Crying in psychotherapy: an exploratory mixed-methods study on forms of emotional crying and associated therapeutic interventions

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ABSTRACT

Emotional tears can be interpreted as expressions of our deepest inner lives, and yet they have largely been ignored in psychotherapy research. This study addresses this gap. Based on grounded theory and using a sequential mixed-methods design, we examined the interaction between therapist and patient during episodes of crying in video-recorded psychotherapy sessions. This resulted in two rating systems: one differentiates forms of patient emotional crying, and the other categorizes therapeutic interventions associated with crying. In this sample, including 46 video sequences from 32 therapy sessions, both rating systems were found to be reliable. To identify potential interactional patterns, we examined the statistical correlation between the two systems through multiple linear regression analyses. We found that certain forms of crying were associated with specific therapeutic interventions. Despite methodological limitations, the study contributes to a subject of clinical relevance that is still in its beginnings. To our knowledge, this is the first study to examine therapeutic events in episodes of crying in a process-oriented and comprehensive way.

Key words: crying, psychotherapy process, emotions in psychotherapy, mixed-methods research.

Introduction

Although emotion research has experienced a clear upswing in recent decades, crying has often been ignored (Frijda, 2012; Vingerhoets, 2013). In the psychological literature, crying is understood as a form of emotional expression that is constituted by an interplay of biological, psychological, and social variables (Vingerhoets & Bylsma, 2016). Both intrapersonal and interpersonal functions are attributed to crying, and it is often associated with sorrow and distress. However, the emotions that provoke crying can be very multifaceted (Gračanin *et al*., 2018). In most of the relevant literature, emotional tears are not differentiated further. Although various triggering emotions are postulated, it is usually not considered whether these lead to a different quality of crying.

Some efforts have been made to categorize tears in a rather descriptive way along triggering themes or antecedents [either data-driven as in Denckla *et al*. (2014) or theory-based as in Barthelmäs *et al.* (2022)]. Other attempts to differentiate forms of crying along the phases within a grieving process refer to well-known grief models (Kast, 1982, 1988; Kübler-Ross, 1977). These models go beyond the descriptive and include assumptions about the meaning and function of the different forms of crying. For example, Nelson (2005) argues that crying is always associated with loss. Within this rationale, she

describes three stages of (non)crying. Protest crying is characterized by an angry quality and a refusal to accept the loss. Sad crying of despair, in contrast, reveals a deep sadness and hopeless acceptance of the loss. Both types differ not only in terms of the triggering emotions but also in the communicative message associated with the act of crying. In the third category, labeled detached noncrying, crying is notably absent, which the author links to a blocked grieving process. Rydé *et al.* (2007) found similar patterns of crying in people with terminal cancer and characterized three forms using a hermeneutic framework: i) intense and despondent crying as a way of ventilating urgent needs; ii) gentle, sorrowful crying as a conscious release of emotions; iii) quiet, tearless crying as a protection strategy. Nelson (2005) as well as Rydé *et al.* (2007) derive implications for clinical practice and address the possible significance of the various forms of crying for the interaction and (therapeutic) relationship. As Nelson (2005) puts it, crying could enable an important bonding and caring experience for therapist and patient, bringing us to the context of interest for the present study: the setting of psychotherapy.

Crying is generally considered a significant event in therapy and can manifest in both patients and therapists (Blume-Marcovici *et al*., 2013; 't Lam *et al.*, 2018). However, the present study concentrates solely on patient crying. Estimates suggest that crying occurs in 15-30% of therapy sessions (Bylsma *et al*., 2021). Nevertheless, it is only in recent years that the first articles on this subject have been published (Capps Umphlet *et al*., 2021; Genova *et al.*, 2020; Katz *et al*., 2022; Knox *et al*., 2017; Zingaretti *et al*., 2017). Zingaretti *et al*. (2017) report that about 86% of patients stated that they had cried at least once during therapy. The authors discovered a negative correlation between the frequency of crying and psychotic personality organization and found that patients with a lower level of structural integration tended to experience worse emotions after crying than those with a higher level. Also, the better the therapeutic relationship was perceived, the more helpful the patients rated the crying. Capps Umphlet *et al.* (2021) found that crying during intake sessions was associated with lower levels of global functioning and severe childhood sexual abuse. Katz *et al.* (2022), like Genova *et al.* (2020), examined crying behavior in relation to working alliance and attachment style. Their findings suggest that patients view crying as beneficial to therapeutic progress and working alliance, particularly when they perceive the therapist's responses as supportive. The patients associated crying with therapeutic change if, for example, they felt that they were able to express something through crying that they could not put into words or when they sensed improved understanding from their therapist afterward. The experiences varied depending on attachment style.

Although therapists seem to largely agree that crying might be helpful to the therapeutic process ('t Lam *et al*., 2018), there is hardly any evidence in the literature about how therapists actually deal with crying – neither in purely descriptive terms nor in terms of possible consequences for the course of the session. There are some theoretical considerations to be found on how therapists can effectively handle their patients' tears, all suggesting the importance of allowing tears to flow freely, avoiding premature suppression, and possibly even actively encouraging them in specific situations (Meyer, 2009; Mills & Wooster, 1987; Nichols & Efran, 1985). However, all this advice is derived from clinical experience alone. So far, there is a deficiency of empirical evidence to support it. Capps *et al.* (2015) were among the first to empirically examine the connection between patients crying and the therapist's behavior associated with it. Using the Comparative Psychotherapy Process Scale (Hilsenroth *et al*., 2005) the authors analyzed the most common interventions preceding crying. They found that immediately before crying, patients were often encouraged to explore unpleasant feelings, express fantasies and desires, or were confronted by the therapist with changes in mood or with their own avoidant behavior. Therapists' reactions to the crying were mostly characterized by patience, acceptance, and active support. Apart from the study by Capps *et al.* (2015), there is a distinct lack of empirical research on how crying is managed therapeutically and what role it plays in the therapeutic process, although there seems to be widespread agreement on its importance for the latter. Bylsma *et al.* (2021) provide a comprehensive review of clinical research on the topic. A central conclusion of their analysis is that thorough research in this area is crucial to enhancing our comprehension of crying within the psychotherapeutic process.

Present study

The review of the literature suggests that the phenomenon of crying in the context of psychotherapy has not yet been addressed sufficiently. In particular, there is a lack of studies that analyze actual crying episodes in a process-oriented manner rather than using retrospective designs and self-reports. Considering the limited theoretical and empirical landscape, we adopted an exploratory and naturalistic research design; the approach was inductive. We aimed to observe, describe, systematize, and analyze the psychotherapeutic process in crying episodes entirely from the material. One of our foci was on the quality of patients' crying. The reference to grief models appears promising, but previous work on this was either theory-based (Nelson, 2005) or based on subjective patient narratives outside the realm of psychotherapy (Rydé *et al*., 2007). A different approach in terms of third-party observation seemed beneficial to us. A second focus was placed on therapeutic responses to crying. As delineated above, there are no studies to date that systematically observe and classify therapeutic interventions during crying episodes. The overarching goal of the study was to broaden the understanding of crying in psychotherapy and thus widen the nomological net around this phenomenon. The following research questions were guiding: i) what forms of patient crying can be observed?; ii) how do therapists deal with crying?; iii) are there typical patterns of interaction, *i.e.*, connections between the forms of crying and the therapeutic behavior around it?

Methods

To approach these questions, two rating systems were developed and tested for reliability. One rating system differentiates forms of emotional crying, the other systematizes different therapeutic interventions associated with crying. Finally, we statistically correlated the rating systems to uncover possible interaction patterns.

Sampling

For this investigation, we used video footage captured at the University Outpatient Clinic in Kassel. Using two permanently installed cameras in the treatment rooms, the patient and

therapist were recorded simultaneously during therapy sessions. The resulting audiovisual file shows the faces of the patient and therapist side by side (split screen) so that details in the facial expressions and behavior of the patient and therapist can be observed in parallel. All patients seeking treatment at the University Outpatient Clinic signed an informed consent agreeing to the use of session recordings for research purposes. Also, an ethical approval statement by the institutional review board of the University of Kassel has been obtained for this study (EKFB01-Nr. 202304, 2023).

