Detecting (B)PD in adolescence using the AIDA and the LoPF-Q 12-18:

Cut-offs from Swiss-German clinic and school populations and empirical congruence between the new dimensional approach (ICD-11) and the traditional categorical (ICD-10) diagnostics of PD

ESCAP, 2019, Vienna/ Austria

Symposium: Screening for personality disorders in adolescence by assessing impairments in identity development, personality functioning or personality Structure: Reliabilty, clinical validity and cultural comparability

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Symposium: Screening for personality disorders in adolescence by assessing impairments in identity development, personality functioning or personality Structure: Reliabilty, clinical validity and cultural comparability

Changed schedule:

1) **K. Goth**: Detecting (B)PD in adolescence using the AIDA and the LoPF-Q 12-18: Cut-offs from Swiss-German clinic and school populations and empirical congruence between the new dimensional approach and the traditional categorical (ICD-10) diagnostics of PD

→ A short overview on the instruments AIDA + LoPF-Q 12-18 + OPD-CA2-SQ

2) M. Birkhölzer: ~~Personality functioning assessed with the LoPF-Q 12-18 in adolescents with Antisocial and Narcissistic Personality Disorder~~

3) **R. Barkauskiene**: AIDA in a Lithuanian sample of adolescents: Levels of identity pathology and borderline personality symptoms

4) **A. Musetti**: Validation of the Italian version of AIDA (Assessment of Identity Development in Adolescence)

5) **S. González**: Psychometric properties of a cultural adapted version of the Assessment of Identity Development in Adolescence (AIDA) in Panama

6) **R. Weissensteiner**: The self-rating questionnaire OPD-CA2-SQ to assess personality structure in a child and adolescent psychiatric sample;, Austria

7) **Z. Abbes Ghorbel**: Assessment of identity development in Tunisian adolescents

8) **S. Plakolm**: First results of the study “Personality functioning and structure in adolescence” using the questionnaires AIDA, LoPF-Q 12-18 and OPD-CA2-SQ in a Slovenian school and clinic sample

Our goal:

Early detection and treatment of adolescent patients with personality disorders

→ matching the agenda of the GAP: Global Alliance for Prevention and Early Intervention for Borderline Personality Disorder

→ Matching the new dimensional severity approach for diagnosing PD described in the DSM-5 AMPD and the ICD-11

promote early detection	↔	improve diagnostics	↔	investigate new approaches
↔ develop high quality assessment tools matching these new approaches				

Early detection = Assessment

Our tasks:

- Developing new age-appropriate instruments in a team of clinicians and statisticians
- Supporting the development of culture-adapted versions
- Building research cooperations to investigate the clinical utility
- Promoting an easy access to our instruments for research and diagnostics

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Instruments to assess impaired personality functioning in adolescence

1) **AIDA** (Assessment of Identity Development in Adolescence; Goth et al. 2012, *CAPMH*)

→ Broad operationalisation of „**Identity**“ in terms of personality functioning (key aspect of adolescents´ PD)

✓ self-report for age 12-18; 58 5-step items

2) **LoPF-Q 12-18** (Levels of Personality Functioning Questionnaire; Goth, Birkhölzer & Schmeck, 2018, *JPA*)

→ Age-adequate operationalisation of all 4 domains of personality functioning „**Identity, Self-direction, Empathy, Intimacy**“ referring to DSM-5 AMPD and ICD-11 to assess severity of PD dimensionally

✓ self-report for age 12-18; 97 5-step items

3) **OPD-CA2-SQ** (Operationalised Psychodynamic Diagnostics in Children and Adolescents - Structure Questionnaire; Schrobildgen et al., 2019, *ZKJPP*)

→ Operationalisation of the axis „structure“ of the OPD-CA-2 with the domains of personality structure„**Control, Identity, Interpersonality, Attachment**“

