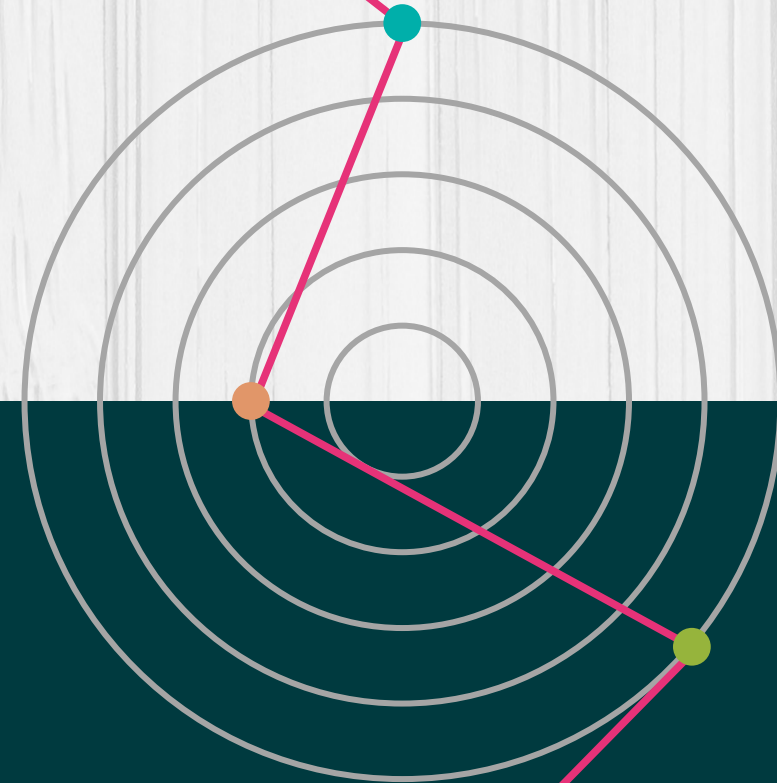
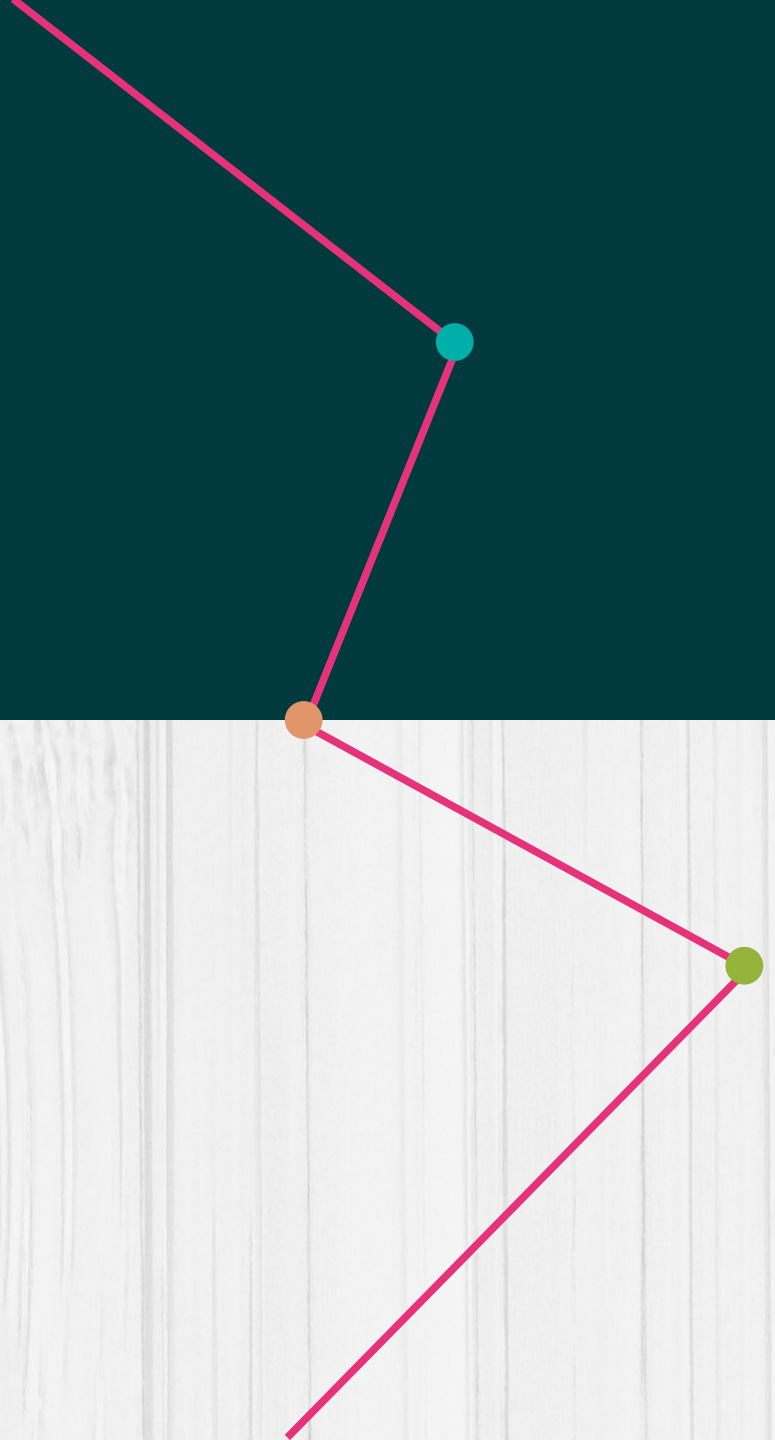


A new transdiagnostic tool

for **quantifying**, and **visualising**
symptom severity and **functional disability** of
patients with different psychiatric conditions



Background



The need for a transdiagnostic tool

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 tool

The transdiagnostic tool addresses all the disadvantages of validated scales and provides a new solution for **quantifying** and **visualising symptom severity** and **functional disability** of patients with different psychiatric conditions.



It is **quick** to administer.



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



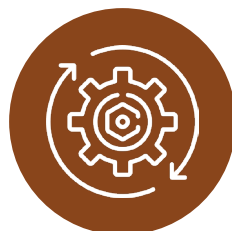
It is **applicable** to numerous psychiatric condition.



