



Hues Within

Methodology

Current rules, calculations, rationales, and limitations

This document explains how Hues Within organizes completed check-ins, user-entered prescription records, and period tracking. It distinguishes implemented product rules from external evidence and does not define or diagnose episodes.

Current input formats

Mood uses an 11-point scale from -5 to +5. Energy, Interest, Need for sleep, Everyday manageability, and Irritability each use three named choices. All check-in questions are optional; a middle choice is not a default answer.

Missing data

Unanswered questions and missing calendar days remain blank. The app does not fill them in.

Pattern access

Patterns opens after 30 completed check-ins. Cycle is available from the first records; estimates and comparisons have their own eligibility rules.

Intended use

Hues Within is a personal self-tracking and communication support tool. It is not intended to screen for or diagnose a condition, identify clinical episodes, monitor disease progression, predict relapse, assess treatment effectiveness, recommend treatment, or provide emergency support.

METHODOLOGY VERSION Version 1, Revision 8 - 2 October 2026 Revision 8 reconciles the three-choice questions, prelaunch answer conversion, History presentation, prescription comparisons, and Cycle changes in app version 1.0.0 build 45. It replaces the earlier three-cycle projection gate with one qualifying complete cycle and removes the retired cross-cycle summary. Earlier revisions remain in project change records. Product thresholds are not clinical standards.

01 / SCOPE AND DATA

Scope and interpretation

The method is descriptive and personal. It summarizes the person's own records and uses explicit eligibility rules so that missing answers are not treated as observations. It is not a validated clinical instrument.

Descriptive. The app reports what was recorded, when it appeared, and what else was recorded on the same or nearby dates.

Personal. Comparisons use the person's selected records or earlier history, not a population norm.

Non-diagnostic. Lower, balanced, and higher are positions on a self-rating scale, not clinical episode labels.

Non-causal. An overlap with sleep, medication, a cycle window, or another answer does not establish cause.

Units used in calculations

Unit	Definition	Effect on calculations
Calendar day	A date in the person's local calendar.	Used for continuity, date windows, and visible gaps.
Completed check-in	A saved daily record, even if optional questions were skipped.	Counts toward the 30-check-in history gate.
Answered value	A value explicitly selected or entered for one question.	Only answered values enter that measure's calculation.
Exact prescription date	A day-level start date with at least one named medication.	May define a before/after boundary.
Approximate prescription date	A month- or year-level medication record.	May appear in Timeline but cannot define a statistical day boundary.
Missing day	No completed check-in for that calendar date.	Remains a gap and is never imputed as steady, typical, or answered.

Missing answers

All questions, including Mood, begin unanswered. A choice such as 0, Moderate, No, or About usual is not stored unless the person selects it. Written notes remain visible but are not classified or analyzed.

Current input boundary

$\text{Inputs} = \text{completed check-ins} + \text{prescription records} + \text{period answers}$

Only explicitly recorded values are eligible. Missing values are not replaced with averages or carried forward.

Rationale. A missing answer can mean that the person skipped the question, did not complete a check-in, or chose not to record that information. Treating it as a middle value, No, or symptom-free would invent data and change denominators.

02 / RATING SCALE

Rating formats and normalized positions

Mood is the only built-in 11-point question, from -5 through +5. Its center is labeled Balanced. The Mind box also contains Energy, Interest, Irritability, and Everyday manageability. Need for sleep sits below Sleep duration in the

Sleep box. Symptoms and Changes from usual share a box. Custom rating questions use the configured numeric scale.

Numeric comparisons normalize an eligible value from 0 to 1. Current three-choice responses use distinct stored category identifiers and chart positions 0, 0.5, and 1. Those positions order the drawing; they do not establish equal clinical distances or make the middle answer healthy or balanced. Named-choice comparisons count each choice separately.

