Assessment powered by NovoPsych

A Review of the Manic and Depression Symptoms Paired Screening (PMQ-9 and PHQ-9): Clinical Utility, Normative Data and Interpretive Guidelines

The Manic and Depression Symptoms Paired Screening (PMQ-9 and PHQ-9) combines two brief self-report measures to support measurement-based care for individuals with bipolar disorder. The Patient Mania Questionnaire - 9 (PMQ-9) is a 9-item measure developed to assess manic symptoms over the past week (Cerimele et al., 2022) and was designed to align closely with the structure and scoring of the Patient Health Questionnaire - Depression (PHQ-9), a widely used measure of depressive symptom severity (Kroenke et al., 2001). This technical review synthesises the clinical utility and psychometric properties of the PMQ-9, outlines the rationale for its paired use with the PHQ-9, and describes NovoPsych's interpretive and reporting framework. The PMQ-9 and PHQ-9 are scored and interpreted independently but used together to support longitudinal monitoring of depressive and manic symptoms in clinical care of bipolar disorder (Cerimele & Fortney, 2023).

Click to view information on the PMQ-9 and PHQ-9 Paired Screening

Click to view additional information on the PHQ-9

March 2026

Developers & Authors

The Patient Mania Questionnaire-9 (PMQ-9) was developed by Cerimele et al. (2022):

> Cerimele, J. M., Russo, J., Bauer, A. M., Hawrilenko, M., Pyne, J. M., Dalack, G. W., Kroenke, K., Unützer, J., & Fortney, J. C. (2022). The patient mania questionnaire (PMQ-9): A brief scale for assessing and monitoring manic symptoms. *Journal of General Internal Medicine*, *37*(7), 1680–1687. https://doi.org/10.1007/s11606-021-06947-7

The Patient Health Questionnaire - Depression (PHQ-9) was developed by Kroenke et al. (2001):

> Kroenke, K., Spitzer, R. L., & Williams, J. B. W. (2001). The PHQ-9: Validity of a brief depression severity measure. *Journal of General Internal Medicine, 16*(9), 606–613. https://doi.org/10.1046/j.1525-1497.2001.016009606.x

---

This document was developed to review contemporary literature and to describe original scoring methodologies and to provide interpretation material, enhance normative data, and provide qualitative descriptors.

Authors of Technical Review

(not in authorship order)

Hilah Kaufman PhD

Measurement-Based Care Research Fellow
Psychologist

David Hegarty PhD*

Head of Psychometrics, NovoPsych
Adjunct Professional Fellow, Southern Cross University, Coffs Harbour, Australia

Citation for this Paper

Kaufman, H.& Hegarty, D. (2026). A Review of the Manic and Depression Symptoms Paired Screening (PMQ-9 and PHQ-9): Clinical Utility, Normative Data and Interpretive Guidelines. https://doi.org/10.17605/OSF.IO/XQ6GS

Open Source Licence

Description

The Manic and Depression Symptoms Paired Screening (PMQ-9 and PHQ-9) is a brief self-report assessment designed to support measurement-based care for adults with bipolar disorder. It combines the Patient Mania Questionnaire (PMQ-9), a 9-item measure of manic symptoms over the past week (Cerimele et al., 2022), with the Patient Health Questionnaire (PHQ-9), a widely used 9-item measure of depressive symptom severity (Kroenke et al., 2001). Together, the two measures enable concurrent monitoring of both manic and depressive symptoms, supporting ongoing clinical decision-making across primary care, mental health, and integrated care settings.

PMQ-9 Details

The Patient Mania Questionnaire-9 (PMQ-9) is a brief, 9-item self-report measure that assesses manic symptoms over the past week in adults with bipolar disorder. Items capture symptoms that may fall below the full criteria for a manic or hypomanic episode, with scores reflecting overall manic symptom severity (Cerimele et al., 2022). It is recommended for use in primary care and mental health care settings, as well as specialty mental health and integrated care, as a monitoring tool rather than a diagnostic instrument.

Developed within a measurement-based care (MBC) framework, the PMQ-9 supports the regular use of symptom tracking to monitor change and guide clinical decision-making. Changes in scores over time provide clinically relevant information about symptom course and response to treatment. Unlike some manic symptom measures developed primarily to detect acute mania or to distinguish diagnostic status, the PMQ-9 was designed for routine use in ongoing care. Furthermore, it was designed to intentionally align with the structure, response format, and scoring of the Patient Health Questionnaire-9 (PHQ-9), a widely used measure of depressive symptoms (additional information about the PHQ-9 is available).

PMQ-9 Symptom Domains Assessed

The PMQ-9 assesses nine key domains of manic symptomatology commonly observed in bipolar disorder, informed by DSM-5 criteria (Cerimele et al., 2022):

1. Little sleep but still energized
2. Easily irritated
3. Overactive
4. Acts impulsively
5. Sped up/restless
6. Easily distracted
7. Pressured speech/more talkative
8. Felt argumentative
9. Racing thoughts

By capturing these symptoms in a brief, standardised format, the PMQ-9 supports the detection of clinically meaningful changes in manic symptoms over time. It is important to note that because the PMQ-9 is intended for routine symptom monitoring rather than diagnosis, it does not attempt to assess every DSM manic symptom (e.g., grandiosity or elevated/expansive mood). Instead, consistent with MBC principles, it focuses on a subset of observable, behaviorally anchored manic symptoms that are well-suited to frequent self-report and to clinically actionable change over time.

Concurrent Symptom Monitoring of Depression & Mania

The PMQ-9 was designed for paired use with the PHQ-9, allowing concurrent monitoring of manic and depressive symptoms using measures with parallel structure and scoring. This paired use of brief, parallel measures is consistent with recommended MBC practices, which emphasize the use of psychometrically strong tools in combination to support ongoing clinical monitoring and treatment decisions (Lewis et al., 2020). Clinical research and large-scale clinical studies further support the use of bipolar disorder symptom measures within an MBC approach to monitor treatment response and reduce treatment inertia (Cerimele et al., 2022).