In line with grounded theory (GT) methodology, we employed theoretical sampling to select scenes depicting crying based on their alignment with our research interest (Levitt, 2021; Strauss & Corbin, 1990, 1997). The research process comprised a qualitative strand and a quantitative strand, as elaborated below. The qualitative strand involved the iterative development of the two rating systems, drawing from 179 episodes of crying for the forms of emotional crying and 235 for the therapeutic interventions associated with crying, obtained from psychotherapeutic sessions and psychodynamic diagnostic interviews (OPD Taskforce, 2008). Following this phase, interrater reliability calculations were conducted based on 46 crying episodes from 32 different therapy sessions. This same sample also served as the data basis for the subsequent quantitative strand, which encompassed regression analyses. Given its importance for our study, we provide a more detailed description of this sample.

The selection of video sequences was based on a 2-step process: initially, one person identified sequences as crying episodes, whereupon a second person verified them or adjusted the timestamps if necessary. Only sequences in which the crying was clearly evident, indicated by very wet eyes or visibly flowing tears, were included. The duration of the crying was considered to be only of secondary importance, as our sampling approach was centered around conceptual criteria rather than time-based ones. Scenes with only a few tears as well as strong emotional outbursts were included. The duration of the sequences varied, ranging from 00:22 to 10:41 minutes. The necessary criterion for defining a crying sequence was the agreement of both raters. It was agreed upon that no more than three scenes from the same video and a total of no more than four scenes of one and the same patient were to be included. In this way, the influence of individual patients or sessions on the final category system was limited. The 46 video sequences represented a total of 22 patient-therapist dyads: four of the patients were male and eighteen were female, including one trans woman. The main diagnoses ranged from major depression, panic disorder with agoraphobia, obsessive-compulsive disorder, atypical anorexia to post-traumatic stress disorder. To achieve higher representativeness with regard to different therapeutic models, 23 scenes from psychodynamic therapies (PDT) and 23 scenes from cognitive-behavioral therapies (CBT) were analyzed. There were eleven different therapists; six of them belonged to the CBT group (five female and one male) and five to the PDT group (three female and two male). For the quantitative operations, each scene was evaluated as one case, independent of the patient and therapy session.

Design and procedure

We conducted the study using a sequential mixed-methods design, combining and integrating qualitative and quantitative methods to effectively address our overall research question [for a detailed definition and introduction to mixed-methods research, see Creswell (2015)]. Sequential here indicates that the individual sub-studies were performed consecutively, with the results of the qualitative process informing the subsequent quantitative analysis (Creswell, 2003; Kuckartz, 2014). The qualitative strand served to construct the rating systems to address the first two research questions concerning forms of emotional crying on the one hand and therapeutic interventions associated with crying on the other. The quantitative strand aimed to investigate the third research question by examining typical interaction patterns, *i.e.*, correlations between forms of emotional crying and therapeutic interventions associated with crying. The integration of the two strands is therefore primarily achieved by answering the third research question.

As the methodological framework for the qualitative development of the rating systems served GT (Levitt, 2021; Mey & Mruck, 2010; Strauss & Corbin, 1990, 1997). A central principle of GT is to allow the theory to emerge from the data rather than imposing preconceived notions onto it. We considered this approach especially fitting for our exploratory research design and open-ended research questions. We generally adhered to the core principles of GT as outlined by Strauss and Corbin (1990, 1997) while also making necessary adaptations to suit the specific demands of our research and the nature of the data (Levitt, 2020). In the following, we provide a more detailed description of how we implemented the iterative process of collecting, analyzing, and refining to the point of theoretical saturation, which is characteristic of GT.

Qualitative strand - development of the rating systems

All steps leading to the initial creation of the rating systems were carried out in teams of two raters (first phase). Consistent with the practice of open coding, all aspects that appeared relevant to the research questions were observed, discussed, and noted. Individual behaviors were interpreted as indications of larger phenomena. Recurring behaviors were grouped into concepts, which were then used to create categories. The more material was examined, the clearer patterns of behavior and themes could be identified. Depending on the degree of similarity or dissimilarity, these patterns were summarized or differentiated from one another. In this step, the relationship between the categories was explored and refined within the framework of axial coding.

The following example serves to illustrate these sequential analysis steps: starting from the research question of how therapists deal with crying, we targeted the therapist's behavior when analyzing the crying episodes. For example, in one scene, the therapist asked, "where is this sadness coming from?". This behavior was interpreted and noted as addressing emotions. Here, a level of abstraction is already added, as the concrete behavior is being translated into a concept. During the analysis, we repeatedly observed similar phenomena. However, alongside some highly similar behaviors, there were also some variations to be found. For example, the statement "this moves you deeply" also addresses the emerging emotions yet focuses more on their here-and-now quality, while the first example aims at exploring their underlying reasons. These observations led to different categories, which were then led back into the field, reviewed, and adapted in a process of constant revision. Three different varieties of addressing emotions emerged over the process, forming three categories (which are further elaborated on in the Results section). To accurately reflect their relational similarity, they were grouped into the main category of addressing. This

takes into account the similarity while at the same time enabling higher precision through differentiation. The process of grouping phenomena into categories, defining and differentiating subcategories, reviewing and revising on the basis of further material, *etc*., continued until the point of theoretical saturation was reached, meaning that further observed behavior was reasonably captured by the existing rating system. For the forms of emotional crying, this point was reached after viewing 179 sequences; for the therapeutic interventions associated with crying, it was reached after 235.

Once the rating systems had been created, a phase of revision began (second phase). To this end, the first author of this paper trained two new independent rater groups consisting of a total of seven psychology students in the use of the rating systems. Three of them were involved in the revision of the rating system of therapeutic interventions associated with crying. The other four dealt with the forms of emotional crying. Solely the first author of this paper was involved in both processes and responsible for the coordination as well as for documentation. Several meetings were held in the groups to analyze and discuss video material and to gain new insights following the principle of collaborative analysis (Strauss & Corbin, 1990). The guiding question of the group discussions was whether the rating systems covered the observed behavior or whether they needed to be extended to this end. Various types of adaptation were made, such as rewording, adding, or refining criteria for categories, and rethinking the overall approach to rating. Training ratings were conducted in between sessions and then debriefed to uncover further inconsistencies. After six and eight sessions, all raters felt confident in using the rating systems, and the level of agreement was considered high enough. This indicates that the raters reached a consensus on observed behaviors in most cases. Any remaining disagreements were considered marginal and inherent to the methodology, acknowledging the inevitable subjectivity present in such processes, as outlined by Mey and Mruck (2010). An example is provided to demonstrate this final revision process, which also exemplifies the process of selective coding: throughout the process, we observed critical differences in the forms of crying regarding their (non)acceptance of the events triggering the crying and maturity in dealing with them. This insight revealed the relational structure between categories and an underlying, linking phenomenon. Consequently, we interpreted the forms of emotional crying as manifestations of different stages of processing and hence of grief. This integration of categories was done in the interest of grounding the theory. In the discussion section, we elaborate on the relationship between these findings and well-known models of grief.

For the final ratings, all raters who took part in the second phase independently rated the same 46 episodes of crying (see Sampling section) using the rating system relevant to them. The interrater-reliability for forms of emotional crying was calculated using Fleiss' κ, as these are nominally scaled (Fleiss, 1971; Gwet, 2014). Interrater-reliability for therapeutic interventions associated with crying was calculated using intraclass-correlations, as this rating system is again interval scaled [intraclass correlation coefficient (ICC)] (Koo & Li, 2016; Wirtz & Caspar, 2002).