✓ self-report for age 12-18; 81 5-step items

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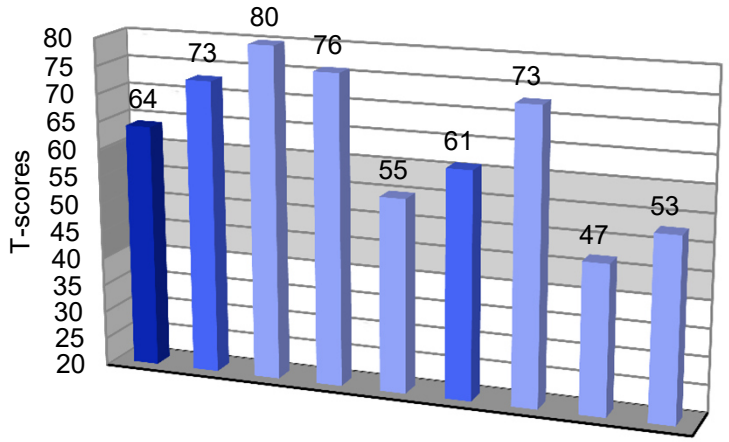
The questionnaire AIDA
(Assessment of Identity Development in Adolescence) – 58 items

AIDA is a self report questionnaire to assess pathological identity development in adolescents aged 12 – 18 years in terms of **impaired personality functioning**

- Identity Diffusion total score
  - Discontinuity
    - Lack of identity-consolidating perspectives, attributes, talents
    - Lack of identity- consolidating roles and relationships
    - Lack of id-consolidating emotions
  - Incoherence
    - Lack of consistent self-concepts
    - Lack of autonomy
    - Lack of integrating cognitions



- Following the new approach of DSM-5 (AMPD, criterion A) and ICD-11 to diagnose Personality Disorder (PD) by evaluating the severity of impairments in basic dimensions of personality functioning
- Combining the knowledge in our field (from psychodynamic as well as social-cognitive approaches) concerning pathology-related identity development (which is seen as key aspect of adolescents´ PD)

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The integrative AIDA model

Puzzle-pieces and basic sources to build the complex joint construct “Identity Diffusion”

Total scale: Identity Integration vs. Identity Diffusion	
Scale 1: Continuity vs Discontinuity subjective self; intuitive-emotional „I“, **Ego-Stability**	Scale 2: Coherence vs Incoherence definitory self; defined, integrated „ME“, **Ego-Strength**
Subscale 1.1: consolid. perspectives Erikson: subjective self-sameness James: „Changing while staying the same“; Kernberg: continuity in hobbies, goals, values; Livesley: Lack of Historicity and Continuity	Subscale 2.1: consistent self-concepts Kernberg: consistent self-definition Westen: painful incoherence and ambivalence; James: „non-fragmented self with clear boundaries“; Livesley: Self-State Disjunctions
Subscale 1.2: consolidating roles Samuel & Akthar: stabilizing roles (gender, ethnic, body-self) Kernberg: Capacity to invest into relationships	Subscale 2.2: autonomy Kernberg: Differentiation between self and others; Livesley: Lack of Authenticity; Westen: over-identification and lack of autonomy Erikson: uniqueness
Subscale 1.3: consolidating emotions Fonagy: emotional mentalization Livesley: Fragmentary Self and Person Representations	Subscale 2.3: integrating cognitions Kernberg: superficial/diffuse perception Fonagy: cognitive mentalization Livesley: Poorly differentiated images

level of psychosocial functioning

self-related intrapersonal „Me and I“

social-related interpersonal „Me and You“

mental representations

The areas (scales) and aspects (subscales) are only separated for descriptive reasons, for investigating possible distinct clinical impacts and informing treatment planning

