Knowing What Others Know, Feeling What Others Feel

A Controlled Study of Empathy in Psychotherapists

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Abstract: There has been considerable interest in assessing whether psychotherapists have enhanced abilities in empathy and whether those abilities influence treatment outcomes. However, to date, studies have been hindered by inconsistent definitions of empathy and a reliance on assessment via self-report. The unique aim of this study was to ascertain the empathic abilities of psychotherapists using a multidimensional battery consisting of objective and self-report measures. We compared 19 therapists and 19 well-matched control subjects on several measures of empathy. On tests emphasizing the cognitive aspects of empathy, therapists were no different from controls when making inferences based on facial expressions but were significantly better when making inferences based on language. On a test emphasizing the emotional aspects of empathy, therapists did not report to be more empathically concerned than controls; however, on a test of emotion regulation, they reported less personal distress in response to the distress of others. In sum, therapists were better able to interpret the verbal cues of others and described themselves as more emotionally controlled in response to tense interpersonal situations.

Key Words: Empathy, ToM, social cognition, therapist characteristics.

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The concept of empathy can be traced back to the moral philosophers of the 18th century. It is derived from the German word Einfühlung, which refers to the process by which observers attempt to project themselves into an observed person or object (Titchener, 1909). In its present use, the word empathy broadly reflects a process where the perception of another's state generates a similar state in the observer (Preston and de Waal, 2002).

Empathy has been described as a dissociable collection of neurocognitive systems with 3 domains: cognitive empathy, emotional empathy, and motor empathy (Blair, 2005). Cognitive empathy describes the ability to understand another person's mental state, such as their emotions, thoughts or intentions (Astington et al., 1988; Kohler, 1929; Mead, 1934; Wellman, 1990). Cognitive empathy, so defined, overlaps conceptually with Theory of Mind (ToM) or social cognition as well as emotion recognition, and researchers often use these terms interchangeably (Baron-Cohen and Wheelwright, 2004; Blair, 2005; Lawrence et al., 2004). Cognitive empathy can be measured using both subjective (self-report questionnaires) and objective measures such as emotion recognition tests and ToM tests.

Emotional empathy describes an individual's emotional response to the affective state of another person (Batson et al., 1987; Eisenberg and Miller, 1987; Hoffman, 1984; Mehrabian and Epstein, 1972) and can be understood as having at least 2 main forms: a response to the emotional displays of others and a response to other emotional stimuli such as emotional phrases (Blair, 2005). Quantifying the subjective experience of emotional empathy has proven to be more difficult, and for this reason researchers have traditionally relied on subjective self-report instruments.

Motor empathy describes a "mirroring" of an individual's motor processes, such as the tendency to automatically mimic and synchronize facial expressions, vocalizations, postures, and movements with those of others (Blair, 2005; Preston and de Waal, 2002).

It has long been recognized that the effectiveness of psychotherapy relies heavily upon the patient's perception of certain characteristics of the therapist. Beutler et al. (1986) found that the patient perceptions of therapist characteristics are more potent predictors of treatment outcome than are global variables such as therapeutic orientation. Of these characteristics, how empathic a therapist is perceived to be has been identified as a critical factor in determining positive therapy outcome (Burns and Nolen-Hoeksema, 1992; Keijsers et al., 2000; Lafferty et al., 1989; Luborsky et al., 1988; Orlinsky and Howard, 1986). However, the actual measurement of the therapist's empathic abilities has been hindered

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by reliance on what the patient perceives the therapist's empathy to be and by the lack of consensus on a definition.

An additional limitation evident in previous studies is a rare use of controls. We are aware of only one study that used a comparison group in an attempt to ascertain psychotherapists' accuracy when making judgments about the mental state of others. In a study by Machado et al. (1999), subjects were presented with a videotaped segment of a psychotherapy session, a written transcript of the session, or a videotape of the same session with the audio stream filtered so that the speech was incomprehensible but the emotional tone was preserved. Psychotherapists were more accurate at detecting emotional quality across all 3 stimulus conditions. However, given that the comparison group consisted of undergraduate psychology students, these results may be attributable to uncontrolled differences in age, education, and IQ.

The perceived empathy of the therapist is universally seen as an important variable influencing treatment outcome, yet it is unclear whether the patient's perception is related to the therapists' actual empathic ability. To the best of our knowledge, there are no reports in the literature directly assessing therapists' empathy that incorporate both cognitive and emotional domains. We argue that both components play a role in the therapeutic interaction and therefore warrant examination. Our goal in this study, therefore, was to directly assess the cognitive and emotional empathic abilities of therapists. We hypothesized that relative to controls matched on age, gender, and IQ, therapists may represent a group with superior empathic abilities. These superior abilities may arise from training, ongoing experience as a therapist, inborn personality features, or a combination of these factors.

