

Table 1: Demographic and clinical characteristics of the responding patients (n=349).

Parameter	Category	Frequency	Percentage
Gender	Male	178	51.00
	Female	171	49.00
Age	20-29	51	14.60
	30-39	49	14.00
	40-49	62	17.80
	50-59	81	23.20
	60-69	74	21.20
	70-79	32	9.20
Marital Status	Single	60	17.20
	Married	250	71.60
	Divorced	14	4.00
	Widow	25	7.20
Educational Level	Illiterate	61	17.50
	Primary	40	11.50
	Preparatory	38	10.90
	Secondary	109	31.20
	University	84	24.10
	Diploma	17	4.90
Occupational Status	Employed	163	46.70
	Unemployed	186	53.30
Income (per month)	≤ 3,000 SAR	145	41.50
	3,000-5,000 SAR	120	34.40
	5,000-10,000 SAR	53	15.20
	≥ 10,000 SAR	31	8.90
height (cm)	Mean ± SD	161.78	10.40
Body Weight (kg)	Mean ± SD	77.03	20.40
BMI	Mean ± SD	29.47	8.00
BMI category	Underweight	7	2.00
	Normal	78	22.30
	Overweight	134	38.40
	Class 1 Obesity	82	23.50
	Class 2 Obesity	22	6.30
	Class 3 Obesity	26	7.40
Type of diabetes	Type 1	94	26.90

	Type 2	255	73.10
Duration of diabetes	≤ 5 years	87	24.90
	6-10 years	141	40.40
	11-20 years	89	25.50
	≥ 21 years	32	9.20
Treatment Type	Oral only	180	51.60
	Oral and insulin	67	19.20
	Insulin only	100	28.70
	No treatment	2	0.60
Complications existence	No	309	88.50
	Yes	40	11.50
HbA1c (%)	Mean ± SD	8.08	1.69
Glycemic control	Good (HbA1c≤7%)	125	35.8
	Poor (HbA1c>7%)	224	64.2

Table 2: The relationship between DSMS scores and demographic characteristics

Parameter	Category	DSMS score	
		Median (IQR)	P
Gender	Male	78.96 (69.58-85.10)	0.366 ^M
	Female	76.25 (66.67-85.42)	
Age	20-29	86.25 (76.25-91.25)	< 0.0001* ^k
	30-39	76.67 (65.21-87.08)	
	40-49	76.04 (61.98-82.50)	
	50-59	76.67 (64.79-83.33)	
	60-69	75.83 (70.83-84.17)	
	70-79	77.71 (66.35-83.96)	
BMI	Underweight	81.25 (72.92-87.92)	0.001* ^k
	Normal	83.13 (73.23-88.44)	
	Overweight	77.29 (68.13-86.25)	
	Obese	75.21 (65.31-82.08)	
Marital status	Married	77.71 (68.65-83.85)	0.026* ^k
	Single	83.13 (72.92-90.00)	
	Divorced	78.13 (64.38-86.77)	
	Widow	71.25 (65.42-82.50)	
Educational level	Illiterate	74.58 (66.25-83.33)	0.080 ^k
	Primary	72.08 (62.19-83.96)	
	Preparatory	76.04 (65.73-81.46)	
	Secondary	79.58 (71.25-86.04)	
	University	79.58 (68.02-89.48)	
	Diploma	79.58 (72.92-84.79)	
Occupational Status	Employed	80.00 (71.25-86.67)	0.003* ^M
	Unemployed	74.58 (66.25-83.33)	
Monthly salary	≤ 3,000 SAR	78.33 (67.50-85.00)	0.059 ^k
	3,000-5,000 SAR	78.96 (69.69-85.42)	
	5,000-10,000 SAR	78.75 (70.63-86.88)	
	≥ 10,000 SAR	72.50 (55.42-77.08)	
Duration of diabetes	≤ 5 years	76.25 (69.17-86.67)	0.645 ^k
	6-10 years	78.75 (69.58-85.21)	
	11-20 years	78.75 (64.58-84.38)	
	≥ 21 years	74.17 (67.50-84.17)	
Treatment type	Tablets only	77.29 (67.60-83.33)	< 0.0001* ^k
	Tablets and insulin	73.75 (65.42-83.33)	
	Insulin only	83.13 (72.92-90.42)	
	No treatment	72.50 (70.00-75.00)	

*IQR: interquartile range; K: the difference between groups was tested using Kruskal–Wallis H test; M: the difference between groups was tested using Mann–Whitney U Test (two-tailed test); * significant difference at $P < 0.05$*

Table 3: The relationship between DSMS scores and glycemic control (poor and good levels of HbA1c control) and the impact of self-management scores (as predictor variables) on quantitative HbA1c results.

Parameter	Glycemic control			Univariate LRA		Multivariate LRA	
	Good	Poor	P ^M	β (95% CI)	P	β (95% CI)	P
Dietary Control	80 (72.5-89.17)	75 (68.33-83.33)	0.002 *	-0.017 (-0.028, -0.005)	0.005 *	-0.014 (-0.025, -0.002)	0.018 *
Physical Activity	75 (54.17-87.5)	70.83 (50-79.17)	0.014 *	-0.013 (-0.021, -0.005)	0.001 *	-0.009 (-0.017, 0.0001)	0.042 *
Monitoring Blood Glucose	75 (55-85)	75 (55-80)	0.41	-0.008 (-0.016, 0.001)	0.073	NA	NA
Taking Medication	70.83 (25-100)	75 (38.54-95.83)	0.313	0.004 (-0.002, 0.01)	0.209	NA	NA
Foot Care	85.71 (75-100)	78.57 (72.32-92.86)	0.065	-0.007 (-0.015, 0.001)	0.088	NA	NA
Problem Solving	87.5 (81.25-90.63)	84.38 (75-90.63)	0.058	-0.008 (-0.02, 0.005)	0.23	NA	NA
Risk Reduction	86.54 (75-94.23)	82.69 (69.23-92.31)	0.251	-0.004 (-0.013, 0.005)	0.411	NA	NA
Overall	80.83 (69.58-87.29)	76.67 (67.5-83.65)	0.038 *	-0.012 (-0.024, 0.001)	0.06	NA	NA

*M: the difference between groups was tested using Mann–Whitney U Test (two-tailed test); * significant values at P<0.05; LRA: linear regression analysis; NA: not applicable*