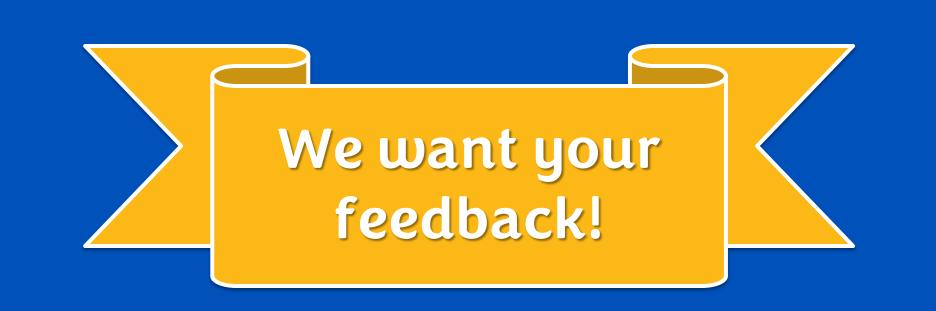


Toward Open-Source Software for Collecting and Visualizing HiTOP Data

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Goals & Design

Primary Goals for the R Package:

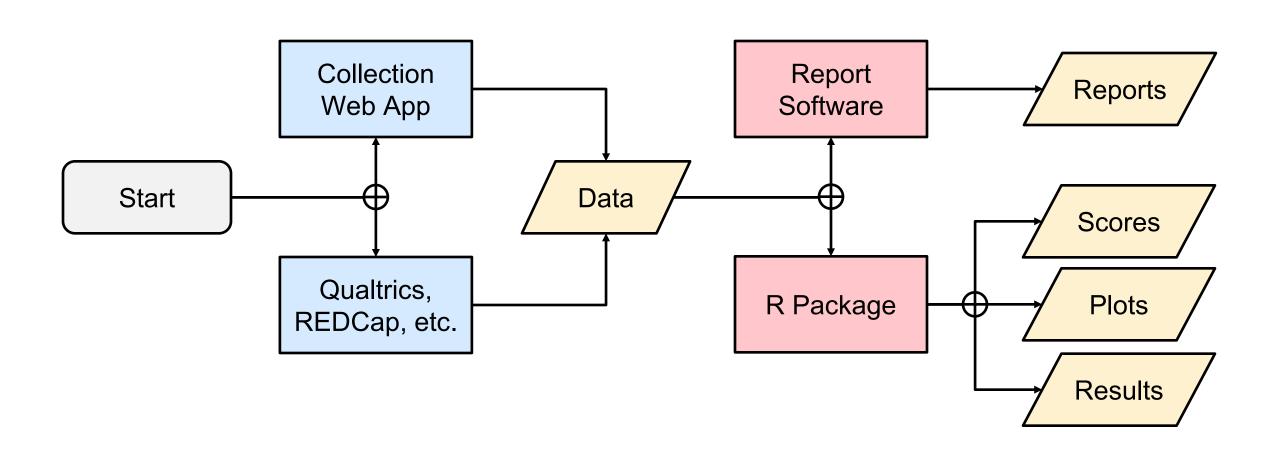
- 1. Score HiTOP-PRO scales, compare to norms, assess response validity and critical items
- 2. Implement best-practices for generating scale scores and estimates of uncertainty
- 3. Ease the creation and customization of data visualizations and other report components
- 4. Conduct relevant data analysis techniques

Additional Ideas in Development:

- Collection Web App: Collect responses to the HiTOP-PRO for research and clinical uses and store them in a HIPAA-compliant database
- Report Software: Import HiTOP-PRO responses and easily create customizable clinical reports

Flowchart for User Experience:

- Data are collected by our web app or other tools
- Clinical outputs are created by the report software
- Research outputs are created by the R package



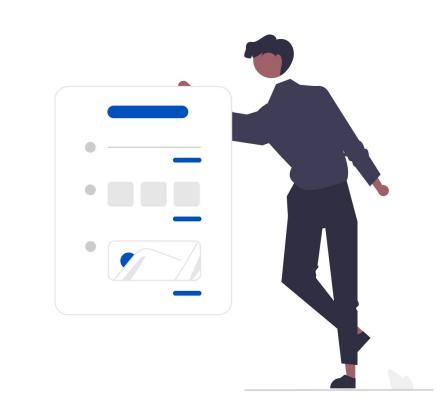
Report Components

Cover Page and Front Matter:

- General Information: provide information about the patient, clinician, and clinic; date and time of and reason for the assessment
- Instrument Overview: cite the HITOP-PRO manual and provide psychometric information about its items, scales, and normative data

Summary and Calls to Action:

- Validity Considerations: flag missing data, response inconsistency, overreporting, and underreporting (once scales are developed)
- Critical Items Endorsed: highlight extreme and concerning items/scales (e.g., suicidality)
- High-level Summary: at-a-glance view of spectrum scores and elevated subfactors



Mock-up of Hierarchical Profiles

INTERNALIZING	65 [64,66]	•
> Distress	68 [66,70]	→
> Eating Pathology	44 [42,46]	•
> Fear	62 [60,64]	•
> Sexual Problems	53 [51,55]	-0-
		-1SD M +1SD +2SE
Subfactor / Scale	T [95%CI]	Profile Visualization
> Distress	68 [66,70]	•
>> Cognitive Problems	65 [63,67]	-0-
>> Distress-Dysphoria	70 [67,73]	-
>> Emotionality	64 [61,67]	-0-
>> Insomnia	59 [56,62]	-
>> Nightmares	51 [48,54]	-0-
>> Nonsuicidal Self-Injury	47 [44,50]	-0-
>> Suicidality	61 [58,64]	-0-
		-1SD M +1SD +2SE
Scale / Subscale	T [95%CI]	Profile Visualization
>> Distress-Dysphoria	70 [67,73]	-+
>>> Anhedonia	69 [65,73]	
>>> Anxious Worry	61 [57,65]	
>>> Depressed Mood	72 [68,76]] 4
>>> Lassitude	66 [62,70]	
>>> Shame/Guilt	58 [54,62]	_ _
	•	-1SD M +1SD +2SE

Detailed Results Modules:

- Low-level Details: provide tables and visualizations with relevant scores and interval estimates
- Interpretated: scores are given context in comparison to norms and clinical cutoffs (e.g., T65)
- Hierarchically Organized:
 scores are presented per level
 of the hierarchy and visual cues
 orient viewers to each level
- Customizable: user can change normative data, types of scores (e.g., T, standard, or percentile), and modules to include or omit

Principles & Input

Report Design Principles:

- Accuracy: provide information that is precise, validated, and transparent about its uncertainty
- Relevance: present only the information that is needed and emphasize the critical elements
- Clarity: present information in a straightforward and understandable manner while minimizing jargon
- Consistency: maintain uniform formatting, use of terminology, and structure/organization throughout
- Hierarchy: leverage the structure of the HiTOP model to provide insights of varying specificity

Current Project Questions:

- a) How do you use clinical reports in practice?
- b) Would you use our web app to collect data?
- c) Would you prefer an *interactive* web-based report or a non-interactive *printable* version?
- d) What *customization* options do you want?

Broader Workgroup Questions:

- a) What software (e.g., automation) needs do you have related to HiTOP research and practice?
- b) What else do you want the R package to do, e.g., what analyses, visualizations, or tasks?
- c) Do you have feedback for the HiTOP website?
- d) How else can the workgroup support you?

Please Complete Our Feedback Form: tinyurl.com/hitop2025