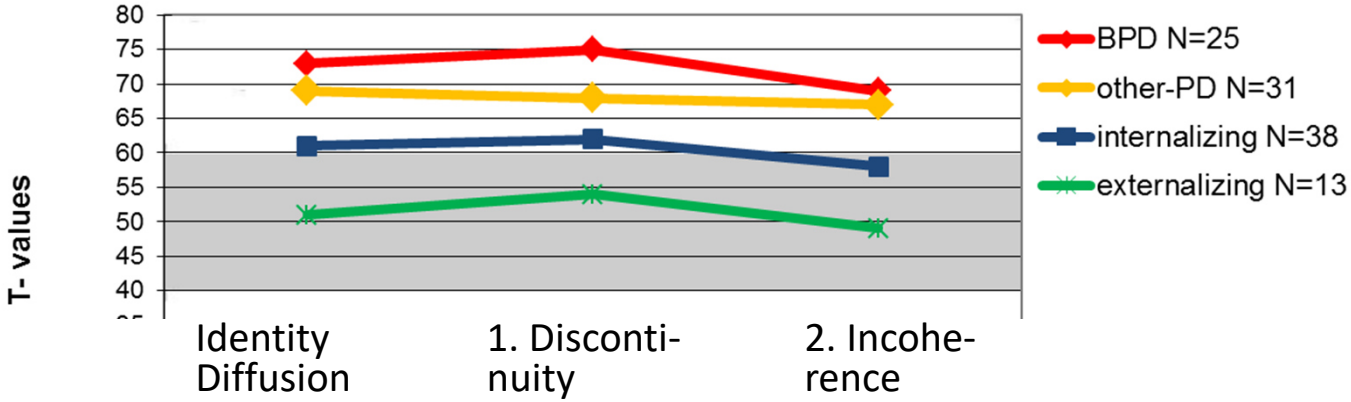
AIDA: Reliability and clinical validity

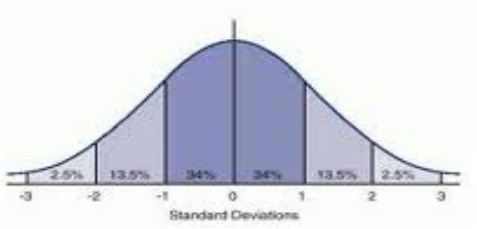
Scale reliabilty α, differences in AIDA mean scores (M) and standard deviations (SD) between the Swiss-German school sample (ss) and different patient-groups; effect sizes (d)

AIDA scores	α	students	patients					
		schools N=1437	BPD N= 25		other PD N= 31		No-PD N= 84	
		M (SD)	M (SD)	$d_{SS\text{-}BPD}$	M (SD)	$d_{SS\text{-}Oth\text{-}PD}$	M (SD)	$d_{SS\text{-}No\text{-}PD}$
Identity Diffusion	.94	64.9 (27.6)	137.6 (25.1)	2.64	120.4 (34.3)	2.00	88.8 (36.7)	0.85
1. Discontinuity	.87	27.5 (12.1)	63.4 (12.0)	2.97	52.4 (15.1)	2.05	39.3 (16.4)	0.95
2. Incoherence	.92	37.3 (17.3)	74.2 (16.4)	2.14	68.0 (22.6)	1.76	49.5 (22.9)	0.69

effect size: d >0.20 small, >0.50 medium, >0.80 large

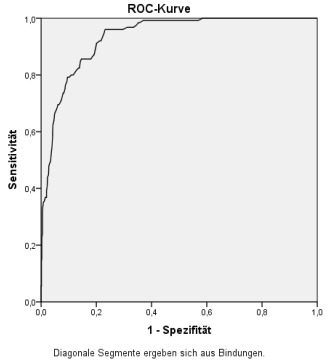
T-Profiles different clinical groups





AIDA: sensitivity, specificity and empirical Cut-Offs

- ROC analysis of SCID-2 diagnosed BPD-patients (N= 125) vs. healthy controls (N= 816 below Cut-off BPFSC-11) showed a high predictive power of the AIDA total score with an AUC of 0.93 (95% CI: 0.92 - 0.95, p < 0.001). Youden-Index yielded an **optimal cut-off score ≥ 104 for school settings**
- ROC analysis BPD vs No-PD patients (N= 399) showed AUC of 0.77 and an **optimal cut-off score ≥ 113 for clinical settings**



	Score >= 104		N	
	no	yes		Correct classification
Healthy controls	**691**	125	816	84,7% **Specificity**
BPD patients	18	**107**	125	**85.6%** **Sensitivity**
N	709	232	941	84,8% **Total**
	98% NPV	46% PPV		

