



# How epistemic trust, mistrust and credulity relate to mental health, personality pathology, treatment engagement and relationship in psychotherapeutic and psychiatric settings

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## ABSTRACT

**Background** Epistemic trust describes the capacity to appropriately identify others as reliable and relevant sources of information, an ability closely linked to attachment and social learning. Epistemic disruption can manifest as heightened suspicion (mistrust) or excessive reliance (credulity) vis-à-vis others, affecting mentalizing abilities and increasing vulnerability to psychopathology and maladaptive traits. These interdependent and multidirectional dynamics are pivotal to therapeutic learning, and thus to therapeutic change.

**Objective** This study examined associations between epistemic trust and disruption, markers of psychopathology, therapeutic relationship quality and treatment-seeking behaviour.

**Method** A naturalistic sample of 912 participants, recruited via a mental health app, completed the Epistemic Trust, Mistrust and Credulity Questionnaire, along with self-reports capturing internalising symptoms, personality functioning, maladaptive traits and the perceived therapeutic relationship within the previous 6 months. Treatment-seeking behaviour and the number of sessions utilized in the past year were further explored—both in psychotherapeutic and psychiatric contexts.

**Findings** Epistemic mistrust and credulity showed consistent relationships with markers of psychopathology. Higher epistemic (mis)trust correlated with more positive (negative) ratings of various aspects of the therapeutic relationship, including genuineness, realism, expectations, congruence and responsivity—over the past 6 months. Epistemic trust positively predicted the amount of psychotherapy sessions, while epistemic mistrust negatively predicted treatment-seeking, both controlled for personality dysfunction. Epistemic credulity predicted mental health app use—all assessed retrospectively (past year).

**Conclusion** The results encourage further in-depth exploration of trust-related aspects of the therapeutic alliance and investigation of mechanisms of change in therapeutic processes that may facilitate the transition from mistrust and credulity to trust.

**Clinical implications** Even though the magnitude and direction of effects remain to be clarified, patients with epistemic mistrust may enter a self-reinforcing cycle of reduced openness and ineffective mentalizing, potentially impacting therapeutic effectiveness. Interventions

## WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ Compromised epistemic trust increases vulnerability to psychopathology and personality dysfunction and affects mentalizing capacities, key relational factors in psychotherapeutic and psychiatric treatment.

## WHAT THIS STUDY ADDS

⇒ This study is the first to investigate epistemic trust and aspects of epistemic disruption alongside the perceived relationship with psychiatrists or psychotherapists using a broad array of aspects of the therapeutic relationship. The findings indicate a potential vicious cycle of perception of the mental health professional as an unreliable source of information, higher dysfunction, higher mistrust, less treatment seeking and reduced effectiveness of treatment.

## HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ These findings may contribute to the development of specific interventions that help individuals with reduced epistemic trust or higher mistrust to sustainably benefit from treatment.

targeting epistemic disruption and impaired personality functioning seem to be crucial for improving therapeutic outcomes, including psychopharmacological treatment effectiveness.

## INTRODUCTION

The transmission of (cultural) knowledge is crucial for facilitating cooperation and maintaining social values across generations, intersecting with epistemology as a philosophical subdiscipline. Epistemic trust (ET)<sup>1</sup> describes the psychological capacity to identify others as reliable, relevant sources of information and to remain open towards knowledge transmission. This ability is closely linked to attachment<sup>2</sup> and early developmental social experiences.<sup>3,4</sup> Interpersonal epistemic ‘templates’, formed during early development, continue as *trait-related* ET

components into adulthood, affecting a person's ability to adapt flexibly to current social contexts (*state-related* ET).<sup>5</sup> ET facilitates internalisation, transfer (sharing and receiving) and modification of knowledge through social interactions, often guided by ostensive cues such as eye contact or specific vocal tones.<sup>6</sup> Appropriate use of these cues signals recognition and responsiveness, opening an 'epistemic highway' for new information intake.<sup>7</sup>

Conversely, adverse early relational experiences marked by trauma or deprivation can impair ET, leading to epistemic mistrust (interpersonal hypervigilance) or epistemic credulity (indiscriminate trust in unreliable sources).<sup>8</sup> While mistrust and credulity may constitute an adaptive response to early adversity in hostile or neglecting environments,<sup>9</sup> such epistemic disruption can later hinder social learning.<sup>10</sup> Despite the need for further empirical validation, compromised ET is increasingly viewed as a risk factor for reduced salutogenesis and represents a common pathway towards psychopathology and impaired personality functioning (PF).<sup>3 8 11</sup> PF reflects basic psychological capacities—perception, regulation, communication and relating. Its early developmental disruptions, as hypothesised in object relations and mentalization theories, lead to self-regulatory and interpersonal difficulties<sup>12</sup>. Individual differences in PF can be operationalised dimensionally via the Level of Personality Functioning Scale and show strong empirical links to psychopathology and maladaptive personality traits.<sup>13 14</sup>

