# **Supplement Material**

**Supplement Material A**

Findings and Characteristics of Previous Studies Analyzing Subtypes of BPD

**Supplement Material B**

Results of differences in two-cluster-solution

**Supplement Material A** Findings and Characteristics of Previous Studies Analyzing Subtypes of BPD

|  |  |  |  |
| --- | --- | --- | --- |
| Authors | Factors / clusters | Statistical analysis | Sample characteristics |
| Andión et al. (2011)  Becker, McGlashan,  & Grilo (2006)  Benazzi (2006)  Blais, Hilsenrot,  & Castlebury (1997)  Bornovalova, Levy,  Gratz, & Lejuez (2010)  Bradley, Zittel Conklin, & Westen (2005)  Calvo et al. (2012)  Chabrol, Montovany,  Callahan, Chouicha,  & Ducongé (2002)  Clarkin, Hull, & Hurt (1993)  Clifton & Pilkonis (2007)  Critchfield, Clarkin, Levy, & Kernberg (2008)  Digre, Reece, Johnson, & Thomas (2009)  Eaton et al. (2011)  Fossati et al. (1999)  Gamache, Savard, Lemelin, Côté,  & Villeneuve (2018)  Hallquist & Pilkonis (2012)  Hoermann, Clarkin, Hull, & Levy (2005)  Hudson, Zanarini, Mitchell, Choi-Kain,  & Gunderson (2014)  Hurt et al. (1990)  James & Taylor (2008)  Leihener et al. (2003)  Lenzenweger, Clarkin,  Yeomans, Kernberg,  & Levy (2008)    Lewis, Caputi, & Grenyer (2012)  Livesley & Schroeder  (1991)  Ramos, Canta, de Castro, & Leal (2014)  Rosenberger & Miller (1989)  Rusch, Guastello, & Mason (1992)  Salzer et al. (2013)  Sanislow, Grilo,  & McGlashan (2000)  Sanislow et al. (2002)  Shevlin, Dorahy, Adamson, & Murphy (2007)  Slavin-Stewart, Boylan, & Burke (2018)  Sleuwaegen et al. (2017)  Smits et al. (2017)  Soloff & Chiappetta  (2012)  Taylor & Reeves (2007)  Thatcher, Cornelius,  & Clark (2005)  Whewell, Ryman, Bonanno, & Heather (2000)    Westen & Shedler (1999)  Wright et al. (2013)    Zittel & Westen (2002) | 1. Disturbed relatedness 2. Behavioral dysregulation 3. Affective dysregulation 4. Self-negation (suicidal behaviour, emptiness) 5. Irritability   (affective instability, anger, identity disturbance)   1. Poorly modulated relationships   (unstable relationships, fear of abandonment)   1. Impulsivity 2. Affective instability   (unstable relationships, unstable self-image, unstable mood, anger, emptiness)   1. Impulsivity   (avoidance of abandonment, impulsivity, suicidal behaviour, paranoid ideation)   1. Interpersonal instability   (abandonment, identity disturbance, emptiness)   1. Affective and cognitive instability   (anger, paranoia or dissociative symptoms)   1. Impulsive self-damaging behaviours   (unstable relationships, impulsivity, suicidal behaviour, affective instability)   1. Baseline: no notable BPD pathology 2. Low intermediate 3. Moderate (higher probability for affective instability, emptiness, anger, paranoid ideation/dissociation and stormy relationships) 4. High BPD 5. High functioning internalizing 6. Histrionic 7. Depressive internalizing 8. Angry externalizing 9. Disturbed Relatedness 10. Affective Instability 11. Behavioral Dyscontrol 12. Painful feelings and dissociative defense (internalizing) 13. Impulsivity 14. Aggressiveness (externalizing) 15. Uncertainties about identity and interpersonal relationships (identity disturbance, emptiness, avoiding abandonment, unstable relationships) 16. Affect (anger, labile affect, suicidal behavior) 17. Impulsivity 18. High likelihood of BPD symptoms 19. Low likelihood of BPD symptoms 20. Extraversion vs. introversion   (histrionic, narcissistic, avoidant, schizoid)   1. Antagonism vs. constraint   (paranoid, schizotypal, antisocial, dependent, obsessive–compulsive)   1. Cluster A: paranoid/schizotypal 2. Cluster B: histrionic/narcissistic 3. Cluster C: avoidant/obsessive–compulsive 4. Withdrawn internalizing 5. Severely disturbed-internalizing 6. Anxious-externalizing 7. Distress (internalizing subfactor) 8. Externalizing 9. All criteria 10. Zero criteria 11. Impulsivity and inappropriate anger 12. Higher-functioning 13. Narcissistic Features/Entitlement 14. Pseudo-Normality 15. Highly Dysfunctional 16. Symptomatic (inappropriate anger more prevalent) 17. Asymptomatic (abandonment and identity disturbance more prevalent) 18. Angry/mistrustful 19. Poor identity/low anger 20. Prototypical (low levels of most of the markers) 21. Angry/aggressive 22. High effortful control 23. Low effortful control 24. Midway between groups 1 and 2 25. Internalizing 26. Externalizing 27. Identity (emptiness, identity disturbance,   intolerance of being alone)   1. Affective (inappropriate anger, instability of affect, and unstable interpersonal relationships) 2. Impulse (self-damaging & impulsive behavior) 3. Anxious-misery (internalizing subfactor) 4. Externalizing 5. Autonomous 6. Dependent 7. Low levels of antisocial, paranoid   and aggressive features   1. Elevated paranoid features 2. Elevated antisocial and aggressive features 3. Affect Dysregulation   (impulsivity, affective instability and anger)   1. Rejection Sensitivity   (suicidality, abandonment and emptiness)   1. Mentalization Failure (stress-related paranoia, identity disturbance and unstable relationships) 2. Core features of BPD   (diffuse self-concept, attachment problems, unstable mood and interpersonal relationships)   1. Interpersonal exploitation 2. Self-harm 3. Internalizing (self-demeaning, introversive, doleful, inhibited, submissive) 4. Externalizing   (unruly, forceful, egotistic dramatizing)   1. Interpersonal disturbance   (avoiding abandonment, emptiness, identity disturbance, unstable relationships)   1. Instability (anger, suicidal behaviour, impulsivity, affective