

Online Only Supplementary Materials

Determinants of Inefficient Glycemic Control in Adults with Type 2 Diabetes Mellitus:

An Urban Sample from Siberia

Supplementary Table 1s. The associations between non-pharmacological factors and poor control of type 2 diabetes mellitus in men (multivariable-adjusted models, logistic regression)

Supplementary Table 2s. The associations between non-pharmacological factors and poor control of type 2 diabetes mellitus in women (multivariable-adjusted models, logistic regression)

Table 1s. The associations between non-pharmacological factors and poor control of type 2 diabetes mellitus in men (multivariable-adjusted models logistic regression)

Parameters	Observed (n)	Model 1 OR(95 % CI); p	Model 2 OR(95 % CI); p	Model 3, OR(95 % CI); p
Age, per 1 year	140	1.02 (0.959-1.078); 0.569	0.98 (0.917-1.052); 0.605	0.98 (0.900-1.073); 0.699
Obesity				
Obesity (BMI ≥ 30 kg/m ²): no	69	1.0	1.0	1.0
Obesity (BMI ≥ 30 kg/m ²): yes	71	1.07 (0.503-2.257); 0.868	1.04 (0.420-2.553); 0.939	1.62 (0.550-4.779); 0.381
Abdominal obesity				
Abdominal obesity: no	22	1.0	1.0	1.0
Abdominal obesity:yes	118	0.81 (0.267-2.462); 0.711	0.88 (0.236-3.295); 0.852	0.59 (0.121-2.926); 0.522
CVD				
CVD: no	89	1.0	1.0	1.0
CVD: yes	52	0.84 (0.387-1.808); 0.650	0.85 (0.373-1.927); 0.694	0.45 (0.162-1.237); 0.121
HT				
HT: no	22	1.0	1.0	1.0
HT: yes	118	1.00 (0.361-2.7970); 0.992	0.92 (0.290-2.891); 0.881	0.86 (0.215-3.435); 0.831
Dyslipidemia				
Dyslipidemia: no	31	1.0	1.0	1.0
Dyslipidemia: yes	110	0.78 (0.298-2.040); 0.611	0.64 (0.233-1.746); 0.381	0.74 (0.230-2.469); 0.641
Smoking status				

Non-smokers	56	1.0	1.0	1.0
Former smokers	60	0.90 (0.374-2.151); 0.806	0.89 (0.350-2.255); 0.804	1.11 (0.372-3.297); 0.855
Current smokers	24	0.26 (0.087-0.755); 0.014	0.25 (0.081-0.756); 0.014	0.29 (0.082-1.025); 0.055
Alcohol consumption frequency				
Non-drinkers	29	1.0	(-)	1.0
<1 time/month	40	1.25 (0.388-3.997); 0.713	(-)	1.33 (0.318-5.536); 0.699
1–3 times/month	44	0.68 (0.235-1.964); 0.475	(-)	1.00 (0.53-3.973); 0.996
1–4 times/week	25	0.56 (0.172-1.828); 0.337	(-)	0.72 (0.148-3.520); 0.687
≥5 times/week	2	NA	(-)	NA
PA (terciles)				
High (T3)	41	1.0	(-)	1.0
Moderate (T2)	39	2.09 (0.784-5.557); 0.141	(-)	2.53 (0.803-7.941); 0.113
Low (T1)	59	2.25 (0.932-5.419); 0.071	(-)	3.48 (1.155-10.499); 0.027
Duration of T2DM				
Duration of T2DM <10 years	65	1.0	(-)	1.0
Duration of T2DM ≥10 years	74	1.84(0.862-3.914); 0.115	(-)	1.35 (0.529-3.466); 0.527
Family history of T2DM				
Family history of T2DM:no	105	1.0	(-)	1.0
Family history of T2DM:yes	36	1.79 (0.705-4.529); 0.222	(-)	1.801 (0.564-5.769); 0.319
Self-rated health,				
Very good/ good/ average	121	1.0	(-)	1.0
Very poor/poor	20	1.49 (0.455-4.877); 0.510	(-)	1.41 (0.323-6.160); 0.647
Marital status				
Married	110	1.0	(-)	1.0
Single	31	0.59 (0.252-1.394); 0.230	(-)	0.44 (0.146-1.299); 0.136
Education level				
University	56	1.0	(-)	1.0
Secondary	40	0.46 (0.140-2.209); 0.092	(-)	0.51 (0.17-1.464); 0.209
Professional	32	0.98 (0.341-2.812); 0.969	(-)	1.42 (0.397-5.097); 0.589
Primary	13	0.56 (0.140-2.209); 0.404	(-)	0.40 (0.069-2.357); 0.313
Economic activity				
Economically active	35	1.0	(-)	1.0
Economically inactive	105	0.80 (0.309-2.067); 0.643	(-)	0.83 (0.260-2.650); 0.753
Material deprivation (0–12 score)				
0 points	94	1.0	(-)	1.0
1–2 points	22	1.78 (0.548-5.758); 0.338	(-)	2.20 (0.551-8.759); 0.265
3–5 points	24	0.97 (0.360-2.603); 0.949	(-)	1.08 (0.311-3.745); 0.905
6–12 points	0	(-)	(-)	(-)

OR – odds ratio; 95%CI – 95% confidence interval; NA - not applicable

Model 1 – adjusted for age; Model 2 – Model 1 (+) adjusted for obesity, abdominal obesity, cardiovascular diseases, hypertension, dyslipidemia and smoking; Model 3 – Model 2 (+) adjusted for , alcohol consumption frequency, physical activity, duration of T2DM, family history T2DM, self-rated health, education level, economic activity, marital status, and material deprivation. ORs for statistically significant associations are shown in bold.