Although bipolar disorder screening is common, measurement-based symptom monitoring remains underused despite its clinical importance (Cerimele et al., 2023). Regular monitoring of manic symptoms is particularly important in bipolar disorder, as manic symptoms in bipolar disorder are not confined to discrete episodes of mania or hypomania. Depressive and manic symptoms frequently co-occur (including during periods of bipolar depression), and manic symptoms that do not reach the severity of a full manic or hypomanic episode are common (Cerimele et al., 2022). Research has shown that people with bipolar disorder often experience ongoing depression or manic symptoms (e.g., changes in mood, energy, sleep, or thinking) even between full manic, hypomanic, or depressive episodes (Judd et al., 2002; Judd et al., 2003).

Research examining clinician and patient preferences indicates that the combination of the PMQ-9 and PHQ-9 is the most preferred approach for measurement-based care in bipolar disorder, reflecting its clinical relevance, ease of use, and interpretability (Cerimele et al., 2021; Cerimele & Fortney, 2023; Cerimele et al., 2024).

Use Within NovoPsych: Paired PMQ-9 and PHQ-9 Administration

Within the NovoPsych platform, the PHQ-9 may be administered either independently or as part of a paired PMQ-9 and PHQ-9 assessment. The PMQ-9, however, is offered only as part of the paired approach, consistent with its intended use in MBC for bipolar disorder (Cerimele et al., 2021).

When the paired approach is used, it is recommended that the PHQ-9 be administered only within the paired assessment and not separately at the same time, as administering multiple PHQ-9s can create confusion in symptom tracking. Only PHQ-9 results collected within the paired PMQ-9 and PHQ-9 assessment will appear in the paired results view; PHQ-9 results collected separately using the standalone PHQ-9 measure will not be included in the paired results but can still be used to help inform clinical care.

Psychometric Properties of the PMQ-9

For psychometric information pertaining to the Patient Health Questionnaire-9 (PHQ-9), see the PHQ-9 measure profile.

PMQ-9 Evaluation Samples

The psychometric evaluation of the PMQ-9 was initially conducted using data from the Study to Promote Innovation in Rural Integrated Telepsychiatry (SPIRIT), a pragmatic randomized effectiveness trial across 12 U.S. Federally Qualified Health Center systems (Cerimele et al., 2022).

Two samples were examined:

- *Mixed-diagnosis sample (n = 114):* A cross-sectional convenience sample recruited through a supplemental survey. Participants had a range of psychiatric diagnoses reflective of the full SPIRIT cohort. The sample included 29 participants (25.4%) with bipolar disorder, had a mean age of 41.0 years (SD = 12.5, range 20–68), and was 73.7% female. This sample was used to evaluate test–retest reliability and concurrent validity (Cerimele et al., 2022).
- *Bipolar disorder sample (n = 179):* Participants diagnosed with bipolar disorder by university-based telepsychiatrists during clinical care (not using structured diagnostic interviews) who completed the PMQ-9 at two or more treatment encounters. The sample had a mean age of 40.4 years (SD = 12.5, range 18–71), was 73.4% female, and obtained a mean baseline PMQ-9 score of 14.5 (SD = 6.5). This longitudinal sample was used to evaluate internal consistency, factor structure, sensitivity to change, and minimally important difference (Cerimele et al., 2022). Across this sample, the PMQ-9 was administered at 1,511 clinical encounters, demonstrating feasibility for repeated use in routine clinical care (Cerimele et al., 2022).

Reliability

Internal Consistency. In the longitudinal bipolar disorder sample, the PMQ-9 demonstrated high internal consistency (Cronbach's α = .88), comparable to the PHQ-9 administered in the same cohort (Cerimele et al., 2022).

Test–retest reliability. Test–retest reliability assessed approximately 30 minutes apart in the mixed-diagnosis sample was excellent (r = .85), indicating strong short-term score stability (Cerimele et al., 2022).

Validity

Concurrent validity was evaluated through associations with established self-report measures of manic symptoms. PMQ-9 scores were strongly correlated with the Internal State Scale - Activation Subscale (ISS-AS; r = .70) and more modestly correlated with the Altman Mania Rating Scale (AMRS; r = .26). The lower correlation with the AMRS is consistent with differences in measure purpose, as the PMQ-9 was designed for longitudinal symptom monitoring in routine clinical care, whereas the AMRS is typically used to assess current manic symptom severity in inpatient settings (Cerimele et al., 2022).

Research has found that those classified as currently hypomanic or manic using ISS criteria had significantly higher PMQ-9 scores than those not meeting these criteria, supporting the measure's ability to differentiate clinically relevant mood states (Cerimele et al., 2022). Overall, psychometric evaluation revealed that the PMQ-9 performed favorably relative to two well-established manic symptom measures, providing evidence for its clinical utility.

Factor Structure

Confirmatory factor analysis of PMQ-9 and PHQ-9 items administered together supported a two-factor structure representing largely distinct manic and depressive symptom dimensions. PMQ-9 items loaded primarily on a manic symptom factor, while PHQ-9 items loaded primarily on a depressive symptom factor, with limited cross-loading. These findings support the interpretation of PMQ-9 and PHQ-9 scores as related but non-redundant indicators of bipolar symptom severity (Cerimele et al., 2022).

Sensitivity to Change & Minimally Important Difference (MID)

In the longitudinal bipolar disorder sample, PMQ-9 scores decreased substantially over the course of treatment, with a 27% reduction in mean score from first to last clinical encounter, indicating sensitivity to change (Cerimele et al., 2022). Distribution-based estimates using standard error of measurement and standard deviation benchmarks yielded a minimally important difference (MID; the smallest change in score considered clinically meaningful) of approximately 3 points, with a plausible range of 2–4 points (Cerimele et al., 2022).

Paired Use with PHQ-9

The PMQ-9 was designed for paired administration with the PHQ-9 to support concurrent monitoring of manic and depressive symptoms in bipolar disorder (Cerimele et al., 2022). Longitudinal analyses demonstrated correlated changes in PMQ-9 and PHQ-9 scores over time, whereas factor-analytic results indicate that the two measures assess largely independent symptom domains (Cerimele et al., 2022).

Clinician survey data indicate that the PMQ-9 and PHQ-9 combination was rated as the most acceptable and clinically helpful symptom measure set among commonly used bipolar disorder instruments (Cerimele et al., 2021). Studies examining patient preferences similarly found that the PMQ-9 and PHQ-9 combination was the most preferred approach for ongoing symptom monitoring (Cerimele & Fortney, 2023; Cerimele et al., 2024).

