

RESEARCH ARTICLE

Context matters: criticism and accommodation by close others associated with treatment attitudes in those with anxiety

Olivia A. Merritt^{1*} , Karen Rowa² and Christine L. Purdon¹

¹University of Waterloo, Psychology Department, 200 University Ave W, Waterloo, Ontario, Canada, N2L 3G1 and ²Anxiety Treatment and Research Centre, St Joseph's Healthcare, Hamilton, Ontario, Canada and Department of Psychiatry and Behavioural Neurosciences, McMaster University, Hamilton, Ontario, Canada

*Corresponding author. Email: oamerritt@uwaterloo.ca

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Abstract

Background: Many people with anxiety do not seek therapy due to negative views of treatment. Although close others (e.g. romantic partners, family members, close friends) are highly involved in treatment decisions, the role of specific relational behaviours in treatment ambivalence has yet to be studied.

Aims: This study examines the relationship between social predictors (perceived criticism and accommodation of anxiety symptoms by close others) and treatment ambivalence.

Method: Community members who met diagnostic criteria for an anxiety-related disorder ($N = 65$) and students who showed high levels of anxiety ($N = 307$) completed an online study. They were asked to imagine they were considering starting cognitive behavioural therapy (CBT) for their anxiety and complete a measure of treatment ambivalence accordingly. They then completed measures of perceived criticism and accommodation by close others. Linear regression was used to examine the predictive value of these variables while controlling for sample type (clinical/analogue) and therapy experience.

Results: Greater reactivity to criticism from close others and greater accommodation of anxiety symptoms by close others were associated with greater treatment ambivalence in those with anxiety. These predictors remained significant even when controlling for therapy history and sample type.

Conclusions: When it comes to treatment attitudes, relational context matters. Clients demonstrating ambivalence about starting therapy may benefit from discussion about the impact of their social environment on ambivalence.

Keywords: accommodation; anxiety and related disorders; criticism; family; social environment; treatment ambivalence

Introduction

Anxiety and related disorders are the most commonly occurring class of mental disorders (Kessler *et al.*, 2009), with a lifetime prevalence of approximately 29% (Kessler *et al.*, 2005). Anxiety and related disorders often begin early in life and persist throughout the life course (Kessler, 1997; Kessler *et al.*, 2009), resulting in economic costs of billions of dollars annually (Kessler and Greenberg, 2002; Koerner *et al.*, 2004). Despite having effective treatments for anxiety, up to 75% of sufferers do not seek treatment (Johnson and Coles, 2013; Ng *et al.*, 2008; Reavley *et al.*, 2010; Roness *et al.*, 2005), many delay treatment for years after onset (Christiana *et al.*, 2000; Wang *et al.*, 2005), and a fifth of those who enter treatment drop out early (Gersh *et al.*, 2017; Taylor

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et al., 2012). Given the immense personal and societal costs of chronic anxiety and related disorders, further understanding the reasons people do or do not engage in treatment is crucial. Treatment interest, engagement and success are all related to one's attitudes about treatment (Li *et al.*, 2014; Price and Anderson, 2012; Santana and Fontenelle, 2011; Safren *et al.*, 1997). Treatment attitudes are the varying beliefs held by individuals that impact their treatment-seeking intentions and actions (Elhai *et al.*, 2008; Vogel *et al.*, 2005). Understanding what factors influence treatment attitudes will allow us to address some of the barriers to treatment seeking and success.

Research on the predictors of treatment attitudes has largely focused on individual factors, such as race, gender, educational attainment and age. Younger (Mojtabai *et al.*, 2002; Picco *et al.*, 2016), female (Mojtabai *et al.*, 2002; Nam *et al.*, 2010), White (Kam *et al.*, 2019; Nam *et al.*, 2010), and more educated individuals (Picco *et al.*, 2016) tend to have more positive attitudes towards therapy. Additionally, practical factors such as service availability, mental health knowledge, insurance coverage and treatment costs (Bonabi *et al.*, 2016; Johnson and Coles, 2013; Mojtabai *et al.*, 2002) are likely to influence treatment attitudes. While we know that these individual factors are important, researchers have also argued that the success of behaviour change efforts 'will depend on our increasing sophistication about the role of social and situational factors' (Ross *et al.*, 2010; p. 26). Social factors are incredibly important when it comes to making care decisions (Pescosolido, 1992). Social support, broadly defined, is related to more positive treatment attitudes (Nam *et al.*, 2013; Vogel *et al.*, 2005; but see also Li *et al.*, 2014) and social stigma is related to more negative treatment attitudes (Jennings *et al.*, 2015). However, the impact of specific relational behaviours on treatment attitudes has yet to be studied. Doing so may help us identify useful points of intervention in the social systems of clients who are ambivalent about therapy. Important relational variables in anxiety disorder development and maintenance include *perceived criticism* and *accommodation of anxiety symptoms*.