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

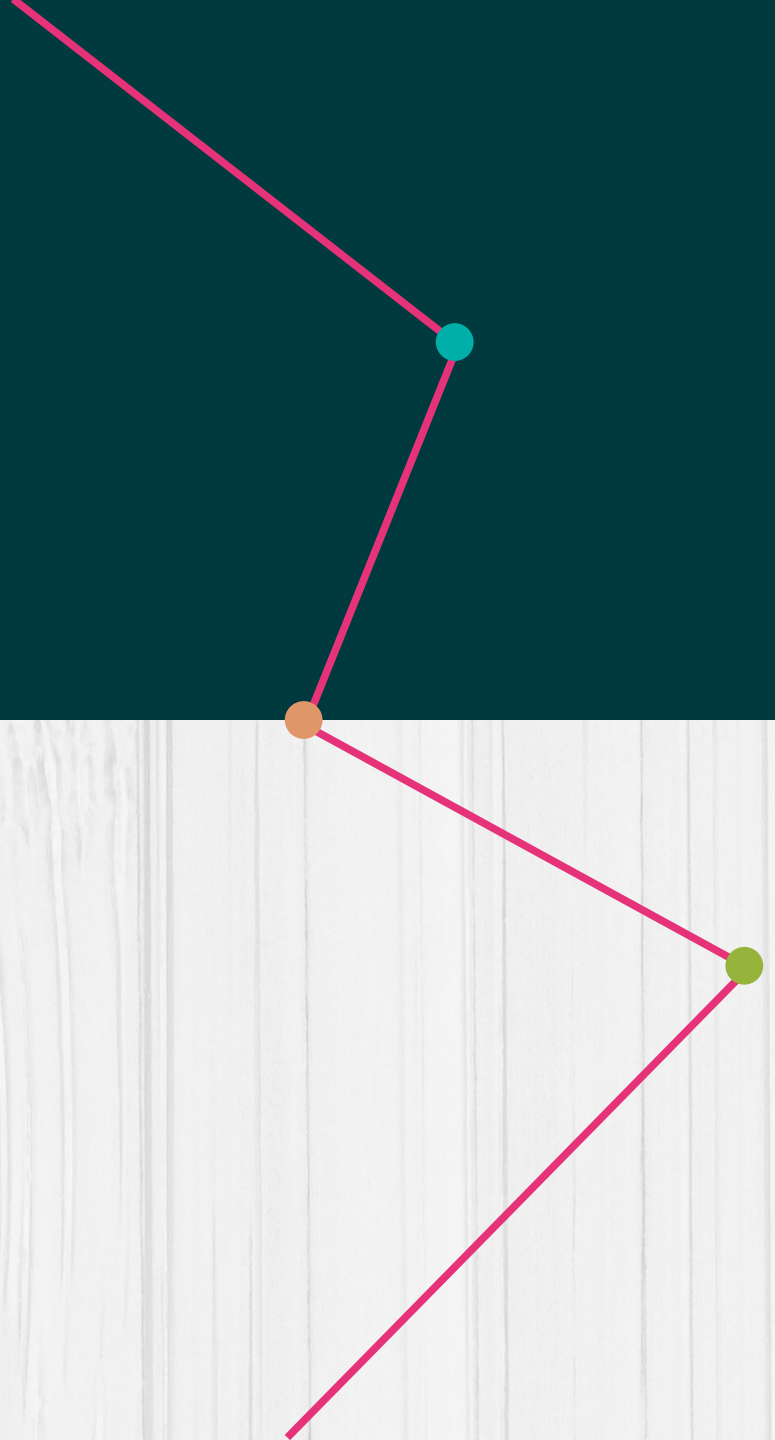


It provides a **quantification** of the most common psychiatric symptoms and functional disability status.



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

Symptom severity tool



The base

The symptom severity tool 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 the present tool, each symptom dimension is rated separately on a 7-point scale. In addition, it is also visually displayed via circles.

