**Supplementary Table S1. Distribution of selected participant characteristics according to self-reported medication adherence among T2DM patients, Mthatha Hospital Complex, Eastern Cape, South Africa, 2025 (N = 227).**

| Variable | Category | Self-reported medication adherence | | Crude Odds Ratio (95% Confidence interval) | Fisher's exact p-value |
|---|---|---|---|---|---|
| | | Yes n (%) N= 219 | No n (%) N=8 | | |
| Duration of living with diabetes mellitus | Less than five years | 71 (32.4) | 1 (12.5) | 3.36 (0.41-27.82) | 0.441 |
| | 5 years and above | 148 (67.6) | 7 (87.5) | | |
| Nutrition education received | Yes | 199 (90.0) | 3 (37.5) | 16.58 (3.69–74.57) | <0.001 |
| | No | 20 (9.1) | 5 (62.5) | | |
| Level of Control of diabetes mellitus based on HbA1c (%) | Controlled | 108 (49.3) | 1 (12.5) | 6.81 (0.82-56.29) | 0.067 |
| | Uncontrolled | 111 (50.7) | 7 (87.5) | | |
| Diabetes-related nutrition knowledge | High | 138 (63.0) | 1 (12.5) | 11.93 (1.44-98.68) | 0.006 |
| | Low | 81 (37.0) | 7 (87.5) | | |
| Dietary adherence (PDAQ) | Good | 117 (53.4) | 0 (0.0) | 1.08 (1.02-1.14) * | 0.003 |
| | Poor | 102 (46.6) | 8 (100.0) | | |
| Recommended diets are difficult to afford due to financial constraints and their additional cost | Yes | 189 (86.3) | 6 (75.0) | 2.10 (0.41-10.89) | 0.314 |
| | No | 30 (13.7) | 2 (25.0) | | |
| Gathering with friends and family | Yes | 70 (32.0) | 4 (50.0) | 0.47 (0.11-1.93) | 0.443 |
| | No | 149 (68.0) | 4 (50.0) | | |
| Eating outside the home, | Yes | 88 (40.2) | 8 (100.0) | 0.92 (0.86-0.97) * | <0.001 |
| | No | 131 (59.8) | 0 (0.0) | | |
| Inappropriate dietary habits like eating snacks between meals | Yes | 125 (57.1) | 5 (62.5) | 0.80 (0.19-3.42) | 1.000 |
| | No | 94 (42.9) | 3 (37.5) | | |
| Busy schedules make it difficult to adhere to dietary recommendations | Yes | 81 (37.0) | 6 (75.0) | 0.20 (0.04-0.99) | 0.057 |
| | No | 138 (63.0) | 2 (25.0) | | |
| The recommended diet is sometimes not available for purchase | Yes | 183 (83.6) | 6 (75.0) | 1.69 (0.33-8.73) | 0.624 |
| | No | 36 (16.4) | 2 (25.0) | | |
| Struggling to adjust eating habits to the recommended ones | Yes | 77 (35.2) | 3 (37.5) | 0.90 (0.21-3.88) | 1.000 |
| | No | 142 (64.8) | 5 (62.5) | | |
| Doing exercise | Yes | 82 (37.4) | 1 (12.5) | 4.19 (0.51-34.67) | 0.263 |
| | No | 137 (62.6) | 7 (87.5) | | |
| Currently smoke cigarette | Yes | 51 (23.3) | 1 (12.5) | 2.13 (0.26-17.68) | 0.686 |
| | No | 168 (76.7) | 7 (87.5) | | |
| Currently consume drinks containing alcohol | Yes | 59 (26.9) | 1 (12.5) | 2.58 (0.31-21.43) | 0.685 |
| | No | 160 (73.1) | 7 (87.5) | | |

*Relative risk

**Supplementary Table S2. Distribution of selected participant characteristics according to glycaemic control among T2DM patients, Mthatha Hospital Complex, Eastern Cape, South Africa, 2025 (N = 227).**

