

Table 1. Individual Study Characteristics and Findings

Author	Year	Design	Subjects	Measure of Medication Adherence	Medication Adherence Proportion	Factors Associated with Medication Adherence				
						Patient Related	Socio Economic	Condition Related	Health System / Health Care Related	Therapy Related
Mateo et al	2006	Cross sectional	105 completed 90	1. Pill count 2. Self-report questionnaires	35.4% good			Poor adhere: Long duration of T2DM, OR 0.44, 95% CI (0.22-0.83) P= 0.0011		Poor adhere: increasing HbA1c > 6.5%, OR 2.32, 95%CI (1.09-4.95), P= 0.030, increasing SBP OR 1.68, 95%CI (1.09-2.62), P= 0.020, increasing total cholesterol, OR 1.34, 95%CI (1.08-1.66), P= 0.007. Increase daily number of pills, OR 1.8, 95%CI (1.26-2.55) P< 0.0001
Manan et al	2014	Cross sectional	223 completed 179	Morisky Medication Adherence Scale (MMAS)	48% good					Poor adhere: Increasing HbA1c > 6.5%, OR 0.767, 95%CI (0.63-0.93) P=0.0008
Sweileh, Waleed M., et al	2014	Cross sectional	405 completed	MMAS-8	57.3% good	Poor adhere: Non-married / single patients OR 0.6, 95% CI (0.4-0.9), P= 0.021, concern on drug adverse effect, OR = 1.09; 95% C.I (1.04 – 1.16), P= 0.001 believe medications are harmful OR = 1.09, 95% C.I of (1.02 – 1.16), P= 0.007	Poor adhere: Low knowledge score OR 0.8, 95% CI (0.7-0.9) P< 0.001	Poor adhere: With other chronic disease OR 1.7, 95%CI (1.1-2.6) P= 0.02		Poor adhere: Number of medication increase OR 1.1, 95%CI (1.0 – 1.2) P= 0.042

Author	Year	Design	Subjects	Measure of Medication Adherence	Medication Adherence Proportion	Factors Associated with Medication Adherence				
						Patient Related	Socio Economic	Condition Related	Health System / Health Care Related	Therapy Related
Chew et al	2015	Cross sectional	668 completed 597	MMAS-8	57% good	Poor adhere: Younger age, OR 1.003, 95%CI (1.001- 1.006), P< 0.001	Poor adhere: Higher income OR 0.9, 95% CI (0.803-0.999), P<0.001	Poor adhere: Distress symptoms OR 0.9, 95% CI (0.998- 1.001) P<0.001		
Abebe et al	2014	Cross sectional	407 completed 391	MMAS-8	High 45.9% Medium 28.7% Low 25.4%		Poor adhere: Poor economic status, (OR = 1.99; 1.15-3.43) P<0.05	Poor adhere: Service dissatisfaction (OR = 2.23; 1.04-4.80) P<0.05	Poor adhere: Using traditional treatment (OR = 2.90; 1.03- 8.15), P<0.05	
Voorham Jaco, et al	2011	Prospective Cohort	2945	MPR	58% good					Poor adhere: Medication dose increases, OR 0.92, 95% CI (0.85-0.98) Medication additions, OR 0.90, 95%CI (0.82-0.99)
Mann et al	2009	Cohort	151	MMAS	72% good	Poor adhere due to believe: Have diabetes only when sugar high OR 7.5, 95%CI (2.0-27.2) Not need to take medications when sugar is normal OR 3.6 95%CI (0.9- 13.7) Worried about side-effects OR 3.4, 95%CI (1.3-8.7) Low confidence in controlling diabetes OR 2.7 95%CI (1.1-7.1) Medicines are hard to take OR 14.3 95%CI (4.4-44.6)				

