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Recovered memories in psychotherapy: a survey of practicing psychotherapists in Germany

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ABSTRACT

We report on a survey of 258 psychotherapists from Germany, focusing on their experiences with memory recovery in general, suggestive therapy procedures, evaluations of recovered memories, and memory recovery in training and guidelines. Most therapists (78%) reported instances of memory recovery encompassing negative and positive childhood experiences, but usually in a minority of patients. Also, most therapists (82%) reported to have held assumptions about unremembered trauma. Patients who held these beliefs were reported by 83% of the therapists. Both therapist and patient assumptions reportedly occurred in a minority of cases. Furthermore, 35% of participants had used therapeutic techniques at least once to recover presumed trauma memories. Only 10% reported assuming trauma in most patients and recovering purported memories in a majority of the attempts. A fifth believed memory recovery was a task of psychotherapy. This belief correlated with trauma assumptions, memory recovery attempts, and recovery frequency. Psychodynamic therapists more often reported to assume trauma behind symptoms and agreed more with problematic views on trauma and memory. No differences showed regarding suggestive behaviour in therapy. Most participants expressed interest in receiving support on dealing with memory recoveries. This interest should be taken up, ideally during therapist training.

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Recovered memories; psychotherapy; false memories; suggestive therapy; suggestion

Memory recovery refers to the subjective experience of remembering purported events that have not been retrieved for an extended period of time (Meyersburg, 2015). Much in this field has focused on the recovery of false traumatic childhood memories after a search process in suggestive psychotherapeutic settings (Lindsay & Read, 1994; Lynn et al., 2015), altough purported memories can also be recovered through media exposure or discussions with peers (Dodier & Patihis, 2021), or spontaneously without suggestion involved (McNally & Geraerts, 2009). Nonetheless, memory recovery in psychotherapeutic practice has rarely been investigated, and our knowledge about its actual occurrence during psychotherapy remains limited. To address this research gap, we surveyed the experiences of psychotherapists with memory recovery in general, the details and frequencies of suggestive trauma recovery procedures they apply, how they evaluate purportedly recovered memories and their views on trauma and memory, and whether memory recovery is covered in training and guidelines. Note that throughout this article, we will sometimes use the terms "memory", "memory recovery" and "recovered memories" even though it is mostly unclear whether the remembered events took place.

How suggestive psychotherapy can lead to false memory recovery

Most research on false memory recovery has been predominantly driven by discussions surrounding potentially suggestive psychotherapies (Lindsay & Read, 1994). These discussions peaked in the 1990s, when an increasing number of patients in the USA (Patihis & Pendergrast, 2019a) and parts of Europe (Dodier et al., 2019) recovered purported memories of childhood sexual abuse during therapy (Lynn et al., 2023; Otgaar et al., 2019). This led to a growing body of research demonstrating that, under certain suggestive conditions, adults can develop alleged memories of childhood events that never occurred (Brainerd & Reyna, 2005; Brewin & Andrews, 2017; Loftus & Davis, 2006). These empirical findings on false memory

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The data set and analyses are publicly available and can be retrieved online via https://osf.io/rk9pc/.

formation have contributed to the understanding of suggestive therapy settings that can potentially induce false memories even regarding traumatic events such as sexual abuse. Suggestive settings in psychotherapy include attributing symptoms to a trauma when the patient has no recollection of it, guided imagery to envision a presumed but unremembered traumatic scenario, and the uncritical acceptance of any recollection that emerges (Brewin & Andrews, 2017).

More specifically, the process of false memory formation within psychotherapies can be described as follows: First, patients may come to *believe* that they have experienced a traumatic event they cannot remember when therapists reinforce patients' preexisting assumptions about potential trauma. They may do so by offering plausibility information indicating that their symptoms are likely rooted in traumatic experiences (Hyman & Kleinknecht, 1999). Therapists themselves may even offer a not-yet-remembered trauma as an explanation for symptoms and normalise their patients' lack of memory (Scoboria et al., 2007). Such behaviour is often associated with the idea that trauma memories are repressed or dissociated. Repression and dissociation are two related, yet distinct conceptual frameworks which suggest difficulties in consciously recollecting traumatic memories in their full episodic form, leading to adverse effects on mental health (Kihlstrom & Hoyt, 1990; Maldonado & Spiegel, 2015). Both concepts are employed to elucidate why patients exhibiting specific symptoms, but lacking explicit trauma memories, may have still undergone traumatic experiences. However, some authors have noted that "repression" has progressively been substituted by the more contemporary term "dissociation" to validate recovered trauma memories (Battista et al., 2023; Holmes, 1994; for a thorough discussion of this point, see Otgaar et al., 2019).

