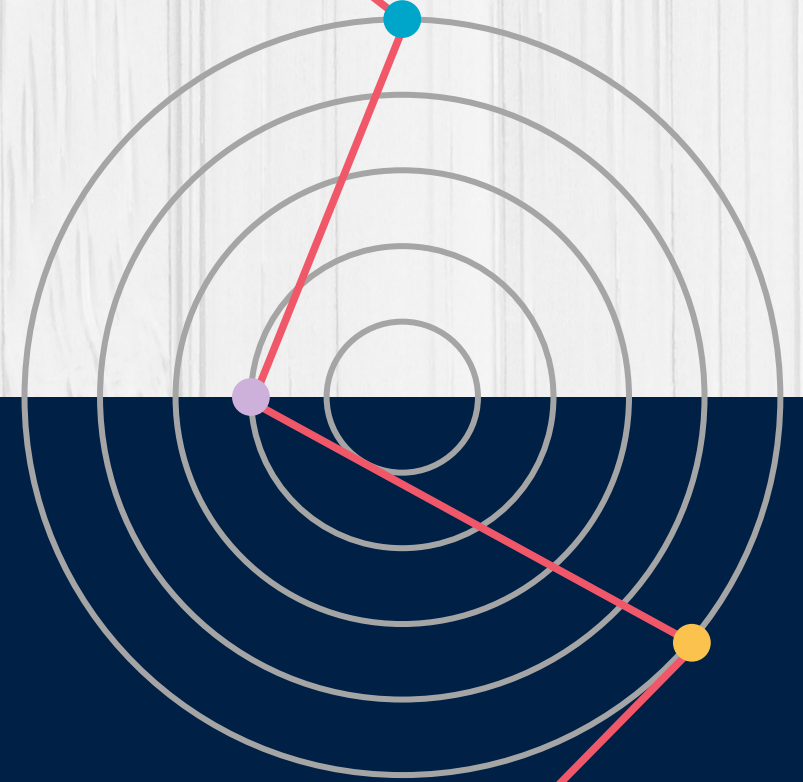




Innovation in mind

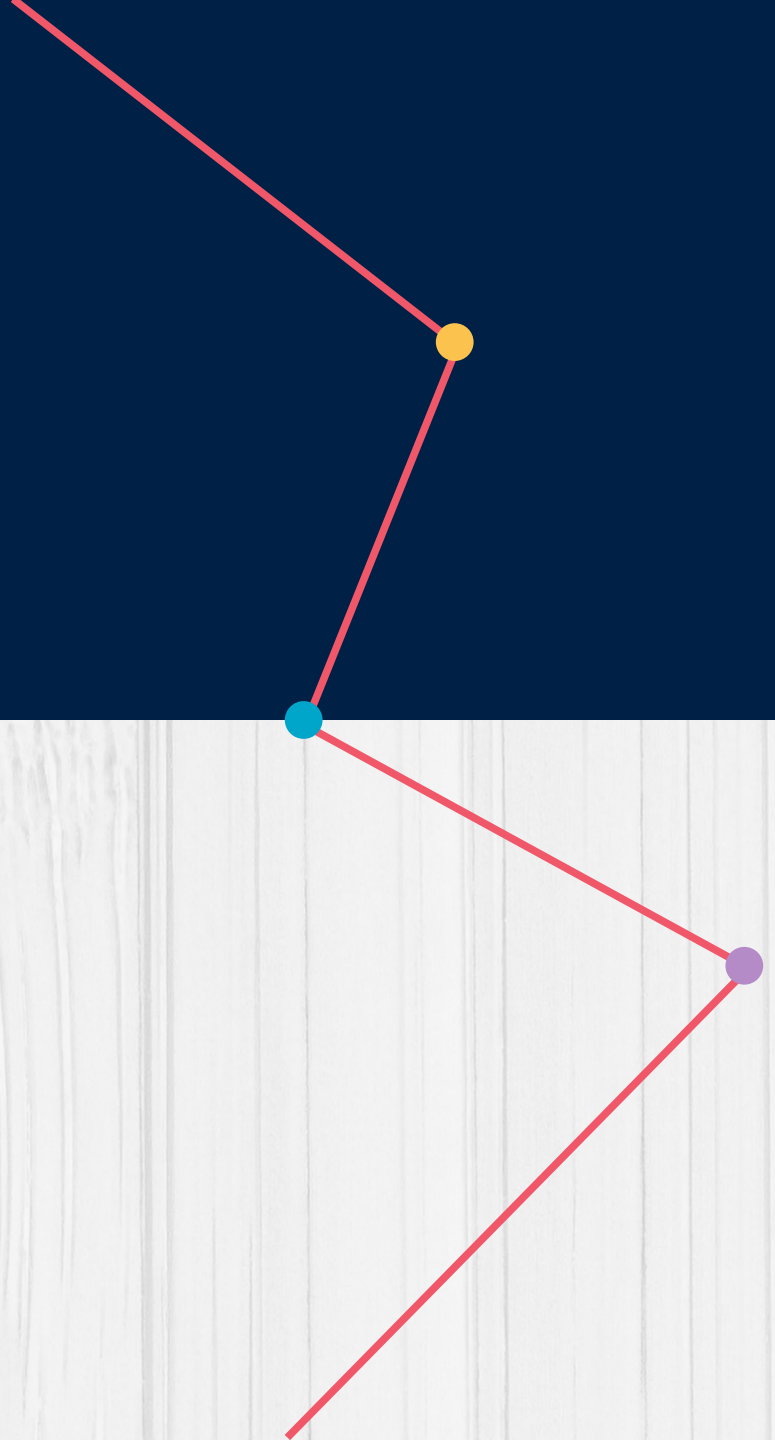
A new transdiagnostic scale

for **assessing** and **visualising**
symptom severity of patients
with different psychiatric conditions



GEDEON RICHTER

Background



The need for a transdiagnostic scale

Symptom-based treatment and in general, a **holistic view on psychiatric disorders** is becoming more and more prevalent. The focus shifts from diagnosis to the actual symptoms the patient experiences.

In the field of psychiatry, symptom evaluation is based on ratings using **validated scales** rather than exact measurements. To provide an example, deciding whether a patient has diabetes is based on their fasting blood glucose level. Whereas in psychiatry, deciding whether a patient has depression is based on the patient's history, the **exclusion of physical disorders, observation** by the doctors and **reporting of symptoms via scales** such as the Beck Depression Inventory (BDI).



Time-consuming



Exhausting for patients



Costly for doctors

Therefore, it is fairly common in everyday practice that instead of using scales, the clinical observations and patients' own evaluations are included in the **visit report**. This solution however means **no quantification of symptoms nor monitoring of illness progression**. Additionally, visit reports are often written with full of medical jargons that are **difficult to understand for both patients and caregivers**.

exclusion of other disorders



observations by the doctors



validated scales



Unfortunately, the use of these scales in everyday practice is not without limitations. Some scales are quite **time-consuming** and cannot fit into the usual visit time. Length is not only a problem for doctors, but patients as well who can find them **exhausting** or even **annoying**. Finally, the use of official scales is **costly** as usage is subject to payment.