Normalization

```
p = clamp((value + 5) / 10, 0, 1)
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On the current scale, -5 gives $p = 0.00$; -2 gives 0.30 ; 0 gives 0.50 ; +2 gives 0.70 ; and +5 gives 1.00 . Legacy records use their own saved minimum and maximum.

Current three-choice questions

Question	First	Middle	Last
Energy	Low	Moderate	High
Interest	None or mild	Moderate	High
Need for sleep	Less than usual	About usual	More than usual
Everyday manageability	Unmanageable	Somewhat manageable	Manageable
Irritability	None or mild	Moderate	High

Prelaunch conversion and removed questions

The approved prelaunch cleanup converts older five-position answers into three: the first two positions become the first choice, the middle remains the middle, and the last two become the last choice. Older numeric Energy uses -5 to -2 = Low, -1 to +1 = Moderate, and +2 to +5 = High after scale normalization. Older numeric Irritability first uses the former severity mapping (-5 through 0 = None; +1 = Mild; +2 = Moderate; +3 = High; +4/+5 = Very high), then folds into three. Missing or unreadable answers are not filled in; Mood is unchanged.

This conversion loses original detail. In particular, converting older relative Interest into current interest amount is an approved prelaunch approximation, not a validated equivalence. Removed stored answers are cleared for Mind speed, Sociability, Drive and its five subquestions, Sleep routine, Spending, Left home, and Showered. Cleanup runs idempotently when the app starts; changed signed-in records use the normal save/sync path. Updated summaries and exports reflect the cleaned records, not an unchanged original scale.

Mood Map color mapping

The Mood Map displays one color for each whole-number mood rating. These 11 explicit stops use the app's five directional palette anchors with RGB blends between them.

-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5

Bar labels: -5, -4, -3, -2, -1, 0, +1, +2, +3, +4, +5.

Exact display colors: -5: #6E7FD6 - -4: #4E86D0 - -3: #5C94D0 - -2: #69A1CF - -1: #55A18A - 0: #469B6D - +1: #6E9C67 - +2: #E0AC5C - +3: #DE9A63 - +4: #DB8969 - +5: #D97770. Blank cells use the paper background and do not receive a mood color.

Rating bands and their uses

Use	Applied to	Lower	Balanced / middle	Higher
Numeric range summaries	Eligible numeric ratings, including Mood and custom numeric questions.	$p \leq 0.35$	$0.35 < p < 0.65$	$p \geq 0.65$
Pattern groups	Mood only; used to select days and detect stretches.	-5 to -2	-1 to +1	+2 to +5

Difference in use. Mood groups select days and detect stretches. Current three-choice questions retain their own wording and pictograms; Moderate irritability is not Balanced, and Manageable is not an adverse upper-range state. Neither color nor a chart position is a diagnosis.

Rationale. The -5 to -2, -1 to +1, and +2 to +5 bands are product-defined descriptive ranges. They support navigation and comparison and are not validated clinical cutoffs. The directional display moves from violet (#6E7FD6) through blue (#4E86D0) and green (#469B6D), then amber (#E0AC5C) to red (#D97770). Amber is an intermediate upper-range color, not a fourth range.

Interpretation

Pattern group = function of recorded mood only

Energy and activation do not determine the group. Balanced means nearer 0 on the person's mood scale; it does not mean clinically stable, symptom-free, or well.

Mood Map and range controls

Element	Current rule	Reason
Calendar	Monday-Sunday week rows across the selected date range.	Preserves calendar order and keeps blank dates visible.
Mood cell	Uses the answered mood value and its corresponding directional color.	Shows the recorded rating without relabeling it as a diagnosis.
Period marker	Shown only when <code>period = Yes</code> was explicitly answered.	Separates direct observation from an estimate.
Medication marker	Shown on an eligible exact prescription start date.	Marks timing only; it is not an effect claim.
30D / 90D / 6M / 1Y	Calendar span ending at the selected range end.	Provides bounded periods that can be interpreted consistently.
Custom	Explicit start and end, with a minimum 7-day span.	Prevents accidental zero-length or very short ranges.

03 / PATTERNS

Pattern eligibility and stretch detection

Patterns summarize repeated recorded ratings. They do not identify depressive, manic, hypomanic, mixed, or other clinical episodes.

Rule	Implementation	Rationale