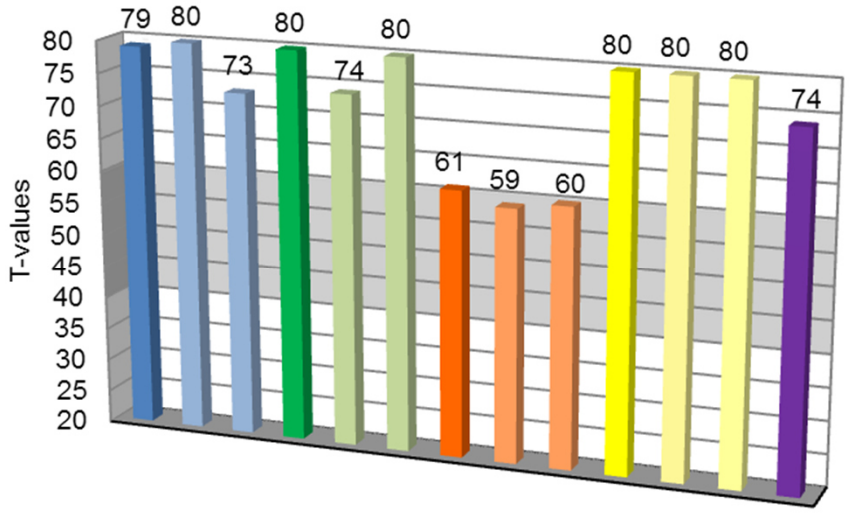
→ With a score>= 104 (>= 113 clinical), an in-depth clinical investigation of BPD risk (e.g. with SCID-2) is recommended

→ 98% negative predictive value = only 2% risk to be positive (BPD)

The questionnaire LoPF-Q 12-18
(Levels of Personality Functioning Questionnaire) – 97 items

LoPF-Q 12-18 is a self report questionnaire to assess 4 dimensions of **impairment in personality functioning** in adolescents aged 12 – 18 years

- IDENTITY
- ID-continuity
- ID-coherence
- SELF-DIRECTION
- SD-self-congruence
- SD-purposefulness
- EMPATHY
- EMP-perspective taking
- EMP-prosociality
- INTIMACY
- INT-close relationships
- INT-reciprocity
- PF TOTAL SCORE



- Following the new approach of DSM-5 (AMPD, criterion A) and ICD-11 to diagnose Personality Disorders by evaluating the severity of impairments in core constructs
- Additionally informed by related constructs directly referring to adolescent pathology and/or self-response format to maximize construct and clinical validity

