Psychodynamic-interpersonal psychotherapy of somatic symptom disorders (PISO)

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Overview

- Rationale for treating patients with somatic symptoms with psychodynamic-interpersonal psychotherapy
- PISO: basic principles
- Mechanisms of therapeutic change in PISO study
- Conclusions
The traditional psychogenic treatment rationale

- Body as theatre of the soul
  - Psychogenesis: symptom as symbol/indicator of specific conflict
  - Classical psychotherapeutic paradigm: insight into conflicts
  - Classical disease model: bodily symptom perception is result of organ dysfunction

Franz Alexander 1932
Now: an inter-personal treatment rationale

- Bodily distress is a process involving the whole person
  - not a bodily dysfunction induced by psychological conflicts/stress
  - not a mental dysfunction induced by bodily sensory input
  - rather a “disorder of the embodied self” with sensory, emotional, cognitive and behavioral components
Now: an inter-personal treatment rationale

- New models of symptom perception fit with this “personal” approach
  - Perception is active, generative comparison of predictions
    (about the hidden causes of sensations) and sensory evidence

Otten et al.,
Brain Cognition 2016
Now: an inter-*personal* treatment rationale

- Bodily distress is shaped as much by expectation based on prior experience as by sensory input

> "not only has your past viscerosensory experience reached forward to create your present experience, but how your body feels now will again project forward to influence what you will feel in the future.

It is an elegantly orchestrated self-fulfilling prophecy, embodied within the architecture of the nervous system”

Barrett and Simmons
Nat Rev Neurosc 2015
Now: an inter-personal treatment rationale

- Bodily distress is shaped by prior interpersonal experiences
  - “Embodied mentalization” during development

  “active and perceptual interoceptive inference in development is by necessity mediated by the actions of caregivers that bring about physiological changes, and hence shape the perception of bodily satisfaction, relief, pleasure, pain, or lack thereof”

  Fotopoulou and Tsakiris, Neuropsychoanalysis 2017, p 11
Body and emotion in early relationships

Bodily – emotional state

Emotional expression

Activation
Stimulation
Satisfaction of need

Consolation
Pacification
Explanation

Reaching the important other

Responsive action of „good enough“ empathic other

Rudolf 2001
Now: an inter-personal treatment rationale

- Adverse (interpersonal) childhood experiences directly shape experience of bodily distress as a “disorder of the embodied self”
  - higher tendency to expect distressing bodily sensations
  - higher tendency to interpret them as sign of bodily disease
  - lower capability to differentiate bodily correlates of emotion and bodily distress
  - altered identity
Now: an inter-personal treatment rationale

- With its developmental, relational and embodied rationale psychodynamic-interpersonal psychotherapy has the potential to directly reduce bodily distress – without a psychogenetic assumption in mind!
PISO: psychodynamic-interpersonal therapy for somatoform disorders

PISO AG (Eds): [PISO – Psychodynamic-interpersonal therapy of somatoform disorders.

In Beutel M et al. (Eds): Disorder-oriented psychodynamic psychotherapy]
Göttingen: Hogrefe 2011
Basic principles of PISO

- Based on principles of psychodynamic-interpersonal therapy (PIT)
  - Bodily complaints are seen in relational and affective context, as “disorders of the embodied self” (agency, identity)
  - Analysis of complaint-related relationship episodes (with health care system, with family, with others)
  - Clarification and differentiation of affects and complaints
  - Active, supportive therapist

PISO AG (Eds): [PISO – Psychodynamic-interpersonal therapy of somatoform disorders. In Beutel M et al. (Eds): Disorder-oriented psychodynamic psychotherapy]
Göttingen: Hogrefe 2011
PISO in manualized form

- PISO as manualized 12 session short term intervention

  Three phases

  a) Session 1-3 - “Landscape of complaints and complaint-related symptoms and experiences”
  - Psychoeducation including symptom diary
  b) Session 4-9 - Clarification of complaint-related relationship episodes, affect differentiation (“embodied mentalization”), link to biographic material
  c) Session 10-12 – Termination, taking stock

PISO AG (Eds): [PISO – Psychodynamic-interpersonal therapy of somatoform disorders. In Beutel M et al. (Eds): Disorder-oriented psychodynamic psychotherapy]
Göttingen: Hogrefe 2011
PISO in manualized form

