to medication. This is one key explanation for the observation that multiple effects of medication adherence are transient. The biggest challenge experienced during the implementation process has been the establishment of continuous strategies.

Telephone counselling as a move to improve care coordination has proven to be useful in a 3-year randomized trial. Four hundred non-adherent patients received more than five drugs for the treatment of diabetes. Regular calls by caregivers and clinical trials on drug adherence through electronic monitoring showed a significant increase in the number of multiple doses, which were directly associated with a dramatic increase in medication adherence. Compliance with dose time also increased with a similar reduction in the high frequency of single doses. Less frequent dosing regimens resulted in better compliance across various therapeutic sessions.

Therefore, it is important to reduce the number of single doses, independent of the content, in order to improve medication adherence among diabetic patients. Ineffective medication might cause a lot of harm by reducing the concordance of effective medications.

Review Of Literature

Medication adherence is influenced by multiple interacting factors rather than by a single patient behavior. The World Health Organization groups these influences into five broad dimensions: social and economic factors, the healthcare system and care team, characteristics of the condition, features of the therapy, and patient-related factors (World Health Organization, 2003). For diabetes, barriers may include treatment complexity, cost, adverse effects, health literacy, beliefs about medicines, depression, transportation, fragmented care, and difficulty fitting medication into daily routines.

Because the causes differ among patients, effective interventions are usually multifaceted. Education can improve understanding, but information alone may not overcome cost, regimen complexity, forgetfulness, or weak follow-up. Care coordination, pharmacist involvement, medication reconciliation, reminder systems, simplified regimens where clinically appropriate, and regular communication can support adherence. The relationship between the patient and healthcare team is also important because collaborative decision-making can identify concerns before a patient stops or changes treatment without guidance.

Telephone and digital reminders may help some patients, particularly when they are combined with human follow-up rather than used as isolated alerts. The most useful approach is to identify the individual barrier, agree on a realistic plan, monitor whether the intervention is working, and adjust it when circumstances change. These principles are consistent with the WHO framework and with collaborative models of diabetes care (World Health Organization, 2003; Capoccia et al., 2016).

Policy

Reflecting on the ongoing commitment to improving the overall healthcare in Alaska, the coordinated policy highlights the key areas of quality improvement. Some of the recommendations under the policy have been debated in the context of reforms in the healthcare system and might have been incorporated in some of the proposals now being reviewed.

Medication nonadherence can worsen clinical outcomes and increase avoidable healthcare utilization, but the size of the problem should not be expressed through unsupported Alaska-specific figures. A stronger policy approach is to recognize that patients may miss or discontinue medication for different reasons, including cost, adverse effects, fear, regimen complexity, limited access to care, misunderstanding, and practical difficulties. Caregivers should identify the specific barrier with the patient and select an intervention that addresses that barrier rather than assuming one strategy will work for everyone (World Health Organization, 2003).

More than 50 legislators and experts in medication adherence, including clinicians, researchers and employers, met on June 20th, 2017, in Central Peninsula General Hospital. At the conference, RAND Corporation provided their study on diabetes medication adherence, and Lead Johnson provided a practical strategy to improve diabetes medication adherence based on the outcome of the study. Nonadherence to medication is a huge health problem in Alaska, according to Dr. Gerald Walled, the lead author of the review. He further pointed out that “finding formidable solutions to the issue should be part of reform in Alaska.”

Care Coordination:

Strategies focusing on improving care need to consider the fundamental role of medication in disease management and treatment. This includes specified criteria for qualification as a medical centre, including care teams comprising a wide range of healthcare providers involved in patient care. Moreover, it should be active in involving patients and caregivers in creating and implementing the policy.

Care strategies to be used in care coordination, including initial medication of the patients, use of all prescriptions, and use of information from the review to establish and reach the clinical objectives and adopt a medication reconciliation process across different healthcare providers in order to ensure that medication is accurate.

The policy also utilizes the appropriate incentives to support coordination activities and improve medication adherence, which are delivered by various healthcare experts. Coordinated care has long been described in different ways in various studies, and a set of methods or organizational models has been implemented to enhance connectivity and collaboration with healthcare providers at different levels. Among the key factors incorporated in coordinated care is a multidisciplinary system.

Reminders, education to healthcare professionals, support for self-management, patient education and finally, case management.

The policy of care coordination aims to increase the quality of care by improving healthcare satisfaction and efficiency for patients with chronic illnesses. Despite the advantages, using the policy has proven to be a challenging process. Due to the complexity of the Alaskan healthcare system, healthcare providers sometimes may have difficulties when coordinating their work and actions in an integrated framework for the patients. However, in order to achieve high-quality care for diabetes patients requires collaboration among healthcare professionals.

The key stakeholders who often sit together to deliberate about medication adherence for patients are the most important ones. Insurers began to show concern about various disease management strategies, as they understood that the strategies minimize dispersal and achieve greater outcomes through affordable costs. Various studies have shown that coordinated care offered by interdisciplinary teams can minimize the menace of worsening conditions or prolonged hospitalization. Moreover, collaboration among healthcare practitioners can be imperative to the achievement of a certain intervention and might impact the overall usefulness of a care strategy.