Author	Year	Design	Subjects	Measure of Medication Adherence	Medication Adherence Proportion	Factors Associated with Medication Adherence				
						Patient Related	Socio Economic	Condition Related	Health System / Health Care Related	Therapy Related
Pihau-Tulo et al	2014	Cross sectional	356 completed 351	Face interview, dosage count in 3 month	41.4% good	Poor adhere: Younger age < 60, OR 1.87, 95%CI (1.18-2.97) P= 0.0081				Poor adhere: HbA1c > 10%, OR 2.4, 95%CI (1.3-4.2) P=0.0032
Tiv et al	2007	Cross sectional	3637	six-item self-administered questionnaire	39% good 49% medium 12% poor	Poor adhere: age < 45 years OR 1.8, 95%CI (1.3-2.4), P<0.0001 non-European OR 2.6, 95%CI (1.8-3.9), P< 0.0001	Poor adhere: financial difficulties OR 1.7, 95%CI (1.2-2.4), P= 0.02 professionally active OR 1.5, 95%CI (1.1-2.1), P= 0.04 lack of family or social support OR 2.5, 95%CI (1.7-3.6), P= 0.0002	Poor adhere: diabetes complications OR 1.7, 95%CI (1.3-2.2), P= 0.0009	Poor adhere: difficulties for taking medication alone OR 3.8, 95%CI (2.2-6.9), P= 0.0002. decision making by the patient only OR 3.3, 95%CI (2.1-5.0), P< 0.001 poor acceptability of medical recommendations OR 2.7, 95%CI (1.6-4.6), P= 0.004 need for information on treatment OR 2.0, 95%CI (1.4-2.7), P< 0.0001 reporting no confidence in the future OR 1.6, 95%CI (1.2-2.2), P= 0.0009 need for medical support OR 1.6, 95%CI (1.2-2.1), P= 0.002 follow-up by a specialist OR 1.4, 95%CI (1.2-2.5), P= 0.005	Poor adhere: HbA1c >8% OR 2.0, 95%CI (1.3-3.0), P= 0.01

Author	Year	Design	Subjects	Measure of Medication Adherence	Medication Adherence Proportion	Factors Associated with Medication Adherence				
						Patient Related	Socio Economic	Condition Related	Health System / Health Care Related	Therapy Related
Ahmad et al	2013	Cross sectional	557	Medication Compliant Questionnaire (MCQ)	47% good	Poor adhere: Younger age OR 0.9, 95%CI (0.95-0.99) P=0.010	Poor adhere: Medication knowledge score OR 0.96, 95%CI (0.95-0.98) P=0.001	Poor adhere: Comorbidity OR 1.78, 95%CI (1.064-2.981) P=0.028		
Martin et al	2015	Cross sectional	565	MMAS-8	67.8% good				Good adhere: Good exercise OR-0.222, 95%CI (-0.236-0.037) P=0.003	Good adhere Low HbA1c OR -0.137, 95%CI (-0.236-0.037) P=0.007
Katon et al	2009	Cohort	4117	continuous, multiple interval measure of gaps in therapy method (CMG)	55.9% good			Poor adhere: Depression, OR 1.98, 95%CI (1.31-2.98), P<0.001		
Guanetteet al	2013	Cohort	151,173 completed 119,832	MPR	78% good	Good compliance: Older age > 76 years OR 1.44, 95%CI (1.44-1.59), P<0.0001 Living in rural OR 1.12, 95%CI (1.08-1.16), P<0.0001	Good compliance: Low socioeconomic status OR 1.45, 95%CI (1.40-1.51), P<0.0001		Good compliance: First OAD prescribe by general practitioner OR 1.12, 95%CI (1.07-1.18), P<0.0001	Good compliance: Five different drugs or more OR 1.69, 95%CI (1.62-1.76), P<0.0001
Boganza et al	2015	Cross sectional	575 completed 521	Self-reporting questionnaire (use adherence index)	83.3% good	Good adhere: Had diabetic education OR 4.24, 95%CI (1.15-15.60), P=0.030		Good adhere: Duration T2DM > 3 years OR 1.89, 95%CI (1.11-3.22), P=0.018	Good adhere: Availability of anti-diabetic drugs OR 2.59, 95%CI (1.54-3.7), P<0.001	
Mukherjee et al	2013	Cross sectional	470	Self-reporting and interview	57.7% good	Poor compliance: Older age > 60 years, OR 2.96, 95%CI (1.49-5.85), P=0.012 No knowledge on complication OR 7.24, 95%CI (2.15-19.41) P=0.001		Poor compliance: Duration T2DM > 5 years OR 5.61, 95%CI (1.98-13.33), P=0.003		Poor compliance: OHA and insulin OR 9.31, 95%CI (4.54-21.72), P<0.0001

Author	Year	Design	Subjects	Measure of Medication Adherence	Medication Adherence Proportion	Factors Associated with Medication Adherence				
						Patient Re-lated	Socio Eco-nomic	Condition Related	Health System / Health Care Related	Therapy Re-lated
Kasznicki et al	2007	Cross sectional	200	Self-reporting questionnaire	50% good	Good compliance: Has knowledge about diabetes OR 13.89, 95%CI (2.23-86.68), P=0.005				