instability) 2. Highly unstable   Volatility (V: inappropriate anger, unstable relationships, impulsivity) and Self-Destructive Unpredictability (SDU: affective instability and self-mutilating acts)   1. Identity type (I): Identity disturbance and SDU 2. Severely impaired type: V, I and SDU 3. Undifferentiated type: only SDU 4. Vindictive 5. Moderate Submissive 6. Nonassertive 7. Exploitable 8. Socially Avoidant 9. Disturbed relatedness   (unstable relationships, emptiness,  identity disturbance)   1. Behavioural dysregulation   (impulsivity, suicidal behavior)   1. Affective dysregulation   (affective instability, anger,  fear of abandonment)   1. Disturbed relatedness (unstable relationships, identity disturbance, emptiness) 2. Behavioural dysregulation   (impulsivity, suicidal behavior)   1. Affective dysregulation (affective instability,   anger, fear of abandonment)   1. High Class (high probability of all criteria) 2. Moderate (higher probability for unstable/intense relationships, affective instability and emptiness than class 3) 3. Low 4. Baseline/Normative (almost zero BPD criteria) 5. Low BPD symptom 6. Anxious (second lowest severity, high in self-image issues, emptiness and anxiety disorders) 7. Trauma (symptoms associated with early trauma, e.g. abandonment, suicidality, dissociation) 8. BPD group 9. Low Anxiety 10. Inhibited 11. High Self-control 12. Emotional/Disinhibited 13. Core BPD 14. Extravert/externalizing   (narcissistic, antisocial, and histrionic)   1. Schizotypal/paranoid 2. Low Lethality 3. High Lethality 4. Fear of abandonment, unstable relationships, identity disturbance, suicidality, emptiness 5. Affective instability in absence of impulsivity 6. Stress-related paranoia in the absence of anger 7. Severe Class   (high endorsement of all symptoms)   1. Moderate Class   (symptoms at relatively lower rates)   1. Impulsivity Class   (only high impulsivity and inappropriate anger)   1. Combined factor 2 + 3 2. Calm-internalizing   (impulsivity, suicidal behavior, abandonment)   1. Mood-externalizing (affective instability, anger) 2. Undifferentiated 3. Dysphoric: emotional dysregulated 4. Histrionic 5. Nonassertive 6. Avoidant 7. Extreme Exploitable 8. Moderate Exploitable 9. Intrusive 10. Vindictive 11. Internalizing-dysregulated 12. Externalizing-dysregulated 13. Histrionic-impulsive | Confirmatory factor analysis (DSM-IV  BPD criteria and  DIB-R subscales)  Principal component  factor analysis  (BPD PDE criteria)  Principal component  factor analysis  (items of BPT)  Principal component  factor analysis (BPD DSM-IV criteria)  Latent class analysis (BPD SCID-II criteria)  Q-factor analysis  (SWAP-200 items)  Confirmatory factor analysis (PDQ-4+  BPD criteria)  Principal component  factor analysis  (DIB-R data)  Principal component  factor analysis  (BPD SCID-II criteria)  Latent class analysis  (BPD criteria  consensus ratings)  Principal component  factor analysis (correlation matrix  from IPDE dimensions)  Q-analysis  (comorbid categories based on IPDE data)  Two-step cluster analysis (various demographic, clinical  and psychological variables)  Confirmatory factor analysis  Latent class analysis  (BPD SCID-II criteria)  Two-step cluster analysis (GAF score and five factors of TARS-PD)  PMI FacMM  (BPD SCID-II criteria) 🡪 better fit than latent class or factor analysis  Finite mixture modeling (several variables1)  K-means cluster analysis (3 subscales  of effortful control)  Confirmatory factor analysis (within-person association of BPD with internalizing and externalizing disorders)  Single-linkage clustering algorithm  (BPD DSM-III criteria)  Confirmatory factor analysis (sums of endorsed items for  each disorder)  Cluster analysis  (IIP data)  Finite mixture analysis (IPO aggression and IPDE antisocial and paranoid features)  Principal component  factor analysis  (BPD DSM-IV criteria)  Factor analysis  (BPD dimensions)  Latent class analysis (MACI personality pattern scales)  Principal component  factor analysis  (BPD DSM-III criteria)  Maximum likelihood and frequency analysis  Cluster analysis and structural summary analysis (scales of IIP)  Principal component  factor analysis  (BPD PDE criteria)  Confirmatory factor analysis (BPD  DSM-IV criteria)  Latent class analysis (BPD SCID-II criteria)  Latent class analysis  (nine subscales of BPQ that correspond to diagnostic criteria)  Two-step k-means cluster analysis  (BIS/BAS and  ECS scores)  Cluster analysis  (SCID-II personality disorders)  Trajectory analysis  (lifetime maximum Lethality Rating  Scale scores)  Principal component  factor analysis  (BPD DSM-IV criteria)  Latent class analysis  (DSM-IV BPD criteria)  Principal component  factor analysis (scores of STCPD borderline section)  Q-analysis  (SWAP-200 items)  Latent class analysis and structural summary analysis of resultant classes (scales of IIP) | *N* = 338 outpatients (73.3% female),  65.1% with BPD, SCID-II and DIB-R,  mean age 27.24 years (*SD* = 7.61)  *N* = 123 adolescent inpatients  (46% female), PDE (DSM-III-R),  age: *M* = 15.9 (*SD* = 1.3),  range from 13 to 18 years  *N* = 209 outpatients (61.1 - 77.1% female), self-assessed items of SCID-II Questionnaire 🡪 borderline personality traits (BPT), mean age about 39 years  *N* = 91 outpatients with personality disorder (48% female), 27,5% with BPD,  retrospective reviews of patient records,  mean age 28 years (*SD* = 8)  *N* = 382 inpatient substance users  (31.7% female), 19.1% with BPD, diagnosed by SCID-II, age: *M* = 41.57  (*SD* = 9.24), range from 18 to 68 