Clinical Cutoff

Provisional score thresholds for the PMQ-9 were defined to support longitudinal symptom monitoring and mood state classification (Cerimele et al., 2022). Scores below 10 were used to indicate lower levels of manic symptom severity, and scores of 10 or higher to indicate elevated levels of manic symptoms. This clinical cutoff was selected based on clinical judgment and alignment with PHQ-9 conventions (rather than empirical optimization) and should be interpreted as **provisional** rather than diagnostically definitive (Cerimele et al., 2022). The determination of operating characteristics (i.e., sensitivity and specificity) has not yet been formally evaluated. The PMQ-9 clinical cutoff was combined with the psychometrically validated PHQ-9 clinical cutoff (also 10 or higher) to classify four mood states reflecting relative manic and depressive symptom severity.

Scoring & Interpretation

The PMQ-9 assesses symptoms over the *past week*, whereas the standard PHQ-9 assesses *bothersome* symptoms over the *past two weeks* (Kroenke et al., 2001; Cerimele et al., 2022). In the PMQ-9 validation study, the PHQ-9 timeframe was modified to match the PMQ-9 (Cerimele et al., 2022). In NovoPsych, the standard PHQ-9 two-week timeframe as well as instructions are retained. Clinicians should consider these differences when interpreting paired results, as well as when comparing PHQ-9 scores directly against the validation study benchmarks.

Within the NovoPsych platform, the paired assessment is administered sequentially, with the PMQ-9 presented first (items 1–9) followed by the PHQ-9 (items 10–18). The PMQ-9 and PHQ-9 results are summed to yield a total score from 0 to 27 for each measure, with higher scores indicating greater symptom severity.

Interpreting the PMQ-9 and PHQ-9 Scores

Both the PMQ-9 and PHQ-9 use a clinical cut-off score of 10 to classify symptom severity as either:

- Subthreshold (scores 0–9) or
- Elevated (scores 10–27)

This shared classification framework allows for direct comparison between manic and depressive symptom burden, and underpins the four mood state classifications used in this report.

Interpreting the PMQ-9 Score

The PMQ-9 total score reflects the severity of manic symptoms experienced over the past week. Unlike the PHQ-9, the PMQ-9 does not have validated severity bands (e.g., mild, moderate, severe). Instead, available provisional evidence supports the use of a single cut-off of 10 or greater to distinguish subthreshold versus elevated manic symptom severity for monitoring purposes.

In addition to the raw score, percentile information is based on a longitudinal bipolar disorder clinical sample and provides descriptive context for interpreting an individual's score relative to others in this clinical group. When tracking symptoms over time, a change of approximately 3 points on the PMQ-9 between sessions has been proposed as clinically meaningful.

Interpreting the PHQ-9 Score

The PHQ-9 total score reflects the severity of depressive symptoms over the past two weeks, with higher scores indicating more severe symptoms consistent with major depressive disorder. As with the PMQ-9, scores of 10 or more are classified as Elevated and scores below 10 as Subthreshold. Additionally, the PHQ-9 has well-established, validated severity descriptors which are shown in brackets alongside the Subthreshold/Elevated classification:

- 0–4: Subthreshold (No or Minimal)
- 5–9: Subthreshold (Mild)
- 10–14: Elevated (Moderate)
- 15–19: Elevated (Moderately-Severe)
- 20–27: Elevated (Severe)

Percentile information based on community and clinical samples provides additional context for comparing an individual's score with normative data. When monitoring change over time, a change of 5 or more points is typically considered reliable and clinically significant.

(For full psychometric details and interpretive guidance for the PHQ-9, see the PHQ-9 measure profile on NovoPsych.)

Paired PMQ-9 and PHQ-9 Interpretation

When administered together, the PMQ-9 and PHQ-9 support a paired interpretation framework that allows for monitoring manic and depressive symptoms concurrently in bipolar disorder. Each measure is scored and interpreted independently; however, interpreting the two scores together provides clinically useful information about relative symptom patterns over time, consistent with a measurement-based care approach (Cerimele et al., 2022).

Based on the proposed approach in the PMQ-9 literature, PMQ-9 and PHQ-9 total scores are each dichotomised using a cutoff score of 10, resulting in four possible paired symptom profiles (Cerimele et al., 2022). While these mood state classifications have not been formally validated for clinical decision-making, they provide a strong provisional descriptive framework for monitoring symptom patterns.

PMQ-9 and PHQ-9 Interpretation Framework:

1. **Subthreshold depressive and subthreshold manic symptom burden (PMQ-9 less than 10, PHQ-9 less than 10):** Both manic and depressive symptom scores fall below the cutoff of 10.
2. **High depressive and subthreshold manic symptom burden (PMQ-9 less than 10, PHQ-9 of 10 or greater):** Depressive symptoms are elevated while manic symptoms remain below the cutoff.
3. **Subthreshold depressive and high manic symptom burden (PMQ-9 of 10 or greater, PHQ-9 less than 10):** Manic symptoms are elevated while depressive symptoms remain below the cutoff.
4. **High depressive and high manic symptom burden (PMQ-9 of 10 or greater, PHQ-9 of 10 or greater):** Both manic and depressive symptom scores are elevated.

This paired approach allows clinicians to monitor changes in both symptom domains over time and identify shifts between mood states that may require treatment adjustments. Longitudinal tracking of these mood-state classifications provides clinically actionable information on symptom course and treatment response.

PMQ-9 and PHQ-9 Graphs

On first administration of the paired PMQ-9 and PHQ-9 assessment, three visualisations are presented to support clear interpretation of manic and depressive symptoms within a measurement-based care framework.

- **Paired Total Score Bar Chart:** Displays the client's total PMQ-9 and PHQ-9 scores side-by-side on the same scale, with a reference line at a cutoff score of 10 for each. For the PHQ-9, validated severity thresholds (Minimal, Mild, Moderate, Moderately Severe, and Severe) are also shown. This provides an immediate visual summary of relative manic and depressive symptom severity and supports paired interpretation.
- **PMQ-9 Horizontal Distribution Chart:** Positions the client's PMQ-9 score relative to a single clinical reference population derived from the longitudinal bipolar disorder sample used in the PMQ-9 validation study. Percentiles provide descriptive context for manic symptom severity compared with other individuals receiving clinical care.
- **PHQ-9 Horizontal Distribution Chart:** Positions the client's PHQ-9 score relative to both a community and a clinical (major depressive disorder) reference population, allowing clinicians to compare depressive symptom severity against typical and clinical presentations.

