

Prospective long-term course of Borderline Personality Disorder in adulthood: A systematic review

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LONG-TERM REMISSION OF BPD

- BPD diagnosis tends towards remission over time.
(Biskin, 2015; Zanarini, 2012)
- Main prospective studies (MSAD, CLPS) carried out in US population. Recent studies in other countries provided data for generalization of findings.
- Long-term follow-up data in clinical studies:
Treatment response vs. natural remission (Paris, 2002)

Biskin, R. S. (2015). The Lifetime Course of Borderline Personality Disorder. *Canadian Journal of Psychiatry*, 60(7), 303–308.

Paris, J. (2002) Implications of long-term outcome research for the management of patients with borderline personality disorder. *Harv Rev Psychiatry*, 10(6), 315–323.

Zanarini, M. C. (2012). Diagnostic specificity and long-term prospective course of borderline personality disorder. *Psychiatric Annals*, 42(2), 53–58.

QUESTIONS

- What is the **long-term course** of **BPD diagnostic remission** in adulthood?
- Is the **initial treatment** related to long-term BPD remission rates?

Overall hours of formal therapy
= N^o of therapy sessions per month
* hours per session * months in treatment

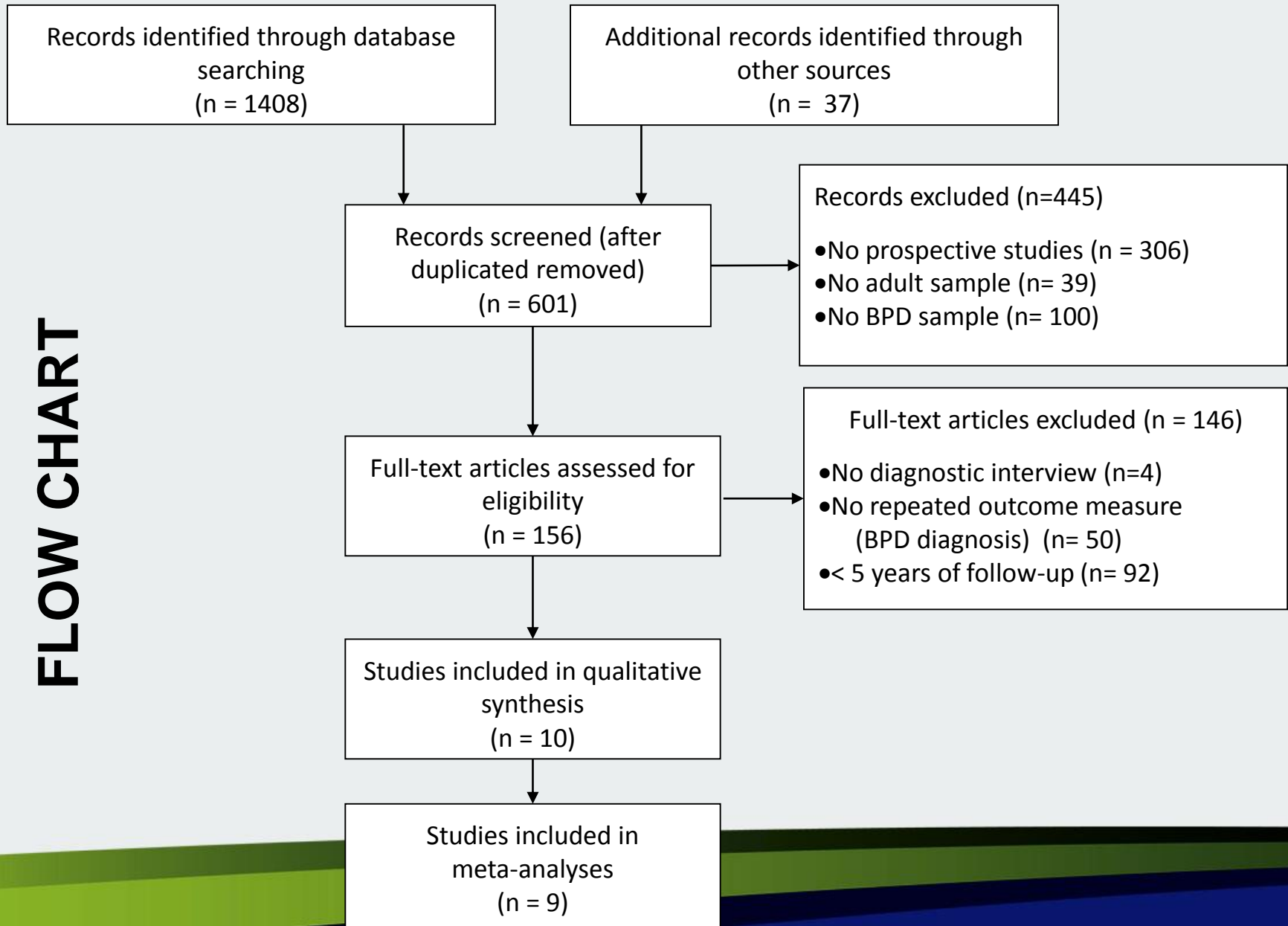
SEARCH STRATEGY & INCLUSION CRITERIA

- Medline, PsycINFO and Scopus
- Between 1990 and 2015.

Inclusion criteria:

1. Adult BPD sample, diagnosed by semi-structured interview
2. BPD diagnosis at baseline and at least at one follow-up assessment
3. 5 years or more of follow-up

FLOW CHART



SELECTION OF STUDIES

Cumulative remission rate: % n -period of remission over time of follow-up, by cumulative survival analyses (CLPS/MSAD, except at 6y)

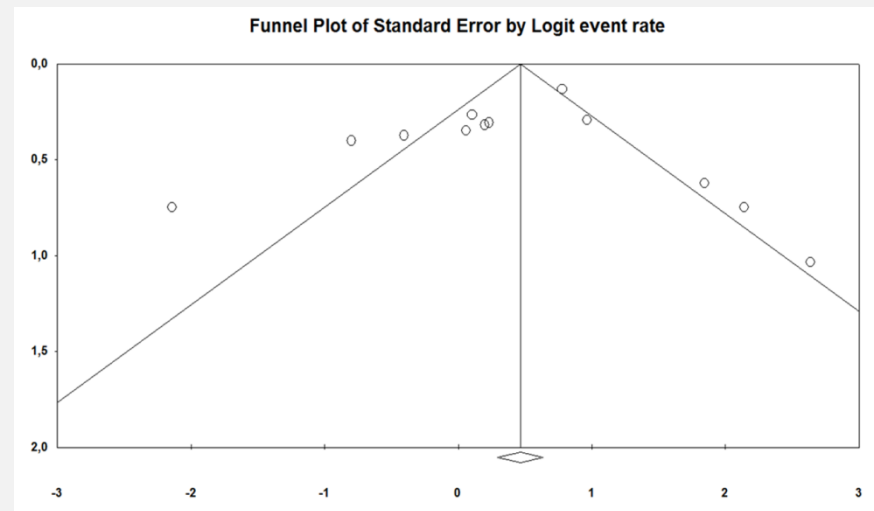
Remission rate: % remission at an specific time point

- BPD diagnostic criteria: DSM-III /DSM-III-R/ DSM-IV
- Semistructured interviews: DIB / SCID / IPDE

No publication bias

Egger's test:

$$t = 0.61, df = 10, p = .56$$



Follow-up clinical studies

| Study | Country | Time | % Retention | Treatment Groups | N at FU | Mean Age | % Women | Hours of formal therapy |
|--|-----------|------|-------------|---------------------|---------|----------|---------|-------------------------|
| Conversational Model Therapy Trial Stevenson (2005) | Australia | 6y | 63 | Specialized Therapy | 30 | 29.4 | 63.3 | 96 |
| MBT Trial Bateman (2008) | UK | 8y | 93 | Specialized Therapy | 22 | 30.3 | 68 | 612 |
| | | | | TAU | 19 | 33.3 | 47 | -- |
| Boscot Trial (CBT-PD) Davidson (2010) | UK | 6y | 72 | Specialized Therapy | 43 | 32.4 | 83.3 | 192 |
| | | | | TAU | 33 | 31.4 | 84.6 | -- |
| Ullevål Trial (CP vs OIT) Antonsen (2015) | Norway | 6y | 65 | Specialized Therapy | 19 | | | 117,5 |
| | | | | TAU | 15 | | | 60 |