years  *N* = 55 female adolescents with BPD, clinical DSM-IV diagnoses and Axis II checklists for adults, SWAP-200-A,  age range from 14 to 18 years  *N* = 159 outpatients (76.7% female),  58.5% with BPD, PDQ-4+ self-report,  SCID-II, mean age 29.14 years (*SD* = 7.8)  *N* = 118 adolescents (non-patient),  diagnoses by DIB-R  *N* = 75 hospitalized women with BPD, SCID-II (1-6 scale), age: *M* = 28.0,  range from 15 to 45 years  *N* = 411 participants (inpatient, outpatient, nonclinical; 74% female), 25% with BPD, diagnoses by consensus ratings including structured interviews of Axis I and II disorders, mean age 37.1 years (*SD* = 10.5)  *N* = 90 outpatients (92.2% female)  with DSM-IV BPD according to IPDE,  age: *M* = 30.9 (*SD* = 7.9),  range from 18 to 51 years  *N* = 77 clients with personality disorder (96% female and BPD), diagnosed per SCID-I and SCID-II, additionally WCCL, DES and PHI, age: *M* = 34 (*SD* = 8.73), range from 19 to 55 years  *N* = 34653 individuals (population-based sample), diagnoses by AUDADIS-IV, 48% female, age range from 20 to 90 years  *N* = 564 inpatients and outpatients  (57.6% female), 17.7% with BPD, SCID-II, mean age 29.92 years (*SD* = 8.50)  *N* = 56 outpatients with BPD who dropped out during first year of treatment  (60.7% female), diagnosed by DIB-R,  GAF scale, TARS-PD,  mean age 35.79 years (SD = 11.80)  *N* = 362 adults (clinical and nonclinical, 71% female), 26% with BPD, diagnosed by SCID-II, mean age 39.98 years (*SD* = 11.29)  *N* = 100 individuals of symptomatic class (85% female), mean age 37.38 years  (*SD* = 11.14)  *N* = 47 patients with BPD (87.2% female), IPDE, effortful control by ATQ,  mean age 28.89 years (*SD* = 6.92)  *N* = 386 women, 35.9% with BPD according to criteria of DSM-IV and DIB-R,  age range from 18 to 35 years  *N* = 579 subjects with personality disorder (in- and outpatients from four studies),  63-81% female, 80.3% with BPD,  diagnoses according to medical reports  and (semi-)structured interviews,  age range from 22 to 32 years,  *N* = 1197 (population-based sample),  45% female, diagnoses with CIDI, symptoms of BPD with IPDE Questionnaire,  age range from 19 to 22 years  *N* = 95 women (inpatient and outpatient tracks) with DSM-IV BPD, SCID-II  and DIB-R, age: *M* = 27.1 (*SD* = 7.3),  range from 17 to 45 years  *N* = 90 individuals with BPD (92.2% female), from clinic as well as community settings, IPDE, SCID and IPO,  age: *M* = 31.06 (*SD* = 7.81),  range from 18 to 50 years  *N* = 95 (86% female), treated outpatients, BPD as primary diagnosis, SCID-II,  age: *M* = 30 (*SD* = 8.80),  range from 18 to 56 years  *N* = 274 general population (54.4% female), mean age 29.7 years (*SD* = 11.2);  *N* = 133 patients with personality disorder (63.2% female), mean age 33.6 years  (*SD* = 7.7), dimensional descriptions of cluster B diagnoses from content analysis  of literature 🡪 assessed by self-report scales  *N* = 60 adolescent outpatients with BPD (73.3% female), diagnoses by CI-BPD,  age: *M* = 15.90 (*SD* = 1.05),  range from 15 to 18 years  *N* = 106 psychology students (56% female) with elevated borderline scale scores according to several self-report measures, 30.8% with borderline spectrum diagnosis,  structured diagnostic interview,  no information about age distribution  *N* = 89 inpatients (82% female), 40.4% with BPD, diagnoses by DSM-III symptom-checklist in regard of patients’ medical records, mean age 27.8 years  *N* = 228 inpatients with BPD, 92.5% female, diagnostic interviews according to ICD-10, mean age 31.29 years (*SD* = 9.47)  *N* = 141 inpatients (25% female), PDE,  44% with BPD, age: *M* = 22.4 years  (*SD* = 4.7), range from 18 to 39 years  *N* = 668 in- and outpatients (64% female), 36% with BPD, Diagnostic Interview for DSM-IV Personality Disorders,  age range from 18 to 45 years,  2-year-follow-up: *N* = 498  *N* = 8383 adults (National Survey of Psychiatric Morbidity in Great Britain), 0.71% with BPD, diagnosed by SCID-II, age range from 16 to 74 years (no further information about age distribution)  *N* = 75 adolescent girls, 18.9% with BPD, diagnosed by DIB-R, BPQ (self-report)  age: *M* =14.92 (*SD* = 1.50),  range from 11 to 18 years  *N* = 146 BPD inpatients (85.6% female), SCID-II, reactive temperament by BIS/BAS scales, regulative temperament by ECS,  age: *M* = 29.28 (*SD* =8.36),  range from 18 to 65 years  *N* = 187 outpatients with BPD  (88% female), SCID-II,  age: *M* = 29.1 (*SD* = 8.7),  range from 18 to 56 years  *N* = 137 repeated suicide attempters with BPD (75% female), in-/out-/non-patient, diagnosed by IPDE and DIB, Columbia Suicide History and a Lethality Rating Scale, mean age 29.9 years (*SD* = 8.1)  *N* = 82 (63% female), college students, diagnoses at threshold (all criteria met), probable (all but one criterion met) and possible (all but two criteria met), SIDP-IV, SCID-II, mean age 18.1 years (*SD* = 4.04)  *N* = 167 subjects with at least one symptom of BPD according to SCID-II (94.6% with alcohol use disorder), about 40% female, age range from 20.9 to 22.3 years  *N* = 288 outpatients with BPD (64% female) STCPD (self-report questionnaire), clinical diagnoses, age range from 18 to 65 years  *N* = 496 patients with personality disorder (clinical diagnosis), descriptions by SWAP-200, no information about age distribution  *N* = 225 with three or more DSM-III criteria for BPD (91% psychiatric patients, 8% community members, 1% diabetic patients), 75% female, structured diagnostic interview, IIP-C, no information about age distribution |