Previous research in people with anxiety disorders suggests that criticism by close others is related to increased stress (Steketee *et al.*, 2007) and anxiety symptoms (Chambless *et al.*, 2001; Renshaw *et al.*, 2005). Criticism from loved ones is associated with worse treatment outcomes (Chambless and Steketee, 1999), higher rates of relapse (Emmelkamp *et al.*, 1992; Steketee, 1993), and higher rates of treatment drop-out (Chambless and Steketee, 1999). Those with anxiety may internalize the criticism of close others (Brewin *et al.*, 1996) and doubt their ability to succeed, leading to less engagement with treatment. Additionally, sensitivity to criticism is related to increased distress during exposure treatment in particular (Steketee *et al.*, 2007). In other words, those who experience more criticism, or experience criticism as more distressing, may see treatment as having higher costs (e.g. increased stress, another target for criticism) and lower benefits (e.g. not feeling capable of succeeding in reducing anxiety). Individuals in critical family environments are more likely to use maladaptive, reactive coping strategies, such as avoidance (Repetti *et al.*, 2002), rather than longer-term strategies, such as therapy. Taken together, we hypothesize that higher perceived criticism from close others may be related to higher treatment ambivalence.

Anxiety accommodation includes modifying daily routines to accommodate the sufferer's anxiety (e.g. avoiding certain situations, providing reassurance, taking over tasks). The first studies of accommodation focused on obsessive-compulsive disorder (OCD), but in recent years, the literature has expanded to explore the role of accommodation in anxiety disorders more broadly (Lebowitz *et al.*, 2016). For those with anxiety, accommodation is the rule, not the exception: more than 95% of families report accommodating anxiety symptoms (e.g. Lebowitz *et al.*, 2013). Accommodation provides relief in the short term, but is associated with increased anxiety in the long-term (Calvocoressi *et al.*, 1999; Lebowitz *et al.*, 2013; Merlo *et al.*, 2009; Strauss *et al.*, 2015; Wu *et al.*, 2016). From the perspective of the sufferer, however, if anxiety is readily accommodated, the perceived need for treatment may decrease and the inconvenience of treatment may outweigh the perceived benefits. Mirroring the

accommodation literature more generally, the only study investigating the relationship between treatment attitudes and accommodation was in a small sample of youth with OCD. The authors found a significant positive correlation between family accommodation and treatment ambivalence (Selles *et al.*, 2013). In the current study, we expect to replicate this relationship in a sample of adult anxiety sufferers (broadly defined).

In summary, the purpose of the current study is to enhance our understanding of how certain aspects of one's social environment relates to one's attitudes towards therapy. To this end, we collected data on treatment ambivalence, anxiety accommodation and perceived criticism in an analogue sample of undergraduate participants who endorsed above-average levels of anxiety and a clinical sample of community participants who met criteria for an anxiety or related disorder. We hypothesize that greater perceived criticism and greater accommodation will be predictive of greater treatment ambivalence, as shown through regression analyses. In addition, because previous therapy experience may influence responses, we were interested to test whether the effects of the hypothesized predictors would remain when therapy experience was controlled for. We similarly controlled for sample type (clinical and analogue). We predicted that perceived criticism and accommodation would continue to be significant predictors of treatment ambivalence even when therapy history and sample type are controlled for.