Quantitative strand - merging the rating systems through regression analyses

A total of ten multiple linear regressions were calculated to address the third research question, *i.e.*, whether there are significant connections between forms of emotional crying [independent variable (IV)] and therapeutic interventions associated with crying [dependent variable (DV)]. Specifically, one regression was calculated for each of the nine scales of therapeutic interventions, along with an additional regression analyzing the relationship within the therapeutic interventions. Since the rating system for forms of emotional crying is on a nominal scale level, the categories were dummy-coded. Regarding the DV, the arithmetic means of all four raters were used as the basis for the calculations. For the IV the mode of the ratings of all five raters was used. After ensuring the reliability of the rating systems, this approach was considered legitimate. All calculations were performed using the statistics software SPSS (SPSS Statistics Version 24, IBM, Armonk, NY, USA). It is important to emphasize that the quantitative analyses were also explorative and not intended to strictly test hypotheses. This is one of the reasons why, for instance, no α-level correction was performed (which will be elaborated further in the Discussion section). The objective of bringing the rating systems together in this way was to identify preliminary indications of possible trends and connections. The underlying idea was to model the processual nature of crying episodes with all their dynamism and interactions. The interest in the process is a central element of this study as well as a central component of the GT approach.

Researchers' background

To increase transparency and contextualize the results, the theoretical and practical background of the researchers is briefly outlined. Both researchers are clinical psychologists and psychotherapists (one of them in training) with a psychodynamic focus. One has many years of experience in the field of psychotherapy research, both qualitatively and quantitatively. The other raters involved were all psychology students, mostly postgraduate, and therefore had both subject and methodological knowledge.

Results

The main results are the two rating systems developed through the qualitative strand, which are presented below (see Table 1 and Table 2 for a summary). The quantitative findings build upon the qualitative results and are hence presented thereafter.

Qualitative strand – rating system: forms of emotional crying

The rating system has a nominal scale level and includes four forms of emotional crying: protest crying, overwhelmed crying, crying in grief, and positive crying. Four guiding questions help identify them: i) what is the triggering event or emotion?; ii) how does the quality of the crying appear on the outside?; iii) to what extent does the crying fulfill an interactive function?; iv) to what extent does the triggering event seem to be accepted or integrated?

The quality of the crying is rated by considering all information about a scene. It should be noted that the interactive function is more about the desired and thus suggested response to the therapist, not about the therapist's actual behavior. So, raters must pay attention to their own thoughts, feelings, and

impulses, or psychodynamically speaking, to their countertransference. The different forms of emotional crying can also be seen as stages of a grieving process (except for positive crying), whereby protest crying represents the first stage of such a process and crying in grief represents the final stage and thus an evolved integration of the experience of loss. This is further elaborated on in the Discussion section.

In protest crying, a feeling of injustice, insult, or anger often plays a role in triggering the tears. The patient appears to be complaining, protesting, or defiant, and the crying is generally about situations in which the person doesn't feel adequately treated or valued. Typical themes are relationship dynamics, conflicts, or personal misfortune. Guilt and responsibility attribution play a central role. The interactive function can be considered strong: the crying is very outwardly directed and seems demanding as if the patient is calling for sympathy or wants confirmation of their viewpoint. A characteristic feature is the nonacceptance and an apparent resistance against the circumstances causing the suffering, which is why protest crying can be considered the earliest, *i.e.*, most "immature" stage within a grieving process, especially if the process gets stuck here.

Example. A patient reports a family reunion to which she returns to her parents' home. She describes how her mother constantly comments on her lifestyle, comparing her to her sister. Her voice sounds tearful and defiant until she finally bursts into tears: "I've always been the fool, in the family, at work, and my children pick on me all the time, too. It's like: oh, well, with her you can just do it, she's not gonna fight back anyway."

In overwhelmed crying, feelings of being overwhelmed, helplessness, fear, or despair are prominent. It is often about acute concerns that trigger a general sensation of overload and helplessness. It may also concern past issues that keep evoking feelings of distress (up to re-experiencing traumatic events). Often this form of crying manifests itself in conjunction with a moment of realization. The interactive function is somewhat weaker and especially less demanding than in protest crying: the perceived helplessness might trigger impulses in the other person to help, such as offering advice, comforting, *etc*. Within a grieving process, overwhelmed crying can be understood as an expression of the intermediate phase: there is hardly any (more) resistance towards the circumstances causing the suffering. Instead, the person seems to realize the (imminent) loss more and more, which triggers feelings of pain, insecurity, and instability.

Example. A patient talks about the relationship crisis with his partner. He looks downhearted, his facial

Table 1. Forms of emotional crying: summary table.

Category	Triggering event	Quality of crying	Interaction	(Non) acceptance
Protest crying	Feelings of anger, injustice, self-pity. Relationship conflicts, personal misfortune, guilt.	Complaining, protesting, defiant, offended.	Strong interactive function: demanding and validation seeking.	Nonacceptance and apparent resistance against the circumstances.
Overwhelmed crying	Feelings of helplessness and despair. Loss of control. Moments of realization.	Insecure, anxious and overwhelmed.	Medium interactive function: might trigger impulses to offer support.	Less resistance against the circumstances, realization of the (imminent) loss.
Crying in grief	Concrete loss, mostly in the past.	Deeply moved, but also calm and collected. Silent crying.	Hardly any interactive function.	Inner acceptance of circumstances.
Positive crying	Pleasant emotions, such as joy and gratitude. Long awaited events.	Smiling while crying. Deeply moved but calm.	Hardly any interactive function.	-

Table 2. Therapeutic interventions associated with crying: summary table.

Main category	Subscale	Description
Trigger of crying	Trigger of crying	Depicts the intensity of the intervention immediately before crying.
Responses to crying: addressing (Emotions are addressed and possibly intensified.)	Perceiving the here-and-now quality of the crying Exploring emotions Contextualizing the crying in an actively therapeutic manner	Emotions are perceived, contained, mirrored. Emotions, desires, thoughts, conflicts are explored. Emotions are contextualized with respect to biography, diagnosis, patterns.
Responses to crying: giving space (Guiding of the situation is left to the patient.)	Pause Letting Narrate	An intentional pause emerges. Patient has the (almost) exclusive speaking part.
Responses to crying: neutralizing (Emotions and tension are downregulated.)	Providing support in an actively therapeutic manner Exploring facts Initiating a change of topic/ending the session	Supportive interventions such as proposing solutions, reframing, normalizing. The triggering topic is explored on a factual level. Crying is ignored, a new topic is introduced, the session is ended.

expression is anguished: "I have the feeling that I don't know anything anymore. I feel like we still love each other, but at the same time we keep hitting the same dead ends. Sometimes I feel like we don't speak the same language anymore. Then I look at him and ask myself: who is this? Do I even know him? I feel like we want to be together somehow, but we don't know how to do that anymore." The patient starts crying, "I have no idea what to do."

Crying in grief is usually about a concrete loss, mostly in the past. Sometimes, it can also be about a current loss in progress, where the process of inner parting has already begun. The person seems emotionally moved but at the same time calm and collected. The crying is often more silent than in other categories. Within a grieving process, this category belongs to the third and final stage: an inner acceptance of the conditions causing the suffering is reached. Accordingly, crying hardly fulfills an interactive function anymore; there is no need to express any demands as the person appears at peace with themselves.

Example. A patient recalls the time when she took care of her husband at their home until he passed away. She appears collected and calm. Yet tears stream down her face. "It was a hard time. At some point he was no longer responsive, and I felt so lonely. After he died, of course, I felt even lonelier. It's been such a long time, and my life is very different today, but I carry him deep in my heart and think about him always."

Positive crying is a category that has a special position compared to the others because the triggering emotions are perceived as pleasant. This can be joy or gratitude, for example. Patients here often report events they have been long awaiting or working towards that have finally come true. Positive crying is usually associated with a past deprivation or need, yet the present positive emotion remains predominant (and crucial for the rating). Positive crying hardly fulfills a notable interactive function.

Example. A patient recounts her retirement party, where her former supervisor gave a thank-you speech for her years of outstanding work, "when I saw all my colleagues gathered there and my boss said all these nice things about me, it was an incredible feeling. It really made me feel so appreciated." The patient tears up while smiling.

