

Table 1. Details on 3 forms of data (Automatic, Experience sampling, and Psychological surveys) collected from MoodPrism.

Automated data collection		Experience sampling items		Psychological questionnaires		
Source	Data (downloaded once every 24 h, subject to user permissions)	Target and questions	Source	Questionnaire	Purpose	Source
Facebook	For each post in history (up to last 50): - Date and time of post - Length of message (characters) - Number of words in message - Number of positive, negative, self-pronoun, other-pronoun words - Number of likes - Number of comments - Number of tags - City and postcode (if available) of where posted	Emotional well-being How were you feeling just before you were prompted by this app? (rated on a 5-point scale from “not at all” to “extremely”) 1. Nervous, anxious, or on edge 2. Not able to stop or control worrying 3. Little interest or pleasure doing things 4. Feeling down, depressed, or hopeless 5. Active or alert 6. Negative or unpleasant 7. Positive or pleasant 8. In control of what I'm doing 9. Socially connected and supported 10. Motivated, engaged, and interested 11. Life is meaningful and with purpose 12. Feeling good about myself	Drawn from PHQ-4 [59]; 3 dimensional models of affect [60,61]; The WHO ^a emotional well-being scales (WHO-5) [62]; positive health literature [55]; single item self-esteem measures [63]	At baseline only		
				Demographics	Sample description or Potential moderator or confounding variable	Custom developed
				Life event scale	Potential moderator or confounding variable	[69]
				Multidimensional scale of perceived social support	Potential moderator or confounding variable	[70]
				Social desirability scale	Assessment of reliable responding	[71]
				IPIP	Potential moderator or confounding variable	[72]
				Rosenberg's self-esteem	Potential moderator or confounding variable	[73]
				Barcelona music rewards scale	Potential moderator or confounding variable	[74]
				Technology use survey	Potential moderator or confounding variable	Custom developed except for 1 item drawn from [75]
				At baseline and 1 month follow up		

Twitter	<p>For each tweet in timeline (up to last 50):</p> <ul style="list-style-type: none"> - Date and time of tweet - Tweet client site or software or app used - Length of message (characters) - Number of words in message - Number of positive, negative, self-pronoun, other-pronoun words - Number of retweets - Number of favourites <p>For each song in the user's music library</p> <ul style="list-style-type: none"> - Song Title - Genre - Artist - Album - Last Played - Play count - Rating - Release date - Duration 	<p>Event-related experiences</p> <p>What's the most positive thing that's happened to you in the past 24 h?</p> <ul style="list-style-type: none"> • Nothing positive happened • Positive social experience (with friends, family, strangers, etc) • Obtained material item (bought or won something, received a gift, etc) • Positive experience at work or school • Positive experience outside of work or school • Positive health or fitness experience • A happy occasion (e.g., birthday, wedding, holiday) • Other (with option to type in detail) <p>What's the most negative thing that's</p>	<p>Items modified from various stressor event questionnaires [64-68]</p>	Emotional self-awareness scale	Evaluation of emotional awareness change	[76]
				Warwick Edinburg well-being scale	Evaluation of well-being change	[77]
				PHQ-9 ^c	Evaluation of well-being change	[78]
				GAD-7 ^d	Evaluation of well-being change	[79]
				Mental health literacy questionnaire	Evaluation of mental health literacy change	Vignettes adapted from [80] Additional questions drawn from <i>beyond blue</i> website.
				Brief resilience scales	Evaluation of mental health literacy change	[81]
				Coping self-efficacy scale	Evaluation of mental health literacy change	[82]
				At 1 month follow up only		
Music library						

		<p>happened to you in the past 24 hours?</p> <ul style="list-style-type: none"> • Nothing negative happened • Negative social experience (with family, friends, strangers, etc) • Loss of valued material item (misplaced, theft, etc) • Negative experience at school or work • Negative experience outside of work or school • Personal health problems (illness, injury, etc) • Health problems of someone close to you (illness, injury, death, etc) • Other (with option to type in detail) <p>Followed by options for all (except "nothing"):</p> <p>How positive or negative was it?</p> <ul style="list-style-type: none"> • Slightly • Moderately 		Feedback questionnaire	Assessment of app quality	Custom developed (although broadly consistent with factors of MARS ^b).
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		<ul style="list-style-type: none"> • Very • Extremely <p>Context</p> <p>Where are you? (drop-down selections)</p> <ul style="list-style-type: none"> • At home • At someone else's place • At work, uni, or school • At a leisure venue (eg, cinema, shops, park, sporting venue) • Travelling or commuting • Other (with option to type in detail) <p>Who's with you? (Drop-down selections)</p> <ul style="list-style-type: none"> • I'm alone • Mainly friends • Mainly family or my partner • Mainly work colleagues • Mainly strangers <p>Other</p>				
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^aWHO: World Health Organization.

^bMARS: Mobile Application Rating Scale.

^cPHQ-9: Patient Health Questionnaire-9

^dGAD-7: General Anxiety Disorder scale-7

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