Method

Procedure

The analogue sample ($N = 307$) was composed of undergraduate students from a mid-sized Canadian university. Students who scored at or above the 75th percentile on the Stress subscale of the Depression Anxiety Stress Scales (DASS-S; Lovibond and Lovibond, 1995) were invited to participate in this study, and those who participated received partial course credit. We chose to use the DASS-S rather than the DASS-Anxiety subscale because the DASS-S measures nervous energy, worry, ability to relax and over-reactions, whereas the DASS-A measures more physical hyperarousal (Antony *et al.*, 1998); thus, we used scores on the DASS-S to select participants as it was thought to be more applicable to the broad types of anxiety characteristic of anxiety and related disorders that we aimed to study in this sample (as in Merritt and Purdon, 2020).

The clinical sample ($N = 65$) was recruited from an anxiety participant pool, which consists of adults from the community who have been formally assessed using the Mini-International Neuropsychiatric Interview (MINI), adapted to the *Diagnostic and Statistical Manual of Mental Disorders*, 5th Edition ('*DSM-5*') (Moscovitch *et al.*, 2015; Sheehan, 2014). Based on these assessments, those whose principal or co-principal diagnosis was an anxiety or related disorder [disorders that are characterized by anxiety, including those from the anxiety disorders section of the *DSM-5*: OCD; post-traumatic stress disorder (PTSD); illness anxiety disorder (IAD)] were invited to participate.

The online study included a brief overview of cognitive behavioural therapy (CBT) for anxiety, which included the cognitive and behavioural components of CBT for anxiety and how they relate to each other, with a case example. After reviewing this information, participants were asked to complete a measure of treatment attitudes as if they were considering whether or not to begin CBT for their anxiety. Participants also completed questionnaires on demographics, family accommodation and perceived criticism.

Participants

See Table 1 for participant demographics, diagnosis, and impairment in each sample. In the analogue sample, 45% ($n = 137$) of participants had therapy experience, with 25% ($n = 78$) having had experience with CBT in particular, and 13% ($n = 41$) currently being in therapy.

Table 1. Participant background information

	Clinical sample (<i>N</i> = 65)	Analogue sample (<i>N</i> = 307)
Age (years)		
Range	19–64	16–50
Mean	33.0	19.9
SD	12.5	3.6
Gender, <i>n</i> (%)		
Male	9 (13.8%)	35 (11.4%)
Female	54 (83.1%)	262 (85.3%)
Gender non-binary, gender non-conforming	2 (3.1%)	9 (2.9%)
Decline to answer	0 (0%)	1 (0.3%)
Ethnicity, <i>n</i> (%)		
White	47 (72.3%)	123 (40.1%)
East Asian	6 (9.2%)	63 (20.5%)
South Asian	4 (6.2%)	53 (17.3%)
Southeast Asian	3 (4.6%)	18 (5.9%)
Other	5 (7.7%)	50 (16.2%)
Principal diagnoses, <i>n</i> (%)		
SAD	35 (53.8%)	<i>n/a</i> ²
GAD	14 (21.5%)	
OCD	8 (12.3%)	
Panic disorder	5 (7.7%)	
Illness anxiety disorder	2 (3.1%)	
Other specified anxiety disorder	1 (1.5%)	
Co-principal diagnoses, <i>n</i> (%)		
Persistent depressive disorder	5 (7.7%)	<i>n/a</i> ²
Agoraphobia	4 (6.2%)	
Specific phobia	2 (3.1%)	
Major depressive disorder	1 (1.5%)	
Other specified eating and feeding disorder	1 (1.5%)	
Alcohol use disorder	1 (1.5%)	
None	51 (78.5%)	
Anxiety impairment, <i>n</i> (%) ¹		
None	0 (0%)	5 (1.6%)
Small	24 (36.9%)	89 (29%)
Moderate	31 (47.7%)	140 (45.6%)
Great	10 (15.4%)	73 (23.8%)

¹Anxiety impairment was assessed by asking respondents 'to what extent does your anxiety get in the way of your daily life/activities?' with examples provided, and response options 'not at all', 'to a small degree', 'to a moderate degree' and 'to a great degree'.

²Some analogue participants reported having received a diagnosis in the past; however, they did not undergo an assessment as part of this study so principal and co-principal diagnoses are not reported here.

Thirty-six per cent (*n* = 112) of analogue participants reported having received a diagnosis for their anxiety. In the clinical sample, 77% (*n* = 50) of participants had therapy experience, with 54% (*n* = 35) having had experience with CBT specifically, and 25% (*n* = 16) currently being in therapy.