Descriptive statistics and reliability: forms of emotional crying

Table 3 shows the absolute and relative frequencies of occurrence of the forms of emotional crying per rater and in total. Table 4 shows the specific reliabilities and the corresponding conditional probabilities for each category. With 46 crying scenes, the reliability of the forms of emotional crying is κ=.53, p<.001, confidence interval (CI) for κ [.45, .60]. According to Landis and Koch (1977), this can be considered a moderate agreement. The category positive crying occurred in the material upon which the rating system was developed, but not in the 46 scenes that underlie the analyses presented here. Therefore, this category is not included in the following reports. In the Discussion section, it is argued whether and why the category should be retained in the rating system for the time being.

Qualitative strand – rating system: therapeutic interventions associated with crying

The rating system of therapeutic interventions associated with crying specifies trigger of crying and responses to crying. Both are to be rated on interval scales. The trigger of crying is rated based on the intensity of the intervention that precedes the crying. Responses to crying are divided into three main categories, comprising a total of eight subscales, which are rated for each episode of crying.

Trigger of crying

For the rating of the trigger of crying it is necessary to start watching the video sequence right before the actual crying starts. For the present study, it was agreed to watch the sequence starting

Table 3. Forms of emotional crying: absolute and relative frequencies of occurrence.

	Protest crying		Overwhelmed crying		Crying in grief	
	Absolute	Relative (%)	Absolute	Relative (%)	Absolute	Relative (%)
Rater 1	15	32.6	24	52.2	7	15.2
Rater 2	16	34.8	29	63	1	2.2
Rater 3	15	32.6	22	47.8	9	19.6
Rater 4	17	37	25	54.3	4	8.7
Rater 5	17	37	27	58.7	2	4.3
Total	80	34.8	127	55.2	23	10

Table 4. Forms of emotional crying: measures of reliability.

Category	Fleiss' κ	Conditional probability
Protest Crying	.66***	.78
Overwhelmed crying	.50***	.78
Crying in grief	.28***	.35
Total	.53***	-

*p<.05; **p<.01; ***p<.001.

one minute before the crying started. The trigger of crying is rated on a scale from 0 to 3, increasing by intensity. Two questions are relevant: i) to what extent is the crying a result of a therapeutic intervention?; ii) how intense is this intervention?.

0 = no intervention

The crying starts by itself, *e.g.*, it is triggered by a certain topic. It is therefore not a direct consequence of a therapeutic intervention. Questions on a factual level are also included here.

> Example. "Can you describe this situation in more detail?"

1 = mild intervention

The crying is triggered by an intervention of the therapist, the intensity of which can be considered mild. Examples are paraphrasing or asking for concretization.

> Example. "What were you thinking about?"; "so you're caught between two stools?"

2 = moderate intervention

The crying is triggered by an intervention of the therapist, the intensity of which can be considered moderate. Examples include interpretations, uncovering possible emotions, thoughts or previously concealed connections between ideas or events.

> Example. "You're mediating again because that's what you've always done."; "I can see this makes you very sad."

3 = strong intervention

The crying is triggered by an intervention of the therapist, and the intensity of it can be considered strong. Such interventions include forceful confrontations, exposing contradictions, or challenging the patient to put something highly distressing into words.

> Example. "You talk about it so calmly, but actually you feel like crying."; "how does it feel to be truly worthless?"

The presumed intention of the therapist must always be taken into account when rating the trigger of crying. A seemingly neutral comment may trigger tears given a certain mood of the patient, although it may not have been the therapist's intention at all to evoke such strong emotions. Therefore, a simple "how are you?" taken out of context would be rated as 0 (no intervention) in most cases, whereas higher ratings allow to indicate a presumed intention of the therapist to provoke emotions on the part of the patient.

Responses to crying

The responses to crying are grouped into three main categories, further divided into a total of eight subscales. Each crying sequence is rated for therapeutic behavior across all eight scales. These scales comprise four levels, enabling the description of behavior in terms of its overall significance and relevance to the specific sequence being evaluated (ranging from 0 = not important to 3 = very important). Guiding questions when deciding on a level are: i) to what extent does the behavior in question play a determining role in the crying episode?; ii) how significant is the behavior in shaping the subsequent course of the situation following the crying episode?

A distinct response, which corresponds to a rating on the relevant scale, may consist of a single statement deemed sufficiently relevant or it may encompass entire behavioral sequences. Generally, minor actions or queries are not rated as discrete responses (scored as 0 = not important) unless they significantly impact the situation's progression. Thus, each behavior is evaluated in relation to the entirety of the sequence.

Main category 1: addressing

The essential criterion of this category is that the therapist addresses the expressed or underlying emotions. The intention is to maintain the emotional tenseness or to even enhance it.

Three subscales are distinguished: i) perceiving the here-and-now quality of the crying – the emerging emotions are addressed in the present session situation. They are perceived, contained, and mirrored (examples: "you're very moved by this."; "now as the tears are flowing, I can feel your pain."); ii) exploring emotions – the triggering element is further explored on an emotional level. Desires, thoughts, and conflicts are analyzed. The therapist seeks to understand backgrounds and connections with a curious mindset (examples: "what is so hurtful about it?"; "what kind of images come to you?" "there's something you're lacking that you'd actually like in your life?"); iii) contextualizing the crying in an actively therapeutic manner – the therapist intervenes more actively here by introducing a new aspect through for example a deepening interpretation of the crying. They contextualize the emotional manifestation with respect to the patient's history, typical conflicts, or relationship patterns. Such interventions usually presuppose a certain degree of therapeutic relationship because they require prior knowledge about the patient (examples: "no matter how hard you try to deny the anger you feel towards your mother, it's there."; "seeing your daughter, you yourself become a child again and experience your own abuse all over again.").

Simplified, it could be postulated that the first scale characterizes interventions perceiving the emotions in the here-and-now, the second scale portrays interventions exploring the there-and-then of emotions (*e.g.*, Where do they come from?), and the third scale represents interventions that create a connection between the two, with the therapist contextualizing the crying actively by providing *e.g.* an interpretation.

Main category 2: giving space

This category differs from the other two in that no explicit therapeutic intervention can be identified.

Two subscales are distinguished, which have in common that the therapist does not try to direct the situation but leaves the guiding to the patient, allowing any possible course of the scene: i) pause – the therapeutic pause, distinguished from natural conversational breaks, is a deliberate interruption initiated by the therapist. Instances where the patient is solely engaged in cognitive processing or word retrieval are excluded; ii) letting narrate – the patient has the (almost) exclusive speaking part without the therapist intervening. Shorter pauses in speech are not interrupted by the therapist. Topic changes are tolerated. There may be brief interjections by the therapist to maintain the patient's flow of speech. If the patient's remarks are clearly attributable to a question previously asked by the therapist, this is explicitly not intended by this scale.

Main category 3: neutralizing

This category refers to behavior aimed at neutralizing the emotionally charged situation in a sense of downregulating the tension and arousal.

The category is subdivided into three subscales: i) providing support in an actively therapeutic manner – the therapist intervenes in a comforting and supportive manner. Typical approaches include proposing solutions and new perspectives, encouraging rethinking and reinterpretation, reframing, or normalizing emotions. Body-based exercises aimed at reducing tension are also common. Analogous to contextualizing the crying in an actively therapeutic manner subscale, the interventions have a prototypical therapeutic character, with the main difference that the emotionality here is to be alleviated rather than intensified (examples: "that's what we're working on now."; "it's good to talk about such fears."; "I think there's an opportunity in that, even if it's hard at first."); ii) exploring facts – the triggering topic is explored on a factual level. The therapist asks the patient to describe a situation in more detail. Mostly, these are comprehension questions. An important criterion is that the questions stick to the triggering topic. It is similar to the exploring emotions subscale, with the difference that here the focus is not on the emotional but on the factual level (examples: "how did this happen?"; "how old were you then?"; "what did your mother die of?"); iii) initiating a change of topic/ending the session – the crying is ignored. A new topic or aspect is introduced, or the session is ended. It is the only scale where the therapist actively directs attention away from the emotionality and the triggering issue. This scale does not include the case where the patient themselves distracts from the topic and the therapist just follows along (examples: "where did you live back then?"; "you also mentioned your brother earlier. Can you tell me more about him?").