When multiple administrations are available, the initial score visualisations are replaced by a Multi-Administration Line Plot. These plots display PMQ-9 and PHQ-9 total scores across all administrations as line graphs plotted against time, with the cut score of 10 shown as a reference for each measure. This visualisation enables clinicians to monitor symptom trajectories over time, track treatment response, and identify patterns of improvement, deterioration, or shifts between manic, depressive, and mixed symptom presentations.

Supporting Information

Percentile Calculations

Normative community reference data are not currently available for the PMQ-9. Accordingly, percentile scores were estimated using data from the longitudinal bipolar disorder clinical sample reported in the PMQ-9 validation study conducted within the SPIRIT trial (Cerimele et al., 2022). This sample consisted of 179 adults diagnosed with bipolar disorder by study psychiatrists and represents the clinical population for whom the PMQ-9 was specifically developed for routine symptom monitoring.

As raw score distributions for this clinical sample were not available, percentiles were extrapolated from the reported mean and standard deviation using a standard parametric approach, assuming approximate normality of PMQ-9 total scores within this clinical sample. Percentile calculations were based on PMQ-9 scores obtained at the first clinical encounter in the bipolar disorder sample, which had a mean total PMQ-9 score of 14.5 (SD = 6.5) (Cerimele et al., 2022).

For each possible total PMQ-9 score value (ranging from 0 to 27), the corresponding *z*-score was calculated using the bipolar disorder sample parameters:

$$z = \frac{(X - 14.5)}{6.5}$$

where X represents the total PMQ-9 score. These *z*-scores were then converted to percentile ranks using the cumulative normal distribution function:

$$\text{percentile} = \Phi(z) \times 100$$

where Φ denotes the standard normal cumulative distribution function.

Percentiles derived using this method provide descriptive context for interpreting PMQ-9 scores relative to other individuals with bipolar disorder receiving clinical care. These percentiles are intended to support longitudinal monitoring and clinical interpretation and should not be interpreted as diagnostic thresholds.

Percentile Tables

Table 1. Total Score Percentile Distributions for the PMQ-9 and PHQ-9

Total Raw Score				Classification
Raw Score	PMQ-9 Clinical	PHQ-9 Community	PHQ-9 Major Depression	
0	1	25	0.3	Subthreshold
1	2	44	0.4	
2	3	58	0.7	
3	4	69	1	
4	5	76	1.6	
5	7	80	2	
6	10	84	3	
7	12	87	5	
8	16	91	7	
9	20	94	9	
10	24	95	12	Elevated
11	30	96	16	
12	35	97	20	
13	41	97.8	25	
14	47	98.7	31	
15	53	98.8	37	
16	59	98.9	43	
17	65	99.0	49	
18	70	99.1	56	
19	76	99.2	62	
20	80	99.3	68	
21	84	99.4	74	
22	88	99.5	79	
23	90	99.6	83	
24	93	99.7	87	
25	95	99.8	90	
26	96	99.9	93	
27	97	99.99	95	

Interpretive Text

The PMQ-9 and PHQ-9 report includes automatically generated interpretive text that provides clinicians with a structured narrative summary of the assessment results. This text is designed to highlight clinically relevant findings, track symptom change over time, and support paired interpretation of manic and depressive symptoms within a measurement-based care framework.

The interpretive text is constructed dynamically based on three factors: whether this is a first or repeat administration, each measure's score relative to clinical cut-offs, and the presence of safety-critical item endorsements. The report follows a fixed structure, with certain sections conditionally displayed depending on the respondent's scores and assessment history.

The following parameters govern interpretation:

> The PMQ-9 clinical cut-off is 10 (provisional; Cerimele et al., 2022). The PHQ-9 clinical cut-off is also 10 (validated; Kroenke et al., 2001). For change detection, the PMQ-9 uses a minimally important difference (MID) of 3 points (distribution-based; Cerimele et al., 2022), and the PHQ-9 uses a reliable change index (RCI) of 5 points (McMillan et al., 2010). PMQ-9 percentiles are derived from the bipolar disorder clinical sample (M = 14.5, SD = 6.5, n = 179). PHQ-9 severity descriptors use validated bands: No or Minimal (0–4), Mild (5–9), Moderate (10–14), Moderate-Severe (15–19), Severe (20–27). The PMQ-9 has no validated severity bands; only the dichotomous cut-off is applied.

Safety Flag Section

One item on the PHQ-9 specifically assesses risk of self-harm or suicidal ideation over the past two weeks. This item (PHQ-9 item 9; item 18 in the paired assessment) is evaluated independently of total scoring and is flagged whenever the respondent endorses it at any level above zero (i.e., response ≥ 1).

When this item is elevated, the following alert is displayed prominently at the beginning of the interpretive text:

> “Risk of Self-Harm or Suicide
>
> The respondent has indicated thoughts related to self-harm or suicidality (question 18). It is recommended that suicide risk assessment protocols are followed to determine the severity and immediacy of the risk.”

This section is omitted entirely when PHQ-9 item 9 = 0.

First Administration

When no prior administration exists on file for the respondent, the interpretive text provides a full introduction to the paired assessment, followed by independent reporting of each measure's results.

Opening Statement

The interpretive text begins with a standardised introduction that contextualises the assessment:

> "The PMQ-9 and PHQ-9 Paired Screening was administered on [DATE]. This assessment combines the Patient Mania Questionnaire (PMQ-9), measuring manic symptoms over the past week, and the Patient Health Questionnaire (PHQ-9), measuring depressive symptoms over the past two weeks."

PMQ-9 Results (First Administration)

The PMQ-9 section is introduced with a bold heading, followed by the total score and percentile:

> “PMQ-9 (Manic Symptoms). The respondent obtained a PMQ-9 total score of [SCORE] out of 27, falling at the [N]th percentile compared to a clinical sample of individuals with bipolar disorder."

When the PMQ-9 total score is at or above the clinical cut-off of 10, the following is appended:

> "This score is [at/above] the clinical cut-off of 10, suggesting elevated manic symptoms that may warrant further assessment. In particular, the respondent endorsed the following manic symptoms:
>
> [ITEM NUMBER]. [ITEM TEXT] ([RESPONSE LABEL])
>
> [ITEM NUMBER]. [ITEM TEXT] ([RESPONSE LABEL])
>
> [ITEM NUMBER]. [ITEM TEXT] ([RESPONSE LABEL])"

Up to three items are listed, selected as the highest-endorsed PMQ-9 items (score ≥ 1), sorted in descending order by score value. If multiple items share the same score, then items are presented in questionnaire order. Each item displays its number, question body text, and the response label (e.g., "Several days", "More than half the days", "Nearly every day").