In psychotherapy, ET is viewed as essential for attending to one's own and others' inner states with curiosity. It is thought to help overcome a state of epistemic vigilance, thus 'unlocking the barrier' that disables knowledge transmission<sup>8</sup> (p 633). ET fosters a relational state of 'we-ness' or shared intentionality, which underpins social learning, cooperation and joint reflection.<sup>8 15</sup> According to clinical theory, trust must first develop in the therapeutic relationship—through experiences of feeling understood and acknowledged—before ET can be restored,<sup>8 16 17</sup> thereby enhancing safety, agency and the transfer of knowledge both within and beyond therapy. This restoration is typically non-linear, often involving multiple rupture-repair cycles.<sup>18</sup> Recent empirical work has detailed the interplay between ET and mentalizing within three (overlapping) communication systems: (1) creating an initial epistemic match via clear communication of the therapeutic approach, (2) cultivating mentalizing capacities and social learning through the vehicle of the therapeutic alliance and (3) transferring these experiences to extratherapeutic relationships.<sup>8 19</sup>

Emerging evidence links shifts in epistemic stance to treatment outcomes, especially in individuals with complex emotional needs and histories of maltreatment.<sup>20 21</sup> Ineffective mentalizing, mistrust and personality pathology predict higher levels of general psychopathology across established scales,<sup>22</sup> a finding replicated in a large sample of mental health app users.<sup>14</sup> There is increasing evidence for the link between early childhood adversities and impairments in PF, making it particularly difficult for people with a diagnosis of personality disorders to engage in treatment,<sup>8</sup> possibly due to epistemic mistrust.<sup>23</sup> Consequently, self- and expert ratings have been developed to operationalise and assess facets of ET cross-sectionally and to pave the way for longitudinal analysis of the interplay of these factors over the course of therapy.

### Validation studies

Campbell *et al*<sup>10</sup> developed the *Epistemic Trust, Mistrust and Credulity Questionnaire* (ETMCQ) and confirmed its

three-factor solution (15 items) through exploratory factor analysis and confirmatory factor analysis in a split non-clinical sample (n=250 each), a structure replicated across various language versions. The ETMCQ demonstrated acceptable to good internal consistency and inter-rater reliability. Studies using the ETMCQ have shown that ET, mistrust and credulity are differently associated with attachment, adverse childhood experiences, mentalizing, self-efficacy<sup>24</sup> and psychopathology.<sup>25</sup> In a German representative sample (n=2.519),<sup>26</sup> ETMCQ trust was negatively correlated with adverse childhood experiences and personality dysfunction, and group differences were observed in attachment-related avoidance and anxiety. Overall, ET appears negatively associated with symptoms and trauma, and positively associated with secure attachment and higher PF. Knapen *et al*<sup>27</sup> developed the *Questionnaire Epistemic Trust* (QET) with four subfactors, showing a positive correlation with therapeutic alliance in a clinical sample (n=107), but did not identify a credulity factor. Fisher *et al*<sup>28</sup> introduced the observer-based *Epistemic Trust Rating System* (ETRS) in patients with depression (n=116) to assess ET markers during therapy; higher ETRS trust (total score) correlated with a stronger working alliance and secure attachment to the therapist and lower attachment-related avoidance.

### Aim of this study

The above-mentioned studies suggest that ET may be related both to psychopathology and therapeutic alliance. However, it remains empirically unclear to what extent ET is associated with treatment-seeking as well as with the perception of meta-analytically identified key elements of the therapeutic relationship<sup>29</sup>—such as empathy, congruence, responsivity, real relationship and alliance ruptures—in the context of ongoing psychotherapy and in briefer, medication-focused interactions with psychiatrists. In addition, while there is evidence for a specific association between ET and personality dysfunction, the differential associations between ET, epistemic disruption, impairments in PF and specific maladaptive traits have yet to be examined. In light of these lacunae, we aimed to explore the following research questions (RQ) in a sample of n=920 individuals seeking mental healthcare:

RQ 1: Are there significant positive associations of epistemic disruption (mistrust and/or credulity) and significant negative associations of ET with psychopathology, PF and maladaptive traits?

RQ 2: Are there significant negative associations of epistemic disruption, (mistrust and/or credulity) and significant positive associations of ET with perceptions of the therapeutic relationship both in psychotherapy and in psychiatric care?

RQ 3: Is higher disruption (mistrust and/or credulity) associated with less treatment-seeking?

RQ 4: Is there a significant incremental effect of ET, mistrust or credulity on facets of the perceived therapeutic relationship beyond symptoms and personality dysfunction?

### METHOD Procedure

Participants were recruited via a web link in the mental health app MindDoc. On selecting the optional study questionnaire, participants were informed within the online study and received a participant information sheet and provided informed consent. Recruitment ran from 20 September 2022 to 14 February 2023; only those under 18 were excluded. Participants completed the ETMCQ and additional mental health measures, then rated their

therapeutic relationship with the mental healthcare provider—psychotherapist or psychiatrist—with whom they had the most sessions in the past 6 months.

## Participants

Of  $n=912$  participants (726 female, 158 male, 28 non-binary; age  $M=35.8$ ,  $SD=12.0$ , range 18–79), over half scored above moderate-severe cut-offs on all psychopathology measures. A majority had engaged with mental health services: 78.4% used an app in the past year; 61.8% saw a psychotherapist or psychiatrist in the past 6 months (222 only psychotherapists, 108 only psychiatrists, 234 both); and 41.4% received inpatient treatment in the past year. Additional details on outpatient visits and therapy modalities are shown in table 1.