History gate	Patterns opens after 30 completed check-ins; the days need not be consecutive. Cycle has no 30-check-in gate.	Thirty is a product threshold, not a clinical standard. Each comparison still has its own minimum answers.
Daily match	Lower = -5 to -2; balanced = -1 to +1; higher = +2 to +5.	Classification uses answered Mood only. Mood is optional; a skipped answer belongs to no group.
Continuity	Join adjacent matching records. A one-day gap may be bridged only after the run already contains 4 matching days; 2 or more intervening days end the run.	Keeps the 3-day minimum consecutive while allowing limited variation only after a longer run is established.
Minimum span	Keep a run only when it contains at least 3 days that actually match the selected range. A bridged day does not count toward that minimum.	Filters isolated ratings and prevents 2 matching days around 1 gap from becoming a 3-day stretch. This is a display rule, not an episode-duration criterion.
Focused view	Show the stretch plus up to 3 nearby calendar days before and after.	Provides immediate context without changing which days belong to the selected stretch.

Why one intervening day may be bridged

The one-day tolerance is an explicit, unvalidated product heuristic for display continuity. A single missing or nonmatching day does not automatically divide a longer recorded sequence into two separate stories. This rule was not derived from diagnostic criteria and must not be used to identify a clinical episode.

The intervening day is never changed, filled in, or counted as matching. A bridge is permitted only after 4 matching days have already accumulated in that run; a bare 3-day minimum must therefore be 3 consecutive matching days. Two or more intervening calendar days end the run. Inclusive duration is end date minus start date plus one, so an allowed bridged day remains visible in the displayed span and in the focused graph.

Stretch rule

Join adjacent matches; bridge one intervening day only when matching days already accumulated ≥ 4

Keep when actual matching days ≥ 3 . Displayed and typical durations use inclusive qualifying spans.

Pattern comparisons

Frequency comparison

$\% \text{ selected} = \text{true selected answers} / \text{all answered selected} \times 100$
 $\% \text{ other} = \text{true other answers} / \text{all answered other} \times 100$
 $\text{difference} = \% \text{ selected} - \% \text{ other}$

The result is a percentage-point difference, not percent change. Missing answers are excluded from both denominators.

Eligibility or behavior	Current rule	Reason
Overall group	At least 5 selected days and 5 other days in the active range.	Suppresses percentages based on extremely small denominators.
Each field	At least 5 answered values per side; a focused stretch needs 3 selected and 5 other.	Matches the 3-day minimum stretch while keeping a larger comparison set.

Eligibility or behavior	Current rule	Reason
Choice categories	Each available or historically recorded choice is eligible once both sides meet their answered-day minimum.	Keeps rare and zero-frequency choices visible rather than silently omitting them.
Context order	Sort by absolute percentage-point difference; add 4 initially and show up to 6.	Prioritizes the largest recorded contrasts without implying significance.
Written notes	Stored for the person but not analyzed.	Avoids interpreting free text as symptoms, causes, or criteria.

Rationale for minimum counts. These thresholds are readability safeguards, not statistical-power calculations. The app does not produce p-values, confidence intervals, or population inference. A result can still be unstable when it barely meets the minimum, so all cards show the underlying counts.

Context criteria

Field type	Calculation	Rationale
Movement	Compare each category: 0–10 min, 11–30 min, 31–60 min, or 60+ min.	Keeps the person's answer categorical; it does not infer exertion, calories, or a clinical state.
Sleep duration	Lower $\leq$ pooled personal median - 0.75 hours; higher $\geq$ pooled personal median + 0.75 hours.	Uses the person's own sleep distribution. The 45-minute margin is a product rule to avoid labeling tiny differences.
Current three-choice questions	Compare the frequency of each specific response among answered days.	Keeps Energy, Interest, Need for sleep, Irritability, and Everyday manageability in their own terms.
Numeric rating questions	Compare lower and higher normalized ranges.	Either direction may be relevant; this does not turn named choices into numeric mood bands.