- PISO – some elements from second phase, Session 4 - 9

  - Narrative structuring of bodily complaint history
  - Enrichment with affects and images
  - Discussion of situational, relational, emotional context of bodily complaints

  - Differentiation of bodily reaction - emotion – cognition – action tendency
  - Discussion of disappointment with body – with others – with therapist
  - More general linking of bodily distress with emotional relationship experiences
  - Where appropriate: supporting affect regulation

  - But also: counseling for bodily activation and relaxation

PISO – the trial

- Multicenter RCT, n= 208, primary outcome: SF-36 PCS at 9 mths FU

Somatization score (PHQ-15)

- **Baseline** (t1)
- **End of therapy** (t2)
- **9 months follow-up** (t3)

**Graph Analysis**
- **PIT**
  - d = 0.59 p = 0.001
- **EMC**
  - d = 0.32 p = 0.02
  - d = 0.24 p = 0.09
What brings about change in PISO?

- Even with only 12 sessions of therapy with mostly non YAVIS patients there is positive change in symptoms and quality of life.

- Mechanisms of change in short term psychodynamic psychotherapy:
  - the usual suspects are
    - insight
    - focus on emotion
    - therapeutic alliance

(see Messer SB, Psychotherapy 2013)
What brings about change in PISO?

Potential mechanisms of change in PISO

- Insight - mainly in psychosocial factors affecting bodily distress
  - partially in aspects of altered self (identity, agency)

- Focus on emotion - mainly awareness of emotional aspects of complaint-related relationship experiences
  (incl. disappointment with therapist)
  - partially better differentiation of emotion and bodily distress

- Therapeutic alliance - mainly feeling of being taken seriously with distress
  - partially “corrective emotional experience”

- Plus “corrective body-related expectations/ experience”?
- Plus biologically defined mechanisms (e.g. stress axis parameters)?
What brings about change in PISO?

- Our problem: we suspect but do not know mechanisms of change
- We have to be modest
  - mechanism of change
  - mediator of change
  - moderator of change
  - predictor of change
  - correlation of change
What brings about change in PISO?

- A look at what we have in PISO

  - Experiences in Close Relationships and Somatization in PISO patients

  - Attachment avoidance and anxiety are correlated with somatization — via depression and anxiety

  - “Preoccupation with relationships” as an underlying interpersonal aspect also of patients with bodily distress

This conclusion is in accordance with a study by Landa et al. (2012), in which the relational world of patients with somatization syndromes was found to be characterized by the “unmet need for closeness with others.”

Neumann E, (…), Güdel H, Henningsen P, (…)
JNMD 2015
What brings about change in PISO?

- Correlates/predictors of change in PISO

### Predictors of change I: Sociodemographic and clinical factors

<table>
<thead>
<tr>
<th>Categorial predictors at baseline</th>
<th>Change</th>
<th>SF-36 Health Survey PCS</th>
<th>p</th>
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<tbody>
<tr>
<td><strong>Soziodemographic</strong></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>6.3 (8.4)</td>
<td></td>
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<tr>
<td>Male</td>
<td>4.6 (8.4)</td>
<td></td>
<td>0.33</td>
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<tr>
<td>Education (yrs.)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>&lt; 10</td>
<td>4.3 (8.3)</td>
<td></td>
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<tr>
<td>10-12</td>
<td>5.3 (8.7)</td>
<td></td>
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<tr>
<td>12+</td>
<td>9.4 (7.2)</td>
<td></td>
<td>0.09</td>
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<tr>
<td>Retirement (retired/considered/applied)</td>
<td></td>
<td></td>
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<tr>
<td>No</td>
<td>6.9 (7.9)</td>
<td></td>
<td></td>
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<tr>
<td>Yes (36)</td>
<td>3.2 (8.6)</td>
<td></td>
<td>0.03</td>
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<tr>
<td><strong>Clinical</strong></td>
<td></td>
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<tr>
<td>Comorbidity (PHQ, number of syndromes)</td>
<td></td>
<td></td>
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<tr>
<td>2 (66)</td>
<td>6.7 (8.5)</td>
<td></td>
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<tr>
<td>3+ (30)</td>
<td>3.3 (7.7)</td>
<td></td>
<td>0.06</td>
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<tr>
<td>Antidepressive medication</td>
<td></td>
<td></td>
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<tr>
<td>No (47)</td>
<td>7.7 (8.7)</td>
<td></td>
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<tr>
<td>Yes (49)</td>
<td>3.7 (7.7)</td>
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<td>0.02</td>
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</tbody>
</table>
What brings about change in PISO?