No quantification of symptoms



No monitoring of illness progression



Difficult to understand

Advantages of the transdiagnostic scale

The transdiagnostic scale addresses all the disadvantages of diagnosis-specific scales and provides a new solution for **assessing** and **visualising symptom severity** of patients with different psychiatric conditions.



It is **quick** to administer.



It creates a **visual representation** of the overall symptom composition.



It is **applicable** to numerous psychiatric conditions.



It allows patients and caregivers to better **understand** the status of the disorder.



It provides a **quantification** of the status of the most common psychiatric symptoms.



It makes the **monitoring** and understanding of the disorder progress easier.

A decorative red line with three colored dots (yellow, cyan, purple) is positioned on the right side of the slide, extending from the top dark blue section into the light wood-grain section.

Transdiagnostic Global Impression Psychopathology scale

The base

The Transdiagnostic Global Impression - Psychopathology scale (TGI-P) is based on the **Clinical Global Impression Severity (CGI-S)** scale.

The CGI-S scale is a popular choice among clinicians for measuring overall illness severity in various psychiatric disorders and known to correlate with disorder-specific scales such as the Positive and Negative Syndrome Scale (PANSS).

However, instead of rating overall illness severity like in the CGI-S, in TGI-P, each symptom domain is rated separately on a 7-point scale. In addition, it is also visually displayed via circles.