## Measures

### Epistemic trust

The ETMCQ<sup>10</sup> is a self-report instrument with three subdimensions and consists of 15 items. The questions were answered on a 7-point Likert scale (1=*strong agreement* to 7=*strong disagreement*) before a mean value was calculated for each subscale for further analysis, with higher values indicating lower trust, mistrust and credulity. The English questionnaire was translated into German by AK and cross-checked for convergence with the official German translation of the ETMCQ by TN.<sup>26</sup>

### Psychopathology and PF

The Patient Health Questionnaire-9 (PHQ-9) and the Generalized Anxiety Disorder-7 (GAD-7)<sup>30–32</sup> correspond to the depression and anxiety module of the Patient Health Questionnaire German Version (PHQ-D) and are screening instruments for the diagnosis of (major) depression and generalised anxiety disorder according to the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) criteria. Each of the diagnostic criteria was rated by the patient on a scale from 0 (*not at all*) to 3 (*almost every day*) for the last 2 weeks. Sum scores were built for further analyses, with higher values indicating higher symptom load.

The Somatic Symptom Scale-8 (SSS-8),<sup>33</sup> an 8-item short version of the PHQ-15, was applied to assess core somatic symptoms, ranging from 0 (*not at all*) to 4 (*very strong*). Sum scores were calculated for further analyses, with higher values indicating higher symptom load in the last week.

The Level of Personality Functioning Scale-Brief Form (LPFS-BF 2.0)<sup>34–35</sup> is a 12-item self-report instrument capturing the degree of impairments in PF as defined in the DSM-5, Section III,<sup>36</sup> which largely corresponds to the definition of the severity of personality disorder in International Classification of Diseases, 11th Revision (ICD-11).<sup>37</sup> The LPFS-BF assesses self-functioning (identity, impulse and affect regulation, self-reflection) and interpersonal functioning (understanding others, anticipating the impact on others, maintaining relationships) and is grounded in object relations and mentalization theories<sup>12</sup>. Ratings are based on a 4-point Likert items (1=*completely untrue* to 4=*completely true*). Higher summed scores indicate greater impairment.

The Personality Inventory for DSM-5-Brief Form Plus (PID5BF+) Modified<sup>38</sup> is a 36-item self-report derived from the Personality Inventory for DSM-5,<sup>39–40</sup> extended to include the ICD-11 anankastia domain and shortened via ant colony optimisation algorithms.<sup>41</sup> It assesses 18 maladaptive trait facets on a 4-point Likert scale (0=*very false* to 3=*very true*), which aggregate into six domains: negative affectivity, detachment,

**Table 1** Sample characteristics ( $n=912$ )

Sociodemographic data	
Age in years	
Mean (SD)	35.8 (12.0)
Median (min, max)	34.5 (18.0, 79.0)
Gender	
Diverse	28 (3.1%)
Female	726 (79.6%)
Male	158 (17.3%)
Relationship status	
Partnership	116 (12.7%)
Partnership and living together	298 (32.7%)
Single/widowed/divorced	285 (31.3%)
Meetings with friends	
Monthly	257 (28.2%)
Multiple per month	231 (25.3%)
Weekly	113 (12.4%)
Multiple per week	79 (8.7%)
Daily	10 (1.1%)
Education	
College degree	382 (41.9%)
High school	286 (31.4%)
Higher secondary school	211 (23.1%)
Lower secondary school	27 (3.0%)
No school graduation	6 (0.7%)
Employment status	
Full-time employed	347 (38.0%)
Staying at home	16 (1.8%)
In training	110 (12.1%)
Jobless	49 (5.4%)
Part time employed	126 (13.8%)
Retired	47 (5.2%)
Mental health apps (last 12 months)	
No	85 (9.3%)
MindDoc	523 (56.6%)
Other	199 (21.8%)
Outpatient mental healthcare (last 12 months)	
No	308 (33.8%)
Psychiatrist	44 (4.8%)
Psychiatrist+medication	64 (7.0%)
Psychotherapy	222 (24.3%)
Psychotherapy+psychiatrist+medication	234 (25.7%)
Frequency of psychiatric visit (last 12 months)	
Once per week	16 (1.8%)
2–3 times per month	19 (2.1%)
Once per month	99 (10.9%)
Once in 3 months or less	208 (22.8%)
Type of psychotherapy (last 12 months)	
Cognitive-behavioural	244 (26.8%)
Psychoanalysis	31 (3.4%)
Psychodynamic	112 (12.3%)
Systemic	28 (3.1%)
Other	40 (4.4%)
Group psychotherapy	
Group and individual psychotherapy	35 (3.8%)
Group psychotherapy	12 (1.3%)
Individual psychotherapy	424 (46.5%)
Frequency of therapeutic visit (last 12 months)	