To measure cognitive empathy we used several objective measures including the Reading the Mind in the Eyes test (Eyes test; Baron-Cohen et al., 2001), an emotion recognition test (Faces test; Ekman and Friesen, 1971), and the Movie for the Assessment of Social Cognition (MASC; Dziobek et al., 2006). In addition, we also used the Interpersonal Reactivity Index (IRI; Davis, 1983), a self-report questionnaire that measures cognitive empathy, emotional empathy, and emotion regulation.

METHODS

Participants

Participants were 19 healthy psychotherapists (6 males and 13 females, 84% Caucasian) and 19 healthy controls (5 males and 14 females, 94% Caucasian). Psychotherapists were recruited using flyers and e-mail advertising distributed at several psychotherapy institutes of various theoretical orientations throughout New York City. We selected control participants, matched by age, gender, intelligence, and education level as closely as possible. Controls were recruited via web-based advertising or among participants in ongoing research studies of normal aging at the NYU School of Medicine Center for Brain Health. All participants received financial compensation for their participation in the study.

We excluded individuals who reported a history of head trauma, central nervous system disease, developmental disorder, substance abuse, or psychiatric hospitalization. Control subjects had at least a bachelor's degree and had no experience in the mental health professions. Inclusion in the psychotherapist group was contingent upon the following criteria: 1) at least a master's degree level of training in psychotherapy; 2) at least 3 years of experience working as a psychotherapist; 3) at least 50% of a typical work week devoted to psychotherapy.

The study was approved by the New York University School of Medicine Institutional Board of Research Associates. Written informed consent was obtained from all participants.

Materials

Reading the Mind in the Eyes Test (Eyes Test)

The Reading the Mind in the Eyes test (Baron-Cohen et al., 2001) assesses the ability to infer the mental state of a person solely from the information provided in a picture of that person's eyes. A shortened version containing 24 of the original 36 items was used to decrease the length of the overall battery. The shortened version of the test drops items with the least discriminative power. An identical shortened version has been used in previous studies by our group (Dziobek et al., 2005, 2006). In this test, participants are asked to choose among 4 mental state words the one that most accurately captures what the person in the picture is thinking or feeling. In an additional scale, participants were asked to identify the gender of each person in the picture, a task intended as a control measure for general perceptual abilities such as face recognition. Internal consistency estimates have not been published for this scale and were not available via personal communication with the author.

Ekman/Friesen Facial Expressions of Emotions Test (Faces Test)

Participants are shown 28 head shot photographs and are asked to identify which of 7 emotion words (happy, sad, fear, anger, disgust, surprise, or neutral) best describes what the person in the photograph is feeling (Ekman and Friesen, 1971). Each correct item is given a score of 1, and the score on this test is the sum of the correct items. We are not aware of published internal consistency estimates for this task, and we were not able to acquire them via personal communication with the author.

Movie for the Assessment of Social Cognition (MASC)

The MASC is an open-ended, objective measure of an individual's ability to accurately identify the thoughts, feelings, and intentions of others. The MASC was designed to be a naturalistic measure with relevance to everyday life capable of detecting subtle differences in social cognition while avoiding ceiling effects. It involves watching a film about 4 characters getting together for a dinner party. The film is stopped at 46 points and questions are asked referring to the characters' feelings, thoughts, and intentions. Correct answers are scored as 1 point and added to a total score. For a complete description of this measure see Dziobek et al. (2006). Published internal consistency estimates place the MASC at acceptable levels with an alpha coefficient of 0.84.

TABLE 1. Participant Characteristics

	Psychotherapists (n = 19)				Controls (n = 19)				
	Mean	*SD*	Min	Max	Mean	*SD*	Min	Max	*p*
Age (yr)	35.6	10.8	26.0	57.0	40.1	11.3	25.0	57.0	.225
IQ (WAIS estimate)	121.4	3.2	115.0	125.0	119.8	6.1	102.0	128.0	.324
Education (yr)	19.1	1.0	18.0	20.0	17.9	1.2	16.0	20.0	.003

Interpersonal Reactivity Index (IRI)