1 - normal

2 - borderline symptoms

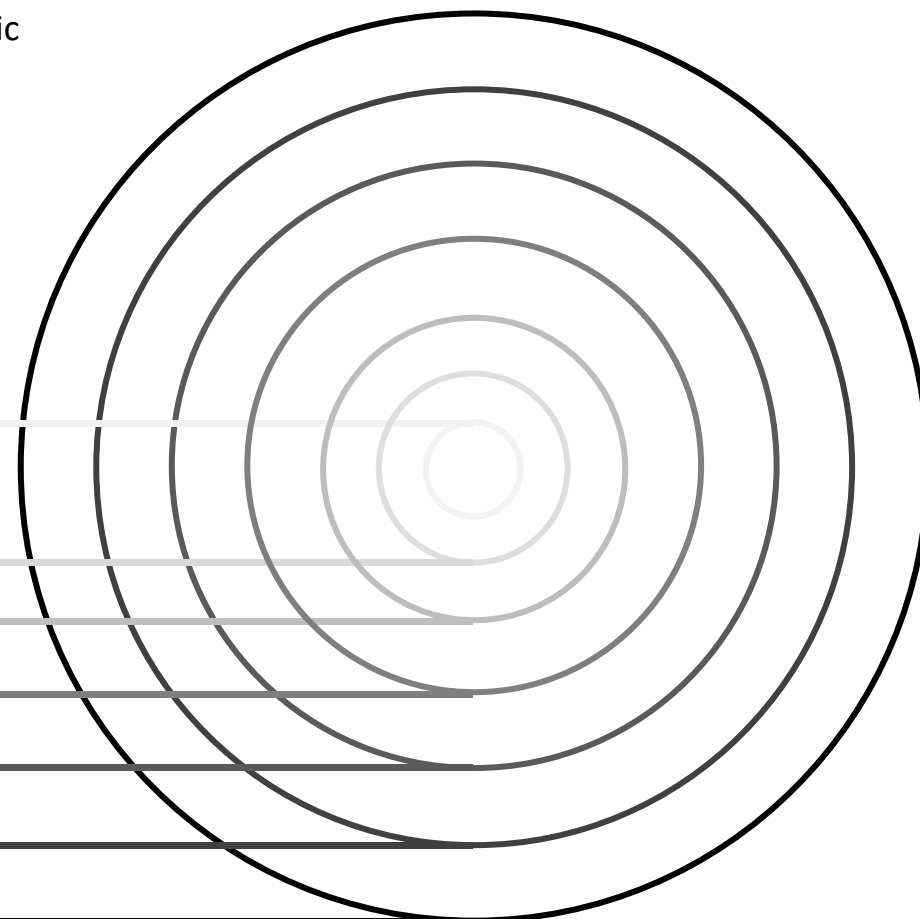
3 - mild symptoms

4 - moderate symptoms

5 - marked symptoms

6 - severe symptoms

7 - extreme symptoms



Symptom domains

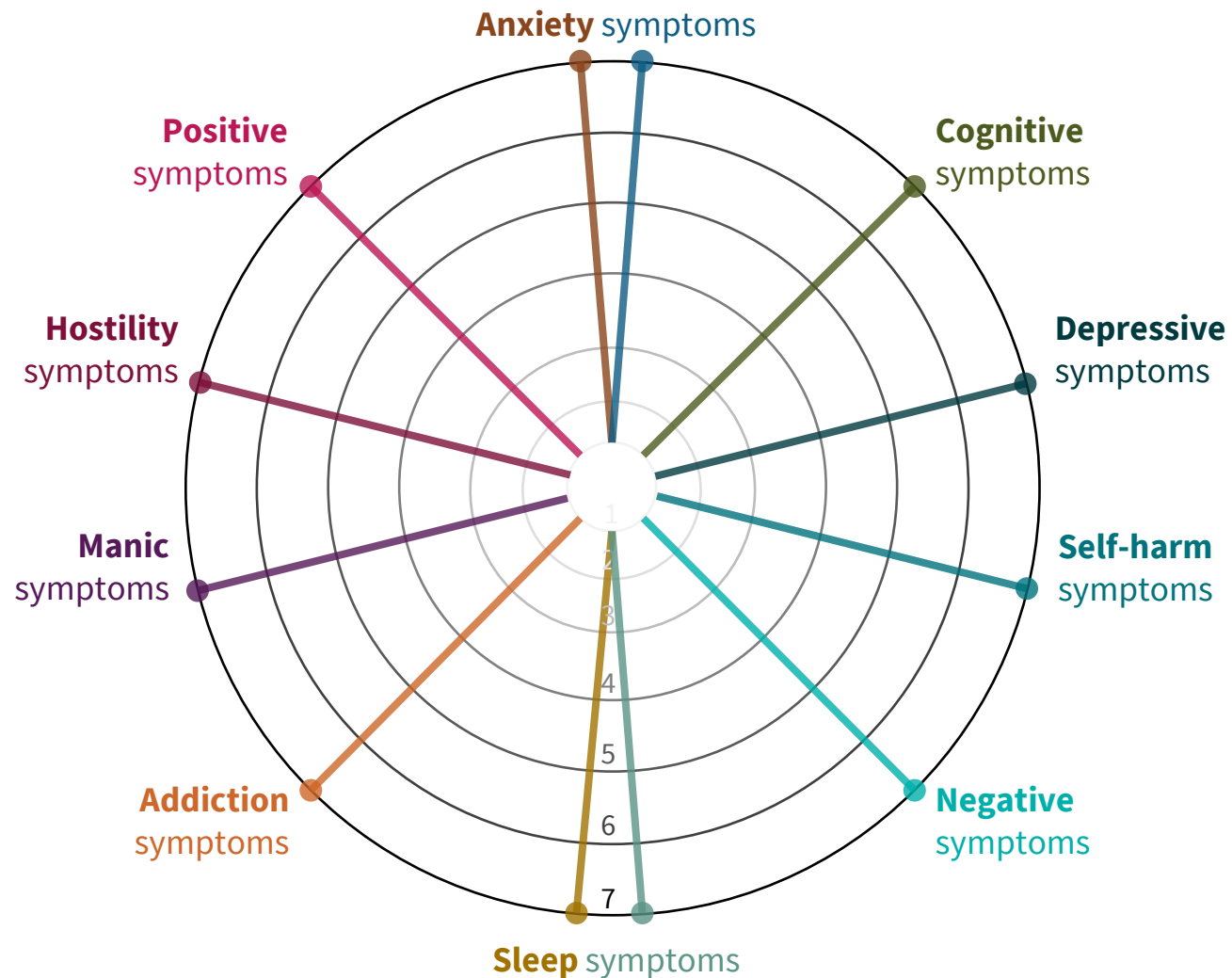
Ten symptom domains were included in the TGI-P, providing a **panoramic view of psychopathology** independently from diagnosis.

● Positive symptoms	Delusions, hallucinations, disorganised thinking, disorganised speech, abnormal motor behaviour
● Hostility symptoms	Anger, tension, uncooperativeness, impulsivity, aggression, irritability
● Manic symptoms	Expansive mood, grandiosity, racing thoughts, increased energy, excessive involvement in pleasurable activities
● Addiction symptoms	Impaired substance use control, craving, physical dependence
● Sleep symptoms	Hypersomnia or insomnia
● Negative symptoms	Blunted affect, alogia, asociality, avolition, anhedonia*
● Self-harm symptoms	Non-suicidal self-injury, suicidal ideation, intent, or attempt
● Depressive symptoms	Low mood, anhedonia, persistent feeling of sadness, hopelessness, helplessness
● Cognitive symptoms	Problems with concentration, attention, memory
● Anxiety symptoms	Feeling nervous, restless, tense, or fear of social interactions

*Rate as negative symptom if present without depressed mood

The TGI-P footprint

Putting the 10 symptom domains on the 7-level severity circles provides a **visual representation of the overall psychopathology**, called the TGI-P footprint.



The hyper symptom pole

The left side of the TGI-P footprint is called the **hyper symptom pole**, encompassing four symptom domains fully and two symptom domains partially.