Second, patients become motivated to search for and *(re)construct the missing recollections* when the therapist offers to do so by using techniques such as mental imagery, journaling, dream interpretation, or even hypnosis that can induce vivid images in patients (Lynn et al., 2015). The recollective experience becomes stronger when the therapist incorporates personally relevant information about the patient such as other memories or photographs (Desjardins & Scoboria, 2007; Lindsay et al., 2004).

Third, when the therapist interprets the emerging images as evidence of an actual experience and confirmation of the assumed trauma, the risk of a confirmation bias and *source monitoring errors* increases (Loftus & Davis, 2006). Thus, scientific research on false memory provides a framework for identifying problematic and suggestive therapy settings. Whereas there has been a recent debate over how widespread these settings are in contemporary psychotherapy (see, e.g., Brewin, 2021; Otgaar et al., 2019; Otgaar et al., 2021), there is a broad consensus that therapists should avoid them (Brewin & Andrews, 2017; Lynn et al., 2015).

Memory recovery in therapy practice

Although memory recovery resulting from suggestive therapy practices has been studied extensively as a psychological process, there is a scarcity of research exploring the details of its occurrence in everyday psychotherapy practice from the perspective of the therapists themselves.

Andrews et al. (1995) presented survey results based on a sample of 1,083 chartered (i.e., licensed) therapists from the British Psychological Society (BPS). The study found that 45% of the therapists had seen at least one client during the previous year who had recovered a traumatic memory, with 23% indicating the recovery of memories related to child sexual abuse (CSA). Furthermore, 31% had treated clients who had already recovered memories prior to entering therapy. Only 15% reported encountering at least one case of false memory. Two subsequent studies conducted telephone interviews with 108 therapists from the sample used by Andrews et al. (1995) who had treated at least one patient recovering memories since April 1993 (Andrews et al., 1999, 2000). These interviews revealed that 46% of the recovered memory cases involved CSA, whereas 35% involved other traumas. Therapists reported employing various techniques such as hypnosis, age regression, or instructions to remember, with these techniques being used in 42% of the recovered memory cases to aid recollection. In 21% of the cases, techniques were used before any memory had emerged. Total amnesia before memory recovery was reported in 55% of the cases, whereas 14% reported having a vague sense or suspicion. Therapists indicated a range of triggers for memory recovery both inside and outside therapy, with therapeutic techniques being the most common trigger within therapy (15%), followed by discussions about the perpetrator (9%), and comments or questions from the therapist (8%). In 31% of the cases, memories were recovered outside therapy due to external triggers.

In another study, Polusny and Follette (1996) surveyed a sample of 173 randomly selected members of the American Psychological Association (APA; Clinical and Counseling Division). It revealed that 15% of therapists reported encountering at least one recovered memory during the last year, with journaling, free association, and dream interpretation being the most frequently used techniques (Polusny & Follette, 1996). A study by Ost et al. (2013) found that among 302 licensed clinical therapists and hypnotherapists from Great Britain, 28% had seen at least one case of recovered abuse memories within the previous 8 years.

Recently, Zappalà et al. (2023) surveyed 402 Italian cognitive–behavioural psychotherapists (in training) regarding not only their beliefs on trauma memories, but also

included three items on their therapy practice. Out of 196 answering therapists, 66.3% indicated to have always (2%) or sometimes (64.3%) seen patients telling them about the recovery of a trauma memory, 61.7% reported to have always (11.7%) or sometimes (50%) discussed possibly unaware traumatic memories, and almost all (95.4%) said to always (41.8%) or sometimes (53.6%) discuss traumatic events as possible origins of patients' symptoms. These three items correlated with various beliefs endorsing the existence of trauma memory repression. Also, they moderately correlated with each other, i.e., discussing unaware traumatic memories correlated with patients reporting recovered trauma memories.

Taken together, these studies suggest that particularly during the 1990s, memory recovery of traumatic events was relatively common, and that it occurred often but not always within the context of therapy with therapists employing a wide range of techniques to facilitate memory recovery. Many of the more contemporary studies such as Patihis et al. (2014) focused on psychotherapists' *beliefs* regarding trauma, memory and the role of memory recovery, not so much on actual therapy practice. Thus, they contained only limited information on the step-by-step recovery process itself and how therapists handle recovered memories (Dodier et al., 2019; Patihis & Pendergrast, 2019a). However, Zappalà et al. (2023), which was published after the data collection of the current study had been finished, had a slightly different focus, and included some items on the recovery of purported memories in practice. The current study also focused on proceedings in therapy practice. Specifically, we were interested in answering open research questions that we will outline in the following section.

Open questions

There are four key areas in which we identified important, yet unanswered research questions: memory recovery in general, the specific details of suggestive therapy procedures, evaluations of recovered memories by therapists, and therapists' training and guidance.