1 - normal

2 - borderline symptoms

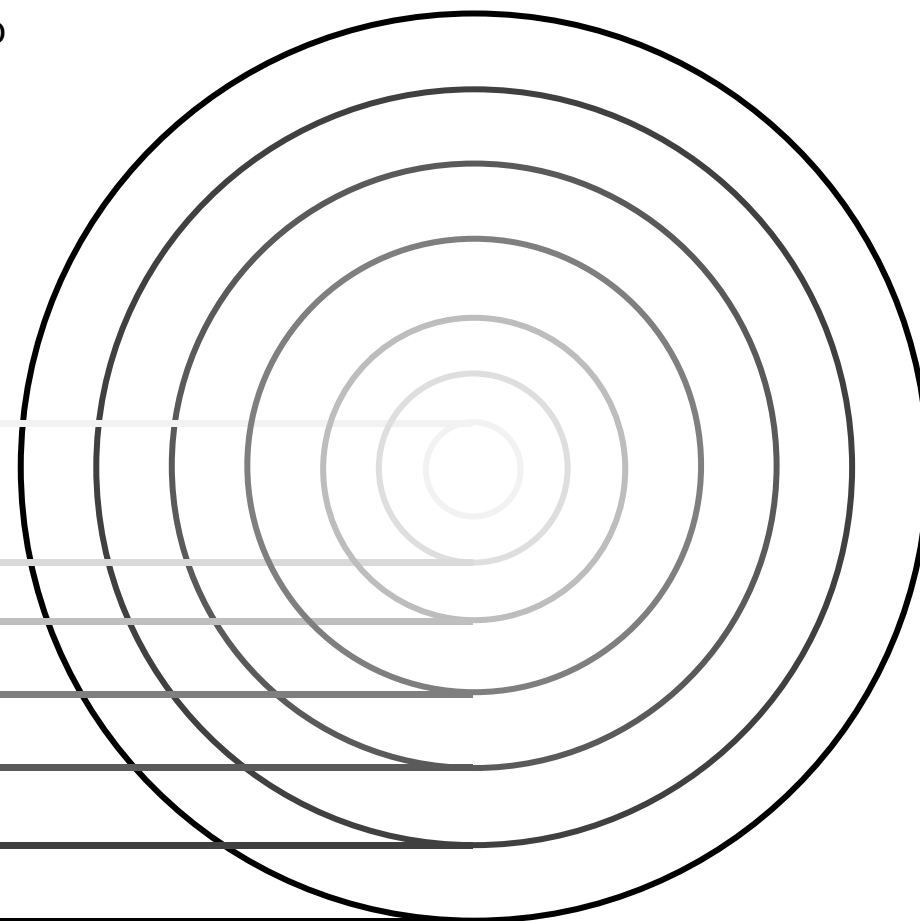
3 - mild symptoms

4 - moderate symptoms

5 - marked symptoms

6 - severe symptoms

7 - extreme symptoms



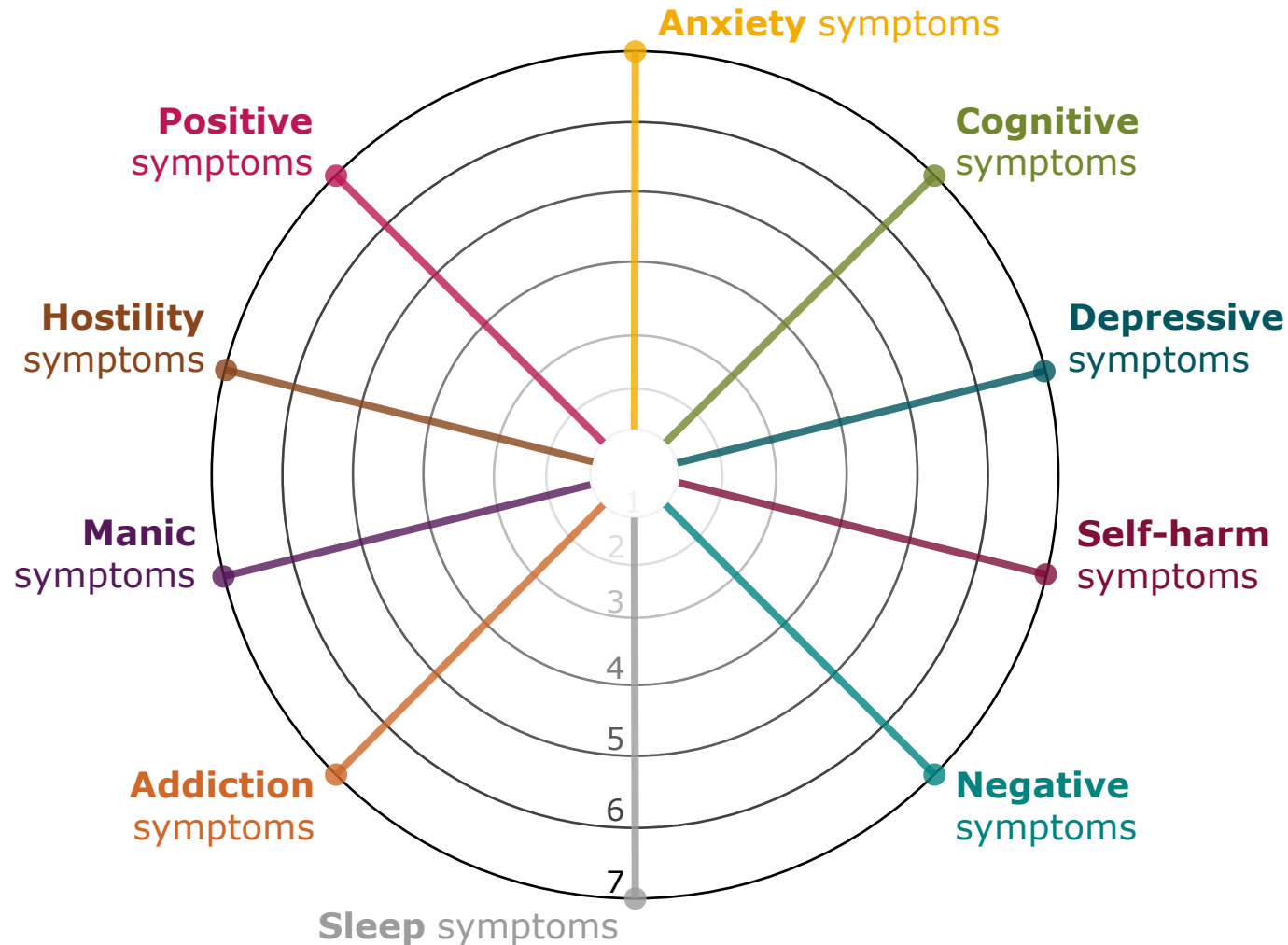
Symptom dimensions

Ten symptom dimensions were included in the symptom severity tool, providing a **panoramic view of psychopathology** independently from diagnosis.

● Positive symptoms	Delusions, hallucinations, disorganised thinking and speech as well as abnormal motor behaviour
● Negative symptoms	Blunted affect, alogia, asociality, avolition and anhedonia
● Manic symptoms	Grandiosity, racing thoughts, distractibility, and excessive involvement in pleasurable activities
● Depressive symptoms	Low mood, persistent feeling of sadness, hopelessness, and helplessness
● Addiction symptoms	Impaired control, craving and physical dependence
● Cognitive symptoms	Problems with concentration, difficulty in remembering and understanding
● Anxiety symptoms	Feeling nervous, restless, or tense
● Sleep symptoms	Excessive daytime sleepiness or the contrary, insomnia
● Hostility symptoms	Anger, tension, uncooperativeness, impulsivity and aggression
● Self-harm symptoms	Non-suicidal self-injury, suicidal ideation, intent, attempt

The transdiagnostic symptom footprint

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



The hyper symptom pole

The left side of the transdiagnostic symptom footprint is called the **hyper symptom pole**, encompassing four symptom dimensions fully and two symptom dimensions partially.