The hyper pole

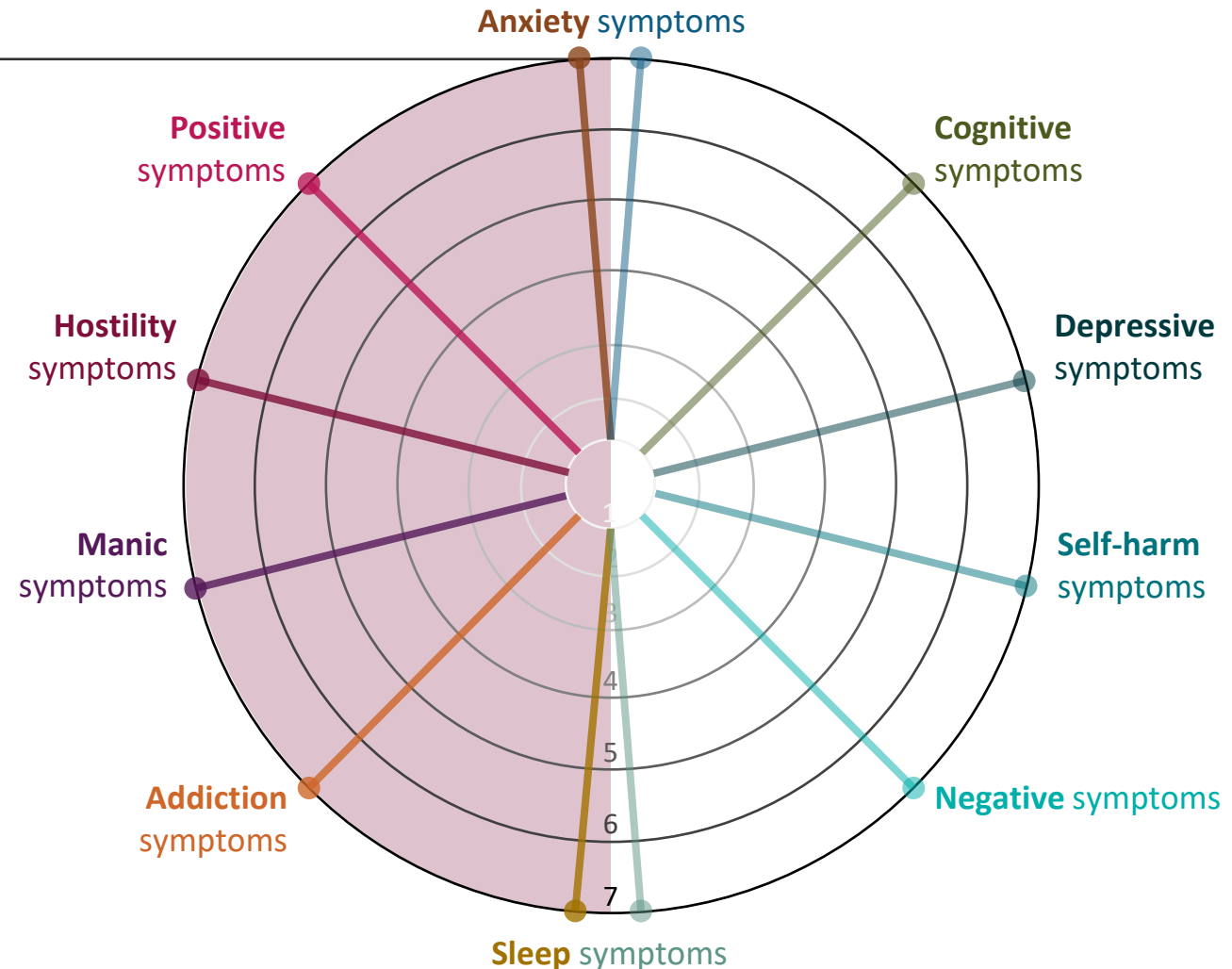
The hyper pole encompasses four symptom domains:

- positive,
- hostility,
- manic, and
- addiction symptoms.

In addition, sleep symptoms, such as insomnia, and anxiety symptoms, such as restlessness belong to this pole.