Continued



Table 1 Continued

Sociodemographic data	
>3 times per week	1 (0.1%)
2–3 times per week	15 (1.6%)
Once per week	228 (25.0%)
2–3 times per month	152 (16.7%)
Once per month	69 (7.6%)
Once in 3 months or less	6 (0.7%)
Inpatient hospital visits	
No	455 (49.9%)
Emergency room	61 (6.7%)
Day care psychiatry/psychosomatics	118 (12.9%)
Inpatient psychiatry/psychosomatics	199 (21.8%)
Illness characteristics	
PHQ-9 sum score	
No (0–4)	83 (9.1%)
Mild (5–9)	229 (25.1%)
Moderate (10–14)	253 (27.7%)
Severe (15–19)	195 (21.4%)
Very severe (>19)	152 (16.7%)
GAD-7 sum score	
No (0–4)	150 (16.4%)
Mild (5–9)	334 (36.6%)
Moderate (10–14)	246 (27.0%)
Severe (>14)	182 (20.0%)
SSS-8 sum score	
No (0–3)	92 (10.1%)
Low (4–7)	138 (15.1%)
Medium (8–11)	239 (26.2%)
High (12–15)	207 (22.7%)
Very high (>16)	236 (25.9%)
LPFS-BF sum score	
No to mild (<24)	161 (17.7%)
Moderate (24–33)	352 (38.6%)
Severe (>32)	186 (20.4%)

GAD-7, Generalized Anxiety Disorder-7; LPFS-BF, Level of Personality Functioning Scale-Brief Form; PHQ-9, Patient Health Questionnaire-9; SSS-8, Somatic Symptom Scale-8.

antagonism, disinhibition, psychoticism (Alternative DSM-5 Model for Personality Disorders) and anankastia (ICD-11). Domain scales exhibit adequate to high internal consistency<sup>37</sup> across languages. For our analyses, we averaged the 18 facets into six domain scores, with higher values indicating greater impairment.

### Therapeutic relationship and process

The *Working Alliance Inventory* (WAI) in its short form (WAI-Short Revised),<sup>42</sup> with 12 items, was included to obtain the patients' subjective assessment of three dimensions of the therapeutic alliance, namely the development of an emotional bond, the agreement on treatment goals and the agreement on treatment tasks. Questions were answered on a 5-point Likert scale (1=*rarely* to 5=*always*). A mean value per subscale was included in further analyses. McDonald's Omega in the current study was 0.88 for bond, 0.90 for task and 0.86 for task subscales.

The *Barrett-Lennard Relationship Inventory* (BLRI)<sup>43</sup> is a self-report of perceived empathy and congruence from the patient's perspective. 40 items are rated on a 6-point Likert scale (−3=*No, I strongly feel that it was not true* to 3=*Yes, I strongly feel that*

*it was true*). A mean value per subscale was included in further analyses. McDonald's Omega in the current study was 0.91 for empathy and 0.82 for congruence subscales of the BLRI.

The *Milwaukee Psychotherapy Expectations Questionnaire* (MPEQ)<sup>44</sup> measures the patients' process and outcome expectations of therapy with the help of 13 items, rated on a 10-point Likert scale (0=*not at all* to 10=*very much so*). In this study, we used the mean of the total score of this scale. McDonald's Omega in the current study was 0.86 for the MPEQ.

The *Real Relationship Inventory* (RRI)<sup>45</sup> consists of 24 items that are rated on a 5-point Likert scale (1=*strongly disagree* to 5=*strongly agree*) and capture the subdimensions of realism and genuineness from the patient's perspective. McDonald's Omega in the current study was 0.86 for realism and 0.91 for genuineness.

The *Patient's Experience of Attunement and Responsiveness Scale* (PEAR)<sup>46</sup> was included as a self-report to assess how attuned and responsive the patient perceives the therapist. 20 items were rated on a 3-point Likert scale (0=*not at all* to 3=*very much*) and assigned to three subscales, with the responsiveness subscale included in the subsequent analyses. McDonald's Omega in the current study was 0.96 for the PEAR.

The *Alliance Negotiation Scale* (ANS)<sup>47 48</sup> consists of 12 items (7-point Likert scale ranging from 1=*never* to 7=*always*) and was designed to operationalise the theoretical construct of negotiation, which is closely linked to rupture-repair processes.<sup>49</sup> The ANS was also intended to complement existing measures such as the WAI by expanding the emphasis on negative aspects of the therapy process. McDonald's Omega in the current study was 0.87 for the ANS.

### Treatment-seeking

Outpatient treatment-seeking was defined as at least one psychiatrist or psychotherapist visit in the past year. For those seeking a psychotherapist, session frequency was rated on a Likert scale: <5, 6–12, 13–24, 25–60, 61–100, 101–160, >160 sessions in the last 12 months. Mental health app use was assessed by asking, 'Have you used any digital applications for mental health in the past 12 months?'. Inpatient treatment-seeking was assessed by asking, 'How often have you been to [facility] for mental health issues, sleep problems, chronic pain, or exhaustion?', with response options being emergency room, inpatient psychiatric treatment or inpatient psychosomatic treatment.