Measures

The Treatment Ambivalence Questionnaire (TAQ; Rowa *et al.*, 2014) was used to measure treatment attitudes. The 26-item TAQ assesses common concerns about treatment in those with anxiety and related disorders. It consists of three subscales: personal consequences (e.g. 'If treatment works, I might change in ways that other people won't like'), adverse reactions (e.g. 'treatment might cause me too much anxiety or distress'), and inconvenience (e.g. 'treatment is going to be too time-consuming'). It shows good internal consistency and discriminant validity (does not just measure general distress). Items are rated on a 7-point scale from 'strongly disagree' to 'strongly agree'. Higher scores indicate greater ambivalence about treatment (Cronbach's alpha values: $\alpha_{\text{analogue}} = .92$; $\alpha_{\text{clinical}} = .91$, $\alpha_{\text{all}} = .91$).

Table 2. Descriptive statistics across groups

	Clinical sample (<i>N</i> = 65)		Analogue sample (<i>N</i> = 307)	
	Mean	<i>SD</i>	Mean	<i>SD</i>
Accommodation (ACC)	11.40	6.84	13.94	8.07
Perceived criticism (PC)	5.66	2.94	7.09	2.28
Treatment ambivalence	88.98	27.01	104.83	26.98

Accommodation was measured using the Family Accommodation Scale Anxiety-Adult Version (FASA-AR; Lou *et al.*, 2020), which shows good internal consistency and convergent and divergent validity. This scale asks participants to identify the person who is most involved in their anxiety, then answer nine questions about the frequency (0, 'very rarely' to 4, 'very often') of different kinds of accommodation (e.g. reassurance, helping avoid, changing routine, taking over responsibilities). These items are summed to create the total accommodation score (ACC) used in this study ($\alpha_{\text{analogue}} = .88$; $\alpha_{\text{clinical}} = .86$, $\alpha_{\text{all}} = .87$).

Perceived criticism was measured using the Perceived Criticism Measure (PCM; Hooley and Teasdale, 1989; Chambless and Blake, 2009). If participants stated that their romantic partner was the person most involved in their anxiety (24.0%), they completed PCM questions about their romantic partner. If not, they answered PCM questions about the person who they reported was most emotionally important to them; this was most often a parent (52.4%), but people also reported on their siblings (10.6%), close friends (5.5%), other family members (2.4%), or unspecified (5.1%). The PCM includes two items (rated on a 10-point scale): 'how critical do you think this person is of you?' and 'when this person criticizes you, how upset do you get?' (Masland and Hooley, 2015). For the purposes of the current study, 'perceived criticism' is an umbrella term referring to one's experience of criticism and encompassing both items. Perceived criticism relates significantly to others' reports of their own criticism (Chambless *et al.*, 1999), is unrelated to demographic variables (Renshaw, 2008), neuroticism (Masland *et al.*, 2015), and anxiety severity (Renshaw *et al.*, 2001; Renshaw *et al.*, 2003), and shows strong test-retest reliability (Hooley and Teasdale, 1989). In the current study, the two items were not well correlated ($r < .3$) and were thus not unifactorial. Given that the second item ('reactivity to criticism') was more correlated with treatment ambivalence than the first, and that we were more interested in the impact of criticism than the extent of criticism, the second item was chosen to represent perceived criticism (PC) for this study. This item alone shows good reliability as well as good convergent, divergent, and predictive validity (White *et al.*, 1998).

Results

Analyses were performed using SPSS version 24. *Z*-score analysis and visual inspection of box plots revealed no outliers within either group (outliers defined as being 3 *SD* from the mean and discontinuous from the distribution). Missing values ($n = 13$) were replaced with that respondent's subscale mean value. All variables showed normal distributions, with skew and kurtosis within acceptable ranges (Kline, 1998). See Table 2 for descriptive statistics on each variable of interest.

We predicted that (1) perceived criticism and accommodation would be significantly positively related to treatment ambivalence, and that (2) they would continue to be significant predictors even when therapy history and sample type was controlled for. Stepwise hierarchical linear regression was used to explore these hypotheses.