The IRI (Davis, 1983) is a self-report questionnaire that measures individual differences in cognitive and emotional components of empathy. Subjects respond to each item using a 5-point Likert-type scale ranging from (0) does not describe me well to (4) does describe me well. The 28 items load onto four 7-item subscales. The Perspective Taking (PT) scale assesses the tendency to spontaneously adopt the psychological point of view of others (e.g., When I'm upset at someone, I usually try to "put myself in his shoes" for a while). The Fantasy (FS) scale measures the tendency to identify with fictional characters, such as characters in books, movies, or plays (e.g., I really get involved with the feelings of the characters in a novel). The Empathic Concern (EC) scale taps feelings of warmth and concern for others (e.g., I am often quite touched by things that I see happen). The Personal Distress (PD) scale assesses self-oriented feelings of anxiety and discomfort in response to the distress of others (e.g., In emergency situations, I feel apprehensive and ill at ease). Two of the 4 subscales (PT and FS) measure cognitive empathy while EC may be considered a measure of emotional empathy and the PD scale may be considered a measure of emotion regulation (Baron-Cohen and Wheelwright, 2004).

The original validation study for the IRI found internal consistency estimates ranging from 0.68 to 0.79 (Davis, 1980). More recently, Christopher et al. (1993) found reliability estimates ranging from 0.73 to 0.76 for 3 of the 4 subscales (EC = 0.73, PD = 0.73, PT = 0.76).

Statistical Analyses

The data were analyzed using the Statistical Program for the Social Sciences version 13.0 (SPSS). Independent sample t tests and multivariate analysis of covariance were used to test for between group differences.

RESULTS

Between-groups analyses revealed no significant differences in age or Full Scale IQ according to a WAIS estimate (Table 1). However, because the variance in education for both groups was quite small, a 1.2-year difference in education lead to significant group differences. Psychotherapists had a mean education of 19.1 year (SD = 1.02) and controls had 17.9 years (SD = 1.2); (t = 3.201, p = 0.003). See Table 2 for a description of the occupations of the control participants.

We controlled for the difference in education in all subsequent analyses using multivariate analysis of covariance with education as the covariate (Table 3). There were no significant group differences on the Eyes Test (F = 0.551, p = 0.463), however, the psychotherapists scored significantly higher on the gender identification control task from the (F = 7.47, p = 0.010). There were no significant group differences on the Eyes Test (F = 2.72, p = 0.109). However, psychotherapists performed significantly higher than controls on the MASC (F = 15.81, $p < 0.001$). On the IRI, there were no group differences on the PT scale (F = 0.016, p = 0.901), FS scale (F = 1.64, p = 0.210), or the EC scale (F = 0.000, p = 0.997). However, there was a significant difference on the PD scale, where psychotherapists scored significantly lower than controls (F = 8.80, p = 0.005).

DISCUSSION

The primary findings of this study were that therapists exhibited higher levels of cognitive empathy than nontherapist controls on a naturalistic video test of cognitive empathy but were no different than controls on levels of emotional empathy. In addition, therapists rated themselves as better able to control their emotions in the context of tense interpersonal situations.

The aim of this study was to assess the empathic abilities of psychotherapists directly using objective and subjective tests without relying on patient reports. Therapeutic outcome appears to be influenced by the patient's perception

TABLE 2. Occupations of Participant Control Group

Subject	Occupation
1	Scientist
2	Teacher
3	Graduate Student
4	Teacher
5	IT Administrator
6	Banker
7	Scientist
8	Pharmacist
9	Writer
10	IT Administrator
11	Scientist
12	Banker
13	Graphic Artist
14	Graduate Student
15	Journalist
16	Health Care Administrator
17	Unemployed
18	Book Editor
19	n/k

TABLE 3. Empathy Variables

	Psychotherapists (n = 19)				Controls (n = 19)				
Measures*	***Mean***	***SD***	**Min**	**Max**	**Mean**	***SD***	**Min**	**Max**	***p***
IRI scales*									
Perspective Taking (PT)	19.8	4.8	11.0	26.0	20.4	4.2	13.0	28.0	.901
Fantasy (FS)	19.3	4.2	9.0	26.0	16.3	5.4	8.0	26.0	.210
Empathic Concern (EC)	22.2	3.1	16.0	28.0	21.6	4.3	12.0	27.0	.997
Personal Distress (PD)	7.9	3.4	3.0	14.0	10.1	3.9	1.0	16.0	.005
Faces Test†									
Total score	26.1	1.2	24.0	28.0	25.1	2.1	21.0	28.0	.109
Eyes Test									
Total score	20.3	1.9	15.0	23.0	20.0	1.7	17.0	23.0	.463
Gender ID	23.4	0.6	22.0	24.0	22.5	1.3	19.0	24.0	.010
MASC									
Total score	37.3	2.9	30.0	40.0	32.9	3.3	29.0	39.0	<.001

*n = 18 controls.
†n = 17 control.

of empathy in the therapist (Burns and Nolen-Hoeksema, 1992; Keijsers et al., 2000; Lafferty et al., 1989; Luborsky et al., 1988; Orlinsky and Howard, 1986). In addition, the profession involves a great deal of understanding others' minds and caring for their emotional well-being (Figley, 2002). Based on this, we hypothesized that therapists may represent a group with advanced empathic abilities.