### Statistical analyses

First, reliability of the ETMCQ trust, mistrust and credulity subscales was assessed separately using McDonald's Omega<sup>50</sup> (p 485). Second, Pearson's correlations were calculated between ETMCQ scale means and (a) psychopathology measures (LPFS-BF, PID5BF+ M, PHQ-9, GAD-7, SSS-8) and (b) therapeutic relationship measures (WAI, BLRI, MPEQ, RRI, PEAR, ANS) for each participant's most frequent mental healthcare provider in the past 6 months. Third, linear regressions tested whether ETMCQ dimensions incrementally predicted those relationship constructs—controlling for symptom severity (SSS-8, GAD-7, PHQ-9) and personality dysfunction (PID5BF+ mean).<sup>49</sup> We chose the PID5BF+ sum score as an indicator for personality dysfunction because of a considerably higher amount of available pairwise correlations with the therapeutic relationship measures in comparison to the LPFS-BF (see online supplemental material I: table 1 for pairwise available data). In addition, the PID5BF+ sum score shows a higher reliability in assessing PF than the LPFS-BF.<sup>51</sup> Fourth, we estimated ORs for

**Table 2** Correlations with measures of psychopathology and personality functioning (n\*=912)

	M (SD)	ETMCQ		
		Trust	Mistrust	Credulity
PHQ-9	12.70 (6.26)	−0.15** (−0.21; −0.08)	0.40** (0.35; 0.45)	0.34** (0.28; 0.39)
GAD-7	9.61 (5.12)	−0.11** (−0.17; −0.04)	0.36** (0.30; 0.41)	0.35** (0.29; 0.40)
SSS-8	11.89 (5.94)	−0.09** (−0.15; −0.02)	0.32** (0.26; 0.37)	0.31** (0.25; 0.36)
LPFS-BF	28.34 (6.66)	−0.22** (−0.29; −0.15)	0.50** (0.44; 0.55)	0.47** (0.41; 0.53)
PID5BF+ M				
Negative affect	1.52 (0.63)	−0.01 (−0.07; 0.06)	0.34** (0.28; 0.40)	0.40** (0.34; 0.45)
Detachment	1.14 (0.62)	−0.35** (−0.41; −0.30)	0.49** (0.44; 0.54)	0.22** (0.16; 0.28)
Antagonism	0.56 (0.50)	−0.08* (−0.15; −0.02)	0.27** (0.21; 0.33)	0.17** (0.11; 0.24)
Disinhibition	1.06 (0.59)	−0.03 (−0.10; 0.03)	0.28** (0.22; 0.34)	0.40** (0.34; 0.45)
Psychoticism	0.77 (0.60)	−0.08* (−0.15; −0.02)	0.39** (0.33; 0.44)	0.38** (0.32; 0.43)
Anankastia	1.06 (0.67)	−0.01 (−0.08; 0.05)	0.26** (0.20; 0.32)	0.28** (0.22; 0.34)

Significant results are marked with \*\*Benjamini-Hochberg corrected  $p < 0.01$ ;

\*Benjamini-Hochberg corrected  $p < 0.05$ .

\*LPFS-BF with  $n = 699$ .

ETMCQ, Epistemic Trust, Mistrust and Credulity Questionnaire; GAD-7, Generalized Anxiety Disorder-7; LPFS-BF, Level of Personality Functioning Scale-Brief Form; M, mean; PHQ-9, Patient Health Questionnaire-9 depression module; PID5BF+ M, Personality Inventory for DSM-5-Brief Form Plus Modified; SSS-8, Somatic Symptom Scale-8.

mental health treatment-seeking (outpatient, inpatient, mental health apps, amount of psychotherapy sessions in the past year) using multiple (logistic) regressions separate for ET, mistrust and credulity, controlled for personality dysfunction severity. Benjamini-Hochberg false discovery correction identified robust findings, and due to the naturalistic design, missing values were excluded from the respective analyses. Model parameters were estimated in R v.4.4.1<sup>52</sup> using the psych<sup>53</sup> and lavaan packages.<sup>54</sup>

## RESULTS

### Descriptives and reliability of the ETMCQ

The descriptive information for the ETMCQ subscales was as follows: ET ( $M = 4.93$ ,  $SD = 1.10$ ), mistrust ( $M = 3.98$ ,  $SD = 1.04$ ) and credulity ( $M = 3.19$ ,  $SD = 1.34$ ). Indicators for internal consistency/reliability of the scales were acceptable, with McDonald's Omega trust = 0.71, McDonald's Omega mistrust = 0.63, credulity = 0.76

### Correlations with psychopathology

In the following, we interpret correlations according to Cohen<sup>55</sup>: 0.1=small, 0.3=medium, 0.5=large. Results of correlational analyses of the ETMCQ subscales are displayed in table 2. Epistemic disruptions, that is, mistrust and credulity, showed medium to large positive correlations with psychopathology across all measures. Mistrust was most strongly associated with detachment, followed by PF, and depressive symptoms (all  $p_{\text{corrected}} < 0.01$ ). Credulity, on the other hand, was most strongly associated with trait negative affectivity, trait disinhibition and PF (all  $p_{\text{corrected}} < 0.01$ ). By contrast, trust showed small to medium