Descriptive statistics and reliability: therapeutic interventions associated with crying

As described above, all of the eight subscales of responses to crying as well as the trigger of crying are rated on a 4-point scale (0-3). Table 5 shows the descriptive parameters relevant to the distribution found. As a measure of reliability, the ICC between the four raters was calculated based on 46 crying scenes. Following the best practice recommendations of Koo and Li (2016) a 2-way random model (ICC2) was chosen. Since the calculations within the quantitative strand were based on the mean values of the raters, the appropriate type of ICC was adopted. Absolute agreement was established as definition. Koo and Li (2016) set stricter standards for the interpretation of the ICC than other authors (compare Wirtz & Caspar, 2002). They define values below .5 as poor reliability, values between .5 and .75 as moderate, .75 to .9 as good, and values above .9 as excellent. The ICC reached across all scales of the therapeutic interventions associated with crying is ICC=.83, and can thus be considered good (ICC=.97 for trigger of crying and ICC=.81 for responses to crying). Table 5 shows the ICC for each scale.

Quantitative strand – application of the rating systems

The relationship between forms of emotional crying and therapeutic interventions associated with crying was explored through linear regression analyses based on the same 46 scenes. The statistical assumptions for multiple linear regressions were not met. Graphically and backed up by the Shapiro-Wilk test, it was found that the residuals are not normally distributed. Also, graphical analysis revealed heteroskedasticity. This in particular cannot be disregarded as it biases the estimates of the standard errors, rendering the interpretation of the significances and CI imprecise. To address this, BCa-bootstrapping was performed, allowing interpretation independently of distribution characteristics. From the present sample, 10,000 random samples were drawn to estimate robust standard errors. This way, CI could be interpreted, although the resulting p values are not reliable. A total of ten linear regressions were calculated; in nine of them, the forms of emotional crying represented the IV, with each of the nine scales of therapeutic interventions associated with crying representing the corresponding DV. The IV was dummy-coded here (with overwhelmed crying as the reference category). In addition, another model was calculated in which the trigger of crying was included as IV predicting the respective responses to crying as DV. All regressions were calculated both regularly and using bootstrapping to put them in perspective. The results of the regular regressions are reported first, followed by the coefficients of the bootstrapping method.

Table 5. Therapeutic interventions associated with crying: descriptive statistics and intraclass correlation coefficients.

Scale	Level 0	Level 1	Level 2	Level 3	M	SD	Min	Max	ICC[a]
Trigger	72	33	32	47	1.29	1.23	0	3	.97***
Address 1	146	19	15	4	.33	.72	0	3	.90***
Address 2	118	26	27	13	.65	.98	0	3	.84***
Address 3	101	23	28	32	.95	1.18	0	3	.82***
Giving 1[b]	173	8	3	0	.08	.32	0	2	.73***
Giving 2	104	40	35	5	.68	.88	0	3	.85***
Neutral 1	118	24	22	20	.70	1.05	0	3	.80***
Neutral 2	98	51	33	2	.67	.81	0	3	.63***
Neutral 3	169	4	6	5	.17	.61	0	3	.90***

Based on the ratings of all four raters, *i.e.*, a total of 184 ratings per scale; address 1, perceiving the here-and-now quality of the crying; address 2, exploring emotions; address 3, contextualizing the crying in an actively therapeutic manner; giving 1, pause; giving 2, letting narrate; neutral 1, providing support in an actively therapeutic manner; neutral 2, exploring facts; neutral 3, initiating a change of topic/ending the session; ICC, intraclass correlation coefficients; [a]model, 2-way random, mean measures, absolute agreement; [b]ICC based on three raters only, since the fourth rater never rated this scale higher than 0; M, mean; SD, standard deviation; *p<.05; **p<.01; ***p<.001.

Forms of emotional crying as independent variables

Here, only one regression proved to be significant: the form of crying significantly influences the realization of the scale, Providing support in an actively therapeutic manner*:* protest crying leads less often to this intervention (β=-.33; p=.026), explaining R^2=.14 (p=.042; corr. R^2=.10) of the variance, corresponding to a moderate explanation of variance (Cohen, 1988). Using bootstrap (95% CI) the results could be verified as the CI for the regression coefficient of the category protest crying for the scale providing support in an actively therapeutic manner did not include 0 (B=-.56, CI [-.96, -.14]). Bootstrapping also produced other significant results: crying in grief and the trigger of crying appear to be significantly connected (B=-1.41, CI [-1.86, -.96]), indicating that crying in grief (in contrast to overwhelmed crying) is rather not actively triggered by therapeutic intervention. These parameters are based on the drawing of 8686 samples and using the percentile method. Due to the low base rate of crying in grief, it did not appear in some drawings, which were therefore excluded. Thus, the respective results must be interpreted in terms of these difficulties. Moreover, the CI of the regression coefficient of the category crying in grief for the scale pause did not include 0 (B=-.17, CI [-.36, -.02]) as well as the one for the scale initiating a change of topic/ending the session (B=-.27, CI [-.56, -.04]). Crying in grief is less likely to be followed by these two interventions.

Trigger as independent variable

The corresponding figures are presented in Table 6. The more intense the trigger, the more likely the following interventions seem to occur: contextualizing the crying in an actively therapeutic manner, pause and initiating a change of topic/ending the session. Furthermore, the more intense the trigger, the less likely exploring facts will occur.

The results suggest that there are typical interaction patterns in crying episodes, in that certain forms of emotional crying are associated with certain therapeutic interventions and *vice versa*. However, this is only true for some scales and categories. In addition, significant correlations were found within therapeutic interventions, *i.e.*, between triggers of crying and responses to crying. In general, the results are to be interpreted with caution, as certain scales and categories have low variance, resulting in limited reliability of the findings. The analyses are first and foremost explorative, which should always be kept in mind when interpreting them. Limitations and implications are critically assessed in the Discussion section.

Discussion

The aims of this study were i) to develop a rating system for different forms of patient crying; ii) to develop a rating system for therapist interventions associated with patient crying; iii) to analyze the interaction between therapist and patient when it comes to crying in psychotherapy. The relevant findings as well as limitations and potential future directions are discussed in this section.

Forms of emotional crying

The question of different forms of crying led to the creation of a category system comprising four such forms. It appears particularly noteworthy that we did not follow a theory-based but a material-based approach and nevertheless arrived at very comparable conclusions to those of Nelson (2005), albeit with major differences in other parts. As described above and referring to Kübler-Ross (1977) and Kast (1982, 1988), the categories can also be interpreted as manifestations of stages within a grieving process, reflected in the dimensions of the interactive function and the (non)acceptance of the triggering events. This reasoning also follows Nelson's (2005) observations.

Interrater agreement was highest for protest crying and can be considered substantial (Landis & Koch, 1977). It is conceivable that this form is particularly easy to identify due to its strong interactive function. A clear parallel to Nelson's (2005) protest crying category is evident here. Nelson (2005), too, describes the accusatory character and the corresponding refusal to accept the events causing the suffering. The almost aggressive interactive demand for care and affirmation can also be found in her conceptualization. Within the grieving process, protest crying represents the first stage. Similar to the phase of anger in Kübler-Ross (1977), it is about the question "why me?". Responsibility and blame are sought externally, and validation is demanded. Also, Kast (1982, 1988) describes a combination of anger and guilt in the phase of emotional chaos, which actually conceals a feeling of powerlessness.

This powerlessness comes to the fore in overwhelmed crying. In our data, this category was by far the most frequently

Table 6. Linear regressions of the trigger of crying (independent variable) on all scales of therapeutic responses (dependent variables).