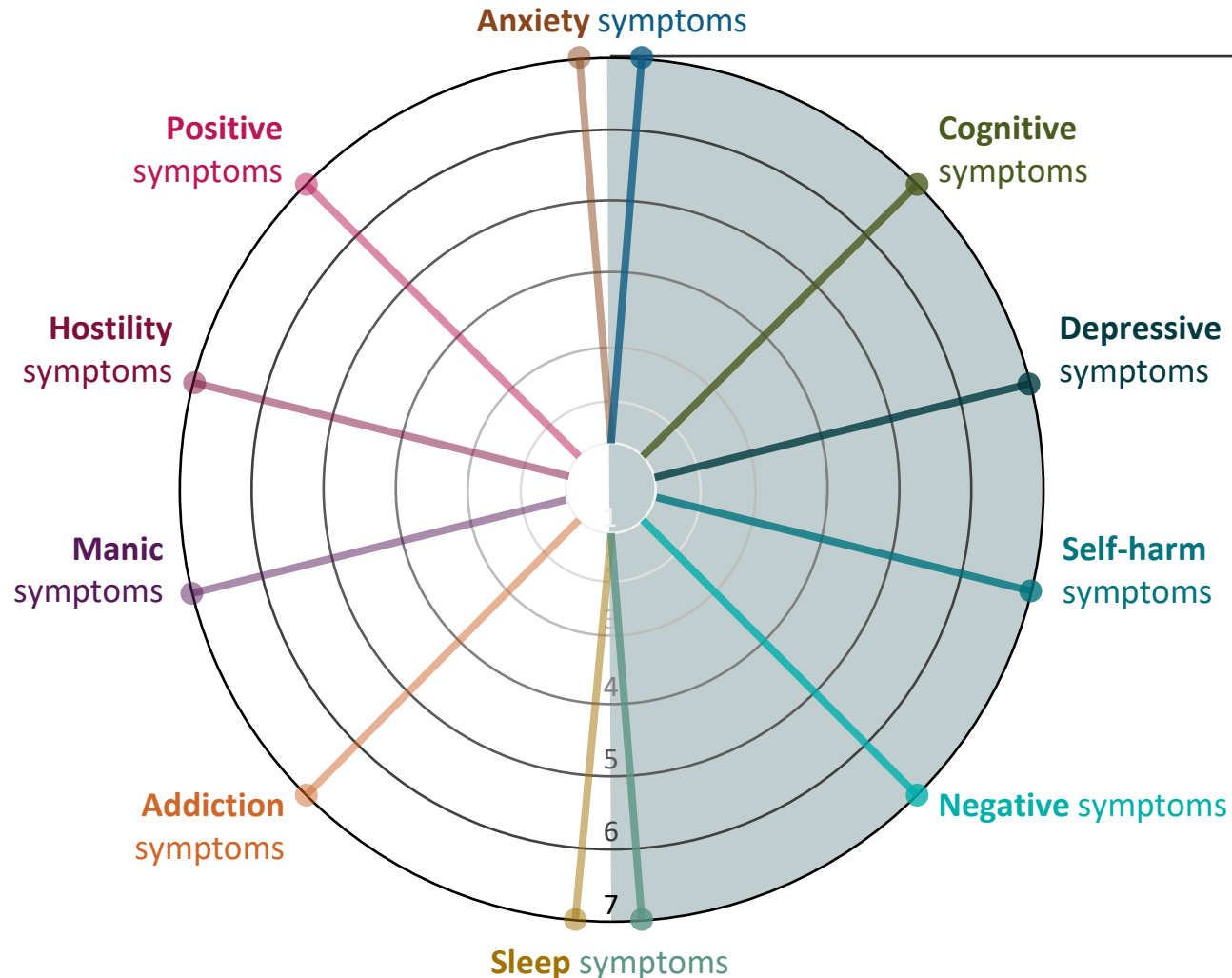
They are all related in a sense that all represent symptoms that are „extra” to the normal.

Treatment of these symptoms is also more similar than the treatment of symptoms on the other pole.



The hypo symptom pole

The right side of the TGI-P footprint is called the **hypo symptom pole**, encompassing four symptom domains fully and two symptom domains partially.



The hypo pole

The hypo pole encompasses four symptom domains:

- cognitive,
- depressive,
- self-harm, and
- negative symptoms.

In addition, sleep symptoms, such as hypersomnia, and anxiety symptoms, such as fear belong to this pole.

They are related in a sense that all represent symptoms that are „less” to the normal.

Treatment of these symptoms is also more related than the treatment of symptoms on the other pole.

Example: acute schizophrenia patient

To create the TGI-P footprint, first each symptom domain should be rated by the clinician according to their own experience with the patient. This does not require any additional task at the visit besides choosing the severity level of each domain.