*Note*. *M* = mean value; *SD* = standard deviation; *N* = sample size. ATQ = Adult Temperament Questionnaire; AUDADIS-IV = Alcohol Use Disorder and Associated Disabilities Interview Schedule-IV; BIS/BAS = Behavioral Inhibition/Activation System Scales; BPQ = Borderline Personality Questionnaire; CI-BPD = Childhood Interview for DSM-IV; CIDI = Composite International Diagnostic Interview; DES = Dissociative Experience Scale; DIB-R = Revised Diagnostic Interview for Borderlines; ECS = Effortful Control Scale; GAF = Global Assessment of Functioning; IIP = Inventory of Interpersonal Problems; IPO = Inventory of Personality Organization; MACI = Millon Adolescent Clinical Inventory; PDE = Personality Disorder Examination; PDQ-4+ = Personality Diagnostic Questionnaire-4+; PHI: Parasuicide History Inventory; PMI FacMM: Partial measurement invariance factor mixture modeling; SCID-II = Structured Clinical Interview for DSM-IV Axis II Personality Disorders; SIDP-IV = Structured Interview for DSM-IV Personality Disorders; STCPD = Screening Test for Comorbid Personality Disorder; SWAP-200 = Shedler-Westen Assessment Procedure-200; TARS-PD = Treatment Attrition-Retention Scale for Personality Disorders; WCCL = Ways of Coping Checklist.