Alternatively, when the PMQ-9 total score is below the clinical cut-off:

> "This score is below the clinical cut-off of 10, suggesting subthreshold manic symptoms."

No individual item endorsements are listed when the score is below cut-off.

PHQ-9 Results (First Administration)

The PHQ-9 section follows the same structure, introduced with a bold heading:

> “PHQ-9 (Depressive Symptoms). The respondent obtained a PHQ-9 total score of [SCORE] out of 27, which falls in the [DESCRIPTOR] range ([N]th percentile compared to a community sample)."

The descriptor is one of: No or Minimal, Mild, Moderate, Moderate-Severe, or Severe. The percentile is drawn from a community sample lookup table, matching the standalone PHQ-9 implementation.

When the PHQ-9 total score is at or above the clinical cut-off of 10:

> "This score is [at/above] the clinical cut-off of 10, indicating that the respondent is experiencing depressive symptoms consistent with major depressive disorder. In particular, the respondent endorsed the following depressive symptoms:
>
> [ITEM NUMBER]. [ITEM TEXT] ([RESPONSE LABEL])
>
> [ITEM NUMBER]. [ITEM TEXT] ([RESPONSE LABEL])
>
> [ITEM NUMBER]. [ITEM TEXT] ([RESPONSE LABEL])"

The same item selection logic applies: up to three highest-endorsed PHQ-9 items (score ≥ 1), sorted descending by score value, with response labels.

Alternatively, when the PHQ-9 total score is below the clinical cut-off:

> "This score is below the clinical cut-off of 10."

No individual item endorsements are listed when the score is below cut-off.

Repeat Administration

When at least one prior administration exists on file, the interpretive text shifts to a change-focused structure. Rather than introducing the assessment, the opening leads directly into change analysis for each measure, followed by current score summaries. Individual item endorsements are not listed on repeat administrations.

Opening Statement and PMQ-9 Change Analysis

The opening statement incorporates the PMQ-9 change analysis as a continuation of the same sentence:

> "The PMQ-9 and PHQ-9 Paired Screening was administered on [CURRENT DATE]. Since the respondent completed the initial assessment on [INITIAL DATE] ([N] days ago), ..."

The sentence continues with one of the following based on the magnitude and direction of change. Change is calculated as: current PMQ-9 total minus initial PMQ-9 total.

When the PMQ-9 score has not changed (change = 0):

> "...the respondent's PMQ-9 score has not changed."

When the absolute change meets or exceeds the MID threshold of 3 points and the change is positive:

> "...the respondent's PMQ-9 score has increased by [N] point(s), representing a clinically meaningful increase in manic symptoms."

When the absolute change meets or exceeds the MID threshold of 3 points and the change is negative:

> "...the respondent's PMQ-9 score has decreased by [N] point(s), representing a clinically meaningful decrease in manic symptoms."

When the absolute change is between 1 and 2 points (below MID threshold):

> "...the respondent's PMQ-9 score has changed by [N] point(s), which represents minimal change."

Additionally, when the score has crossed the PMQ-9 clinical cut-off of 10 in either direction since the initial administration, the following is appended:

> "Notably, the score has moved from [below/above] to [above/below] the clinical cut-off of 10."

PHQ-9 Change Analysis

The PHQ-9 change analysis follows as a new sentence. Change is calculated as: current PHQ-9 total minus initial PHQ-9 total. The PHQ-9 uses a reliable change index (RCI) threshold of 5 points rather than the distribution-based MID used for the PMQ-9.

When the PHQ-9 score has not changed (change = 0):

"The respondent's PHQ-9 score has not changed since the initial administration."

When the absolute change meets or exceeds the RCI threshold of 5 points and the change is positive:

"The respondent's PHQ-9 score has significantly increased by [N] point(s)..."

When the absolute change meets or exceeds the RCI threshold of 5 points and the change is negative:

"The respondent's PHQ-9 score has significantly decreased by [N] point(s)..."

When the absolute change is between 1 and 4 points (below RCI threshold):

"The respondent's PHQ-9 score has not changed significantly ([N] point(s))..."

When the score has crossed the PHQ-9 clinical cut-off of 10 in either direction, the sentence concludes with:

"...with the score moving from [below/above] to [above/below] the clinical cut-off of 10."

When no cut-off crossing has occurred, the sentence terminates with a full stop.

Current PMQ-9 Results (Repeat Administration)

Following the change analyses, the current PMQ-9 results are summarised:

"The respondent's current PMQ-9 total score is [SCORE] out of 27, falling at the [N]th percentile compared to a clinical sample of individuals with bipolar disorder."

When at or above cut-off:

"This score is [at/above] the clinical cut-off of 10, suggesting elevated manic symptoms."

When below cut-off:

"This score is below the clinical cut-off of 10, suggesting subthreshold manic symptoms."

Current PHQ-9 Results (Repeat Administration)

The current PHQ-9 results are similarly summarised:

"The respondent's current PHQ-9 total score is [SCORE] out of 27, which falls in the [DESCRIPTOR] range ([N]th percentile compared to a community sample). This score is [below/at/above] the clinical cut-off of 10."

Mood State Classification

The mood state classification is always displayed as the final section, on both first and repeat administrations. It is introduced with a bold heading:

“Mood State Classification. "Based on the combined PMQ-9 and PHQ-9 results, the respondent's current mood state is classified as: [MOOD STATE LABEL]."

The mood state label is one of four classifications determined by the combination of PMQ-9 and PHQ-9 scores relative to their respective cut-offs of 10. Each classification is followed by an explanatory sentence:

When both PMQ-9 ≥ 10 and PHQ-9 ≥ 10:

> "High depressive and high manic symptom burden. Both manic and depressive symptoms are elevated above their respective clinical cut-offs, which may be consistent with a mixed mood presentation."

When PMQ-9 < 10 and PHQ-9 ≥ 10:

> "High depressive and subthreshold manic symptom burden. Depressive symptoms are elevated while manic symptoms are below the clinical threshold. In individuals with bipolar disorder, this pattern may be consistent with a bipolar depressive episode."