Hypothesis 1 was explored by entering these main variables and their interactions into a regression (see Table 3). It was significant, $F(3,351) = 14.195$, $p < .001$. As expected, both

Table 3. Regressions on treatment ambivalence

Model	Predictors	<i>R</i>	<i>R</i> ²	<i>F</i> change	β
1	ACC	.329	.108	14.195***	.343*
	PC				.411***
	PC×ACC				-.258
2	Therapy experience	.255	.065	12.291***	.129*
	Sample type				-.189***
3	Therapy experience	.392	.153	18.231***	.140**
	Sample type				-.141**
	ACC				.121*
	PC				.273***

ACC, family accommodation; PC, perceived criticism. * $p < .05$, ** $p < .01$, *** $p < .001$.

accommodation and perceived criticism were significantly positively related to treatment ambivalence. The interaction was not significant and was dropped from future regression analyses.

To control for therapy history and sample type, a regression was conducted with these variables on step 1 and the main predictors (perceived criticism and accommodation) on step 2. The first step was significant, $F(2,352) = 12.291$, $p < .001$, with both sample type ($p < .001$) and therapy history ($p = .017$) being significant predictors of treatment ambivalence. The analogue sample was significantly more ambivalent than the clinical sample, $t(368) = 4.246$, $p < .001$, and those without therapy history were significantly more ambivalent than those who had attended therapy in the past, $t(368) = -3.559$, $p < .001$. Most relevant to our hypothesis, step 2 was also significant, $F(4,350) = 15.863$, $p < .001$, with both perceived criticism ($p < .001$) and accommodation ($p = .016$) remaining significant even when therapy history and sample type were controlled for (see Model 3 in Table 3). Exploratory analyses indicated that neither sample type nor therapy history interacted significantly with perceived criticism and accommodation to predict treatment ambivalence ($p > .286$).

Discussion

This paper explored the impact of accommodation and perceived criticism of close others on treatment attitudes for individuals with anxiety. The data suggest that one's relational context is meaningfully related to how one feels about treatment: greater distress in response to criticism and greater accommodation of anxiety symptoms are predictive of greater treatment ambivalence, even when controlling for therapy history and sample type.

Consistent with hypotheses, higher sensitivity to criticism was related to higher ambivalence. People with anxiety who are reactive to others' criticism may wish to reduce the number of targets of criticism and may avoid treatment for this reason. A number of items on the treatment ambivalence measure are related to interpersonal consequences of attending treatment, such as changes in relationships or stigma around mental health; these items may be particularly related to perceived criticism from others. However, this finding is particularly interesting given that the opposite relationship is also conceivable: criticism could highlight necessary changes and thus be a motivating factor for treatment. In fact, family members may feel that their criticism is helpful in this regard (Chambless *et al.*, 1999), but research shows that this type of response can elevate one's stress (Renshaw *et al.*, 2005). In particular, previous research indicates that one's reaction to criticism is related to increased stress during treatment, whereas the extent of the criticism is not (Steketee *et al.*, 2007), and those with anxiety disorders show greater distress in response to close others' criticism than non-anxious controls (Porter *et al.*, 2019). This is consistent with our finding that reactivity to criticism was more related to treatment ambivalence than the extent of criticism. Additionally, those

who are criticized may have a more negative self-concept and feel more hopeless or pessimistic about treatment success. This hypothesis is consistent with research showing a relationship between relatives' expressed emotion and patients' self-esteem (Hinojosa-Marques *et al.*, 2021), as well as between self-confidence and readiness for change (Basharpoor *et al.*, 2020). Future research may explore the avenues through which perceived criticism affects treatment engagement.

In addition, greater accommodation was related to greater ambivalence. Accommodation is often performed by close others in order to reduce distress (Calvocoressi *et al.*, 1999) and those who are accommodated may be inadvertently sent the message that they are incapable of managing their distress. This is consistent with research showing that parent over-control is related to limited sense of personal competence (Bögels and Brechman-Toussaint, 2006; Wood *et al.*, 2003). One's sense of competence is a critical factor in enacting health-promoting behaviours (e.g. Amiri *et al.*, 2019; Choo and Kang, 2014; Cohen and Panebianco, 2020; Gillis, 1993), therapy being an example of such. Those who are often accommodated may believe themselves to be incapable of managing distress and thus may believe that treatment will be too distressing for them. Another plausible explanation is that those who are readily accommodated may simply experience less distress overall and may see less need to attend treatment. Exploratory analyses show that the treatment ambivalence subscale most related to accommodation is 'inconvenience'; thus, for those who are being accommodated, the inconvenience of treatment may outweigh the potential benefits. Future research could explore whether treatment attitudes mediate the relationship between accommodation and poorer treatment outcomes for those with high family accommodation (Kagan *et al.*, 2016).