The hyper pole

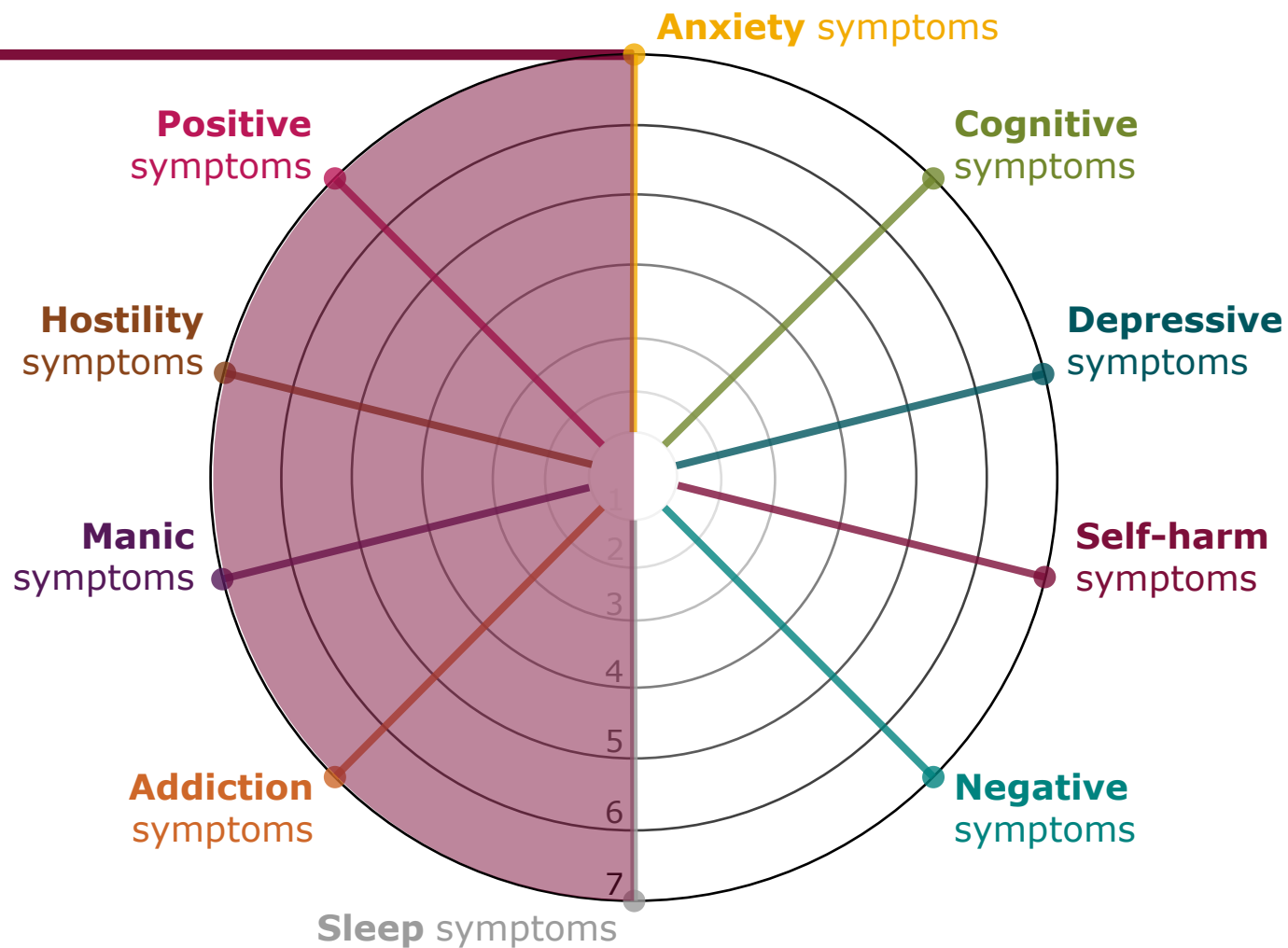
The hyper pole encompasses four symptom dimensions:

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

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

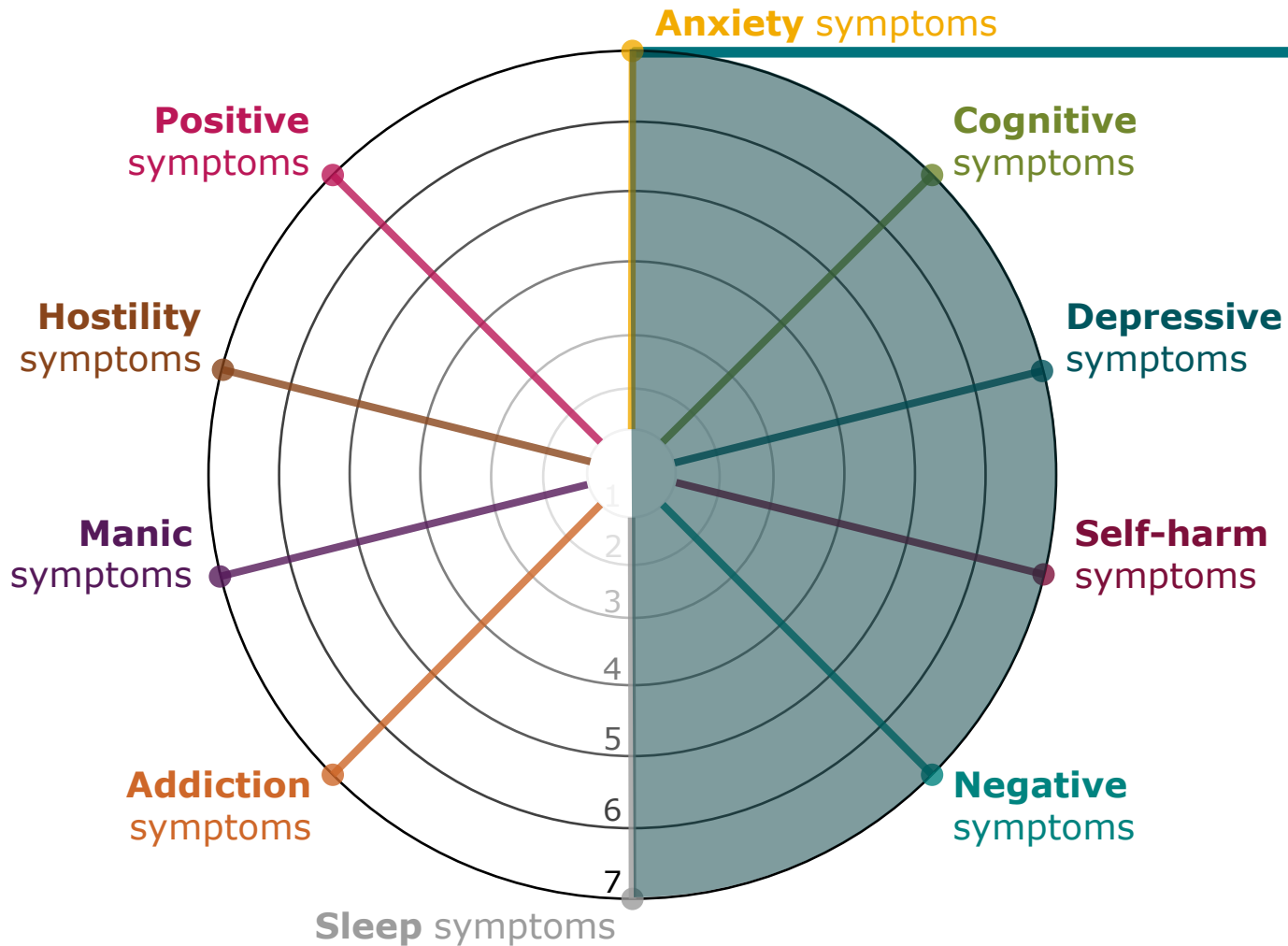
They are all related in a sense that all represent symptoms that are „extra“ to the normal.