Multi-select choices	Compare each named choice among answered days.	Preserves symptoms, changes from usual, activities, and emotions. Explicit none differs from an unanswered question.
Yes / no questions	Compare the percentage of answered days recorded Yes.	Uses the explicit binary answer without converting a skipped question to No.
Custom questions	Yes/no, rating, and choice questions use the same corresponding rules. Free text is excluded.	Applies one method to built-in and person-created structured fields. The app does not interpret free-text responses.

Movement threshold rationale. The daily movement bands are product-defined categories for organizing self-reported time. They are not derived from or validated by weekly public-health guidance. The 30- and 60-minute boundaries may resemble simple daily fractions of the U.S. adult guideline range of 150-300 minutes per week, but those weekly recommendations do not validate these day-level labels [4]. The app displays only the bare minute ranges 0–10 min, 11–30 min, 31–60 min, and 60+ min. This avoids judging the person's movement or suggesting a clinical activity level. Current U.S. and WHO guidance recognizes that all activity counts, including short bouts [4,5]. Hues Within includes walking, chores, and errands and does not measure intensity. None of these categories indicates that a self-reported day meets or fails a public-health guideline.

Recent and earlier comparison sets

Context	Reference set	Use
Pattern graph	Other completed days outside the selected group or focused stretch.	Comparisons use these records, but no dashed usual/median reference line is drawn.
Recent compared with earlier	Latest 14 completed check-ins versus up to 90 immediately preceding completed check-ins.	Compares Lower, Balanced, and Higher frequencies.
Cycle window in the PDF report	Eligible records outside the before, during, and after period windows.	Provides a comparison median for the selected window; separate from the app's recorded-period context.
Numeric context	All answered values across selected and other days.	Builds median-centered criteria; sleep uses a +/- 0.75 hour margin.

- The Recent compared with earlier card appears after at least 90 completed check-ins overall.
- At first appearance, the earlier set may contain 76 records because the latest 14 are held out.
- Each measure needs at least 5 answered values in both the recent and earlier sets.
- If the largest band-frequency difference is under 15 percentage points, the app reports a similar range mix; otherwise it reports the strongest shift.

Rationale. Fourteen completed check-ins form a recent comparison block, while up to 90 earlier check-ins provide the earlier comparison set. Earlier records are a comparison period, not a definition of the person's normal, healthy, or stable state. The median is used for continuous context because it is less affected by an unusually high or low observation than the mean [1]. The 14/90 windows and 15-point reporting threshold are product heuristics, not clinical cutoffs.

04 / MEDICATION CONTEXT

Prescription-change comparisons

Medication views compare recorded answers before and after an exact-dated, user-entered prescription record. Medication names, dates, doses, timing, symptoms, and side effects are not independently verified against a pharmacy, prescriber, or medical record. The views report timing and do not evaluate efficacy, whether a symptom or side effect was caused by the change, medication adherence, or any other causal relationship.

Comparison windows

Before = eligible dates before the change date
After = eligible dates after the change date

The change date itself is excluded. Presets are 30 days, 90 days, 6 calendar months, or 12 calendar months. Custom durations set before and after independently from 7 to 1,095 approximate days.

Rule	Implementation	Rationale
Boundary precision	Only an exact day-level prescription record defines a comparison boundary.	A month- or year-only record cannot support a defensible day-level before/after split.
Date coverage	Each side needs completed check-ins on at least half of the calendar days that could exist in that side.	Reduces comparisons built from very sparse coverage while allowing ordinary missed days.
Before-history floor	If fewer than 14 calendar days exist before the change, no comparison is shown. Fourteen or more may be shown as a limited window.	Avoids presenting a comparison based on only a few days.
After-window cap	The after side ends at today while still building, or the day before the next exact-dated prescription change.	Prevents records after a later change from being assigned to the earlier change.