**Table 3** Correlations with measures of therapeutic relationship and process (n=912)

		ETMCQ		
	M (SD)	Trust	Mistrust	Credulity
WAI				
Bond	3.75 (±0.97)	0.12 (−0.02; 0.26)	−0.18* (−0.31; −0.04)	−0.04 (−0.18; 0.10)
Goals	3.56 (±0.98)	0.05 (−0.09; 0.19)	−0.17† (−0.30; −0.03)	0.04 (−0.10; 0.18)
Tasks	3.31 (±0.91)	0.13 (−0.01; 0.26)	−0.13 (−0.26; 0.01)	0.01 (−0.13; 0.15)
BLRI				
Empathy	4.61 (±0.71)	0.10 (−0.04; 0.24)	−0.17† (−0.30; −0.03)	−0.09 (−0.23; 0.05)
Congruence	4.77 (±0.75)	0.15† (0.01; 0.28)	−0.27** (−0.39; −0.13)	−0.13 (−0.26; 0.01)
MPEQ				
Expectation	4.08 (±0.53)	0.23** (0.10; 0.36)	−0.20* (−0.33; −0.06)	0.00 (−0.14; 0.14)
RRI				
Realism	3.90 (±0.64)	0.15† (0.01; 0.28)	−0.20* (−0.33; −0.07)	−0.12 (−0.25; 0.02)
Genuineness	3.90 (±0.71)	0.15† (0.01, 0.28)	−0.26** (−0.39, −0.13)	−0.08 (−0.22, 0.06)
PEAR				
Responsivity	3.39 (±0.64)	0.17† (0.03; 0.30)	−0.19* (−0.32; −0.05)	−0.04 (−0.18; 0.10)
ANS				
Rupture-repair	3.93 (±0.72)	0.13 (−0.01; 0.26)	−0.26** (−0.39; −0.13)	−0.16† (−0.30; −0.03)
Significant results are marked with **Benjamini-Hochberg corrected p<0.01; *Benjamini-Hochberg corrected p<0.05; tuncorrected p<0.05; WAI, BLRI, MPEQ, RRI, PEAR, ANS with n=198. ANS, Anxiety Negotiation Scale; BLRI, Barrett-Lennard Relationship Inventory; ETMCQ, Epistemic Trust, Mistrust and Credulity Questionnaire; M, mean; MPEQ, Milwaukee Psychotherapy Expectations Questionnaire; PEAR, Patient's Experience of Attunement and Responsiveness Scale; RRI, Real Relationship Inventory; WAI, Working Alliance Inventory.				

Significant results are marked with \*\*Benjamini-Hochberg corrected  $p < 0.01$ ; \*Benjamini-Hochberg corrected  $p < 0.05$ ; †uncorrected  $p < 0.05$ ; WAI, BLRI, MPEQ, RRI, PEAR, ANS with  $n = 198$ .

ANS, Alliance Negotiation Scale; BLRI, Barrett-Lennard Relationship Inventory; ETMCQ, Epistemic Trust, Mistrust and Credulity Questionnaire; M, mean; MPEQ, Milwaukee Psychotherapy Expectations Questionnaire; PEAR, Patient's Experience of Attunement and Responsiveness Scale; RRI, Real Relationship Inventory; WAI, Working Alliance Inventory.

negative correlations with depression, anxiety and somatisation symptoms as well as PF. Results concerning associations of trust with maladaptive traits were mixed: a moderate negative correlation was observed for detachment, small negative correlations for antagonism and psychoticism, and no significant correlations for negative affect, disinhibition, and anankastia (all measured with the PID5BF+ M).

### Correlations and regressions with therapeutic relationship

Mistrust showed small to medium negative correlations with all therapeutic relationship dimensions, most strongly with therapist congruence (BLRI), genuineness (RRI) and negotiation/rupture-repair (ANS) (all  $p_{\text{corrected}} < 0.01$ ). Credulity's only negative association—with rupture-repair  $p_{\text{uncorrected}} < 0.05$ —did not withstand correction (table 3). In contrast, trust showed small positive correlations with patient-rated expectations (MPEQ), real relationship, genuineness (both RRI), congruence (BLRI) and provider responsiveness (PEAR), with MPEQ expectations showing the strongest correlation. Correlations of 0.23 and 0.27 correspond to ORs of 1.5 and 1.63, which are about the effect sizes of fluoxetine and escitalopram in comparison to placebo.<sup>56</sup> In addition, a Ward's hierarchical cluster analysis (see online supplemental material II: figure S1) corroborated the above found correlational structure with ET mainly clustering with the therapeutic relationship indicators, epistemic mistrust clustering with psychopathology, more specifically with PF impairments

and detachment, and credulity clustering with disinhibition and psychoticism.