Naturalistic studies

| | | | | | | | | |
|--|---------|-------|----|------------------|-----|------|------|--|
| McMaster University Study Links (1999) | Canada | 7y | 65 | No exp treatment | 57 | 34.7 | 93 | |
| MSAD Study Zanarini (2003) | US | 6y | 91 | No exp treatment | 264 | 26.9 | 80.3 | |
| Vaanta Primary Care Depression Study (PD-VDS) Riihimäki (2014) | Finland | 5y | 83 | No exp treatment | 29 | 32 | 86 | |
| Barcelona Study | Spain | 10y | 64 | No exp treatment | 41 | 26.9 | 92.7 | |
| Germany Study | Germany | 14.4y | 35 | No exp treatment | 58 | 29.2 | 100 | |

Total N= 630

Long-term BPD remission

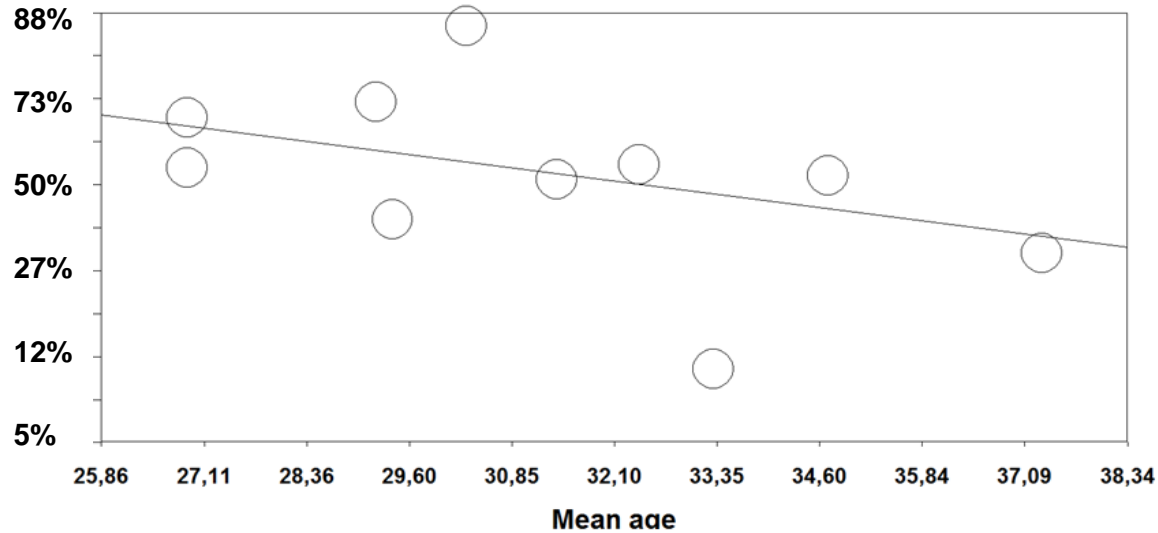
| Study name | Subgroup within study | Statistics for each study | | | | Event rate and 95% CI |
|---|-----------------------|---------------------------|-------------|-------------|---------|-----------------------|
| | | Event rate | Lower limit | Upper limit | p-Value | |
| Conversational Model Therapy Trial | Specialized Therapy | 0,40 | 0,24 | 0,58 | 0,28 | |
| Mentalization-based Trial | Specialized Therapy | 0,86 | 0,65 | 0,96 | 0,00 | |
| Mentalization-based Trial | TAU | 0,11 | 0,03 | 0,34 | 0,00 | |
| Boscot Trial | Specialized Therapy | 0,56 | 0,41 | 0,70 | 0,45 | |
| Boscot Trial | TAU | 0,52 | 0,35 | 0,68 | 0,86 | |
| Ullevål Trial | Specialized Therapy | 0,89 | 0,66 | 0,97 | 0,00 | |
| Ullevål Trial | TAU | 0,93 | 0,65 | 0,99 | 0,01 | |
| McMaster University Study | No exp treatment | 0,53 | 0,40 | 0,65 | 0,69 | |
| MSAD Study | No exp treatment | 0,69 | 0,63 | 0,74 | 0,00 | |
| Vaanta Primary Care Depression Study (PD-VDS) | No exp treatment | 0,31 | 0,17 | 0,50 | 0,05 | |
| Barcelona Study | No exp treatment | 0,55 | 0,40 | 0,69 | 0,53 | |
| Germany Study | No exp treatment | 0,72 | 0,60 | 0,82 | 0,00 | |
| | | 0,59 | 0,48 | 0,69 | 0,13 | |



