

Diabetes knowledge and associated factors in rural Eastern Cape, South Africa: A cross sectional study

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Background

- Diabetes mellitus (DM) is the second leading cause of death in South Africa (SA).
- Patients' education and knowledge are crucial for the self-management of diabetes and improved outcomes.
- No available data on DM knowledge in Eastern Cape Province of SA, with high rate of poorly controlled DM.
- **The objective of this study was to assess the level of diabetes knowledge and its associated factors in individuals with diabetes in rural Eastern Cape, South Africa.**

Methods

- **Design:** Prospective, cross-sectional design.
- **Setting:** Rural Eastern Cape, South Africa.
- **Participants:** 399 individuals living with DM attending selected primary health care (PHC) facilities.
- **Recruitment:** Participants were purposively recruited at the out-patient departments of the PHCs.
- **Data collection:** Questionnaire interview using Michigan Diabetes Knowledge Test tool.
- **Data analysis:** Descriptive and inferential statistics.

Results

- Median age was 63 years (IQR: 54-70) .
- Majority were females (81.7%) and unemployed (82.2%).
- On a scale of 20, knowledge score ranged from 0 -17, average of 7.5 (SD±2.2)
- Only employment status (p<0.001) and health facility level (p=0.001) were significantly associated with diabetes knowledge (Table 1).
- Employment status was positively associated with diabetes knowledge.
- But health facility level had a negative association with diabetes knowledge.

Table 1: Ordinary least squares regression showing relationship between patients' characteristics

| | Unstandardised Coefficient | Standard error | Standardised Coefficient (Beta) | p-value |
|--------------------|----------------------------|----------------|---------------------------------|---------|
| Age | -0.01 | 0.01 | -0.07 | 0.218 |
| Gender | -0.33 | 0.28 | -0.06 | 0.229 |
| Level of education | 0.35 | 0.22 | 0.08 | 0.121 |
| Marital status | -0.37 | 0.24 | -0.08 | 0.127 |
| Employment status | 1.40 | 0.40 | 0.18 | <0.001 |
| DM family history | 0.36 | 0.22 | 0.09 | 0.100 |
| DM duration | 0.01 | 0.01 | 0.03 | 0.493 |
| Facility level | -0.77 | 0.23 | -0.17 | 0.001 |

Discussion

- Knowledge on the various components of diabetes management in the study setting was below average which is a cause for concern.
- Our findings on diabetes knowledge is comparable to findings from other South African provinces.
- **Context-specific interventions to improve the knowledge of diabetes is required and should target unemployed individuals and the community health centres in the region.**