Memory recovery in general

Research on memory recovery as it occurs in psychotherapy is very scarce. Thus, our knowledge about the recovery of purported memories in practice is limited regarding important aspects such as its prevalence, whether it is associated with certain patient variables, and how therapists deal with it. Moreover, the relevant research usually has a focus on recovered trauma memories, specifically on child sexual abuse. This understandable focus is mainly because the idea of difficulties to remember trauma, specifically child sexual abuse, has been popular among laypeople (Rubin & Boals, 2010), therapists (i.e., Polusny & Follette, 1996) and scholars (Herman & Schatzow, 1987; van der Kolk & Fisler, 1995). However, sexual abuse may not be the only event type that purported memories recovered in psychotherapy refer to. There might be a large variety of different events as psychotherapy may touch various aspects of a patient's past. Overall, more information concerning all these aspects will help to gain a deeper and more precise understanding of the phenomenon.

Details of suggestive psychotherapy procedures to recover purported trauma memories

Whereas research has explored how suggestive procedures *can* develop in therapy, there is limited knowledge about the specific progression from initial assumptions about trauma to the recovery of purported memories in practice. For example, there is evidence that not only therapists but also patients themselves may suspect traumatic experiences behind their symptoms. Andrews et al. (2000) found that in 14% of reported cases, memory recovery followed the patients' suspicions. Similarly, individuals often believe that they have forgotten trauma or abuse memories, particularly before entering psychotherapy (Rubin & Berntsen, 2007; Rubin & Boals, 2010). Dodier et al. (2019) found in a French patient sample that more purported memories were recovered after the patients themselves – rather than the therapists – had first spoken about repressed memories.

However, there are still open questions regarding several details: How often do therapists assume hidden trauma underlying symptoms in their everyday practice? How often do they face patients who do so? How do therapists typically respond to their own assumptions and those voiced by their patients? Specifically, how often do therapists attempt to recover assumed trauma memories and, thus, engage in a suggestive process; and what techniques do they use? How often do therapists then in fact recover the assumed memories?

Evaluations of purported memories after recovery

Limited research has examined how therapists handle purported memories once they have been recovered. Psychoanalytical work has distinguished between historical and narrative truths, cautioning against a dislocation of the analytic present into the past in response to false memory research (Brenneis, 1999). In the survey by Andrews et al. (1995), approximately one half of the respondents answered "sometimes" when asked whether they generally believed in the accuracy of recovered memories. This indicates the skepticism of at least some therapists toward the authenticity of purported memories recovered.

Since therapists cannot assess the validity of recovered memories directly, they may be willing to accept a degree of ambiguity concerning this matter. This acceptance may be more pronounced when therapists perceive that the patients' symptoms tend to improve once purported memories have been recovered. Patients may subjectively benefit from having an explanation for

their symptoms, even if the memories themselves are uncertain (Lynn et al., 2019). Therefore, answering the following research questions would enhance our understanding of therapists' responses to allegedly recovered memories: How often do psychotherapists doubt recovered memories, and what reasons contribute to their skepticism? Do therapists discuss the possibility of false memories when patients assume hidden trauma? What importance do therapists assign to the validity of recovered memories, and does memory recovery influence therapy progress?

Therapists' training and guidance

Therapists' approaches to the challenges of purported memory recovery probably depend on their views regarding trauma and memory, which, in turn, are probably shaped by their training and professional guidance. Whereas recent surveys have explored therapists' general views on trauma and memory (e.g., Patihis et al., 2014), empirical studies do not provide information on whether therapists receive training on suggestion and false memories, whether they receive guidance regarding memory recovery, and whether they express an interest in learning more about false memories.

The current study

Building upon these considerations, we conducted an online survey to gather data from a convenient sample of licensed psychotherapists in Germany – a country that has seen similar discussions about suggestive therapy practices as the US. Our study thus aligns well with the recently expressed need for more empirical investigations in the European context (Patihis & Pendergrast, 2019b; Shaw & Vredeveldt, 2019). The study consisted of four parts, each focusing on different aspects related to memory recovery and suggestive therapy practices as described above.

We restricted our sample to licensed psychotherapists or those in training to become licensed psychotherapists (called psychological psychotherapists in Germany). Until a recent reform, obtaining a license as a psychological psychotherapist in Germany required a master's or diploma degree in psychology followed by at least 3 years of additional postgraduate training. Educational scientists are also eligible for therapist training but are limited to specialising in the treatment of children and adolescents. Until 2019, aspiring licensed psychotherapists in Germany basically chose between training in cognitive–behavioral therapy or psychodynamic psychotherapy (sometimes also referred to "Depth-founded psychotherapy" which is "tiefenpsychologisch fundierte Psychotherapie" in German). Even though psychoanalytical psychotherapy is also a licensed therapy approach, only few psychologists choose to specialise in it. Only since 2019, systemic therapy has been a licensed therapeutic method as well.