Mean Remission rate: **59% (48% - 69%)**

High heterogeneity: $Q = 54.9, p < .001$

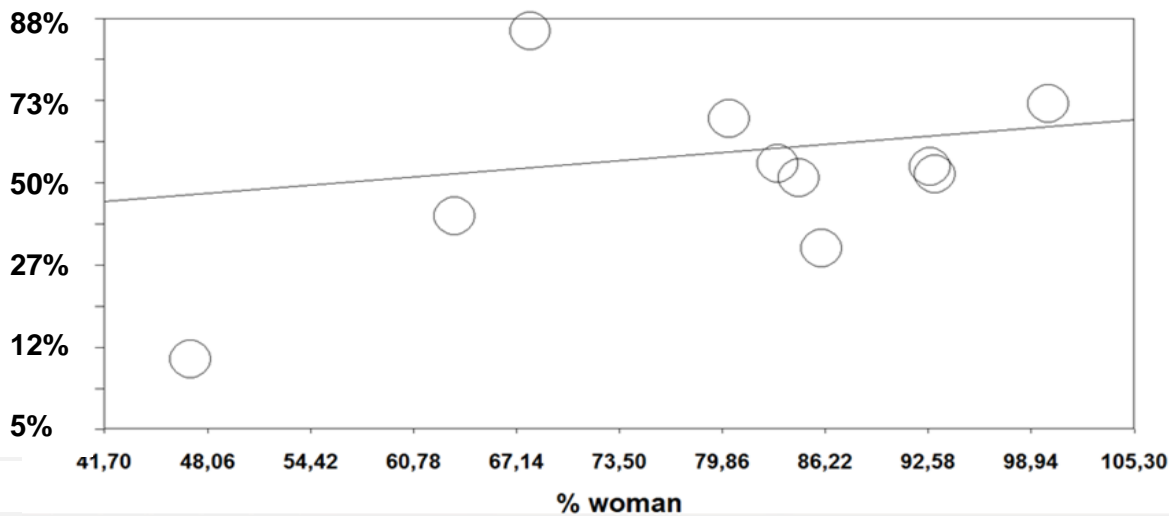
$I^2 = 80\% (> 75\%)$



General moderators: Age & Gender



 Mean age
 % Remission

$Q = 5.36, p = .02$

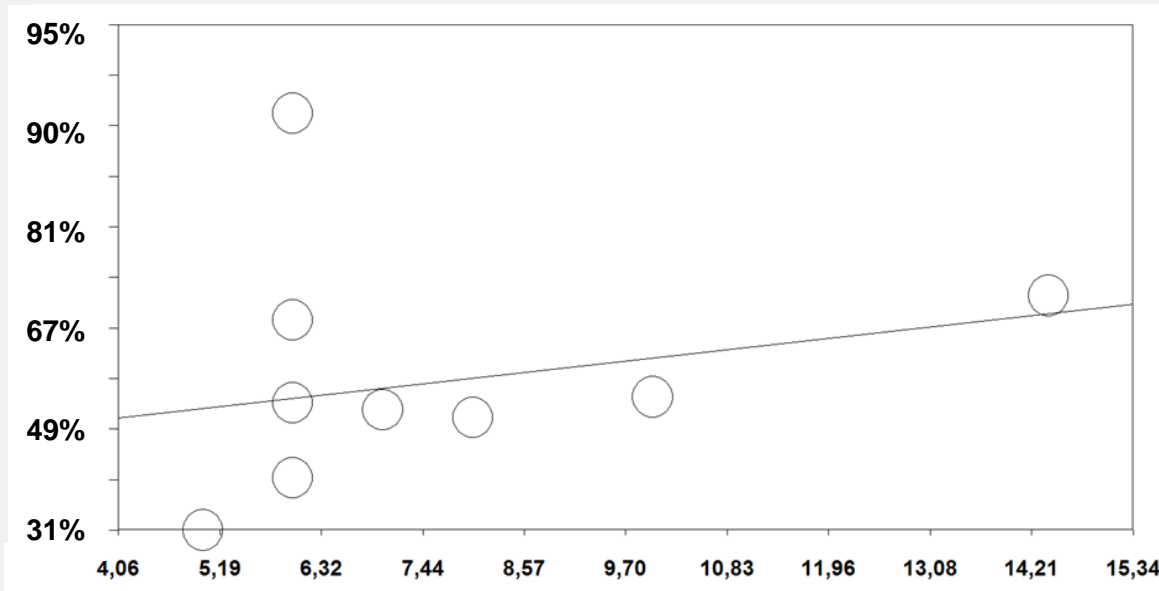