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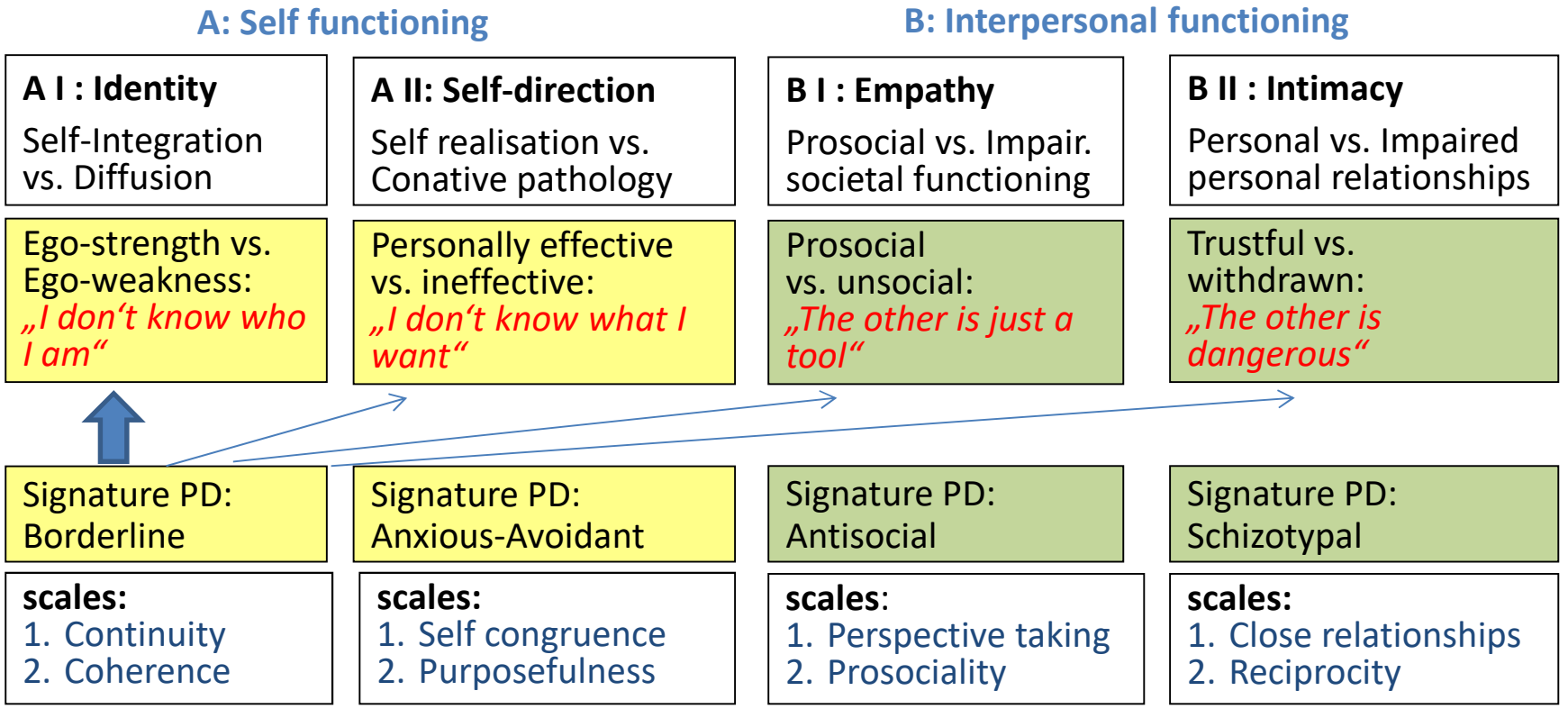
Development of LoPF-Q 12-18 :
Modelling the dimensions of PD severity for self-report in adolescence

Elaboration of the DSM-5 AMPD / ICD-11 (Criterion A) personality functioning and related concept to operationalize the pathological core of PD with clear-cut subconstructs suitable for adolescents



I can trust my inner voice, it usually leads me in the right direction (-)

I often feel lost, as if I have no clear inner self.

→ AIDA Power-items

I would like to be very different from what I am actually.

Often I don´t know what to do with my life.

I often don´t understand the reactions of other people on my behavior.

If someone allows that I treated him badly, then he deserves no better.

I prefer others not to know too much about me.

It is important for me to get to know my friends very well, so that we can be "real friends". (-)

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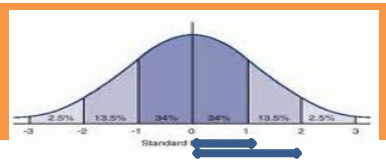
LoPF-Q 12-18: Reliability α and clinical validity



Clinical validity: All scales differentiated between the Swiss-German students and the PD patients with significance p=.000 and big effect sizes d>0.80 **matching our goal of test construction to capture relevant impairments associated with PD pathology**

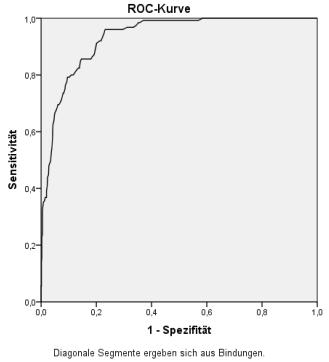
The scales differentiated even higher when contrasted to different PD types (each assigned relevant PD-group / signature impairments according to AMPD)