Exploratory multiple regressions revealed that ETMCQ trust incrementally predicted patient-rated BLRI congruence (estimate 0.10, SE=0.05,  $p=0.04$ ), MPEQ expectations (estimate 0.10, SE=0.03,  $p<0.01$ ) and PEAR responsivity (estimate 0.08, SE=0.04,  $p=0.03$ ). ETMCQ mistrust likewise predicted lower BLRI congruence (estimate  $-0.18$ , SE=0.06,  $p<0.01$ ), RRI genuineness (estimate  $-0.14$ , SE=0.05,  $p=0.01$ ) and ANS negotiation repair (estimate  $-0.14$ , SE=0.05,  $p=0.01$ ), above and beyond symptoms and personality dysfunction severity. For all the other therapeutic relationship scales, ETMCQ trust, mistrust and credulity did not show significant incremental effects. These models explained on average 7.92% of the variance (see online supplemental material III: tables 2–28).

### ORs for treatment-seeking, controlled for personality dysfunction severity

Concerning treatment seeking within the 12 months prior to the study, three associations emerged as robust, that is, 95% CIs not including 1 and  $p$  value  $<0.05$  after Benjamini-Hochberg false discovery correction ( $n = 912$ ). OR for retrospectively assessed outpatient psychotherapeutic or psychiatric treatment-seeking, predicted by epistemic mistrust, and controlled for personality dysfunction severity, was 0.82 (0.7; 0.95). OR for the amount of psychotherapy sessions predicted by ET, controlled for personality dysfunction, was 1.28 (1.11; 1.47). OR for mental health app usage predicted by credulity was 1.19 (1.04; 1.36). Interestingly, ET also showed an OR of 1.16 (1.01; 1.33) for mental health app usage but with an uncorrected  $p=0.04$ .

### DISCUSSION

No study previously investigated all evidence-based therapeutic relationship factors identified by the American Psychological Association task force on evidence-based therapy relationships in relation to epistemic (mis)trust in psychiatric relationships. These include alliance, empathy, positive regard and affirmation, congruence/genuineness, real relationship, emotional expression, cultivating positive expectations, promoting treatment credibility and repairing alliance ruptures. A German translation of the ETMCQ was used to explore its association patterns with (RQ 1) mental health and personality (symptoms, PF and maladaptive traits), (RQ 2) the perceived therapeutic relationship in psychotherapy and psychiatric care and (RQ 3) treatment seeking (inpatient, outpatient and mental health apps). Regression models examining a possible incremental effect of ET, mistrust and credulity on the perceived therapeutic alliance—beyond symptoms and PF—were further explored (RQ 4). While epistemic disruption (mistrust and credulity) was consistently associated with indicators of psychopathology (RQ 1), the results for RQs (2), (3) and (4) were mixed: ETMCQ mistrust showed consistent negative associations, including outpatient treatment seeking, ETMCQ trust showed positive associations, including the amount of psychotherapy sessions, whereas ETMCQ credulity did not, apart from a higher OR for mental health app use and a modest link to impaired rupture-repair negotiation. Regression models showed significant incremental effects for trust and mistrust on selective aspects of the perceived relationship, while credulity did not.

Epistemic mistrust showed consistent associations with psychopathology, especially with depression, PF and trait detachment. These findings are in line with ref <sup>25</sup> and <sup>57</sup> and point towards a clinically challenging triad of personality dysfunction/

personality disorder, detachment and mistrust. In addition, findings from ref <sup>22</sup> highlight epistemic mistrust and personality pathology as markers of general symptom severity. These can be interpreted in such a way that individuals requiring the most professional help may be most affected by epistemic mistrust, which then constitutes a significant within-person barrier to both treatment-seeking and effectiveness of interventions (a potential exhaustion of the epistemic system leading to epistemic isolation). This notion is further corroborated by our findings regarding the associations between epistemic mistrust and measures of the therapeutic relationship. Epistemic mistrust was associated with lower perceived congruence, genuineness and rupture-repair. While ET showed incremental predictive validity for congruence, healthcare provider responsivity and treatment expectations beyond other psychopathology measures, epistemic mistrust uniquely predicted patient-rated congruence, genuineness and rupture-repair capacity of the clinician. Consistent with Knapen *et al*,<sup>5</sup> epistemic mistrust involves a tendency to view others as unreliable or malevolent, fostering a felt lack of safety and defensive relational behaviours. This impedes patients' ability to perceive clinician congruence, genuineness or effective rupture-repair, reflecting Knapen *et al*'s finding that epistemic mistrust acts as a barrier to therapeutic engagement and acceptance of interpersonal knowledge, potentially creating a vicious cycle that hinders knowledge transfer and change. While effect sizes were small to moderate, indicating additional contributing factors, they were comparable to effect sizes found for escitalopram or fluoxetine,<sup>56</sup> suggesting that epistemic mistrust may attenuate any positive effects of medication. This notion is further corroborated by a robust OR of 0.82 for outpatient treatment seeking, predicted by epistemic mistrust, and an OR of 1.28 for the amount of psychotherapy sessions, predicted by ET, both controlled for personality dysfunction severity.