	Trigger (IV)					Bootstrap[a]	
Scale (DV)	B	SE B	β	R^2	Corr. R^2	B	CI
Address 1	-.12	.08	-.22	.05	.03	-.12	[-.26, .03]
Address 2	-.06	.10	-.08	.01	-.02	-.06	[-.25, .15]
Address 3	.43	.10	.54***	.29***	.27***	.43**	[.22, .63]
Giving 1	.10	.04	.33*	.11*	.09*	.10	[.01, .22][b,c]
Giving 2	-.17	.09	-.27	.08	.05	-.17*	[-.32, .01]
Neutral 1	.15	.10	.22	.05	.03	.15	[-.05, .36]
Neutral 2	-.19	.06	-.41**	.17**	.15**	-.19**	[-.31, -.08]
Neutral 3	-15	.06	.32*	.11*	.09*	.15	[.02, .29]

SE, standard error; CI, confidence interval; IV, independent variable; DV, dependent variable; address 1, perceiving the here-and-now quality of the crying; address 2, exploring emotions; address 3, contextualizing the crying in an actively therapeutic manner; giving 1, pause; giving 2, letting narrate; neutral 1, providing support in an actively therapeutic manner; neutral 2, exploring facts; neutral 3, initiating a change of topic / ending the session; [a]coefficients for bootstrap, based on 10,000 iterations; [b]based on 9988 iterations; [c]based on the percentile method; *p<.05; **p<.01; ***p<.001.

rated with a moderate interrater agreement (Landis & Koch, 1977). Notably, there is a discernible trend where agreement decreases proportionally with the strength of the interactive function across different forms of crying. This underscores the potential significance of the interactive function as a diagnostic indicator, warranting further exploration in future studies. The high incidence of overwhelming crying in the context of psychotherapy is intriguing. One could hypothesize that this phase causes the greatest distress, and therefore it might be precisely here that professional help is sought. This is consistent with the interactive function: the patient seeks support and is perceived as helpless and desperate. The absence of defiant protesting coincides with the onset of a realization process, triggering feelings of loss of control. There is no equivalent to this form in Nelson (2005). She only distinguishes between protest crying and sad crying of despair, which more or less corresponds to crying in grief in the present rating system.

Overwhelmed crying can thus be classified as a transitional stage between protest crying and crying in grief. A similar intermediate stage is also found in Kast (1982, 1988) in the phase of search and separation. There too, a sense of powerlessness and despair, unleashed by an incipient process of confrontation, predominates. Further analogies can be seen with respect to Kübler-Ross' (1977) conceptualization. In overwhelmed crying, the situation is not yet fully accepted, and advice, support, and thus indirect postponement are sought. Remorse often plays a role. These are all characteristics also described in the phase of bargaining described by Kübler-Ross (1977). In the incipient phase of depression, feelings of despair and anxiety surface as the loss is realized, initiating preparation for a farewell. All these are equally characteristic of overwhelmed crying. The second form of depression described by Kübler-Ross (1977) is much calmer and can be assigned to crying in grief. The patient seems to be in touch with themselves, and a genuine and deep emotion is palpable. This is accompanied by an increasing acceptance of the events, and no more demands are made towards the other person/therapist. The final stage of acceptance is then reached. Kast (1982, 1988) describes similar processes of acceptance and an emerging peace in the phase of a new relationship with oneself and the world. The equivalent within Nelson's (2005) conceptualization is found in the sad crying of despair. Nelson (2005) stresses the importance of this phase in terms of processing a loss.

Crying in grief was the least rated in this sample and showed only fair agreement (Landis & Koch, 1977). The smaller reliability may have several reasons. The very low base rate is certainly a central problem. It was also noticeable that there were certain rater tendencies. This is discussed as a general problem below. Nevertheless, this was particularly striking in this form of crying. Another problem could be the strong linguistic similarity of the terms grief (*Trauer*) and sadness (*Traurigkeit*) in the original German, and thus a confusion of the two since sadness is probably fundamentally associated with any kind of crying.

The detached noncrying described by Nelson (2005) finds no counterpart in the present rating system. The same applies to the stage of denial described by both Kübler-Ross (1977) and Kast (1982, 1988). This makes sense since, in the present work, only scenes were examined in which crying actually occurred, while all three forms just mentioned are characterized by an absence of such (visible) emotionality. Grieving does not (yet) take place here or is blocked. In future work, it could be worthwhile to analyze this in more detail.

The category of positive crying stands out in many respects. It was not rated at all in the final sample of 46. For various reasons, it was nevertheless decided to keep it in the rating system and propose it for further research. First, it did occur in the videos that served as the basis for creating the rating system. Second, it seems plausible that this form of crying probably plays a secondary role in the particular context of psychotherapy. Nevertheless, this does not mean that it does not exist at all. There was intense discussion in the rater group about whether positive crying was really a distinct form and not a concealed crying in grief since the supposedly positive occasion was always related to a preceding lack or deprivation. It was intersubjectively agreed that it is nevertheless to be regarded as a distinct form since the acute positive emotion of, *e.g.*, gratitude or relief appears predominant. Another peculiarity is that it cannot be assigned to the stages of grief described above. In general, it has hardly played a role in clinical-psychological research so far. Only in studies with subclinical populations are similar forms reported (*e.g.*, sentimental crying in Denckla *et al.*, 2014). The mention in the literature is another argument for keeping it in the rating system. However, this needs to be explicitly addressed in future (clinical) research.

Therapeutic interventions associated with crying

When dealing with therapeutic behaviors and interventions around crying, a subdivision into a trigger of crying and responses to crying turned out to be useful. Interrater reliability for responses to crying was good; for trigger of crying, it was even excellent. With regard to the latter, there are clear parallels to the findings of Capps *et al.* (2015). The most common interventions described by the authors are also found in the present study, such as focusing on desires or early memories and encouraging people to explore and express emotions. The therapeutic responses to crying are rated on eight scales. The metric scale level as well as the possibility to rate behavior on multiple scales have both pros and cons. On one hand, complex processes are better accounted for by allowing a more comprehensive description of behavior. A metric scale level is also useful in terms of statistical operations. On the other hand, the rating consequently becomes more complicated and possibly more prone to error. Particularly in longer crying sequences, the picture appeared to become more ambiguous, rendering accurate ratings on all scales difficult.

The main category of addressing was rated the most, suggesting a significant emphasis on emotional expression in therapy. Crying serves as a pertinent signal, prompting therapists to engage with accompanying emotions. The scale of contextualizing the crying in an actively therapeutic manner received the highest ratings. This illustrates the contrasting approaches to crying in everyday life and therapy, underscoring the importance of studying crying within this specific context. In psychotherapy, tension arises between the bonding function of crying and the therapeutic imperative to refrain from immediately indulging comforting impulses, striving instead for judiciously balanced interventions. The main category of giving space sparked discussion. Questions arose, such as: how long must a pause last for it to be considered intentional? How long does a patient have to talk at a stretch for it to be considered noteworthy? Despite challenges in defining criteria, moderate to good reliability was achieved. It was evident that pause received low ratings overall. This may be due to either the small sample size or methodological issues. Alternatively, it could suggest an actual scarcity of pauses in crying scenes. Also, the realization of a pause

depends strongly on the patient. Even if a therapist intends one, it can only come about if the patient permits it. Both scales within this main category share this characteristic of the patient largely directing the course of the situation, with the therapist adopting a passive stance. The consequences for the course of the situation may vary considerably. While a pause often provides space for emotions to persist, prolonged pauses may lead to the patient regaining composure. Letting narrate can also lead to different outcomes: it may assist in regaining composure by interrupting the flow of crying, yet it can also maintain or intensify emotional expression. The main category of neutralization showed moderate-to-good ICC values. With ICC=.63, the scale exploring facts exhibited the lowest reliability of the whole rating system. It is not quite clear why this is, especially since the behavior described within this scale seems rather straightforward. Perhaps this is, in fact, what has contributed to the scale being neglected in the rating process. The results show that the scale tended to be rated only at medium to low intensity. It is possible that some raters used it to map short intermediate questions, while others would not map them at all. Rating criteria need to be refined here.