1BPD criteria inappropriate anger, avoidance of abandonment and identity disturbance; DSM–IV antisocial personality disorder and paranoid personality disorder; mistrustfulness and aggressiveness subscale from IIP.

Supplementary References:

Critchfield, K. L., Clarkin, J. F., Levy, K. N., & Kernberg, O. F. (2008). Organization of co-occurring Axis II features in borderline personality disorder*. British Journal of*

*Clinical Psychology, 47*(2), 185-200. doi: 10.1348/014466507X240731

Gamache, D., Savard, C., Lemelin, S., Côté, A., & Villeneuve, E. (2018). Premature termination of psychotherapy in patients with borderline personality disorder. *The Journal*

*of Nervous and Mental Disease, 206*(4), 231–238. doi: 10.1097/NMD.0000000000000764

Hoermann, S., Clarkin, J. F., Hull, J. W., & Levy, K. N. (2005). The construct of effortful control: An approach to borderline personality disorder heterogeneity.

*Psychopathology, 38*(2), 82-86. doi: 10.1159/000084815

Leihener, F., Wagner, A., Haaf, B., Schmidt, C., Lieb, K., Stieglitz, R., & Bohus, M. (2003). Subtype differentiation of patients with borderline personality disorder using a

circumplex model of interpersonal behavior. *The Journal of Nervous and Mental Disease, 191*(4), 248-254. doi: 10.1097/01.NMD.0000061150.38924.2A

Lenzenweger, M. F., Clarkin, J. F., Yeomans, F. E., Kernberg, O. F., & Levy, K. N. (2008). Refining the borderline personality disorder phenotype through finite mixture

modeling: Implications for classification*. Journal of Personality Disorders, 22*(4), 313-331. doi: 10.1521/pedi.2008.22.4.313