 % Women
 % Remission

$Q = 2.86, p = .09$

Mixed effects regression (unrestricted maximum likelihood)

General moderators: Time of Follow-up

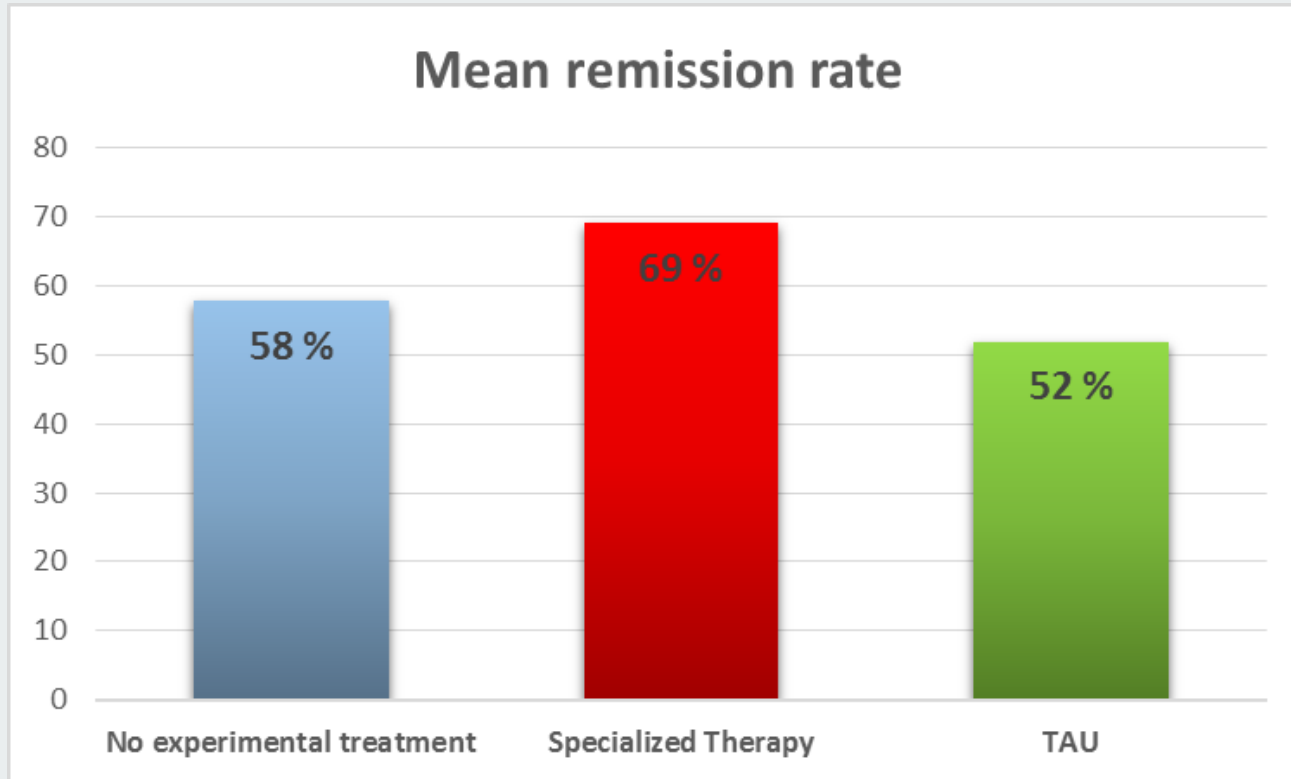


Mixed effects regression (unrestricted maximum likelihood)