	α	Students N=351 M (SD)	PD Patients N=96 M (SD)	Effect size d-all	PD Patients Each relevant M (SD)	Effect size d-relevant	
Personality functioning	.97	114.0 (48.4)	215.1 (52.5)	2.1	-	-	
PF1: Identity	.92	**28.3 (13.6)**	**57.4 (16.7)**	**2.0**	**59.3 (14.9)**	**2.3**	→ N=43 Borderline
1.1 Continuity	.84	13.4 (6.8)	27.4 (8.6)	1.9	27.7 (7.6)	2.1	
1.2 Coherence	.88	15.0 (8.4)	30.0 (9.6)	1.7	31.6 (9.0)	2.0	
PF2: Self-direction	.94	**30.8 (16.9)**	**61.7 (21.0)**	**1.7**	**70.2 (21.1)**	**2.3**	→ N=22 avoidant
2.1 Self congruence	.87	15.6 (8.8)	29.1 (10.0)	1.5	32.9 (8.6)	2.0	
2.2 Purposefulness	.90	15.2 (9.2)	32.6 (12.2)	1.8	37.3 (13.2)	2.3	
PF3: Empathy	.87	**31.4 (13.4)**	**44.5 (18.8)**	**0.9**	**66.5 (15.2)**	**2.6**	→ N=13 dissocial+ narcissistic
3.1 Perspective taking	.76	12.4 (6.1)	18.9 (6.9)	1.0	24.2 (5.7)	1.9	
3.2 Prosociality	.82	19.0 (8.7)	25.5 (13.6)	0.7	42.4 (11.1)	2.7	
PF4: Intimacy	.92	**23.5 (11.8)**	**51.8 (16.0)**	**2.2**	**55.1 (9.3)**	**2.7**	→ N=10 schizoid+ paranoid
4.1 close relationships	.84	11.5 (5.9)	23.2 (6.7)	1.9	24.5 (3.4)	2.2	
4.2 Reciprocity	.87	12.0 (7.3)	28.5 (10.8)	2.0	30.6 (6.8)	2.6	

effect size: d >0.20 small, >0.50 medium, >0.80 large

LoPF-Q 12-18: sensitivity, specificity and empirical Cut-Offs

- ROC analysis of SCID-2 diagnosed PD-patients (N= 96) vs. students (N= 337 below Cut-off BPFSC-11) showed a high predictive power of the LoPF-Q total score with an AUC of 0.92 (95% CI: 0.89 - 0.95, p < 0.001). Youden-Index yielded an **optimal cut-off score ≥ 163 for school settings**
- ROC analysis PD vs No-PD patients (N= 319) showed AUC of 0.75 (0.75 sensitivity and 0.59 specificity) and an **optimal cut-off score ≥ 180 for clinical settings**



	Score >= 163		N	
	no	yes		Correct classification
Students without BPF	**284**	53	337	84,3% **Specificity**
PD patients	18	**87**	96	**81.3%** **Sensitivity**
N	302	131	433	83,6% **Total**
	94% NPV	60% PPV		

→ With a score>= 163 (>= 180 clinical), an in-depth clinical investigation of PD risk (e.g. with SCID-2) is recommended

→ 94% negative predictive value = only 6% risk to be positive (PD)

LoPF-Q 12-18: Congruence with traditional categorical PD diagnoses

What if … you´d use all 4 LoPF-dimensions according to AMPD (Alternative model of PD; DSM-5) to build a categorical decision **Personality Disorder yes / no** ?

→ Trying to build bridges between the old and the new PD-diagnostic

AMPD: PD diagnose = **at least moderate impairments in two dimensions** of Personality Functioning originated from both PF-areas „self-related“ and „interpersonal“

	min 1 LoPF-scale from each PF-area > T 60		N	contingency coefficient .494, p=.000
	no	yes		Congruence with classification via LoPF-dimensions
Students	**299**	**52**	351	85,2% **Specificity of the test** = correct negative (no impairment) = ~15% students would receive a PD-diagnose (moderate)
SCID-2 diagnosed PD patients	**22**	74	96	77,1% **Sensitivity of the test** = correct positive (impairment) DIFFERENCE = ~23% PD-patients (ICD-10 / DSM-IV) would not receive a PD-diagnose based on AMPD/ LoPF
N	321	126	447	90,8% **Total Congruence of classification**