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 transdiagnostic symptom footprint is called the **hypo symptom pole**, encompassing four symptom dimensions fully and two symptom dimensions partially.



The hypo pole

The hypo pole encompasses four symptom dimensions:

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

In addition, sleep symptoms, such as sedation, 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 transdiagnostic symptom footprint, first each symptom dimension 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 dimension.

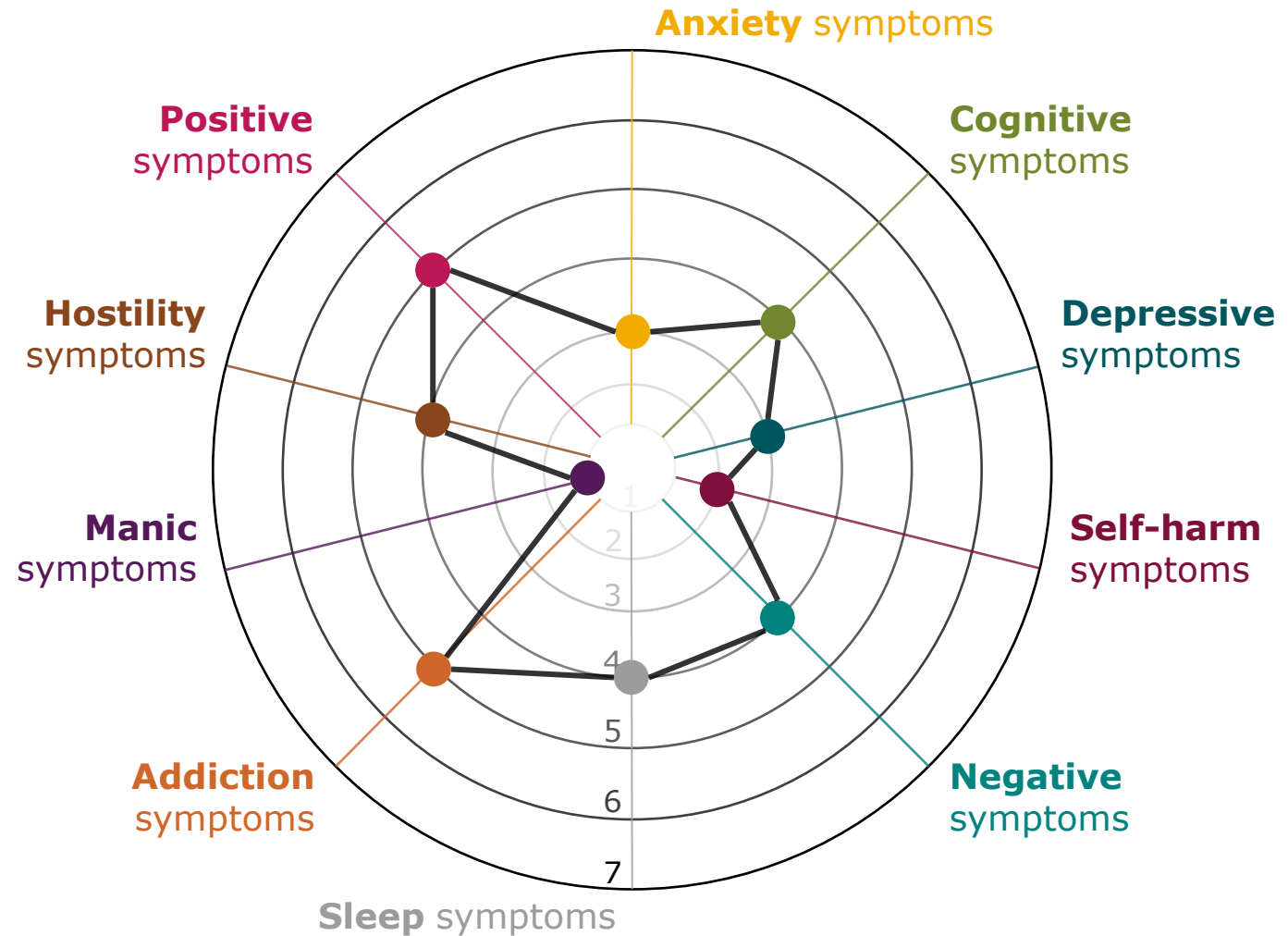
	Normal	Minimal	Mild	Moderate	Marked	Severe	Extreme
1. Positive symptoms <i>Delusions, hallucinations, disorganised thinking and speech as well as abnormal motor behaviour</i>	1	2	3	4	5	6	7
2. Negative symptoms <i>Blunted affect, alogia, asociality, avolition and anhedonia</i>	1	2	3	4	5	6	7
3. Manic symptoms <i>Grandiosity, racing thoughts, distractibility, and excessive involvement in pleasurable activities</i>	1	2	3	4	5	6	7
4. Depressive symptoms <i>Low mood, persistent feeling of sadness, hopelessness, and helplessness</i>	1	2	3	4	5	6	7
5. Addiction symptoms <i>Impaired control, craving and physical dependence</i>	1	2	3	4	5	6	7
6. Cognitive symptoms <i>Problems with concentration, attention and memory</i>	1	2	3	4	5	6	7
7. Anxiety symptoms <i>Feeling nervous, restless, or tense</i>	1	2	3	4	5	6	7
8. Sleep symptoms <i>Excessive daytime sleepiness or the contrary, insomnia</i>	1	2	3	4	5	6	7
9. Hostility symptoms <i>Anger, tension, uncooperativeness, impulsivity and aggression</i>	1	2	3	4	5	6	7
10. Self-harm symptoms <i>Non-suicidal self-injury, suicidal ideation, intent, attempt</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 transdiagnostic symptom footprint emerges.