↑ Years of follow-up
↑ % Remission

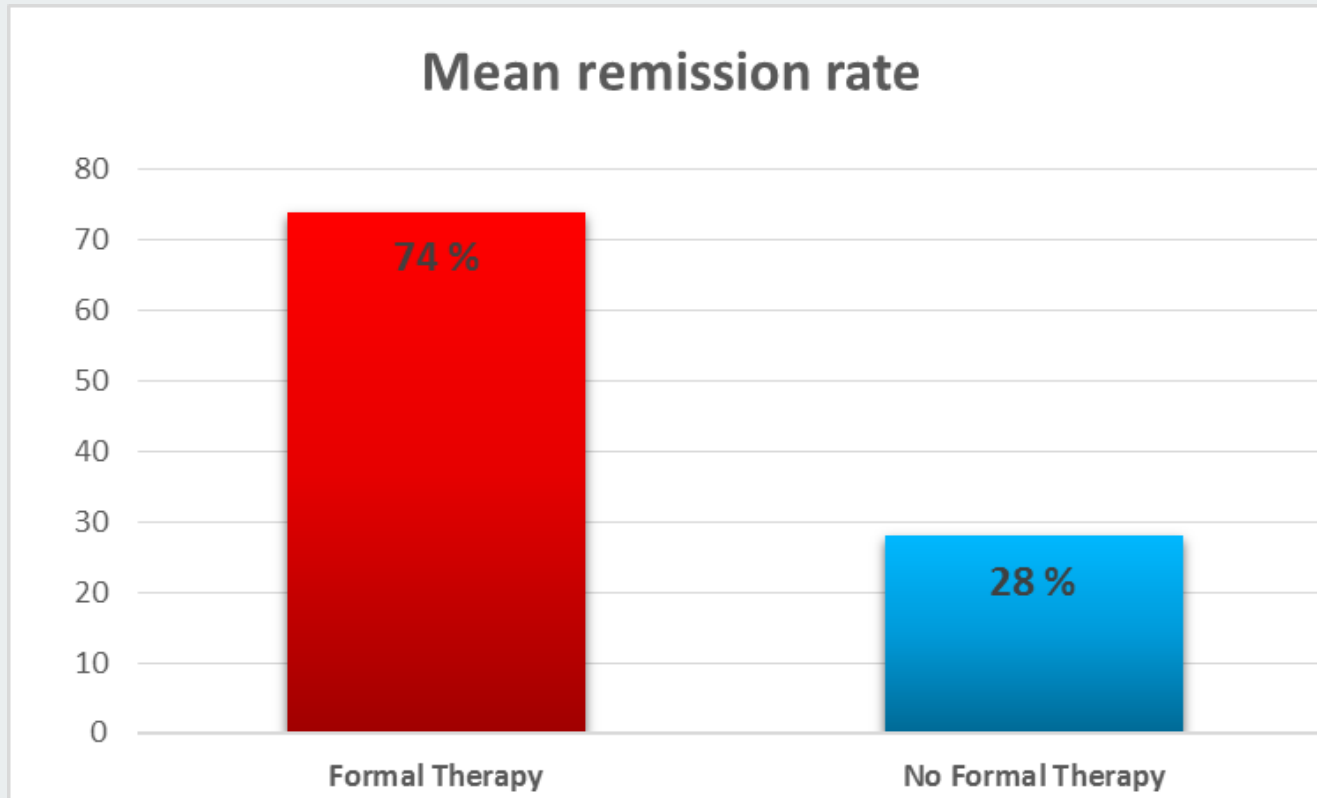
$Q = 1.11, p = .29$

Treatment moderators: Type of experimental Treatment



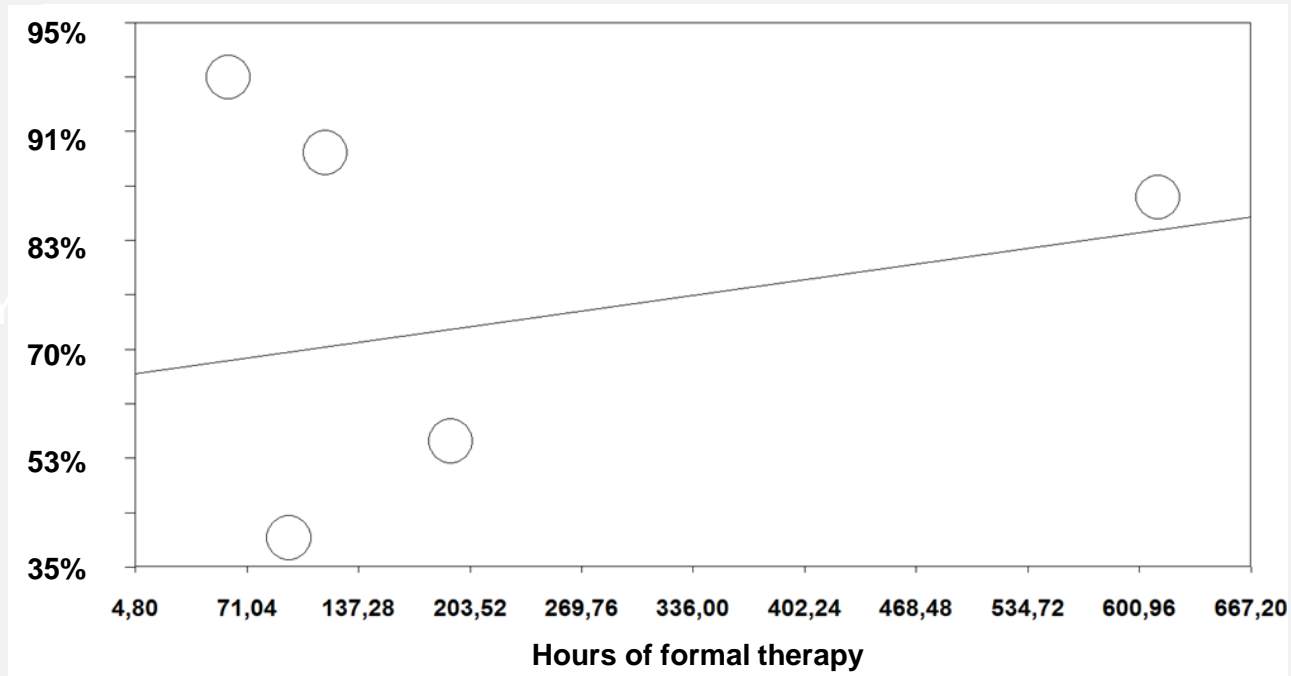
Differences between treatment groups: $Q = 0.76$, $p = .69$

Treatment moderators: Formal Therapy



Differences between treatment groups: $Q = 2.7$, $p = .10$

Treatment moderators: Hours of Formal Therapy



Mixed effects regression (unrestricted maximum likelihood)

↑ Hours of therapy
↑ % Remission

$Q = 0.41$ $p = .52$

CONCLUSIONS: NATURAL COURSE

- **Over a half of patients** with BPD diagnosis may achieve remission in the long term.
- A diagnosis of BPD at a **younger age** is associated with **higher long-term remission rates**
- **Female gender** might be related to **better clinical outcome**
- **Time of follow-up** seems not related to remission after 5 years or more of illness.

CONCLUSIONS: TREATMENT

- **Specialized therapies** seem **not to improve the long-term clinical outcome**, compared to treatment as usual or the natural course of the disorder.
- Receiving any kind of **formal therapy** might be associated with **higher percentages of remission in the long term**.
- The **intensity and length of formal therapy** received appears **not to be crucial in reaching a better outcome in the long term**.

LIMITATIONS & RESEARCH SUGGESTIONS

- **Limited number of studies** and **small size of BPD samples** in the majority of studies reduce the statistical power and might compromise the study of moderators
- Further research focused on the long-term outcome of treatment interventions is strongly recommended.
- Longitudinal studies in untreated samples may contribute to describe the natural course of BPD.