→ Both systems seem to capture the same kind of pathology to a great extent

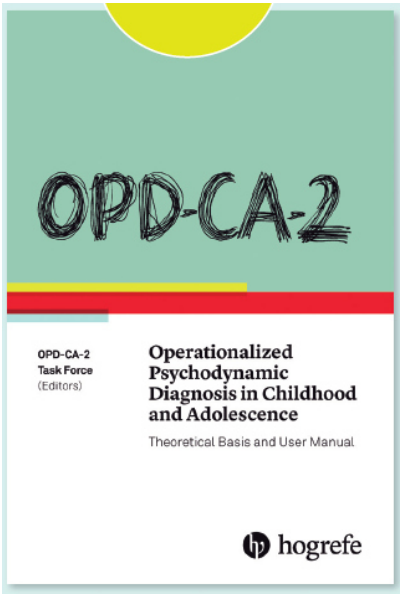
The new dimensional concept detected patients with an official PD diagnose. It does neither „loose“ former PD patients, nor „create“ new PD patients to an extreme amount.

The questionnaire OPD-CA2-SQ

Operationalised Psychodynamic Diagnostics in Children and Adolescents - Structure Questionnaire

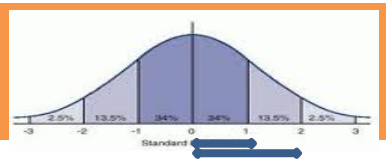
This self-rating questionnaire with 81 items (5-step Likert scale) was developed for adolescents from 12-18 years to assess the **axis Structure** with the four scales and 19 subscales described in the OPD-CA-2:

1. **Control**
2. **Identity**
3. **Interpersonality**
4. **Attachment**



- The construct **Structure** is very similar to the construct **Personality Functioning** → defining PD-pathology with dimensions of impairment

OPD-CA2-SQ: Reliability and clinical validity in a Swiss-Austrian sample



OPD-CA2-SQ	Items	Alpha	Students N=352		PD Patients N=70		Effect-size
			MW	SD	MW	SD	d
1. Control	16	**.91**	21,7	11,8	39,4	11,6	**1.5**
1.1 Impulse control	4	.76	5,9	4,0	10,0	4,4	1.0
1.2 Affect tolerance	4	.80	5,2	3,7	10,3	4,1	1.4
1.3 Conscience formation	4	.61	5,5	3,1	8,2	3,2	0.9
1.4 Self-worth regulation	4	.84	5,1	3,6	10,9	5,1	1.5
2. Identity	24	**.93**	34,0	16,0	57,2	16,6	**1.5**
2.1 Coherence	4	.79	5,8	3,9	9,7	4,5	1.0
2.2 Self experience	5	.76	6,7	4,0	11,9	4,9	1.3
2.3 Self-Object differentiation	5	.77	7,7	4,1	11,8	4,6	1.0
2.4 Object experience	5	.66	9,1	4,1	12,2	3,7	0.8
2.5 Belonging	5	.84	4,7	4,1	11,6	5,0	1.6
3. Interpersonality	25	**.87**	34,7	16,3	57,6	15,9	**1.4**
3.1 Fantasies	5	.81	5,5	4,0	10,4	5,4	1.2
3.2 Emotional contact	5	.74	6,6	4,0	11,2	4,0	1.2
3.3 Reciprocity	3	.63	4,3	2,6	7,6	2,5	1.3
3.4 Affective experience	5	.85	7,3	4,9	13,5	4,9	1.3
3.5 Empathy	4	.70	5,6	3,4	8,0	3,9	0.7
3.6 Ability to detach oneself	3	.75	5,2	3,1	6,8	3,7	0.5
4. Attachment	16	**.90**	20,3	9,6	35,9	11,8	**1.6**
4.1 Access to attachment representation	4	.83	4,3	3,2	8,8	4,1	1.3
4.2 Secure internal base	4	.82	6,5	3,8	10,9	4,1	1.2
4.3 Capacity to be alone	4	.74	4,0	3,1	6,6	4,2	0.8
4.4 Use of attachment relationships	4	.62	5,5	3,1	9,6	3,6	1.3

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Conclusion

We reached our first goals to

1. Develop reliable and clinically valid instruments to capture PD related impairments in **adolescence** in **self report**
2. Support the development of **culture-adapted versions** **(in 2019: 30 active international translation teams)**
3. Provide **easy access** to the instruments

https://www.academic-tests.com

academic-tests

Self-publishing project: academic-tests

All instruments can be **administered online** for a small fee.
Paper administration is **free of charge** for research projects.
Tests and manuals can be **downloaded** for free by registered users.