Successful management of diabetes requires patients to use complex medical frameworks in their daily medication process, make significant changes in their lifestyle, and track progress and challenges, among others. Even with such complex frameworks, managing diabetes is not a “do it yourself” thing. It is a process that requires constant guidance from experts and collaboration between the patient and the healthcare providers. The relationship between healthcare providers and patients lies at the core of patient-centred care. A great relationship fosters regular communication and improves the understanding of the patients regarding their condition and treatment. This allows patients to have a comfortable process and participate in medication adherence as well as the overall health outcome. The relationship between the patients and healthcare providers has shown great adherence and positive outcomes. For instance, a study conducted at Fairbanks Memorial Hospital, including 500 diabetes patients from 7 hospitals in Alaska, found a strong relationship between the patient-provider relationship and medication adherence to medication. Access to healthcare providers was not solely associated with medication adherence, suggesting that the quality of patient-provider exchange and not the amount of time spent is very important. (Capoccia et al., 2016)

Alaska Overview

Alaska presents a unique challenge in diabetes medication adherence, most notably because of the huge size of the state, the number of isolated communities, and the size of the area that is medically underserved. Other factors, such as cultural and linguistic variation, have also contributed to these challenges. With an area of 663,268m², Alaska is approximately a fifth of the entire size of the United States. However, it has the lowest population density. The population of Alaska is approximately 800 625, with the most populated areas being Anchorage and Matanuska-Susitna. Alaska does not have

counties like other states. Rather, the state is divided into boroughs, the largest one being the North Slope Borough. The unorganized borough of Alaska covers approximately 78149 square miles. The boroughs are divided into census areas for the purpose of statistical analysis and record-keeping.

Key Legislators

Policy interventions are very important and can be very effective for the community, with a focus on improving public health. Public health policy intervention has a huge impact on system development and social and organizational reforms in order to promote improvement in health care. Alaska State Health Department chronic disease programs are well-positioned to connect with other public health department programs. The programs have primarily focused on various issues such as affordable care, transport and chronic disease control in larger societal-level efforts where necessary.

Policy interventions on medication adherence are important. It is system-based and has a huge impact on the entire population by transforming the context in which diabetes patients take action or make their decisions. They have a huge influence on decisions or creating an environment or structure in which everyone is safer. While the policy intervention focuses on behavioural change at the individual level, the policy has also established the parameters for many individual choices, thus taking more direct actions at the population level. This kind of population-based approach is often less expensive. However, the ultimate effectiveness of the policy intervention depends on numerous factors such as compliance, education, and awareness of the policy, as well as the necessary resources that can support the implementation of the policy.

While most state health departments are used to playing the biggest role in identifying challenges, some programs might involve other important domains during the policy process. Involving legislators in the process of policy implementation helps ensure that public health policies are founded on the best available evidence, reflecting the needs of the audience and are improved as evidence evolves.

Methodology

The APCA executive directors invited 88 participants who represented a range of practices and locations. Forty-six of the entire group had a positive response regarding the policy. Apparently, 35 interviews were completed. The reason is that potential interviewees declined invitations due to the length of the interview, conflicts in scheduling, and some of the participants changed their minds. However, the Alaska PCOE retains the consent to participate.

A review of the information provided by the 35 respondents helped identify a number of themes. The open-ended questions, together with the follow-up questions, provided the required themes in response to medical nonadherence while at the same time focusing on broader topics. Therefore, the findings are presented with general themes rather than specific questions. Legislators together 2 Alaska PCO reviewed and organized all the detailed notes individually and then met to discuss the

themes that came out of the interviews. Rural, as used in the research, means areas of Alaska that are outside Anchorage, Wasilla, Juneau, and Fairbanks.

Findings

A majority of the respondents pointed out that care coordination is a fundamental service in healthcare practice and medication adherence among diabetes patients. A review of the study shows that 28 interviewees indicated that care coordination is either being offered by the facilities or it would be very important to the facility. Seven respondents pointed out that care coordination is needed and are very supportive of increasing quality. One respondent provided that “a case manager is very important as they help with all the details of the patient, ensuring that medication is running effectively.” Care coordination is very important in the diabetes management. The value is reinforced in the response from a majority of the respondents. Of the 35 respondents who answered all the questions, it indicates that the common challenge in offering care coordination for diabetes patients is that the payers do not usually reimburse it.

Two key respondents reflected on this matter, indicating that lack of sufficient reimbursement is a huge challenge in offering coordinated care in various facilities. However, in spite of the various issues, a third of the respondents stated that their respective facilities have yet to offer coordinated care. The respondent indicated that care coordinators or case managers only offer support in addressing several issues. They help with facilitating referrals, providing important information, and coordinating with the healthcare team. However, most don’t focus on working with patients towards medication adherence.

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