| Variables | Categories | Level of Control of diabetes mellitus based on HbA1c (%) | | Crude Odds Ratio (95% Confidence interval) | Chi-square p-value |
|---|---|---|---|---|---|
| | | Controlled n (%) | Uncontrolled n (%) | | |
| Duration of living with diabetes mellitus | Less than five years | 46 (42.2) | 26 (22.0) | 2.58 (1.45-4.61) | <0.001 |
| | 5 years and above | 63 (57.8) | 92 (78.0) | | |
| Nutrition education received | Yes | 99 (90.8) | 103 (87.3) | 1.44 (0.62–3.36) | 0.395 |
| | No | 10 (9.2) | 15 (12.7) | | |
| Diabetes-related nutrition knowledge | High | 77 (70.6) | 62 (52.5) | 2.17 (1.26–3.76) | 0.005 |
| | Low | 32 (29.4) | 56 (47.5) | | |
| Dietary adherence (PDAQ) | Good | 70 (64.2) | 47 (39.8) | 2.71 (1.58–4.64) | <0.001 |
| | Poor | 39 (35.8) | 71 (60.2) | | |
| Self-reported medication adherence | Yes | 108 (99.1) | 111 (94.1) | 6.81 (0.82–56.29) | 0.067* |
| | No | 1 (0.9) | 7 (5.9) | | |
| Doing exercise | Yes | 47 (43.1) | 36 (30.5) | 1.73 (1.00–2.98) | 0.049 |
| | No | 62 (56.9) | 82 (69.5) | | |
| Currently smoke cigarette | Yes | 22 (20.2) | 30 (25.4) | 0.74 (0.40–1.39) | 0.348 |
| | No | 87 (79.8) | 88 (74.6) | | |
| Currently consume drinks containing alcohol | Yes | 23 (21.1) | 37 (31.4) | 0.59 (0.32–1.07) | 0.080 |
| | No | 86 (78.9) | 81 (68.6) | | |
| Recommended diets are difficult to afford due to financial constraints and their additional cost | Yes | 91 (83.5) | 104 (88.1) | 0.68 (0.32–1.45) | 0.315 |
| | No | 18 (16.5) | 14 (11.9) | | |
| Gathering with friends and family | Yes | 29 (26.6) | 45 (38.1) | 0.59 (0.33–1.03) | 0.064 |
| | No | 80 (73.4) | 73 (61.9) | | |
| Eating outside the home | Yes | 37 (33.9) | 59 (50.0) | 0.51 (0.30–0.88) | 0.014 |
| | No | 72 (66.1) | 59 (50.0) | | |
| Inappropriate dietary habits like eating snacks between meals | Yes | 66 (60.6) | 64 (54.2) | 1.30 (0.76–2.20) | 0.337 |
| | No | 43 (39.4) | 54 (45.8) | | |
| Busy schedules make it difficult to adhere to dietary recommendations | Yes | 51 (46.8) | 36 (30.5) | 2.00 (1.16–3.45) | 0.012 |
| | No | 58 (53.2) | 82 (69.5) | | |
| The recommended diet is sometimes not available for purchase | Yes | 89 (81.7) | 100 (84.7) | 0.80 (0.40–1.61) | 0.533 |
| | No | 20 (18.3) | 18 (15.3) | | |
| Struggling to adjust eating habits to the recommended ones | Yes | 41 (37.6) | 39 (33.1) | 1.22 (0.71–2.11) | 0.472 |
| | No | 68 (62.4) | 79 (66.9) | | |

**Fisher's exact p-value*

**Supplementary Table S3. Distribution of selected participant characteristics according to diabetes-related nutrition knowledge among T2DM patients, Mthatha Hospital Complex, Eastern Cape, South Africa, 2025 (N = 227).**

| Variables | Categories | Diabetes-related nutrition knowledge | | Crude Odds Ratio (95% Confidence interval) | Chi-Square p-value |
|---|---|---|---|---|---|
| | | High n (%) | Low n (%) | | |
| Duration of living with diabetes mellitus | Less than five years | 34 (24.5) | 38 (43.2) | 0.43 (0.24-0.76) | 0.003 |
| | 5 years and above | 105 (75.5) | 50 (56.8) | | |
| Nutrition education received | Yes | 132 (95.0) | 70 (79.5) | 4.85 (1.93–12.17) | <0.001 |
| | No | 7 (5.0) | 18 (20.5) | | |
| Level of Control of diabetes mellitus based on HbA1c (%) | Controlled | 77 (55.4) | 32 (36.4) | 2.17 (1.26-3.76) | 0.005 |
| | Uncontrolled | 62 (44.6) | 56 (63.6) | | |
| Dietary adherence (PDAQ) | Good | 96 (69.1) | 21 (23.9) | 7.12 (3.88-13.08) | <0.001 |
| | Poor | 43 (30.9) | 67 (76.1) | | |
| Doing exercise | Yes | 52 (37.4) | 31 (35.2) | 1.10 (0.63-1.92) | 0.739 |
| | No | 87 (62.6) | 57 (64.8) | | |
| Currently smoke cigarette | Yes | 39 (28.1) | 13 (14.8) | 2.25 (1.12-4.51) | 0.020 |
| | No | 100 (71.9) | 75 (85.2) | | |
| Currently consume drinks containing alcohol | Yes | 44 (31.7) | 16 (18.2) | 2.08 (1.09-3.99) | 0.025 |
| | No | 95 (68.3) | 72 (81.8) | | |
| Recommended diets are difficult to afford due to financial constraints and their additional cost | Yes | 120 (86.3) | 75 (85.2) | 1.10 (0.51-2.35) | 0.816 |
| | No | 19 (13.7) | 13 (14.8) | | |
| Gathering with friends and family | Yes | 26 (18.7) | 48 (54.5) | 0.19 (0.11-0.35) | <0.001 |
| | No | 113 (81.3) | 40 (45.5) | | |
| Eating outside the home | Yes | 53 (38.1) | 43 (48.9) | 0.65 (0.38-1.11) | 0.111 |
| | No | 86 (61.9) | 45 (51.1) | | |
| Inappropriate dietary habits, like eating snacks between meals | Yes | 84 (60.4) | 46 (52.3) | 1.39 (0.81-2.39) | 0.226 |
| | No | 55 (39.6) | 42 (47.7) | | |
| Busy schedules make it difficult to adhere to dietary recommendations | Yes | 48 (34.5) | 39 (44.3) | 0.66 (0.38-1.15) | 0.140 |
| | No | 91 (65.5) | 49 (55.7) | | |
| The recommended diet is sometimes not available for purchase | Yes | 119 (85.6) | 70 (79.5) | 1.53 (0.76-3.09) | 0.233 |
| | No | 20 (14.4) | 18 (20.5) | | |
| Struggling to adjust eating habits to the recommended ones | Yes | 38 (27.3) | 42 (47.7) | 0.41 (0.24-0.72) | 0.002 |
| | No | 101 (72.7) | 46 (52.3) | | |