Improving the Health of South Dakotans through the Prevention and Management of Diabetes and Cardiovascular Disease: Practitioners' Perceptions of Barriers to Care of American Indians

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BACKGROUND

Between 2017 and 2019, SD counties where American Indian (AI/AN) reservations were located accounted for the 4 counties with lowest life expectancies in the United States.[1]

In SD, 18.1% of AI/AN adult residents have diabetes compared to 9.8% of white adults in the state, while 9.6% of AI/AN adults and 8.7% of white adults have cardiovascular disease (CVD).[2]

AI/AN experience lower health status and disproportionate disease burden due to social determinants of health (SDOH) including inadequate education, poverty, and other quality of life issues rooted in economic adversity and poor social conditions.[3]

AI/AN receive free health care services at Indian Health Service (IHS) facilities, which are primarily located in rural areas. However, up to 70% of AI/AN reside in urban areas.[4] Urban AI/AN may access health care at Urban Indian Health Centers (UIHC). However, UIHCs nationally receive about 22% of recommended funding to adequately serve this patient population.[5]

South Dakota has two UIHCs, in Pierre and in Sioux Falls, contracted by the IHS to provide health services to AI/AN off-reservation.[4]

It is estimated that 64% of SD residents live within a 15-minute drive to a pharmacy and 81% are within a 30-minute drive.[6] Pharmacists may be the most accessible health professionals in rural areas.

Medication Therapy Management (MTM) consists of medical services delivered by pharmacists collaborating with other providers. MTM can enhance treatment plans and improve outcomes in patients with diabetes and CVD.[6]

OBJECTIVES

The objective of this analysis was to identify practitioner perceptions of facilitators and barriers to provision of chronic care management to patients of UIHCs in South Dakota. The findings will be used to help improve delivery of care to patients with type 2 diabetes and CVD in South Dakota.

Overall, the objective of this 5-year project is to develop sustainable and financially viable statewide programs that expand on the role of the pharmacist to impact prevention and management of diabetes and CVD across the state of South Dakota.

METHODS

Practitioners of South Dakota's UIHCs were recruited via the clinic administrator. Practitioners at the two clinic sites were invited to participate in 1- to 1.5-hour elicitation interviews via video-call with co-investigators and members of the project team.

The interview followed a semi-structured format utilizing an interview guide with open-ended questions specific to practitioners. Practitioners (n=7) from a variety of roles were recruited. The facilitators could expand and ask follow-up questions as needed.

The first three questions were designed to assess the current services offered to patients with diabetes and CVD at UIHCs in SD. The final two questions focused on the barriers to improving outcomes among patients with diabetes and CVD.

These sessions were audio recorded and then transcribed by a transcription service. The transcripts were coded and thematically analyzed utilizing Grounded Theory.

RESULTS

Table 1. Facilitators to Care

Facilitators to Care
Diabetes programs
Nutrition education
Transportation services
Integrated care model

Table 2. Barriers to Care

Barriers to Care: Main Themes
Gaps in services
Barriers to health care access
Challenges adhering to treatment plans

Table 3. Barriers to Care Findings

Gaps in Services	Barriers to Access Health Care	Challenges Adhering to Treatment Plan
Missed appointments	Transportation	Education level
Limited access to specialists or lack of an on-site pharmacist	Cost	Cost of medications
COVID-related delays to care	Childcare & family obligations	Health literacy
No access to telehealth	Housing	Food insecurity
Limited cardiac services; no EKG	Time	Physical environment

Table 4. Key Challenges Adhering to Treatment Plans

1. Patients have multiple challenges accessing health care services
"When we have homeless people, they're not thinking about how they're going to get to their doctor's appointment. They're more worried about where they're going to sleep and how they're going to eat."
"We have a lot of patients that walk to their appointments. We have a lot of patients that ride the bus. So transportation is definitely a huge barrier to them."
2. Patients struggle to acquire and afford medications
"Even $4 sometimes is tough for our patients to get a med on the $4 list. You know if they have to choose to feed their kids or buy meds, they're going to feed their kids."
"We provide rides to the reservation because they can get their meds through the IHS pharmacy at no cost."
3. Patient's living conditions and other social determinants of health impact adherence
"They worry about getting food and having housing and how they're going to get places, like we're just not, and it's unfortunate, but that's just something we have to understand and meet them where they're at and try and help them figure it out."

IMPLICATIONS

Results resembled findings from a study of First Nations (FN) patients in Alberta, Canada. FN patients reported similar barriers including transportation difficulties, financial barriers, and lack of understanding their disease.[7] They also reported facilitators including nutrition education, diabetes education, and some provision of transportation services.[7]

Diabetes is a contributor to higher rates of coronary heart disease among AI/AN as compared with other racial groups in the U.S.[8] Community pharmacies may represent an underutilized setting for patients to receive services to better manage diabetes and CVD.

Community pharmacy and pharmacist solutions to the 3 identified barriers to adhering to treatment plans experienced by AI/AN patients could include:

- Work within the healthcare team to develop methods to facilitate cost-effective therapy and medication access. Consider hiring an on-site clinical pharmacist, if funds are available.
- Provide free delivery or direct patients to pharmacies that provide free delivery. For homeless patients, pharmacy could deliver to site of care.
- Provide lower-cost medications through pharmacist knowledge of formularies and help patients maximize use of current medications and adhere to treatment plan.
- Educate on chronic disease states and work with patients on disease management.
- Utilize opportunities during workflow (patient intake, new patient follow-up, med sync, return to stock) to identify and address SDOH.[9]
- Utilize immunization visits for screening SDOH, improve adherence packaging, and simplify complex regimens.[9]
- Develop models that screen patients for SDOH and provide referrals that utilize the pharmacy touch point.[9]

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