When PMQ-9 ≥ 10 and PHQ-9 < 10:

> "Subthreshold depressive and high manic symptom burden. Manic symptoms are elevated while depressive symptoms are below the clinical threshold. This pattern may warrant assessment for hypomanic or manic episodes."

When both PMQ-9 < 10 and PHQ-9 < 10:

> "Subthreshold depressive and subthreshold manic symptom burden. Both manic and depressive symptoms are below their respective clinical cut-offs."

Rendering Order

The full interpretive text is assembled in the following fixed order: (1) safety alert, if PHQ-9 item 9 is endorsed above zero; (2) either the first administration text or the repeat administration text, depending on assessment history; and (3) the mood state classification, which is always appended last.

Assessment powered by NovoPsych

Developers

PMQ-9

Cerimele, J. M., Russo, J., Bauer, A. M., Hawrilenko, M., Pyne, J. M., Dalack, G. W., Kroenke, K., Unützer, J., & Fortney, J. C. (2022). The patient mania questionnaire (PMQ-9): A brief scale for assessing and monitoring manic symptoms. *Journal of General Internal Medicine*, *37*(7), 1680–1687. https://doi.org/10.1007/s11606-021-06947-7

PHQ-9

Kroenke, K., Spitzer, R. L., & Williams, J. B. W. (2001). The PHQ‐9. Journal of General Internal Medicine : JGIM, 16(9), 606–613. https://doi.org/10.1046/j.1525-1497.2001.016009606.x

PMQ-9 References

Cerimele, J. M., Blanchard, B. E., Bechtel, J. M., & Fortney, J. C. (2021). Clinician preferences for using bipolar disorder symptom severity and quality of life scales for measurement-based care. *General Hospital Psychiatry*, *73*, 123–125. https://doi.org/10.1016/j.genhosppsych.2021.08.003

Cerimele, J. M., & Fortney, J. C. (2023). Bipolar disorder assessment and monitoring measures in clinical care: Updates from a large randomized controlled trial in primary care. *Bipolar Disorders*, *25*(8), 708–710. https://doi.org/10.1111/bdi.13382

Cerimele, J. M., Franta, G., Blanchard, B. E., Leasure, W., & Fortney, J. C. (2024). Bipolar disorder symptom monitoring measures: A mixed methods study of patient preferences. *Journal of the Academy of Consultation-Liaison Psychiatry*, *65*(2), 148–156. https://doi.org/10.1016/j.jaclp.2023.11.266

Judd, L. L., Akiskal, H. S., Schettler, P. J., Endicott, J., Maser, J., Solomon, D. A., Leon, A. C., Rice, J. A., & Keller, M. B. (2002). The long-term natural history of the weekly symptomatic status of bipolar I disorder. *Archives of General Psychiatry, 59*(6), 530–537. https://doi.org/10.1001/archpsyc.59.6.530

Judd, L. L., Akiskal, H. S., Schettler, P. J., Endicott, J., Leon, A. C., Solomon, D. A., Coryell, W., Maser, J. D., & Keller, M. B. (2003). A prospective investigation of the natural history of the long-term weekly symptomatic status of bipolar II disorder. *Archives of General Psychiatry*, *60*(3), 261–269. https://doi.org/10.1001/archpsyc.60.3.261

Lewis, C. C., Boyd, M., Puspitasari, A., Navarro, E., Howard, J., Kassab, H., Hoffman, M., Scott, K., Lyon, A., Douglas, S., & Simon, G. (2019). Implementing measurement-based care in behavioral health: A review. *JAMA Psychiatry*, *76*(3), 324–335. https://doi.org/10.1001/jamapsychiatry.2018.3329

For a complete list of PHQ-9 references, refer to the PHQ-9 profile on NovoPsych.

Assessment Questions

NovoPsych

Patient Mania Questionnaire & Patient Health Questionnaire - Depression (PMQ-9-PHQ-9)

Instructions:

Read the instructions carefully to answer the questions:

		Not at all	Several Days	More Than Half of Days	Nearly Every Day
1	Had little or no sleep, and still felt energized	0	1	2	3
2	Felt easily irritated	0	1	2	3
3	Felt overactive	0	1	2	3
4	Acted impulsively or done things without thinking about consequences	0	1	2	3
5	Felt sped up or restless	0	1	2	3
6	Been easily distracted	0	1	2	3
7	Felt pressure to keep talking or been told by someone you are more talkative	0	1	2	3
8	Felt argumentative	0	1	2	3
9	Had racing thoughts	0	1	2	3
10	Little interest or pleasure in doing things	0	1	2	3
11	Feeling down, depressed, or hopeless	0	1	2	3
12	Trouble falling or staying asleep, or sleeping too much	0	1	2	3
13	Feeling tired or having little energy	0	1	2	3
14	Poor appetite or overeating	0	1	2	3
15	Feeling bad about yourself — or that you are a failure or have let yourself or your family down	0	1	2	3
16	Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
17	Moving or speaking so slowly that other people could have noticed? Or the opposite — being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3

NovoPsych

		Not at all	Several Days	More Than Half of Days	Nearly Every Day
18	Thoughts that you would be better off dead or of hurting yourself in some way	**0**	**1**	**2**	**3**

Developer Reference:

Cerimele, J. M., Russo, J., Bauer, A. M., Hawrilenko, M., Pyne, J. M., Dalack, G. W., Kroenke, K., Unützer, J., & Fortney, J. C. (2022). The patient mania questionnaire (PMQ-9): A brief scale for assessing and monitoring manic symptoms. Journal of General Internal Medicine, 37(7), 1680–1687. https://doi.org/10.1007/s11606-021-06947-7

Kroenke, K., Spitzer, R. L., & Williams, J. B. W. (2001). The PHQ-9: Validity of a brief depression severity measure. Journal of General Internal Medicine, 16(9), 606–613. https://doi.org/10.1046/j.1525-1497.2001.016009606.x

Administer Online

Assessment powered by NovoPsych

Sample Result

Assessment powered by NovoPsych

Patient Mania Questionnaire & Patient Health Questionnaire - Depression (PMQ-9-PHQ-9)