Answer readiness	The overall before and after windows must be ready. Rating and named-response rows show their actual answered counts, including missing sides; the sleep-range comparison requires both sleep windows to be ready.	A completed check-in does not imply that every optional measure was answered.
Rating and sleep outputs	Mood band distributions; dominant named responses and pictograms for all five current three-choice questions; middle-half Sleep duration from the 25th to 75th percentiles.	A tied response lead is Mixed. Sleep uses a shared axis spanning recorded durations across both sides; its middle half is not the full recorded range.
Symptoms and side effects	Initially show the top 5 recorded tags by combined day count; Show more reveals the remainder. Mirrored before/after bars use recorded-tag days divided by answered symptom days on each side. Count a tag once per day and merge capitalization/outer-space variants.	Explicit none counts in the denominator; skipped answers do not. Zero recorded occurrences differs from no answered symptom days. Tags recorded on either side remain eligible. Notes are not classified; no causal or severity conclusion is made.
Change list	Shows 5 exact-dated prescription boundaries first; See more reveals 5 additional boundaries at a time.	Keeps long medication histories readable without dropping eligible comparisons.

Rationale. The window lengths are user-selected analysis spans, not pharmacologic onset assumptions. The half-days coverage rule and 14-day historical floor are product sufficiency rules. They make sparse or extremely short comparisons less likely, but they do not turn an observed change into evidence that a medication caused it.

05 / CYCLE CONTEXT

Recorded period dates and estimated phases

Recorded bleeding is kept separate from calendar-derived phase estimates. Estimated phases provide context for reviewing check-ins and are not fertility, ovulation, or contraceptive guidance.

Element	Operational rule	Rationale and limitation
Period cluster	Recorded Yes days remain in one cluster while gaps between them are 10 days or fewer.	Allows missed daily answers within one reported bleeding period. Ten days is a product grouping rule.
Complete tracked cycle	One cluster start to the next, 18-60 calendar days, with a completed manual check-in on at least one-third of all calendar days in the interval.	Determines which observed lengths can inform ongoing estimates. Any completed check-in counts toward coverage even if Period was skipped. The bounds are not a diagnosis.
Recorded bleeding	Only dates explicitly answered <code>period = Yes</code> .	Direct observation is not extended into unanswered days.
Estimated follicular	Day after recorded bleeding ends through 15 days before the next period start.	Fills the calendar interval before the fixed luteal estimate.
Estimated luteal	The 14 calendar days ending the day before the next period start.	A transparent calendar approximation; actual luteal timing varies.
Estimated premenstrual	The final 7 days of the estimated luteal phase.	Provides a consistent late-cycle comparison window.
Calendar-estimated ovulation day (shown as Ovulation under Estimated cycle phases)	The first estimated luteal day, 14 days before the next period start.	A labeled calendar estimate only; there is no biological ovulation measurement.

Rationale for estimate labels. Prospective evidence shows meaningful within-person variability in follicular and luteal phase lengths [2]. Calendar-only methods also have limited accuracy for the day of ovulation [3]. Hues Within therefore labels every follicular, luteal, premenstrual, and calendar-estimated ovulation placement as estimated and does not use it for fertility decisions.

Cycle comparisons

Comparison	Selected records	Reference and threshold
Before / during / after in the PDF report	1-7 days before a period start; explicit period Yes days; 1-7 days after the recorded end.	Other eligible dates; at least 3 selected and 5 reference answers.
Recorded-period context	Completed check-ins explicitly answered <code>period = Yes</code> .	Completed check-ins explicitly answered <code>period = No</code> ; unanswered period questions enter neither side. At least 5 explicit period answers per side overall and at least 5 answered values per side for each displayed field.