Livesley, W. J., & Schroeder, M. L. (1991). Dimensions of personality disorder: The DSM-III-R cluster B diagnoses. *Journal of Nervous and Mental Disease, 179*(6), 320-328.

doi: 10.1097/00005053-199106000-00004

Salzer, S., Streeck, U., Jaeger, U., Masuhr, O., Warwas, J., Leichsenring, F., & Leibing, E. (2013). Patterns of interpersonal problems in borderline personality disorder. *The*

*Journal of Nervous and Mental Disease, 201*(2), 94-98. doi: 10.1097/NMD.0b013e3182532b59

Sleuwaegen, E., Claes, L., Luyckx, K., Berens, A., Vogels, C., & Sabbe, B. (2017). Subtypes in borderline patients based on reactive and regulative temperament. *Personality*

*and Individual Differences, 108*, 14-19. doi: 10.1016/j.paid.2016.11.065

Soloff, P. H., & Chiappetta, L. (2012). Subtyping borderline personality disorder by suicidal behavior. *Journal of Personality Disorders, 26*(3), 468-480.

doi: 10.1521/pedi.2012.26.3.468

Taylor, J., & Reeves, M. (2007). Structure of borderline personality disorder symptoms in a nonclinical sample. *Journal of Clinical Psychology, 63*(9), 805-816.

doi: 10.1002/jclp.20398

Westen, D., & Shedler, J. (1999). Revising and assessing Axis II, Part II: Toward an empirically based and clinically useful classification of personality disorders. *American*

*Journal of Psychiatry, 156*(2), 273-285.

Wright, A. G., Hallquist, M. N., Morse, J. Q., Scott, L. N., Stepp, S. D., Nolf, K. A., & Pilkonis, P. A. (2013). Clarifying interpersonal heterogeneity in borderline personality

disorder using latent mixture modeling. *Journal of Personality Disorders, 27*(2), 125-143. doi: 10.1521/pedi.2013.27.2.125

**Supplement Material B** Description of Two-Cluster-Solution – Supplement for Results and Discussion

The distribution of IPDE variables (patients meeting criterion level, %) among the two clusters is illustrated in *Figure S1*, corresponding comparisons are depicted in *Table S1*.

Figure S1. *Distribution of IPDE Criteria for Two Subtypes (Patients meeting Criterion Level, %).*

Cluster 1 (C1; n = 43) shows higher values in *emptiness* but lower values in *relationship instability,* *feelings of* *abandonment, anger, quarrelsomeness, maintaining action* and *unexpected action*. Its prominent ICD-11 domains seem to be mostly Negative Affectivity and Disinhibition (regarding self-harm) with moderate Severity (regarding disturbance of both self and interpersonal functioning). Therefore, C1 refers to an *internalizing* subtype.

Cluster 2 (C2; n = 66) shows lower values in *emptiness* but higher values in *relationship -instability, feelings of abandonment, anger, quarrelsomeness, unexpected action* and *maintaining action.* Its ICD-11 domains seem to be equally Dissociality, Disinhibition and Negative Affectivity with overall high Severity. C2 refers to a *mixed* subtype.

*Table S1.* Differences between Subtypes on IPDE-Criteria, *M* (*SD)*.

|  |  |  |  |
| --- | --- | --- | --- |
| Criterion, *M (SD)* | Internalizing  subtype  (*n*=43) | Mixed  subtype  (*n*=66) | p-value |
| Identity disturbance (S) Relationship instability (S)  Emptiness (NA)  Mood instability (NA)  Feelings of abandonment (NA)  Anger (A)  Quarrelsomeness (A)  Unexpected action (D)  Self-harm (D)  Maintaining action (D) | 1.23 (.72)  1.14 (.94)  1.84 (.43)  1.72 (.59)  .74 (.88)  1.00 (.82)  .37 (.62)  .81 (.91)  1.65 (.69)  .65 (.87) | 1.15 (.81)  1.58 (.70)  1.53 (.71)  1.80 (.56)  1.39 (.82)  1.86 (.39)  1.77 (.55)  1.42 (.75)  1.52 (.73)  1.50 (.81) | .666  **.015**  **.013**  .260  **<.001**  **<.001**  **<.001**  **<.001**  .244  **<.001** |

*Note. N* = sample size; absolute (*n*).