It seems intuitive that a certain degree of ET and the reduction of mistrust are essential for entering into and benefiting from therapeutic contact. Positive perceptions of the therapist or psychiatrist are prerequisites for being receptive to their knowledge, establishing shared goals and fostering positive treatment expectations—core elements of 'we-mode' experiences.<sup>8,58</sup> This could involve the regaining of agency and reduction of epistemic isolation. Recent literature has further integrated these ideas into mentalizing and attachment theory, highlighting that epistemic disruption—linked to interpersonal difficulties—may mediate the relationship between mentalizing and emotion regulation.<sup>59</sup> It has also been postulated that ET mediates the relationship between childhood adversity and personality disorders; however, further empirical clarification is needed.<sup>23</sup> A relational experience characterised by a sense of being reliably recognised and accurately mentalized is considered essential for reducing epistemic vigilance and interpersonal anxiety, gradually enabling patients to experience the therapeutic alliance as a safe and trusting relational environment for social learning and internalisation of relevant information.<sup>17</sup> While mistrust may be an initially adaptive response to adverse caregiving,<sup>8–10</sup> it ultimately increases vulnerability to reduced social learning. Therefore, carefully managed cycles of rupture and repair—jointly mentalized within the therapeutic relationship—may be necessary to reduce mistrust.<sup>18</sup>

Conceptually, the same considerations apply to credulity, defined as a lack of discriminatory capacities. However, only a weak association with the perceived therapeutic relationship was observed, which did not remain significant after  $p$ -value correction. Both methodological and substantive factors may account for this pattern. Individuals with a tendency towards



credulity may find it more difficult to reflect on their own tendencies as they over-rely on others for self-calibration and knowledge transfer. Additionally, credulity is often seen as less socially acceptable than mistrust; while mistrust may signal critical distance and autonomy, credulity is associated with naivety, potentially making it more visible in therapeutic interactions than in self-reports. Interestingly, credulity was associated with a robust OR of 1.19 for mental health app use, after controlling for personality dysfunction severity. Notably, three studies using the WAI and self-rated or observer-rated ET found a significant positive association,<sup>27 28 60</sup> but did not differentiate between credulity and mistrust, despite varying therapeutic contexts. In cases of indiscriminate acceptance of the therapist's input, therapy may focus on developing critical distance and boundaries, whereas with mistrust, the priority is to establish safety and build trust. Further construct validation, particularly regarding actual learning, is necessary to clarify what credulity as measured by the ETMCQ assesses. Recent psychometric improvements have led to a revised item pool.<sup>61</sup> Joint use with instruments such as the QET and ETRS could clarify factor structure, distinguish mistrust and credulity from general alliance aspects and shed light on their roles in ET-related therapeutic communication.

Regression analyses controlling for personality dysfunction and symptom severity further corroborated the above-reported findings showing unique variance explanation of ET for patient-rated congruence, expectations and responsivity, while epistemic mistrust uniquely predicted lower congruence, genuineness and rupture-repair responsiveness. In addition, we conducted an exploratory Ward's hierarchical cluster analysis, which revealed patterns highly consistent with the observed correlations: epistemic mistrust clustered with higher psychopathology, while ET clustered with more positive relationship ratings. Thus, the cluster solution largely mirrored the correlational structure already presented.

Future longitudinal studies should build on these findings to examine the interactions between ET, alliance and PF in longitudinal designs with more than two measurement points.

### Limitations and future directions

Several limitations warrant caution. First, reliance on self-report alone may introduce bias; future studies should include expert ratings or interviews and assess epistemic stance specific to the individual's care providers. In addition, epistemic stance was measured as a general predisposition, not as a dynamic experience related to specific encounters or the specific therapeutic relationship.<sup>61</sup> It is conceivable that trait ET scores might fail to measure alliance-specific trust and thus operationalisations that address state ET components within the specific relationship might capture variance not assessed with the ETMCQ.<sup>60</sup> Second, therapeutic contacts varied widely in intensity, timing (eg, early vs late treatment) and developmental stage of the alliance, yet our analyses did not account for these dynamics. Given links between ET, mentalizing, interpersonal factors and emotion regulation,<sup>59</sup> longitudinal work should track alliance evolution over time alongside rupture-repair cycles.<sup>18</sup> Third, our predominantly female, well-educated, mental health app using sample limits generalisability. Lastly, although we controlled for multiple testing and found multiple significant effects, our results also show that variance explanation is moderate to low between ET and help-seeking behaviour pointing towards other factors that are not captured by ET.

### IMPLICATIONS AND CONCLUSION

This study is the first to present results linking a broad range of facets of the therapeutic relationship and treatment-seeking with ET and mistrust using the ETMCQ. Results lend preliminary evidence to the conceptualisation that patients with epistemic mistrust may be trapped in a vicious cycle of detachment, personality dysfunction, less treatment, and less effective—and even less therapeutic—contacts, both in psychiatric and psychotherapeutic settings. However, alternative hypotheses still need to be investigated.

Overall, these results highlight the need to further investigate mechanisms of change in therapy that support the transition from mistrust and/or credulity to trust.<sup>62 63</sup> In addition, a dimensional assessment of psychopathology enables empirical examination of aetiological factors, such as childhood experiences, which are closely linked to both PF and epistemic disruption.<sup>64</sup> These findings have implications for structuring the therapeutic relationship, especially for individuals with impaired PF, and underscore the importance of research on specific interventions and their effects on the therapeutic relationship and symptom patterns. Here, the interaction between PF, ET and the broader social environment is presumed to play a central role.

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