- Correlates/ predictors of change in PISO

<table>
<thead>
<tr>
<th>Predictors at baseline (controlled for age and initial level of PCS or somatisation, respectively) (correlation)</th>
<th>Improvement PCS</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Soziodemographic</strong></td>
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<td></td>
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<tr>
<td>Age *</td>
<td>-0.20</td>
<td>0.05</td>
</tr>
<tr>
<td><strong>Clinical</strong></td>
<td></td>
<td></td>
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<tr>
<td>Somatisation * (PHQ-15)</td>
<td>-0.25</td>
<td>0.02</td>
</tr>
<tr>
<td>Number of symptoms of som. Syndrom PHQ</td>
<td>-0.34</td>
<td>0.01</td>
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<tr>
<td>Somatoform Symptoms (SCID Interview)</td>
<td>-0.11</td>
<td>0.29</td>
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<tr>
<td>Duration of SCID Symptoms (yrs.)</td>
<td>-0.10</td>
<td>0.34</td>
</tr>
<tr>
<td>Depressivity (PHQ-9)</td>
<td>-0.16</td>
<td>0.14</td>
</tr>
<tr>
<td>Health anxiety (Whitely Index)</td>
<td>0.02</td>
<td>0.86</td>
</tr>
<tr>
<td>Alexithymia (TAS total score)</td>
<td>-0.12</td>
<td>0.24</td>
</tr>
<tr>
<td><strong>Therapeutic alliance (HAQ)</strong></td>
<td></td>
<td></td>
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<tr>
<td>Quality of therapeutic relationship (according to patient. at the end of therapy)</td>
<td>-0.18</td>
<td>0.09</td>
</tr>
<tr>
<td>Global therapeutic success (according to therapist. at the end of therapy)</td>
<td>0.20</td>
<td>0.08</td>
</tr>
</tbody>
</table>

unpublished
What brings about change in PISO?

- Alexithymia as a moderator (i.e. differential predictor) of outcome

(Multilevel models for discontinuous change with full maximum likelihood estimation and an unstructured variance-covariance matrix...)

Probst T, (...), Gündel H, Henningsen P (...). Psychosom Psychother 2016
What brings about change in PISO?

- And what about biological predictors/ moderators like Heart Rate Variability?

<table>
<thead>
<tr>
<th>Table 5</th>
<th>Prediction of therapy outcome 9 months after end of therapya.</th>
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<tbody>
<tr>
<td></td>
<td>Psychotherapy Group (N = 57)</td>
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<tr>
<td></td>
<td>Enhanced medical care group (N = 49)</td>
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<td></td>
<td>Change PCS (improvement)</td>
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<tr>
<td></td>
<td>Change PCS (improvement)</td>
</tr>
<tr>
<td>Heart Rate (bpm)</td>
<td>Corr</td>
</tr>
<tr>
<td></td>
<td>Sig</td>
</tr>
<tr>
<td>(ln) RMSSD (ms²)</td>
<td>Corr</td>
</tr>
<tr>
<td></td>
<td>Sig</td>
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<tr>
<td>(ln) HF-HRV (ms²/Hz)</td>
<td>Corr</td>
</tr>
<tr>
<td></td>
<td>Sig</td>
</tr>
</tbody>
</table>

(Parameters measured at baseline in Stress Condition (Stroop Color Word Test))

Angelovski A, (...) Henningsen P (...).
J Psychosom Res 2016
Conclusions

- Psychodynamic treatment rationale for treating bodily distress has changed
  - from bodily symptom as expression of psychological conflict/distress to bodily distress as embodied and interpersonally embedded mode of (dys-) functioning
Conclusions

- Short term psychodynamic-interpersonal treatment of pain-dominant multisomatoform disorder (PISO trial)
  
  - appears to be effective for bodily quality of life at follow up even in chronically disabled patients without bias for psychological approaches
  
  - prepares patients for further psychotherapy (if needed)
Thank you from Munich!

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