We found no differences between groups on the Eyes Test, suggesting equivalent abilities in detecting the mental state of another person based solely on a picture of their eyes. Interestingly, therapists did score slightly higher on the gender identification control task, although the difference between the groups is likely a reflection of ceiling effects and is therefore not interpreted. Therapists performed similarly to controls on the Faces test. This suggests that therapists exhibit similar levels of accuracy in recognizing facial expressions of emotions when compared with matched controls. Taken together, the results from the Eyes test and the Faces test differ from the findings of Machado et al. (1999). We found that training and experience as a psychotherapist did not augment performance on tasks of emotion recognition. However, our results cannot be directly compared with those of Machado et al. (1999), since they did not use a control group.

In contrast to the Eyes and Faces test, therapists performed significantly better overall on the MASC, indicating an enhanced ability to detect the mental states of others. What makes the MASC different from other tests of cognitive empathy is that it was designed to approximate an everyday social encounter, and much of the video test requires the simultaneous processing of verbal and nonverbal information (Dziobek et al., 2006). In fact, it is the contextual verbal content that differentiates the MASC from the other 2 tests. To ascertain if this difference from other tests explained our results, we conducted exploratory analyses of the MASC subscales. Two MASC subscales contain items that allow a distinction between verbal and nonverbal (face perception) information processing. In line with our results from the Faces test and the Eyes test, therapists and controls did not differ on the face-perception subscale of the MASC (F = 0.959, p = 0.326). This confirms that empathic judgments based on nonverbal perceptual cues were not different between groups. In contrast, when empathic judgments were made based on language-related items, therapists scored significantly higher (F = 13.25, p = 0.001). This suggests that decoding the intricacies of language, including the nonliteral content of speech and paralinguistic cues such as intonation and articulation, may be related to training and experience as a psychotherapist.

Psychotherapists and controls did not differ on the 2 cognitive empathy scales of the IRI: the PT scale and the FS scale. This likely indicates that therapists and controls are equivalent in their ability to shift their perspective from their own to that of other people (PT scale), and this perspective-shifting ability extends to the realm of fictional characters such as those depicted in books, movies, and plays (FS scale).

The EC scale and the PD scale yielded interesting results. Contrary to our expectations, psychotherapists and controls did not differ on the EC scale, which suggests that in general therapists are equally as caring as nontherapists, and that training appears to have little influence. However, psychotherapists scored significantly lower on the PD scale, which measures feelings of anxiety and distress resulting from observation of the discomfort of others. At first glance, this finding may appear to suggest that therapists are less sensitive to the emotional states of others. However, closer analysis of the item content of the PD scale suggests that this scale may assess a broader concept than that of emotional empathy. Baron-Cohen and Wheelwright (2004) argue that the PD scale describes the ability to monitor and inhibit emotional reactions and that it does not particularly reflect the individual's ability to share an emotional experience with another individual. Therefore, to interpret this lower score among psychotherapists as an indication of emotional insensitivity would most likely be an oversimplification. A more plausible interpretation would suggest that training and fre-

quent exposure to affectively charged interactions during psychotherapy may influence the ability of the psychotherapist to moderate distress levels in emotional situations, most likely through some intellectual process.

Training and experience in psychotherapy appear to have some impact on cognitive empathic abilities. In this study, our goal was to examine therapists as a group compared with controls, and therefore we made no attempt to group therapists by theoretical orientation; however, our sample consisted largely of therapists trained in psychoanalysis. Future studies may choose to contrast the empathic abilities of therapists given their chosen theoretical orientation and/or level of training. It is possible that the relatively young age of the therapist group influenced our results. More experienced therapists have been shown to listen more in therapy and also have better treatment outcomes than less experienced therapists (Beutler et al., 1986; Crits-Cristoph et al., 1991).

In summary, we set out to assess whether cognitive and emotional empathy was higher among psychotherapists. We found little evidence for superior empathic abilities, and the evidence we did find was restricted to the cognitive domain. Specifically, therapists were superior in inferring other peoples' mental states based on social cues conveyed through language. Regarding emotional empathy, psychotherapists were indistinguishable in EC but scored lower on the PD scale of the IRI, suggesting they were better able to distance themselves from emotionally charged situations. In conclusion, our results suggest that training and experience in psychotherapy may improve the listening skills and emotional control of therapists and may identify this group as one with advanced empathic abilities.

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