AIDA	LoPF-Q 12-18	OPD-CA2-SQ
Assessment of Identity Development in Adolescence	Levels of Personality Functioning Questionnaire	Operationalised Psychodynamic Diagnostics in Children and Adolescents - Structure Question.
2019: german, english, spanish, croatian, turkish, arabian, lithuanian, italian, czechian, bulgarian, russian	2019: german, spanish, russian	2019: german, spanish

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Perspectives: Test construction

Next steps

- Testing the equivalence of **culture-adapted versions** / cross-cultural joint studies
- Testing the equivalence of **age-adapted** and / or **informant adapted versions** of AIDA, LoPF-Q and OPD-CA2-SQ:
  6 – 12 – 18 years parent report
  6 – 12 – 18 years therapists report
  19+ / adult self-report
- Investigating the development of **PD pathology over time** in longitudinal studies

- **Testing the adequacy of** **Short versions** to further investigate the core of PD-pathology …

… → investigating the “g-factor”

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Perspectives: Investigating the core of PD pathology / Criterion A

Signs of a g-factor "PD-pathology"

The correlation between our instruments to assess the PD core-constructs **Structure** (OPD-CA-2) and **Personality Functioning** (DSM-5, ICD-11) is very high and points to a „g-factor" of PD pathology (~ 30% trivial item-overlap, but different theoretical basics and composition of scales).

	LoPF-Q					AIDA	YSR		
	Total impaired PFs	Iden-tity	Self-Direction	Empa-thy	Inti-macy	Identity-Diffusion	INT	EXT	TOTAL
OPD-CA2-SQ Total impaired structure	.93	.89	.93	.60	.79	.94	.68	.36	.71
Control		.79	**.90**	.59	.68				
Identity		**.89**	.88	.56	.77				
Interpersonality		.83	.89	**.61**	.78				
Attachment		.85	.84	.51	**.77**				

correlation in a Swiss-Austrian sample of N= 688 students and patients (N= 70 PD)

What is this „g-factor" about?

Is the „g-factor" enough?

Or is it usefull to keep the subscales for diagnostic differentiation and treatment planning?

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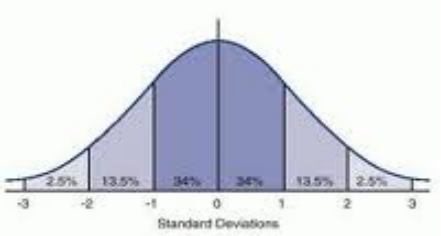

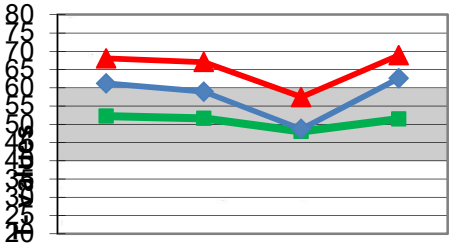

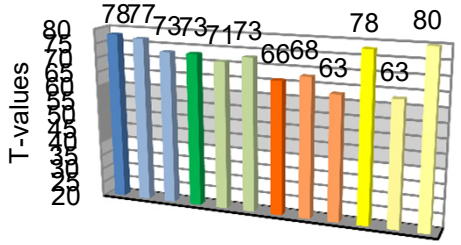

Thank you for your attention!

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New articles :

K. Goth, M. Birkhölzer & K. Schmeck (2018). Assessment of Personality Functioning in Adolescents with the LoPF-Q 12-18 self-report questionnaire. Journal of Personality Assessment, 100:6, 680-690

Schrobildgen, C., Goth, K., Weissenseiner, R., Lazari,O & Schmeck, K. (2019). Der OPD-KJ2-SF – Ein Instrument zur Erfassung der Achse Struktur der OPD-KJ-2 bei Jugendlichen im Selbsturteil. Zeitschrift für Kinder- und Jugendpsychiatrie und Psychotherapie, epub May2019.