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

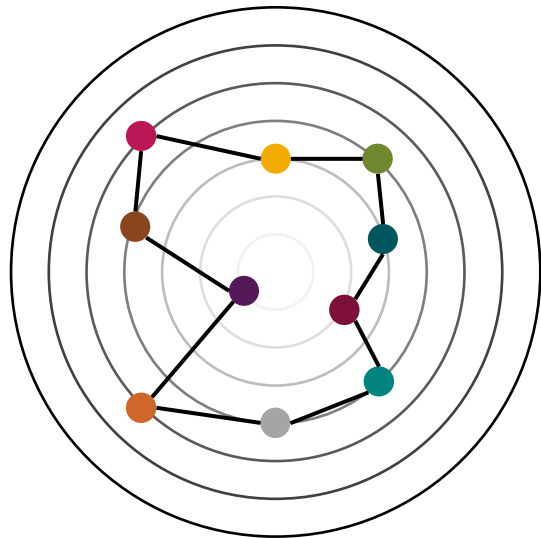
With just one look, one can gain information about which symptoms or symptom dimensions are dominant and what is the overall symptom severity.



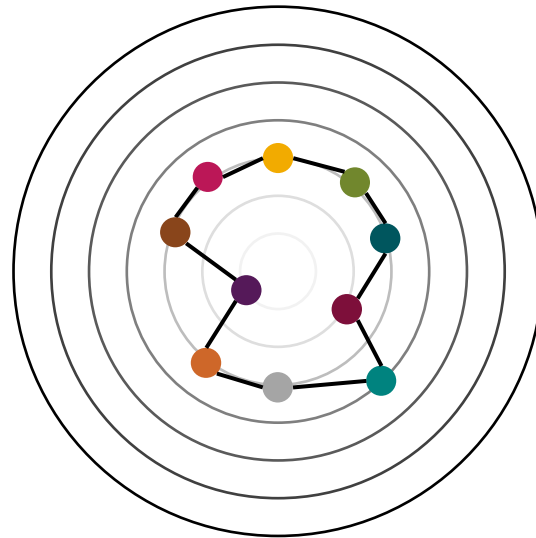
Visualisation of change

Via continuous rating of symptom severities and creation of transdiagnostic symptom 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.