The category of neutralization is also interesting as it mirrors the instinctive response to crying observed in everyday situations. When individuals cry, the typical reaction is to alleviate emotional tension through comforting gestures or by diverting attention from their grief. The scale of providing support in an actively therapeutic manner takes on a special role because while it contains this very comforting quality, the corresponding interventions can still be considered prototypically psychotherapeutic. Initiating a change of topic/ending the session hardly occurred in our data. This seems plausible since ignoring crying appears to be a rather inappropriate therapeutic behavior. For the analysis of therapeutic interventions, we deliberately adopted a cross-method approach: CBT and PDT video sequences were included in equal proportions to develop a system valid for both. For this reason, and because of the extensive analyses already performed, we did not compare the two procedures in terms of interventions. This could be focused on in future studies.

Interactional patterns: the rating systems combined

Some statistical relationships between forms of emotional crying and therapeutic interventions associated with crying were found. Given the exploratory nature of the analyses and inherent statistical challenges, the validity here is limited (see Limitations and Future Directions for a more detailed description of the statistical problems). However, our results may be understood as indications of trends upon which hypotheses for future research can be derived. A few particularly interesting ones will be looked at in more detail. For example, it was found that providing support in an actively therapeutic manner plays an important role, especially in the case of overwhelmed crying. Given the interactive function of the latter, this connection seems conclusive: desperate helplessness causes the therapists to act supportively and to help the patient get out of the acute distress. In this case, the reaction suggested by the crying is indeed acted upon: the call for help is met with an offer of help. Also, overwhelmed crying seems to be triggered more actively than crying in grief. It is conceivable that challenging interventions raise patients' awareness of the degree of their current distress and helplessness, resulting in an outburst of emotion.

In this context, it also makes sense that the intensity of the trigger of crying is a strong predictor for contextualizing the crying in an actively therapeutic manner. A typical pattern of interaction seems to emerge here: the therapist intervenes intensely, focusing emotions or confronting the patient (trigger of crying). The patient responds with overwhelmed crying, whereupon the therapist stays with the emotions and works through them in a therapeutic way (contextualizing the crying in an actively therapeutic manner). Associations between crying in grief and pause, as well as initiating a change of topic/ending the session, emerged, yet their meaning is not entirely plausible. It might be that crying in grief does not require verbal therapeutic action but rather space (pause) for a silent process. Initiating a change of topic in response to crying in grief might indicate to the therapist that no further deepening is needed and that it can be moved on.

The trigger of crying was also found to be a predictor of some responses to crying. The influence of contextualizing the crying in an actively therapeutic manner has already been discussed. In addition, therapists seem to be less likely to explore facts after they have been actively involved in triggering the crying. This makes sense, as a therapist who focuses on emotionality in one moment might not be interested in switching to the factual level immediately after. There were also indications that when the trigger of crying was intense, pausing and initiating a change of topic/ending the session were more probable. Again, we may speculate that therapists may want to give space after an intense trigger for the emotions and accompanying realizations to unfold (expressed in a pause). Then again, there may also be situations in which therapists feel that a confrontation was too intense so they initiate a change of topic to relieve the patient again. The CI after bootstrapping only slightly did not include zero. As mentioned above, the findings for these two scales should be interpreted with caution.

Limitations and future directions

Various limitations and resulting implications for future research have already been pointed out in the relevant sections. Some of the difficulties of the study lie in the nature of qualitative research. For example, a certain degree of subjectivity cannot and should not be avoided (Mey & Mruck, 2010). The research process was documented throughout, and a continuous discourse was facilitated in the research groups, aiming at a common understanding of terms and definitions. Nevertheless, rater tendencies cannot be avoided. Particularly with regard to the forms of emotional crying, it became apparent that in some cases, different foci were set. The formulation of guiding questions aimed to mitigate these tendencies by establishing a shared focus while avoiding excessive rigidity. Nonetheless, introducing a more detailed rating sheet, incorporating hierarchical decision rules could prove advantageous. However, it is essential to carefully balance the level of standardization to prevent the loss of pertinent information.

Difficulties also arose from the varying durations of the crying scenes. Longer scenes in particular may have resulted in a loss of precision in the rating. Owing to the rather naturalistic approach, this was deliberately accepted. Also, longer scenes might provide other benefits instead, such as providing more clues for rating. In future studies, this could be taken into account statistically.

Overall, the reliability parameters can be considered adequate up to very good. However, for some categories and

scales, a higher level of agreement would be desirable. Also, some scales and categories were barely rated in our data set, which poses a problem for the robustness of the quantitative operations. The question here is whether the behavior in question is in fact rare and a larger sample would remedy this, or whether this indicates deficiencies in the rating systems. A replication of the findings using a larger sample is therefore strongly indicated. Although the present sample size of 46 was considered sufficient in the context of an exploratory study, it is a relatively arbitrary number. The selection was driven by the availability of relevant, unrated sequences while ensuring a balanced representation of both treatment methods, and not based on power calculations or other prior considerations. A larger sample size is also essential to reduce the influence of individual therapists, patients, and sessions. While we restricted it to three sequences per session and four sequences per patient, this cutoff was rather randomly set. In connection with the small sample, difficulties also arose in the implementation of bootstrapping. For rarely rated categories, bootstrap values were determined based on fewer than 10,000 iterations and by using the percentile method, which is generally less accurate than the BCa method. Another statistical problem is α-error accumulation. For various reasons and after careful consideration, it was decided against a Bonferroni correction. This was mainly based on the reasoning of Perneger (1998). Central was, among other things, that the probability of committing a β-error was much higher in this sample and would have been increased further by a Bonferroni correction. But also, as already explained, because the analyses were explorative and not aimed at hypothesis testing.

Aspects that could be addressed in future research on the topic are: the influence of treatment methods, work experience of therapists, changes over the course of therapy, diagnosis, or other patient features. Also, the findings of this study should be backed up and expanded using a different methodological approach, as well as the associations that emerged statistically should be further explored with a larger sample and hypothesis testing. Despite the effort towards method neutrality, it would certainly be enriching for future studies to actively involve CBT researchers (as well as researchers of other psychotherapy methods) in the research process, as both authors of this study are psychodynamically oriented. As mentioned above, it is clinically relevant to also look at noncrying, *i.e.*, to investigate scenes in which crying might be expected but does not occur or is suppressed. In the sense of a process-outcome study, (non)crying as a process variable could be investigated more intensively with regard to overall therapy success. The question of the transfer of the forms of emotional crying to a subclinical sample might also be an interesting consideration. Overall, there are many points of departure to further explore the nomological web surrounding the phenomenon of crying in psychotherapy.

Conclusions

The study highlights the potential of addressing the phenomenon of crying in psychotherapy research by identifying nuanced distinctions between different forms of crying and their potential impact on the therapeutic process. An important starting point for understanding this significance lies in interpreting the forms of crying as reflecting the different stages of a grieving process. In addition, the study identifies typical therapeutic behaviors in response to crying and uncovers patterns of interaction that suggest an underlying logic in crying episodes and inspire further investigation. To our knowledge, this work represents the first systematic analysis of the interactive dynamics during crying episodes within real therapy sessions, approached from an observational and process-oriented perspective. Despite its limitations, the study provides a substantial contribution to the understanding of crying in psychotherapy. We see promise in delving deeper into the role of crying in therapy to grasp how tears might influence therapeutic outcomes.

References

Barthelmäs, M., Kesberg, R., Hermann, A. & Keller, J. (2022). Five reasons to cry – FRC: a taxonomy for common antecedents of emotional crying. *Motivation and Emotion, 46*(3), 404-427. doi: 10.1007/s11031-022-09938-1.

Blume-Marcovici, A. C., Stolberg, R. A., & Khademi, M. (2013). Do therapists cry in therapy? The role of experience and other factors in therapists' tears. *Psychotherapy, 50*(2), 224-234. doi: 10.1037/a0031384.

