

Table 1*Data Extraction Table*

Author (Year)	Country	Study Design	Sample Size (n)	Wearable Device	Outcome Focus
Chum et al. (2017)	Canada	Qualitative study	36	Fitbit One®	Depression and behavioural activation
Condominas et al. (2025)	Netherlands/ Spain/UK	Secondary longitudinal RADAR-MDD analysis	461	Fitbit® wrist-worn device	Depression severity, anxiety, sleep disturbance, and nocturnal heart rate.
Cormack et al. (2019)	UK	Longitudinal observational study	30	Wearable cognitive/mood assessment tool	High-frequency monitoring of mood and cognitive function in major depressive disorder using wearable technology.
Cormack et al. (2024)	United Kingdom	Observational high-frequency wearable assessment study	30	Apple Watch®	Depression, cognition, mood, activity, and heart rate.
Costa et al. (2017)	USA	Experimental study	67	EmotionCheck® wrist device	Anxiety regulation through wearable heart-rate feedback.
Costa et al. (2016)	USA	Conference experimental study	67	EmotionCheck® wearable	Emotion and anxiety regulation using wearable false heart-rate feedback.
Jacobson et al. (2021)	USA	Longitudinal predictive study	265	Wearable passive sensor	Prediction of anxiety symptom deterioration using wearable passive sensing and deep learning.
Kim et al. (2019)	South Korea	Observational machine learning study	47	Actiwatch®	Depression prediction in older adults.
Matcham et al. (2019)	UK/Europe	Multicenter cohort study protocol	600	Smartphone and wearable devices	Remote monitoring of relapse-related symptoms and functional changes in

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					major depressive disorder.
Matcham et al. (2024)	UK/Europe	Longitudinal mHealth cohort study	393	Fitbit® device	Depression relapses, sleep quality, and depression severity.
Mishra et al. (2021)	USA	Longitudinal remote monitoring study	10	Wearable mobility sensor	Remote monitoring of mobility, physical activity, sleep, and depression symptoms among older adults during COVID-19.
Moshe et al. (2021)	Finland/ International	Digital phenotyping study	60	Oura Ring® and smartphone	Prediction of depression symptoms using combined smartphone, wearable, and self-reported mood data.
Nadal et al. (2021)	Ireland/UK	Feasibility RCT protocol	71	Smartwatch	Feasibility and acceptance of smartwatch-supported internet-delivered CBT for depression.
Nishida et al. (2017)	Japan	Open-label pilot study	14	Waist actigraphy	Activity and sleep monitoring in major depressive disorders.
O'Brien et al. (2017)	United Kingdom	Observational comparison study	29	Wrist-worn activity monitor	Wrist-worn activity monitoring as a real-world biomarker for late-life depression.
Ryan et al. (2019)	Australia	Cross-sectional survey	237	Wearable activity trackers	Anxiety/empowerment from tracker use.
Siepe et al. (2025)	Netherlands/G ermany	Longitudinal EMA and passive sensing study	781	Garmin VivoSmart 4®	Stress, tiredness, sleep, and depression: early-warning research.
Swanson et al. (2018)	USA	Open-label pilot study	8	Wearable light therapy device	Wearable light therapy for postpartum depression.

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Tazawa et al. (2020)	Japan	Machine learning	41	Multimodal wristband device	Depression screening and severity.
Tiwari et al. (2019)	USA	Comparative ecological sensing study	196	Smart shirt and a smart bracelet	Stress and anxiety estimation using smart-shirt and smart-bracelet data.
Zhang et al. (2021)	UK/Netherlands/Spain	Multicenter longitudinal observational study	368	Fitbit® wristband	Relationship between Fitbit-measured sleep patterns and major depression symptom severity.
Zhang et al. (2025)	United Kingdom	Large-scale cross-sectional digital phenotyping study	10,129	Fitbit® and study app	Depression and anxiety indicators in the general population.