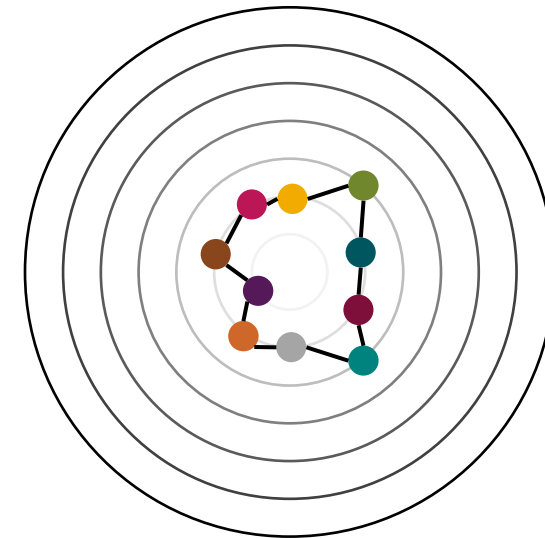
Schizophrenia patient:
acute phase



Schizophrenia patient:
remission phase

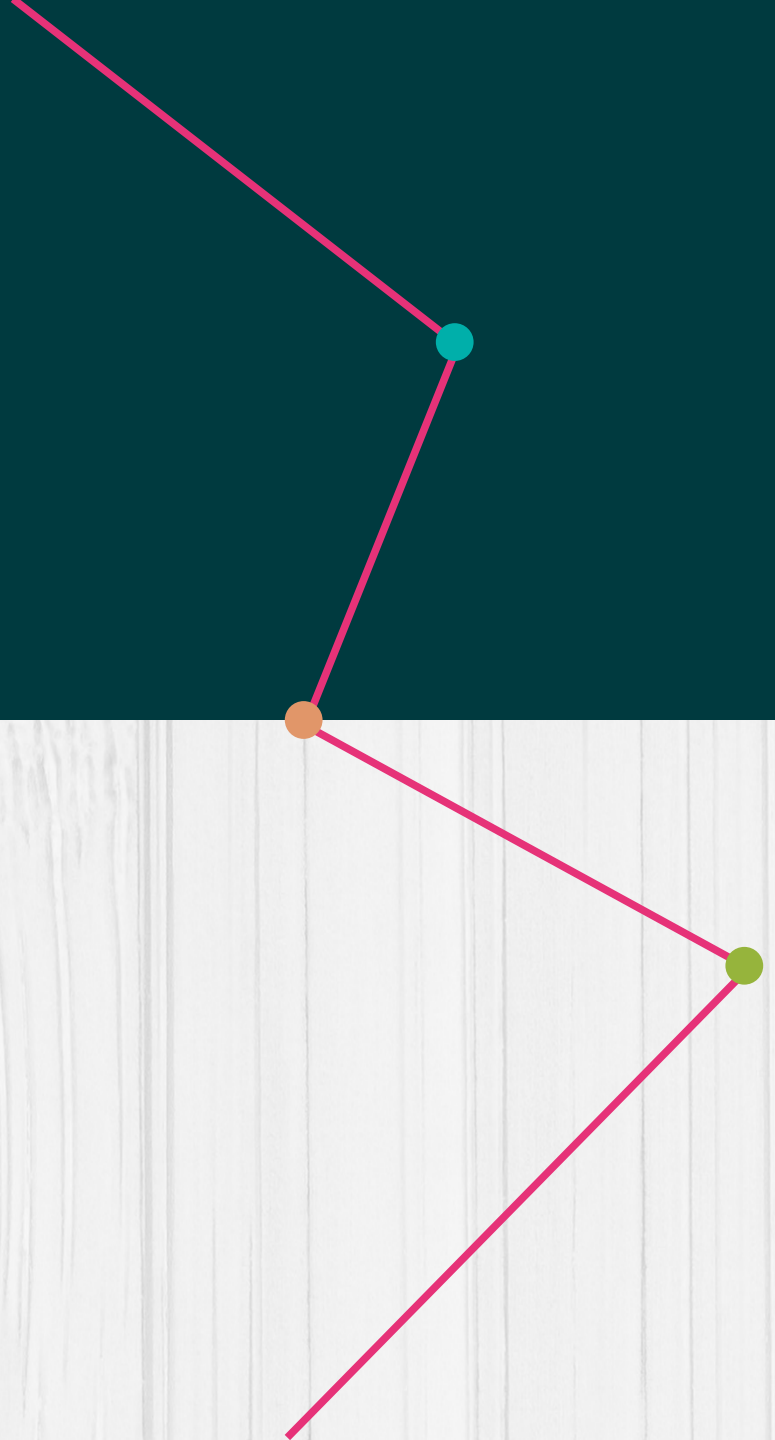


Schizophrenia patient:
recovery phase



Over time, the **goal is to shrink the transdiagnostic symptom footprint** which indicates symptom improvement. If there is a peak at any dimension, 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.

Functional disability tool



The base

The functional disability tool 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 the present tool, each functional disability dimension is rated separately on a 7-point scale. It is also visually displayed via circles.

1 – no disability

2 - borderline disability

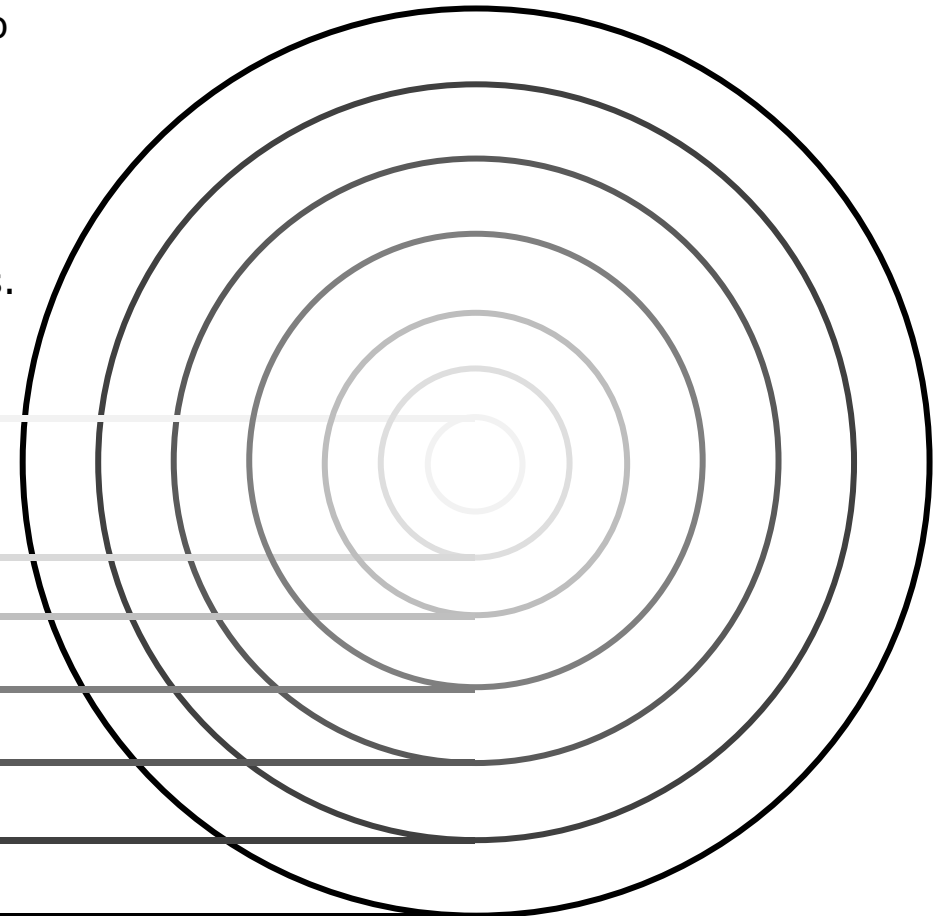
3 - mild disability

4 – moderate disability

5 – marked disability

6 – severe disability

7 – extreme disability



Functional disability dimensions

Four functional disability dimensions were included in the transdiagnostic functional disability tool, providing a **panoramic view of overall functioning**.

