

Table S3. Study characteristics of studies with a medical diagnose of either Major Depressive Disorder (MDD) or Bipolar Disorder (BD). N/A: Not Available; N: Number of subjects;D: study Duration;F: Female; CES-D: Center for Epidemiological Studies Depression; HDRS: Hamilton Rating Scale for Depression; YRMS: Young Mania Rating Scale; P Corr: Pearson correlation; RF: Random forest; SRM: Social Rhythm Metric; SVM: Support Vector Machine; QIDS-SR: Quick Inventory of Depressive Symptomatology - Self Reported; QDA: quadratic discriminant analysis; GD: Group difference; QIDS-C: Inventory of Depressive Symptomatology - Clinician rated; ADL: Activities of Daily Living; RE; Random effects; IDS-C: inventory for depressive symptomatology, Clinician-Rated; MLR: Multivariable logistic regression.

Main Author;year	Device;name	Recruitment	N (% F)	Age (m ± SD)	D (days)	Outcome	Method
Abdullah [1];2016	Android;MoodRhythm	Western Psychiatric Institute and clinic	7 (71%)	25-64	28	SRM II-5	SVM
Alvarez-Lozano [2];2014	Android;MONARCA	Cl. For Affective Disorders, Psych. Center Copenhagen, Denmark	18 (N/A)	N/A	150	-3:3 Mood scale	P corr
Beiwinkel [3];2016	Android;SIMBA	Psychiatric clinic, Lower Saxon Germany	13 (39%)	47.2 ± 3.8	365	HDRS	RE model
Berle [4]; 2010	Actigraph	N/A	23 (54%)	42.8 ± 11	14	GD	Univariate t-test
Dickerson [5]; 2011	iOS;Empath	Volunteer	1 (100%)	83	14	10p Mood scale	Linear regression
Doryab [6];2014	Anroid	Mental health clinic	6 (50%)	>18	≈20	CES-D	P corr
Faurholt-Jepsen [7];2015	Android;MONARCA	Cl. For Affective Disorders, Psych. Center Copenhagen, Denmark	61 (67%)	29.3 ± 8.4	N/A	HDRS-17	LME model
Faurholt-Jepsen [8];2014	Android;MONARCA	Cl. For Affective Disorders, Psych. Center Copenhagen, Denmark	17 (71%)	33.4 ± 9.5	90	HDRS-17	LME model
Faurholt-Jepsen [9];2016	Android;MONARCA	Cl. For Affective Disorders, Psych. Center Copenhagen, Denmark	28 (68%)	30.3 ± 9.3	84	Mood scale	RF classification
Faurholt-Jepsen [10];2012	Actiheart	Cl. For Affective Disorders, Psych. Center Copenhagen, Denmark	20 (60%)	45.2 ± 12	3	GD	Univariate t-test
Faurholt-Jepsen [11];2015	Actiheart	Cl. For Affective Disorders, Psych. Center Copenhagen, Denmark	18 (61%)	45.6 ± 11.1	3	HDRS-17	Linear regression
Faurholt-Jepsen [12];2016	Android;MONARCA	Cl. For Affective Disorders, Psych. Center Copenhagen, Denmark	29 (62%)	30.2 ± 8.8	84	HDRS-17	LME
Gershon [13];2016	Actigraph	Online advertisements + flyers posted in the community around San Francisco	37 (62%)	34.4 ± 10.4	46	GD	Univariate t-test

Gonzalez; [14];2014	Actigraph	County and community hospitals, university medical center etc throughout Dallas County	42 (64%)	41.0 ± 11.2	7	IDS-C-30	P corr
Grünerbl [15]; 2015	Android	Rural area psychiatric hospital Austria	10 (80%)	33-48	84	-3:3 Mood scale	NBC
Guidi [16]; 2015	Android	Department of psychiatry and mental health, Strasbourg University hospital	1 (100%)	36	98	Mood state	Spearman corr
Hauge [17]; 2011	Actigraph	University Hospital of Bergen	25 (44%)	42.9 ± 10.7	14	GD	Univariate t-test
Krane-Gartiser [18]; 2014	Actigraph	inpatients at the Department of Psychiatry, St. Olav's University Hospital, Trondheim, Norway	12 (58%)	39.9 ± 15.6	1	GD	Univariate t-test
Loprinzi [19]; 2014	Actigraph	NHANES data	2574 (51%)	46.3	7	GD	MLR
Miwa [20]; 2017	Armband;SenseWear Pro	N/A	5 (0%)	35.1	87	GD	t-test
Muaremi [21];2014	Android	Psychiatric hospital Hall, Tirol Austria	6 (N/A)	18-65	≈76	-3:3 Mood scale	RF classification
O'Brien [22]; 2016	Actigraph	Care services across North Easts of England	59 (73%)	74 ± 6	7	GD & MADRS	t-test & P corr
Osmani [23];2013	Android	N/A	5 (100%)	N/A	90	Mental health state	P corr
Palmius [24]; 2016	Android;AMoSS	Oxford area	36 (75%)	44 ± 14	60	QIDS-SR16	QDA (GD)
St-Amand [25];2013	Actigraph	mood disorders' clinic of a university affiliated mental health center	14 (50%)	44.6 ± 11	14	GD	Univariate t-test
Todder [26]; 2019	Actigraph	N/A	27 (48%)	49 ± 13	7	GD	Univariate t-test

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