Differences in demographic, clinical, and therapeutic are depicted in *Table S2*. Results revealed lower values in *Definite BPD* for the internalizing subtype, but no significant difference in *BSL baseline.* Furthermore, the *internalizing* showed higher rates in affective disorders (90.7%) than the *mixed* subtype and higher therapeutic change (*RCI-BSL*; *p*= .059) although tests did not reach significance. The *mixed* subtype showed higher rates of therapy discontinuation(*p*= .054).

*Table S2.* Demographic, Clinical and Therapeutic Differences.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Internalizing subtype  (*n* = 43) | Externalizing  subtype  (*n* = 66) | *p-*value |
| Demographic variables  Age, *M (SD*)  Gender (female), *n* (%)  Comorbidities, *n* (%)  F10 - F19 (except tobacco use)  F30 - F39  F40 + F41  F43  F50  Number of diagnoses, *M (SD*)  Definite BPD, *n* (%)  Questionnaires, *M (SD)*  BSL baseline  BSI global index baseline  BDI baseline  Therapeutic variables, *M (SD); %*  RCI of BSL  Responders (%)  RCI of BSI  Responders (%)  RCI of BDI  Responders (%)  Pre-post BSL  Pre-post BSI  Pre-post BDI  Treatment duration in days, *M (SD)*  Discontinuation of therapy, *n* (%) | 29.60 (7.23)  36 (83.7)  13 (30.2)  39 (90.7)  21 (48.8)  11 (25.6)  9 (20.9)  2.74 (1.20)  13 (30.2)  1.85 (.79)  28.97 (11.59)  26.19 (11.64)  .83 (1.04)  65.5  1.24 (.77)  81.0  1.19 (.93)  65,0  .53 (.95)  12.53 (7.37)  11.36 (7.25)  77.58 (19.36)  5 (11.6) | 28.75 (6.00)  56 (84.8)  18 (27.3)  40 (60.6)  23 (34.8)  23 (34.8)  15 (22.7)  2.36 (.95)  62 (93.9)  1.71 (.82)  27.83 (13.82)  26.95 (12.05)  .38 (1.03)  40.0  1.00 (.82)  77.3  1.14 (.94)  63.6  .33 (.89)  15.39 (11.67)  15.61 (12.41)  72.34 (23.51)  18 (27.3) | .768  .728  .738  **<.001**  .146  .307  .825  .101  **<.001**  .409  .536  .658  .**059**  .347  .851  .332  .346  .181  .219  .**054** |

*Note.* Comorbidities include principal and secondary diagnoses. *M =* mean value; *SD* = standard deviation; *N* = sample size, variation in *N* due to missing values; absolute (*n*) and relative (%) frequency for categorical data. BSL = Borderline Symptom List; BSI = Brief Symptom Inventory; BDI = Becks Depression Inventory.

Additionally,the clusters were analyzed regarding differences in the BSL-95 subscales and BSL-severity. Results showed no significant differences in subtypes (see F*igure S2*)*.*

Figure S2. *Distribution of IPDE-Clusters in BSL-Severity Rating.*

Considering the two-cluster-solution, the *mixed* subtypeshowed higher rates in *therapy-discontinuation* than the *internalizing*. Rüsch et al. (2008) and Simonsen et al. (2021) suggest that personality traits like anger and quarrelsomeness may influence therapy-discontinuation. For a successful treatment of patients with traits of Dissociality and Disinhibition as well as *identity-disturbance*, it may be essential to recognize and work through these aspects from the very beginning of psychotherapy (Löffler-Staska, Blueml & Boes, 2010). A sustainable therapeutic alliance may be essential for therapeutic change (Goldfried, 2012).

**References:**

Löffler-Stastka, H., Blueml, V. & Boed, C. (2010). Exploration of personality factors and

their predictive impact on therapy utilization: The externalizing mode of functioning. *Psychotherapy Research, 20(3),* 295-308.

Rüsch, N., Schiel, S., Corrigan, P. W., Leihener, F., Jacob, G. A., Olschewski, M., Lieb, K. &

Bohus, M. (2008). Predictors of dropout from inpatient dialectical behavior therapy among women with borderline personality disorder. *Journal of Behavior Therapy and Experimental Psychiatry, 39(4),* 497-503.

Simonsen, E., Vestergaard, M., Storebø, O., J., Bo, S. & Jørgensen, M. S. (2021). Prediction

of Treatment Outcome of Adolescents with Borderline Personality Disorder: A 2-Year Follow-Up Study. *Journal of Personality Disorders, 35*(B), 111–13.