Social interactions

Regular interaction with friends and family

Leisure

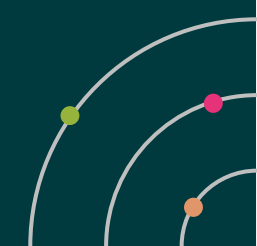
Use of free time for enjoyment

Self-care

The practice of taking action to preserve or improve one's own health

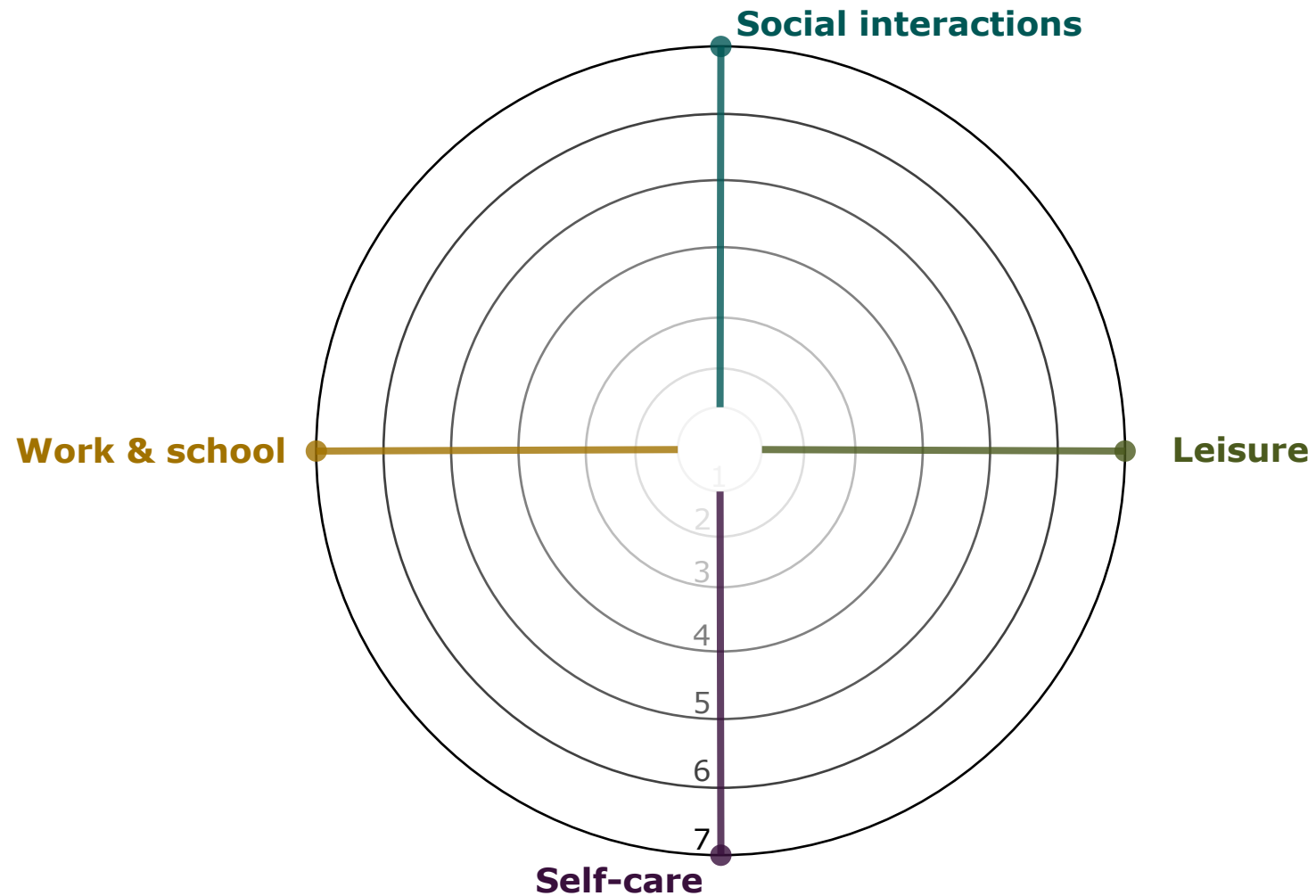
Work & school

Spending valuable time at work or in school



The transdiagnostic functional disability footprint

Putting the 4 functional disability dimensions on the 7-level severity circles provides a **visual representation of the overall functioning**, called the transdiagnostic functional disability footprint.



Example: acute schizophrenia patient

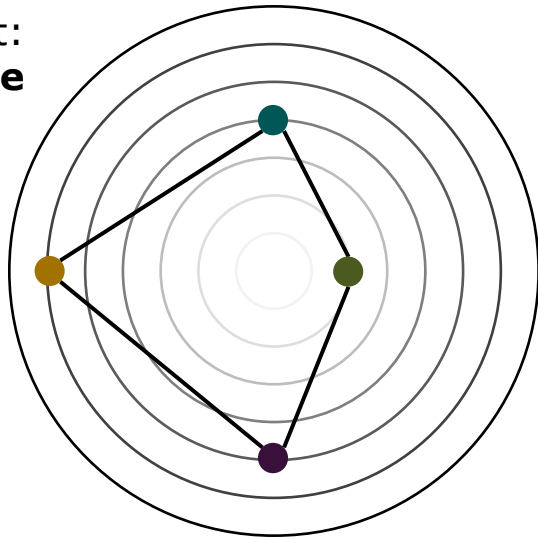
To create the transdiagnostic functional disability footprint, first each dimension should be rated by the clinician according to their own experience with the patient. This does not require any additional task at the visit besides choosing the disability level of each dimension.

	Normal	Minimal	Mild	Moderate	Marked	Severe	Extreme
1. Social interactions <i>Regular interaction with friends and family</i>	1	2	3	4	5	6	7
2. Leisure <i>Use of free time for enjoyment</i>	1	2	3	4	5	6	7
3. Self-care <i>The practice of taking action to preserve or improve one's own health</i>	1	2	3	4	5	6	7
4. Work & school <i>Spending valuable time at work or in school</i>	1	2	3	4	5	6	7

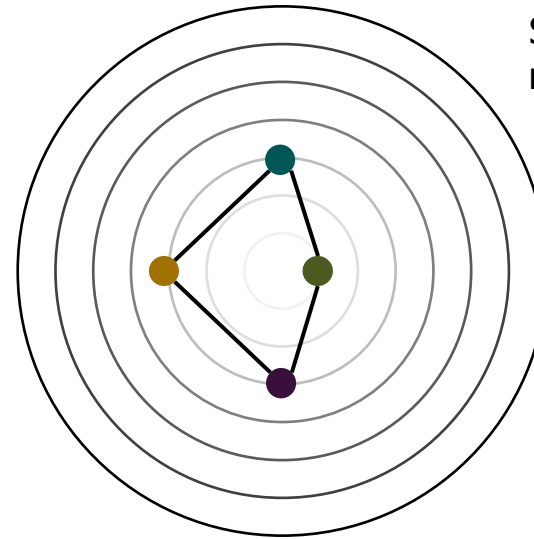
Example: acute schizophrenia patient

After rating the functional disabilities, the functional disability scores should be placed on the appropriate severity circles. Then, the transdiagnostic functional disability footprint emerges.

Schizophrenia patient:
acute phase



Schizophrenia patient:
recovery phase



Via continuous rating of functional disabilities and creation of transdiagnostic functional disability 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.

Over time, the **goal is to shrink the transdiagnostic functional disability footprint** which indicates symptom improvement. If there is a peak at any dimension, then there is a functioning that needs more attention.





Use the transdiagnostic
tool online!