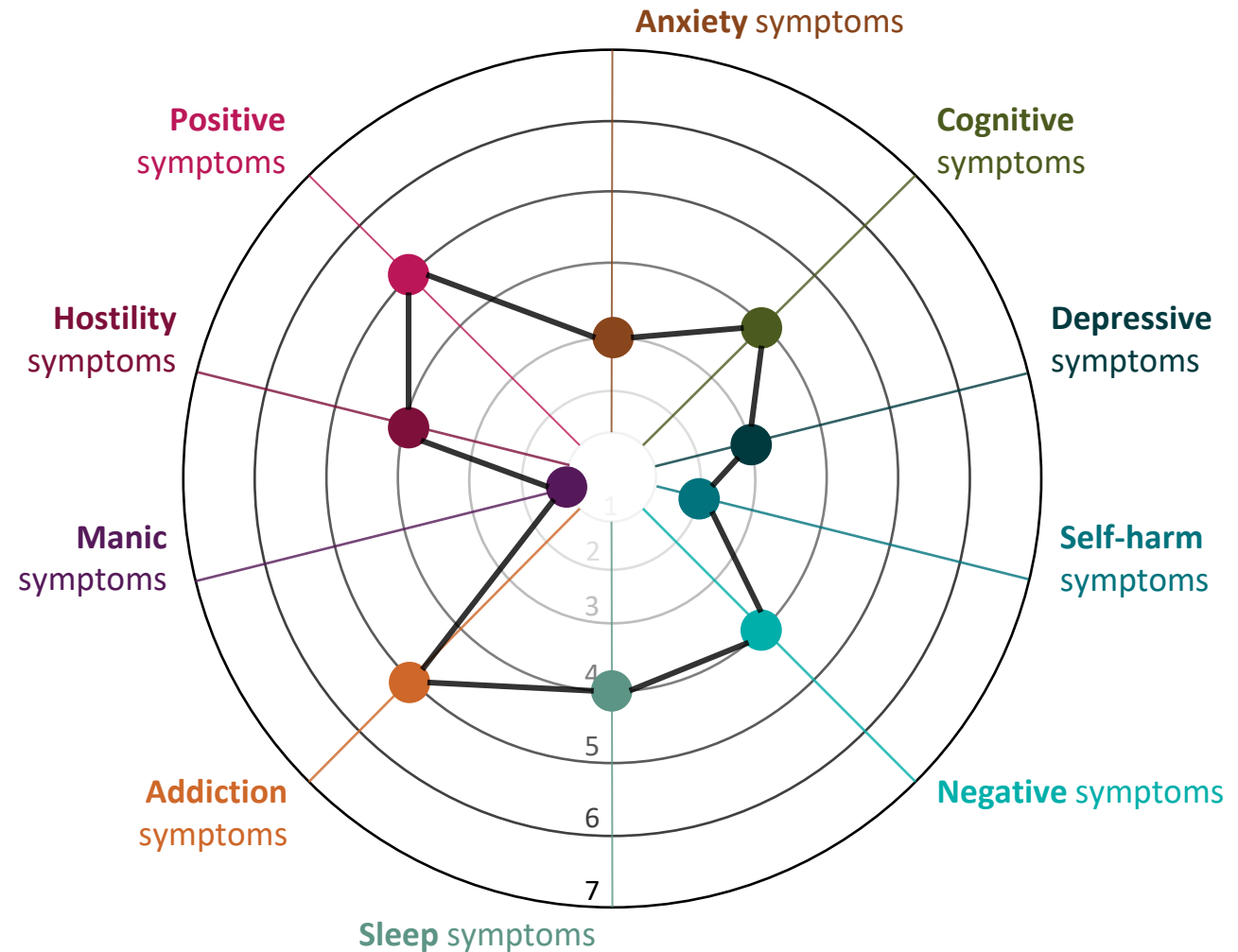
	Normal	Minimal	Mild	Moderate	Marked	Severe	Extreme
1. Positive symptoms <i>Delusions, hallucinations, disorganised thinking, disorganised speech, abnormal motor behaviour</i>	1	2	3	4	5	6	7
2. Hostility symptoms <i>Anger, tension, uncooperativeness, impulsivity, aggression, irritability</i>	1	2	3	4	5	6	7
3. Manic symptoms <i>Expansive mood, grandiosity, racing thoughts, increased energy, excessive involvement in pleasurable activities</i>	1	2	3	4	5	6	7
4. Addiction symptoms <i>Impaired substance use control, craving, physical dependence</i>	1	2	3	4	5	6	7
5. Sleep symptoms <i>Hypersomnia or insomnia</i>	1	2	3	4	5	6	7
6. Negative symptoms <i>Blunted affect, alogia, asociality, avolition, anhedonia*</i>	1	2	3	4	5	6	7
7. Self-harm symptoms <i>Non-suicidal self-injury, suicidal ideation, intent, or attempt</i>	1	2	3	4	5	6	7
8. Depressive symptoms <i>Low mood, anhedonia, persistent feeling of sadness, hopelessness, helplessness</i>	1	2	3	4	5	6	7
9. Cognitive symptoms <i>Problems with concentration, attention, memory</i>	1	2	3	4	5	6	7
10. Anxiety symptoms <i>Feeling nervous, restless, tense, or fear of social interactions</i>	1	2	3	4	5	6	7

Example: acute schizophrenia patient

After rating the symptom severities, these scores should be placed on the appropriate severity circles. Then, the TGI-P footprint emerges.