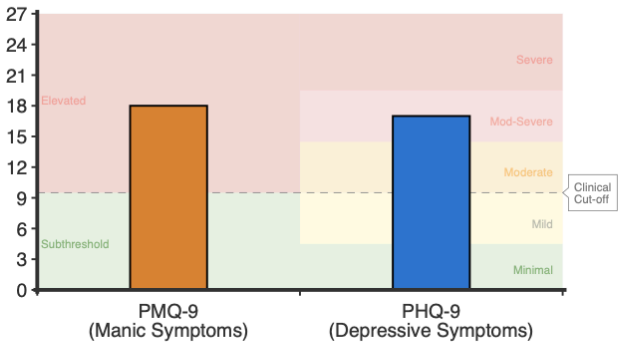
Client Name	Generic Client	*Date administered*	17 Mar 2026
Date of birth (age)	14 Dec 2015 (10)	*Time taken*	52s
Assessor	Dr David Hegarty		

PMQ-9 and PHQ-9 Paired Results

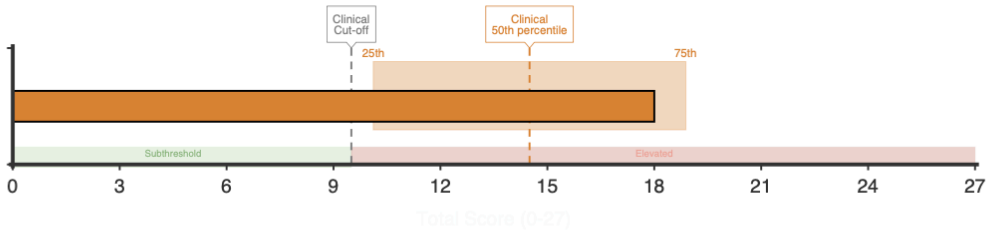
	Total Score (0-27)	Percentile	Classification
PMQ-9 (Manic Symptoms)	18	70 (Clinical)	Elevated
PHQ-9 (Depressive Symptoms)	17	99 (Community)	Elevated (Moderate-Severe)

This respondent has indicated risk of self-harm or suicide. It is recommended to follow suicide risk assessment protocols to determine the nature, severity, and immediacy of the risk.

PMQ-9 and PHQ-9 Total Scores



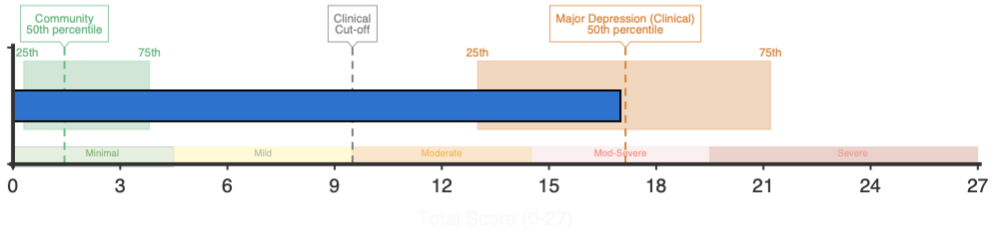
PMQ-9 Total Score in Comparison to Bipolar Disorder Clinical Distribution



Assessment powered by
NovoPsych

Client Name	Generic Client

PHQ-9 Total Score in Comparison to Community Distribution and Major Depression (Clinical) Distribution



Interpretation

Risk of Self-Harm or Suicide

The respondent has indicated thoughts related to self-harm or suicidality (question 18). It is recommended that suicide risk assessment protocols are followed to determine the severity and immediacy of the risk.

The PMQ-9 and PHQ-9 Paired Screening was administered on 17 March 2026. This assessment combines the Patient Mania Questionnaire (PMQ-9), measuring manic symptoms over the past week, and the Patient Health Questionnaire (PHQ-9), measuring depressive symptoms over the past two weeks.

Mood State Classification. Based on the combined PMQ-9 and PHQ-9 results, the respondent's current mood state is classified as: High depressive and high manic symptom burden. Both manic and depressive symptoms are elevated above their respective clinical cut-offs, which may be consistent with a mixed mood presentation.

PMQ-9 (Manic Symptoms). The respondent obtained a PMQ-9 total score of 18 out of 27, falling at the 70th percentile compared to a clinical sample of individuals with bipolar disorder. This score is above the clinical cut-off of 10, suggesting elevated manic symptoms that may warrant further assessment. In particular, the respondent endorsed the following manic symptoms:
- 2. Felt easily irritated (Nearly Every Day)
- 8. Felt argumentative (Nearly Every Day)
- 9. Had racing thoughts (Nearly Every Day)

PHQ-9 (Depressive Symptoms). The respondent obtained a PHQ-9 total score of 17 out of 27, which falls in the Moderate-Severe range (99th percentile compared to a community sample). This score is above the clinical cut-off of 10, indicating that the respondent is experiencing depressive symptoms consistent with major depressive disorder. In particular, the respondent endorsed the following depressive symptoms:
- 11. Feeling down, depressed, or hopeless (Nearly Every Day)
- 15. Feeling bad about yourself — or that you are a failure or have let yourself or your family down (Nearly Every Day)
- 10. Little interest or pleasure in doing things (More Than Half of Days)

Assessment powered by NovoPsych

Client Name	Generic Client

Scoring and Interpretation Information

For comprehensive information on the PMQ-9, see here.

The PMQ-9 assesses symptoms over the past week, whereas the standard PHQ-9 assesses bothersome symptoms over the past two weeks (Kroenke et al., 2001; Cerimele et al., 2022). In the PMQ-9 validation study, the PHQ-9 timeframe was modified to match the PMQ-9 (Cerimele et al., 2022). In NovoPsych, the standard PHQ-9 two-week timeframe as well as instructions are retained. Clinicians should consider these differences when interpreting paired results, as well as when comparing PHQ-9 scores directly against the validation study benchmarks.

Within the NovoPsych platform, the paired assessment is administered sequentially, with the PMQ-9 presented first (items 1–9) followed by the PHQ-9 (items 10–18). The PMQ-9 and PHQ-9 results are summed to yield a total score from 0 to 27 for each measure, with higher scores indicating greater symptom severity.

Interpreting the PMQ-9 and PHQ-9 Scores
Both the PMQ-9 and PHQ-9 use a clinical cut-off score of 10 to classify symptom severity as either:
- Subthreshold (scores 0–9) or
- Elevated (scores 10–27)

This shared classification framework allows for direct comparison between manic and depressive symptom burden, and underpins the four mood state classifications used in this report.