Bylsma, L. M., Gračanin, A., & Vingerhoets, A. J. J. M. (2021). A clinical practice review of crying research. *Psychotherapy, 58*(1), 133-149. doi: 10.1037/pst0000342.

Capps, K. L., Fiori, K., Mullin, A. S. J. & Hilsenroth, M. J. (2015). Patient crying in psychotherapy: Who cries and why?. *Clinical Psychology and Psychotherapy, 22*(3), 208-220. doi: 10.1002/cpp.1879.

Capps Umphlet, K. L., Fiori, K. L., Mullin, A. S., Cain, L. A., & Hilsenroth, M. J. (2021). Patient crying during psychotherapy intake sessions: relationship to patient characteristics and early treatment process. *Clinical Psychology & Psychotherapy*, *28*(6), 1482-1493. doi: 10.1002/cpp.2584.

Cohen, J. (1988). Set correlation and contingency tables. *Applied psychological measurement*, *12*(4), 425-434. doi: 10.1177/014662168801200410.

Creswell, J. W. (2003). *Research design: qualitative, quantitative, and mixed methods approaches* (2. Aufl.). Sage Publications.

Creswell, J. W. (2015). *A concise introduction to mixed methods research*. Sage Publications.

Denckla, C. A., Fiori, K. L. & Vingerhoets, A. J. J. M. (2014). Development of the crying proneness scale: associations among crying proneness, empathy, attachment, and age. *Journal of Personality Assessment, 96*(6), 619-631. doi: 10.1080/00223891.2014.899498.

Fleiss, J. L. (1971). Measuring nominal scale agreement among many raters. *Psychological Bulletin, 76*(5), 378-382. doi: 10.1037/h0031619.

Frijda, N. H. (2012). Foreword. In A. J. J. M. Vingerhoets & R. R. Cornelius (Hrsg.), *Adult crying: a biopsychosocial approach* (S. XIII-XVII). Routledge. doi: 10.4324/9780203717493

Genova, F., Zingaretti, P., Gazzillo, F., Tanzilli, A., Lingiardi, V., Katz, M. & Hilsenroth, M. (2020). Patients' crying experiences in psychotherapy and relationship with working alliance, therapeutic change and attachment styles. *Psychotherapy, 58*(1), 160-171. doi: 10.1037/pst0000339.

Gračanin, A., Bylsma, L. M. & Vingerhoets, A. J. J. M. (2018). Why only humans shed emotional tears. *Human Nature, 29*(2), 104-133. doi: 10.1007/s12110-018-9312-8.

Gwet, K. L. (2014). *Handbook of inter-rater reliability: the definitive guide to measuring the extent of agreement among raters.* Advanced Analytics, LLC.

Hilsenroth, M. J., Blagys, M. D., Ackerman, S. J., Bonge, D. R., & Blais, M. A. (2005). Measuring psychodynamic-interpersonal and cognitive-behavioral techniques: development of the comparative psychotherapy process scale. *Psychotherapy: Theory, Research, Practice, Training*, *42*(3), 340-356. doi: 10.1037/0033-3204.42.3.340.

Kast, V. (1982). *Trauern. Phasen und chancen des psychischen prozesses*. Kreuz Verlag. [Book in German].

Kast, V. (1988). *A time to mourn: growing through the grief process*. Daimon Verlag.

Katz, M., Ziv□Beiman, S., Rokah, N., & Hilsenroth, M. (2022). Crying in psychotherapy among Israeli patients and its relation to the working alliance, therapeutic change and attachment style. *Counselling and Psychotherapy Research*, *22*(2), 439-457. doi: 10.1002/capr.12458.

Knox, S., Hill, C. E., Knowlton, G., Chui, H., Pruitt, N. & Tate, K. (2017). Crying in psychotherapy: the perspective of therapists and clients. *Psychotherapy, 54*(3), 292-306. doi: 10.1037/pst0000123.

Koo, T. K., & Li, M. Y. (2016). A guideline of selecting and reporting intraclass correlation coefficients for reliability research. *Journal of Chiropractic Medicine*, *15*(2), 155-163. doi: 10.1016/j.jcm.2016.02.012.

Kübler-Ross, E. (1977). *Interviews mit Sterbenden.* Kreuz Verlag. [Book in German].

Kuckartz, U. (2014). *Mixed methods: methodologie, forschungsdesign und analyseverfahren.* Springer VS Wiesbaden. doi: 10.1007/978-3-531-93267-5. [Book in German].

Landis, J. R. & Koch, G. G. (1977). The measurement of observer agreement for categorical data. *Biometrics, 33*(1), 159-174. doi: 10.2307/2529310.

Levitt, H. M. (2020). Methodological integrity: establishing the fidelity and utility of your research. In H. M. Levitt, *Reporting qualitative research in psychology: how to meet APA style journal article reporting standards* (Revised Edition, pp. 29-41). American Psychological Association. doi: 10.1037/0000179-003.

Levitt, H. M. (2021). *Essentials of critical-constructivist grounded theory research*. American Psychological Association. doi: 10.1037/0000231-000.

Mey, G. & Mruck, K. (Hrsg.). (2010). *Handbuch qualitative forschung in der psychologie.* VS Verlag für Sozialwissenschaften. doi: 10.1007/978-3-531-92052-8. [Book in German].

Meyer, V. (2009). Der körper als ein führer durch das tal der tränen. *Psychotherapeut, 54*(2), 139-144. doi: 10.1007/s00278-009-0660-z. [Article in German].

Mills, C. K. & Wooster, A. D. (1987). Crying in the counselling situation. *British Journal of Guidance and Counselling, 15*(2), 125-130. doi: 10.1080/03069888700760161.

Nelson, J. K. (2005). *Seeing through tears. Crying and attachment.* Routledge. doi: 10.4324/9780203955758.

Nichols, M. P. & Efran, J. S. (1985). Catharsis in psychotherapy: a new perspective. *Psychotherapy: Theory, Research, Practice, Training, 22*(1), 46-58. doi: 10.1037/h0088525.

OPD Taskforce, (Ed.). (2008). Operationalized psychodynamic diagnosis OPD-2: manual of diagnosis and treatment planning. Hogrefe.

Perneger, T. V. (1998). What's wrong with Bonferroni adjustments. *Bmj, 316*, 1236-1238. doi: 10.1136/bmj.316.7139.1236.

Rydé, K., Friedrichsen, M. & Strang, P. (2007). Crying: a force to balance emotions among cancer patients in palliative home care. *Palliative & Supportive Care, 5*(1), 51-59. doi: 10.1017/s1478951507070071.

Strauss, A., & Corbin, J. (1990). *Basics of qualitative research*. Sage Publications.

Strauss, A. & Corbin, J. M. (1997). *Grounded theory in practice*. Sage Publications.

't Lam, C., Vingerhoets, A. J. J. M. & Bylsma, L. (2018). Tears in therapy: a pilot study about experiences and perceptions of therapist and client crying. *European Journal of Psychotherapy & Counselling, 20*(2), 199-219. doi: 10.1080/13642537.2018.1459767.

Vingerhoets, A. J. J. M. (2013). *Why only humans weep: unravelling the mysteries of tears*. Oxford University Press. doi: 10.1093/acprof:oso/9780198570240.001.0001.

Vingerhoets, A. J. J. M. & Bylsma, L. M. (2016). The riddle of human emotional crying: a challenge for emotion researchers. *Emotion Review, 8*(3), 207-217. doi: 10.1177/1754073915586226.

Wirtz, M. A. & Caspar, F. (2002). *Beurteilerübereinstimmung und Beurteilerreliabilität: Methoden zur Bestimmung und Verbesserung der Zuverlässigkeit von Einschätzungen mittels Kategoriensystemen und Ratingskalen.* Hogrefe. [Article in German].

Zingaretti, P., Genova, F., Gazzillo, F. & Lingiardi, V. (2017). Patients' crying experiences in psychotherapy: Relationship with the patient level of personality organization, clinician approach, and therapeutic alliance. *Psychotherapy, 54*(2), 159-166. doi: 10.1037/pst0000110.