The former premenstrual cross-cycle trend summary and its difference threshold are no longer calculated or shown. The estimated premenstrual phase band remains. Cycle charts and recorded periods can be viewed before comparison counts are met; the interface explains missing counts rather than hiding the whole Cycle view.

Open-cycle projection

- A projection requires at least 1 qualifying complete historical cycle (two recorded starts) and a most recent recorded period cluster, not 90 days or three complete cycles.
- Predicted cycle length is the rounded median of the person's completed-cycle lengths.
- The displayed next-start range uses that person's shortest and longest completed-cycle lengths.
- Ongoing phase dates and lengths may adjust when the next period start is recorded. Estimates for completed cycles remain anchored to their recorded starts unless those period records are edited.
- The ongoing estimated portion uses lighter phase colors. There is no separate Estimated arrow or divider; the legend and information disclosure identify the estimates.
- Without a qualifying complete cycle, recorded periods and eligible historical phase bands remain visible, but there is no ongoing projection. The app does not substitute a universal 28-day cycle.

Rationale. One qualifying cycle enables an early personal estimate, not a reliable prediction. With only one length, the median, minimum, and maximum coincide: a single displayed date does not mean certainty. Additional records may change the estimate, and even a multi-cycle minimum/maximum range is not a confidence interval. It must not be used to prevent or plan pregnancy.

Display and formula reference

Range and chart controls change what is visible. They do not change the meaning of an answered value.

Mood Map. Full selected date range in Monday-Sunday rows. Blank cells remain blank, and a day preview opens from each answered cell.

Timeline. All in-range qualifying stretches, recorded period starts, and prescription events, ordered newest first. A stretch stays on one row unless a point event falls within it; then the Timeline shows started and, when later history closes it, ended rows.

Rhythm charts. Mood, Energy, Need for sleep, and Irritability are the current base rows. Eligible optional rows include Interest, Everyday manageability, Sleep duration, Movement, Medication adherence, Period flow, and Period cramps. Day-level values, phase shading, prescription markers, and context dots share one time axis. Missing values remain gaps; a row without eligible answers is not offered. There is no usual/median reference line in the app or PDF rhythm charts. App context rows have the question title and criterion beside the chart; the PDF retains a separate numbered context legend.

History calendar and record summaries

History is separate from the 11-color Mood Map. Its square day cells have neutral interiors and three mood-range outline colors; selection uses pale blue and navy. Up to three equal-size emoji (emotion, recorded period, exact-dated prescription) appear in one centered row. Compact record pills show Mood's number and range, Sleep duration, and named Energy/Irritability responses. Sleep and named-response pills have neutral outlines. These are display choices, not new classifications or recorded answers.

Spreadsheet boundaries

Spreadsheet exports include current answered values, explicit answer-status identifiers, and a calendar emotion field. Explicitly answered empty symptoms export as None recorded; skipped answers stay distinct. Retired questions are not export columns. The internal import path understands current EN/es-MX/fr-CA exports and custom choices, but the import control is hidden in the current app. The Medication History sheet is export-only: importing check-ins does not recreate prescription history.

Day-level chart behavior

Element	Current behavior	Displayed value
Rhythm points	One calendar day per point across the selected range.	The answered value on that date; no weekly or monthly averaging.
Wide ranges	Longer and custom ranges extend the horizontal scroll.	Day-level answers remain day-level instead of being aggregated.
Timeline	The selected range controls what appears; the newest completed manual check-in in full history decides whether a stretch has ended.	There is no separate hidden event cap. Full-history closure prevents a stretch from appearing ongoing merely because its closing check-in is outside the visible range.

Exact prescription dates may mark comparison charts. Approximate month- or year-only dates stay in narrative Timeline entries and remain labeled as approximate. A recorded period start or prescription event inside a qualifying stretch is annotated as occurring during that lower, balanced, or higher stretch.

