

Perceptions of Chronic Kidney Disease in an indigenous rural population in Guatemala

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INTRODUCTION

- Chronic Kidney Disease (CKD) affects more than 10% of people worldwide.¹
- In Guatemala, CKD is a principal cause of death and disability.²
- More than 40% of the Guatemalan population is indigenous but has limited access to health services due to language, cultural, and geographic barriers, in addition to widespread discrimination.³
- Little is known about the perceptions and knowledge of CKD in this population. Here, we study knowledge and attitudes of CKD in a primarily indigenous, rural population in Guatemala.

METHODS

- Qualitative arm of a larger mixed-methods study using a random sample to examine incidence and risk factors for CKD in Guatemala
- Participants were recruited from two rural areas:
 - San Antonio, Suchitépéquez:** warm, southwestern coastal community with high agricultural production of sugar cane (hypothesized risk factor for CKD of unspecified causes)
 - Tecpán, Chimaltenango:** cool, high-altitude central highlands community with high agricultural production of maize, beans, and vegetables
- Semi-structured interviews with 39 participants with abnormal kidney function results (GFR < 90) about reactions to results and perceptions of CKD causality and treatment



Figure 1. Guatemala Map. Blue: San Antonio, Suchitépéquez. Red: Tecpán, Chimaltenango.⁴

RESULTS

DEMOGRAPHICS

	Tecpán	San Antonio	Total (%)
Total	16	23	39
Sex			
Men	4	9	13 (33%)
Women	12	14	26 (67%)
Ethnicity			
Indigenous	13	10	23 (59%)
Ladino	3	13	16 (41%)
Diabetes	1	4	5 (13%)
Hypertension	2	8	10 (26%)
Age	Mean 49.0	Mean 48.7	Mean 48.8

Table 1. Demographics

*Diabetes: HbA1c ≥ 6.5

**An average systolic blood pressure ≥ 140 or diastolic blood pressure ≥ 90 at first study visit

REACTIONS TO ABNORMAL RESULTS

Neutrality (26%)

"It didn't scare me. I felt normal. I wasn't very surprised."

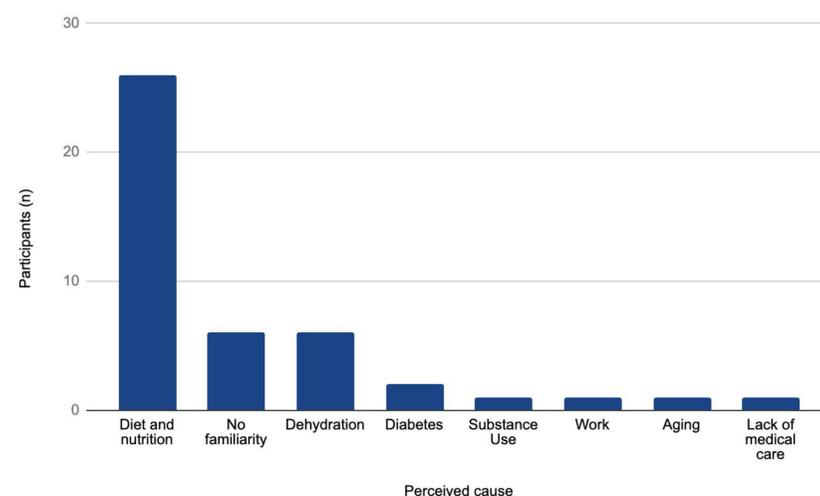
Rationalization (23%)

"I thought maybe something because I had problems urinating, maybe because of an infection."

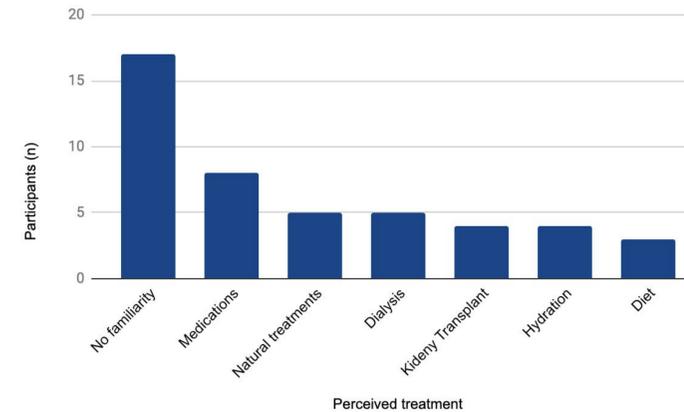
Negative (21%)

"It scared me a little because many have died from kidney disease."

PERCEPTIONS OF CKD CAUSALITY



AWARENESS OF CKD TREATMENTS



PERCEPTIONS OF ADVANCED CKD TREATMENTS

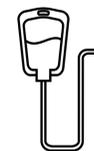
- The majority of participants said they would pursue all three treatments if necessary and possible
- Nonetheless, many barriers and worries were cited:



Hemodialysis:

- Complicated
- Travel to centralized treatment unit

"The travel is very complicated, and I don't have money for the trip."



Peritoneal Dialysis:

- Difficult, risky
- Fear of infection
- Lack of clean space and social support at home

"The tube makes me nervous, like it may hurt me...Hemodialysis seems easier."

"In the villages, the streets are dirtier. It wouldn't be possible to have a clean space."



Renal Transplant:

- Complicated
- Finding a donor
- Cost of lifelong medication

"How can you pay for medications when you can't even pay for food."

- Participants also noted the gravity of advanced treatments and expressed that it would be better to prevent advanced disease.

"Well, one dies with this...It's better I take care of myself."

"First I don't want to reach this point because this is more serious."

DISCUSSION

- Limited awareness of diabetes and hypertension as risk factors for CKD among participants with abnormal results
 - Large opportunity for prevention in primary care, health education, and public health campaigns
- Participants expressed willingness to do advanced CKD treatments if necessary, but have identified many social and economic barriers to treatment
- Limitations:**
 - Findings not generalizable to urban areas
 - Few participants in this study met clinical criteria for CKD; findings not generalizable to those with advanced disease
 - Two-thirds of sample was female. Significant challenges recruiting male participants.
- Strengths:**
 - Multi-institution network that was created to conduct research in local Mayan languages

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