Table 2s. The associations between non-pharmacological factors and poor control of type 2 diabetes mellitus in women (multivariable-adjusted models logistic regression)

Parameters	Observed (n)	Model 1 OR(95 % CI); p	Model 2 OR(95 % CI); p	Model 3, OR(95 % CI); p
Age, per 1 year	327	1.02 (0.984-1.055); <i>0.288</i>	1.02 (0.982-1.058); <i>0.317</i>	0.99 (0.952-1.046); <i>0.936</i>
Obesity				
Obesity (BMI ≥30 kg/m ²): no	104	1.0	1.0	1.0
Obesity (BMI ≥30 kg/m ²): yes	223	1.37 (0.846-2.208); <i>0.202</i>	1.33(0.812-2.165); <i>0.259</i>	1.65 (0.931-2.911); <i>0.086</i>
Abdominal obesity				
Abdominal obesity: no	4	1.0	1.0	1.0
Abdominal obesity: yes	322	0.50 (0.051-4.891); <i>0.551</i>	0.34 (0.030-3.896); <i>0.386</i>	1.29 (0.094-17.560); <i>0.851</i>
CVD				
CVD: no	246	1.0	1.0	1.0
CVD: yes	83	0.97 (0.578-1.634); <i>0.914</i>	0.96 (0.563-1.631); <i>0.874</i>	0.99 (0.526-1.854); <i>0.970</i>
HT				
HT: no	13	1.0	1.0	1.0
HT: yes	316	1.92 (0.628-5.857); <i>0.253</i>	1.90 (0.611-5.890); <i>0.268</i>	2.16 (0.602-7.717); <i>0.238</i>
Dyslipidemia				
Dyslipidemia: no	43	1.0	1.0	1.0
Dyslipidemia: yes	286	1.18 (0.613-2.267); <i>0.622</i>	1.18 (0.608-2.284); <i>0.626</i>	1.15 (0.545-2.417); <i>0.718</i>
Smoking status				
Non-smokers	301	1.0	1.0	1.0
Former smokers	15	0.97 (0.332-2.815); <i>0.951</i>	0.99 (0.333-2.936); <i>0.984</i>	0.67 (0.191-2.323); <i>0.523</i>
Current smokers	12	0.33 (0.095-1.137); <i>0.079</i>	0.28 (0.080-1.009); <i>0.052</i>	0.14 (0.030-0.670); 0.014
Alcohol consumption frequency				
Non-drinkers	109	1.0	(-)	1.0
<1 time/month	167	1.56 (0.945-2.586); <i>0.082</i>	(-)	1.85(1.014-3.359); 0.044
1–3 times/month	42	1.41 (0.678-2.951); <i>0.355</i>	(-)	2.04 (0.863-4.818); <i>0.104</i>
1–4 times/week	9	3.32 (0.649-16.998); <i>0.150</i>	(-)	6.23 (0.771-49.875); <i>0.086</i>
≥5 times/week	1	NA	(-)	NA
PA (terciles)				
High (T3)	93	1.0	(-)	1.0
Moderate (T2)	106	0.98 (0.553-1.734); <i>0.944</i>	(-)	1.05 (0.535-2.059); <i>0.889</i>
Low (T1)	129	1.28 (0.733-2.242); <i>0.384</i>	(-)	1.30 (0.682-2.479); <i>0.425</i>
Duration of T2DM				

Duration of T2DM <10 years	195	1.0	(-)	1.0
Duration of T2DM ≥10 years	130	3.77 (2.246-6.316); 0.001	(-)	4.60 (2.538-8.324); 0.001
Family history of T2DM				
Family history of T2DM:no	246	1.0	(-)	1.0
Family history of T2DM:yes	82	2.14 (1.232-3.731); 0.007	(-)	1.94 (1.038-3.631); 0.038
Self-rated health,				
Very good/good/average	257	1.0	(-)	1.0
Very poor/poor	72	1.20 (0.702-2.111); 0.483	(-)	1.30 (0.667-2.539); 0.439
Marital status				
Married	141	1.0	(-)	1.0
Single	188	0.97 (0.614-1.524); 0.885	(-)	1.20 (0.683-2.104); 0.527
Education level				
University	80	1.0	(-)	1.0
Secondary	124	1.41 (0.791-2.519); 0.243	(-)	1.54 (0.791-2.985); 0.205
Professional	101	1.11 (0.608-2.010); 0.742	(-)	1.42 (0.711-2.824); 0.322
Primary	24	0.96 (0.377-2.444); 0.931	(-)	0.88 (0.295-2.630); 0.821
Economic activity				
Economically active	55	1.0	(-)	1.0
Economically inactive	272	1.70 (0.916-3.161); 0.092	(-)	1.98 (0.979-4.018); 0.059
Material deprivation (0–12 score)				
0 points	147	1.0	(-)	1.0
1–2 points	89	1.17 (0.685-2.009); 0.561	(-)	1.39 (0.740-2.599); 0.308
3–5 points	90	1.53 (0.886-2.657); 0.127	(-)	1.61 (0.873-3.122); 0.123
6–12 points	1	NA	(-)	NA

OR – odds ratio; CI – confidence interval; NA - not applicable

Model 1 – adjusted for age; Model 2 – Model 1 (+) adjusted for obesity, abdominal obesity, cardiovascular diseases, hypertension, dyslipidemia and smoking; Model 3 – Model 2 (+) adjusted for , alcohol consumption frequency, physical activity, duration of T2DM, family history T2DM, self-rated health, education level, economic activity, marital status, and material deprivation. ORs for statistically significant associations are shown in bold.