Multimedia Appendix 1. The coded taxonomy.

Functional module		(A) Monitoring	(B) Medication management	(C) Lifestyle modification	(D) Complication prevention	(E) Psychosocial care
				Clinical module		
(1)	**Log**	(A1, L) Recording self-monitoring parameters. (A1, M) Recording other medical parameters.	(B1, L) Recording insulin injection site. (B1, M) recording used medications and side effects.	(C1, L) Recording activities, diets, and weight.	(D1, L) Recording complication-related status and appointment with doctors.	(E1, L) Recording mood.
(2)	**Structured display**	(2, L) Displaying data in a structured way.				
(3)	**General education**	(A3, L) Instructions for monitoring.	(B3, M) Using medications safely and effectively.	(C3, L) Incorporating nutritional management and physical activity into lifestyle.	(D3, M) Preventing complications.	(E3, L) Addressing psychosocial issues.
(4)	**Personalized feedback**	(A4, L) Reminder to monitor.	(B4, L) Reminder to recording medications. (B4, M) Reminder to take medications. (B4, H) Clinical decision making.	(C4, L) Reminder to eat healthily and be active. (C4, M) Self-management decision making.	(D4, L) Reminder to quit smoking, visit doctors. (D4, M) Setting targets, off-target alert.	-
(5)	**Communication**	(5, L) General communication, connecting users with their peers and families through social networking, chat forums, or websites. (5, M) Patient-clinician communication, in-app access to health care providers support or consultation.				

a. The risk was coded as L, M and H. L- low risk, M-mediate risk, H-high risk.
b. Clinical module was coded as A-E; functional module was coded as 1-5; the crossing functions by clinical module and functional module were coded like A1, A2.