The proportion of variance in treatment ambivalence accounted for by our predictors was relatively low, suggesting that although family factors are important, there are additional factors to consider (e.g. demographic variables, one's perception of their anxiety, treatment availability, etc.) when understanding one's treatment ambivalence. However, this small effect size is not insignificant: when considering all adults who feel anxiety, these interpersonal variables could be the difference between a large number of people entering versus avoiding therapy. Future studies could examine the additional potential explanatory power of perceived helpfulness of past treatment(s), type(s) of past treatment, and perceptions of CBT. This study focused on treatment attitudes around CBT, given that it is the most common evidence-based practice for anxiety; however, additional research could explore whether these variables are predictive when participants are considering other types of therapies.

This study is also limited in that the sample was dominated by females. Females are more likely to have significant anxiety (Lewinsohn *et al.*, 1998) with higher illness burden (McLean *et al.*, 2011); in this way, this research may be representative of those who seek treatment for anxiety. However, it would be interesting to see if these patterns would replicate in a male sample, who may have stronger treatment ambivalence (Nam *et al.*, 2010), or a larger sample of those who identify as non-binary.

Although there is a documented relationship between treatment attitudes and treatment-seeking behaviours and treatment engagement, we did not directly measure these additional variables of interest. This is an area for future investigation. Our study was correlational in nature and cannot address causation. The relationships may also be more complicated than our study was able to explore; for example, criticism could lead to increased passivity and pull for greater accommodation. Additionally, we did not conduct diagnostic assessments with our analogue sample, so we cannot be sure about the diagnostic status of participants in this sample. We also cannot be certain of the true nature of criticism and accommodation, as this study used self-report measures of each. However, previous research shows a significant correlation between self- and other-reported criticism (Chambless *et al.*, 1999) and accommodation (Lebowitz *et al.*, 2015). Given that this research is the first of its kind, it should be regarded as a preliminary investigation warranting follow-up.

This study is the first to examine the relationship of close others' behaviours (perceived criticism and symptom accommodation) to treatment attitudes in those with anxiety. Greater perceived criticism and greater accommodation by close others was related to greater treatment ambivalence, regardless of clinical status or treatment history. Well-intentioned close others who are frustrated or burdened by their loved one's anxiety may engage in criticism and/or accommodation in order to motivate their loved one to change or to assuage their distress. However, in doing so, they may inadvertently steer their loved ones away from therapy. Clinicians tend to treat the individual (Norcross *et al.*, 2002). However, family members, friends and romantic partners are the systems that make up our clients' lives. The behaviours of important others can influence the decision to pursue treatment for mental health difficulties. It may be helpful for clinicians to discuss these factors with their clients and address treatment ambivalence upfront. Clinicians may benefit from involving loved ones and educating them about the role of criticism and accommodation; limiting these behaviours may reduce treatment ambivalence. These strategies could be especially fruitful in the early stages of treatment, when clients may be in the contemplation stage and unsure about whether they are ready to commit to tackling their anxiety.

Data availability statement. The datasets generated during and/or analysed during the current study are available from the corresponding author upon reasonable request.

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Author contributions. **Olivia Merritt:** Conceptualization (lead), Data curation (lead), Formal analysis (lead), Investigation (lead), Methodology (lead), Project administration (lead), Visualization (lead), Writing – original draft (lead), Writing – review & editing (lead); **Karen Rowa:** Conceptualization (supporting), Methodology (supporting), Supervision (supporting), Writing – review & editing (supporting); **Christine Purdon:** Conceptualization (supporting), Funding acquisition (lead), Methodology (supporting), Supervision (lead), Writing – review & editing (supporting).

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Conflicts of interest. The authors declare that they have no known conflicts of interest regarding this paper.

Ethical standards. This research was reviewed by the University of Waterloo Ethics Committee and received approval (no. 42294), and informed consent was obtained from all individual participants included in the study. Authors abided by the Ethical Principles of Psychologists as set out by the BABCP and BPS.

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