Interpreting the PMQ-9 Score
The PMQ-9 total score reflects the severity of manic symptoms experienced over the past week. Unlike the PHQ-9, the PMQ-9 does not have validated severity bands (e.g., mild, moderate, severe). Instead, available provisional evidence supports the use of a single cut-off of 10 or greater to distinguish subthreshold versus elevated manic symptom severity for monitoring purposes.

In addition to the raw score, percentile information is based on a longitudinal bipolar disorder clinical sample and provides descriptive context for interpreting an individual's score relative to others in this clinical group. When tracking symptoms over time, a change of approximately 3 points on the PMQ-9 between sessions has been proposed as clinically meaningful.

Interpreting the PHQ-9 Score
The PHQ-9 total score reflects the severity of depressive symptoms over the past two weeks, with higher scores indicating more severe symptoms consistent with major depressive disorder. As with the PMQ-9, scores of 10 or more are classified as Elevated and scores below 10 as Subthreshold. Additionally, the PHQ-9 has well-established, validated severity descriptors which are shown in brackets alongside the Subthreshold/Elevated classification:
- 0–4: Subthreshold (No or Minimal)
- 5–9: Subthreshold (Mild)
- 10–14: Elevated (Moderate)
- 15–19: Elevated (Moderately-Severe)
- 20–27: Elevated (Severe)

Assessment powered by NovoPsych

Client Name	Generic Client

Percentile information based on community and clinical samples provides additional context for comparing an individual's score with normative data. When monitoring change over time, a change of 5 or more points is typically considered reliable and clinically significant.

Paired PMQ-9 and PHQ-9 Interpretation
When administered together, the PMQ-9 and PHQ-9 support a paired interpretation framework that allows for monitoring manic and depressive symptoms concurrently in bipolar disorder. Each measure is scored and interpreted independently; however, interpreting the two scores together provides clinically useful information about relative symptom patterns over time, consistent with a measurement-based care approach (Cerimele et al., 2022).

Based on the proposed approach in the PMQ-9 literature, PMQ-9 and PHQ-9 total scores are each dichotomised using a cutoff score of 10, resulting in four possible paired symptom profiles (Cerimele et al., 2022). While these mood state classifications have not been formally validated for clinical decision-making, they provide a strong provisional descriptive framework for monitoring symptom patterns.

PMQ-9 and PHQ-9 Interpretation Framework:
- Subthreshold depressive and subthreshold manic symptom burden (PMQ-9 less than 10, PHQ-9 less than 10): Both manic and depressive symptom scores fall below the cutoff of 10.
- High depressive and subthreshold manic symptom burden (PMQ-9 less than 10, PHQ-9 of 10 or greater): Depressive symptoms are elevated while manic symptoms remain below the cutoff.
- Subthreshold depressive and high manic symptom burden (PMQ-9 of 10 or greater, PHQ-9 less than 10): Manic symptoms are elevated while depressive symptoms remain below the cutoff.
- High depressive and high manic symptom burden (PMQ-9 of 10 or greater, PHQ-9 of 10 or greater): Both manic and depressive symptom scores are elevated.

This paired approach allows clinicians to monitor changes in both symptom domains over time and identify shifts between mood states that may require treatment adjustments. Longitudinal tracking of these mood-state classifications provides clinically actionable information on symptom course and treatment response.

PMQ-9 and PHQ-9 Graphs
On first administration of the paired PMQ-9 and PHQ-9 assessment, three visualisations are presented to support clear interpretation of manic and depressive symptoms within a measurement-based care framework.

- Paired Total Score Bar Chart: Displays the client's total PMQ-9 and PHQ-9 scores side-by-side on the same scale, with a reference line at a cutoff score of 10 for each. For the PHQ-9, validated severity thresholds (Minimal, Mild, Moderate, Moderately Severe, and Severe) are also shown. This provides an immediate visual summary of relative manic and depressive symptom severity and supports paired interpretation.
- PMQ-9 Horizontal Distribution Chart: Positions the client's PMQ-9 score relative to a single clinical reference population derived from the longitudinal bipolar disorder sample used in the PMQ-9 validation study. Percentiles provide descriptive context for manic symptom severity compared with other individuals receiving clinical care.
- PHQ-9 Horizontal Distribution Chart: Positions the client's PHQ-9 score relative to both a community and a clinical (major depressive disorder) reference population, allowing clinicians to compare depressive symptom severity against typical and clinical presentations.

Assessment powered by
NovoPsych

Client Name	Generic Client

When multiple administrations are available, the initial score visualisations are replaced by a Multi-Administration Line Plot. These plots display PMQ-9 and PHQ-9 total scores across all administrations as line graphs plotted against time, with the cut score of 10 shown as a reference for each measure. This visualisation enables clinicians to monitor symptom trajectories over time, track treatment response, and identify patterns of improvement, deterioration, or shifts between manic, depressive, and mixed symptom presentations.

Client Responses

PMQ-9 (Manic Symptoms)

		Not at all	Several Days	More Than Half of Days	Nearly Every Day
1	Had little or no sleep, and still felt energized	0	1	**2**	3
2	Felt easily irritated	0	1	2	**3**
3	Felt overactive	0	**1**	2	3
4	Acted impulsively or done things without thinking about consequences	0	**1**	2	3
5	Felt sped up or restless	0	1	**2**	3
6	Been easily distracted	0	1	**2**	3
7	Felt pressure to keep talking or been told by someone you are more talkative	0	**1**	2	3
8	Felt argumentative	0	1	2	**3**
9	Had racing thoughts	0	1	2	**3**

PHQ-9 (Depressive Symptoms)

		Not at all	Several Days	More Than Half of Days	Nearly Every Day
10	Little interest or pleasure in doing things	0	1	**2**	3
11	Feeling down, depressed, or hopeless	0	1	2	**3**

Assessment powered by
NovoPsych

Client Name	Generic Client

Client Responses (cont.)

		Not at all	Several Days	More Than Half of Days	Nearly Every Day
12	Trouble falling or staying asleep, or sleeping too much	0	1	2	3
13	Feeling tired or having little energy	0	1	2	3
14	Poor appetite or overeating	0	1	2	3
15	Feeling bad about yourself — or that you are a failure or have let yourself or your family down	0	1	2	3
16	Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
17	Moving or speaking so slowly that other people could have noticed? Or the opposite — being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
18	Thoughts that you would be better off dead or of hurting yourself in some way	0	1	2	3