The symptom shape is unique for each patient and provides a visual representation of the patient's pathophysiology.

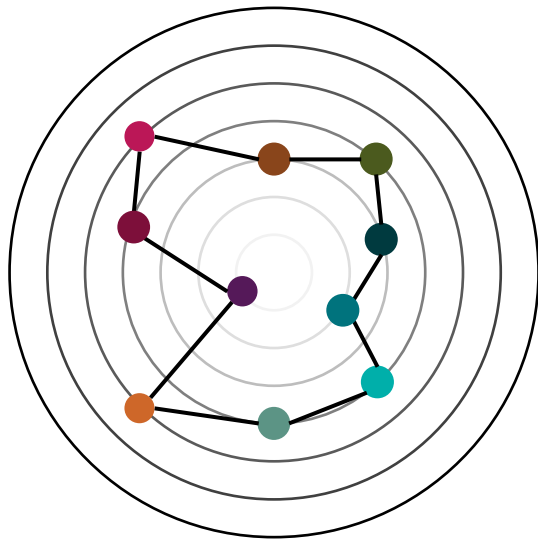
With just one look, one can gain information about which symptoms or symptom domains are dominant and what is the overall symptom severity.



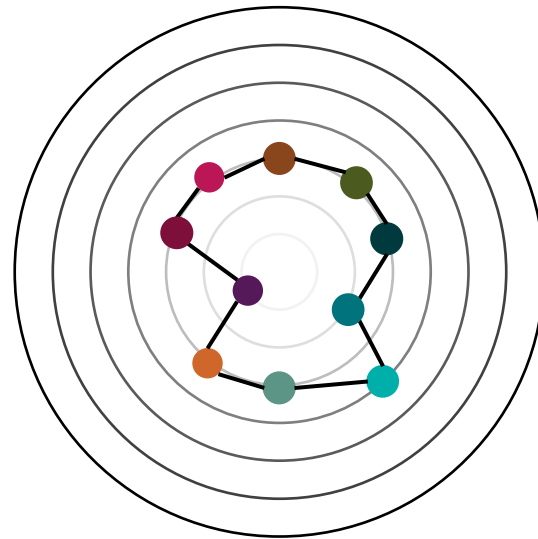
Visualisation of change

Via continuous rating of symptom severities and creation of TGI-P footprints, it is possible to visualise change throughout the course of the disorder. This might be also more understandable for both patients and caregivers than numbers.

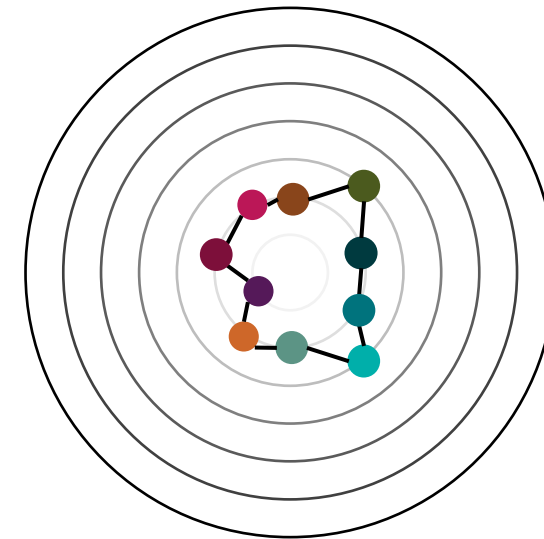
Schizophrenia patient:
acute phase



Schizophrenia patient:
remission phase



Schizophrenia patient:
recovery phase



Over time, the **goal is to shrink the TGI-P footprint** which indicates symptom improvement. If there is a peak at any domain, then there is a symptom that needs more attention or if there is a lateral movement, then the patient switched poles: for instance, a bipolar disorder patient is moving between episodes.



Use the TGI-P scale online!