Formula reference

Quantity	Definition
Normalized rating	$p = \text{clamp}((\text{value} - \text{source minimum}) / (\text{source maximum} - \text{source minimum}), 0, 1)$
Frequency	$f = \text{count}(\text{true}) / \text{count}(\text{answered})$
Percentage-point difference	$100 \times (f \text{ selected} - f \text{ reference})$
Median	Odd n: center ordered value. Even n: mean of the two center values.
Interpolated quantile	$h = (n-1)q; \text{ lo} = \text{floor}(h); \text{ hi} = \text{ceil}(h); \text{ Qq} = x[\text{lo}] + (h - \text{lo}) (x[\text{hi}] - x[\text{lo}])$
Typical stretch duration	$\text{round}(\text{median}(\text{inclusive qualifying spans}))$

Interpretation safeguards

- Association is not causation; the app does not determine whether a medication is working.
- Missingness changes denominators and may reflect what a person chose or was able to record.
- Personal thresholds and product gates are not clinical cutoffs.
- Higher refers to the upper portion of the recorded mood scale, not automatically to wellness, energy, activation, hypomania, or mania.
- Cycle phases and calendar-estimated ovulation placement are calendar estimates, not biological measurements.
- Reports summarize the record as entered and should be reviewed with a qualified clinician when used in care.

Limitations of the method

- Records are self-reported and may be incomplete, entered later, remembered differently, or selected differently depending on how the person feels. Missingness may therefore be non-random.
- Before/after and timing-window comparisons are observational. They do not adjust for simultaneous medication changes, dose timing, sleep, cycle timing, illness, stress, care, environment, regression to the mean, or other confounding factors.
- Minimum counts improve readability but do not establish statistical reliability. The app does not calculate confidence intervals, p-values, clinical significance, or population-level inference.
- Calendar-based cycle estimates cannot confirm ovulation or fertility status and may be especially uncertain with irregular cycles, changing cycle patterns, postpartum status, perimenopause, hormonal medication, illness, or incomplete tracking.
- A report shared with a clinician is supporting context supplied by the person. It is not a verified medical record, professional interpretation, diagnosis, or treatment recommendation.

07 / GOVERNANCE

Rule status and change control

The document separates implemented rules, product heuristics, and external evidence. A citation can support a design rationale without validating the app's exact threshold.

Category	Meaning	Examples in this methodology
Implemented rule	A current calculation or display behavior in the app.	Optional Mood -5 to +5; five three-choice questions; Patterns-only 30-check-in gate; bridge after 4 matching days; exact-date medication boundary.

Category	Meaning	Examples in this methodology
Product heuristic	A transparent design choice used for sufficiency, grouping, or readability.	Minimum counts; 14-check-in recent block; 18-60-day qualifying cycle and one-third tracking coverage.
Evidence-informed rationale	Published evidence supports the general concern or direction, not necessarily the exact number.	Robust medians; variability and limits of calendar-only cycle estimates.
Clinical criterion	A diagnostic or treatment standard applied by a qualified professional.	Not produced by Hues Within.

Version 1, Revision 8 scope. Reconciled to build-45 source: current optional questions, prelaunch conversion and removal, 11-color Mood Map versus outlined History calendar, pattern grouping, named-response and symptom comparisons, Sleep middle-half ranges, one-cycle ongoing estimates, fixed completed-cycle anchors, removed reference lines and cross-cycle summary, spreadsheet boundaries, and limitations. Source review is not clinical validation or a claim that every release-device path has been tested.

References

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3. Johnson S, Marriott L, Zinaman M. Can apps and calendar methods predict ovulation with accuracy? *Curr Med Res Opin*. 2018;34(9):1587-1594. doi:10.1080/03007995.2018.1475348. [Source for reference 3](#)
4. US Department of Health and Human Services. *Physical Activity Guidelines for Americans, 2nd edition*. 2018. [Source for reference 4](#)
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