Method

We provide all study materials, the collected data and analysis scripts on OSF (https://osf.io/rk9pc/). By utilising the open-source survey platform "formR" (Arslan et al., 2020) and by providing the survey excel sheet used in our questionnaire, we have ensured the reproducibility of our study. The complete survey in English is also available in the Appendix of this article.

Ethical approval for this study was obtained from the Ethics Committee of the Psychologische Hochschule Berlin. In the following, we report how we determined our sample size, all data exclusions, all manipulations, and all measures in the study.

Participants

Sampling procedure

The objective of the sampling procedure was to gather data from as many therapists as possible within the timeframe allotted for the study, but at least from 300 therapists. We contacted potential therapist participants via email. Email addresses were sourced from publicly accessible lists on various websites related to psychological psychotherapy, including general information websites and official websites of psychotherapist chambers as well as websites of the German Associations of Statutory Health Insurance Physicians. Additionally, we reached out to various training institutes representing different therapy schools and requested them to forward the invitation email to their mailing lists. We also shared the invitation link in a Facebook group focused on cognitive–behavioural therapy. Furthermore, we distributed the invitation link during a presentation given by one of the authors at a psychotherapy conference in Germany. In total, 3,867 therapists were contacted using their personal email addresses, and an unknown number of therapists were contacted through mailings lists reaching licensed psychotherapists. All personal addresses were obtained from data bases containing only licensed psychotherapists. Thus, even though we could not verify their official status, we are confident that the vast majority of participants were licensed psychotherapists, especially since our participants' therapy schools were exclusively those of licensed therapists (see Sample characteristics).

Altogether, 301 therapists completed the survey. We excluded participants who provided implausible answers to demographic questions, such as indicating an unrealistically young age (2 participants) or outlier responses regarding their work experience (14 participants). Additionally, we excluded participants who were not trained psychologists or educational scientists (3 participants) or had skipped the first relevant question regarding the frequency of memory recovery (24 participants). The remaining final sample consisted of $N = 258$ therapists.

Sample characteristics

Participants identified predominantly as female (74%) and had an average age of 49.6 years ($SD = 11.9$). The large majority (90%) reported having a university degree in psychology, whereas the remaining participants indicated degrees in educational science. Thirteen percent reported having received training exclusively in treating children and adolescents, 73% reported training in adult psychotherapy, and 14% reported training in both. Eleven percent were still in therapy training.

In terms of therapy schools, the sample was divided between cognitive–behavioural therapists (CBT; $n = 152$, 59%) and psychodynamic therapists (PDT; $n = 99$, 38%), with 24% having training only in psychodynamic therapy and 14% having training in both psychodynamic and analytical psychotherapy. Only five therapists indicated having training in both cognitive–behavioural and psychodynamic psychotherapy, and two therapists specialised solely in analytic psychotherapy. Approximately 57% of the sample reported a wide range of additional qualifications, with eye movement desensitisation and reprocessing (EMDR) being the most frequently reported qualification (19% of the total sample) followed by hypnotherapy (9% of the total sample). The open-answer option revealed numerous other special qualifications (results provided online, see link in the Results section). Nearly all participants (97%) worked at least part-time in an outpatient therapy setting. They reported an average of 17.1 years of experience in treating patients ($SD = 11.2$) and had seen an average of 512.7 cases ($SD = 706$). Both variables exhibited left skewness, with a significant proportion of participants scoring in the lower range of the distribution.

The sample characteristics for gender, age, and therapy training were comparable to those found in a larger survey ($N = 2{,}328$) of German outpatient psychotherapists (age: $M_{age} = 53$ years; gender: 69% female; training: 53% cognitive–behavioural psychotherapy, 41% psychodynamic therapy; see Nübling et al., 2014).

Survey procedure

The online survey was conducted using the open-source survey platform "formR" (formr.org; Arslan et al., 2020). In the invitation email, we provided participants with a link to the study while informing them about the survey's purpose. Participants were assured of anonymity and informed that no individual patient information would be collected. They were also informed of the voluntary nature of their participation and that they could withdraw from the survey at any time without consequences. Finally, participants were informed that the survey might confront them with the topic of recovered memory, often related to sexual trauma. Only participants who explicitly acknowledged reading and understanding the terms and conditions and agreed to participate were directed to the first page of the survey. All participants received the same set of questions, with no experimental variations. On the final page of the survey, participants were thanked and asked to close the browser window.

Survey materials

An English version of the full questionnaire is provided in the Appendix of this article. The key items (including their results) are also displayed in Table 1. The full questionnaire in its original Excel format as it was used with formR is available on OSF. It contains items and responses in German and English and allows an easy re-implementation in formR.

The questionnaire consisted of 43 questions in total, but not all participants answered every question due to skip patterns based on previous responses. In the following, we provide a brief description of the questionnaire parts.

Introduction – demographics/therapy training and experience

The questionnaire began with a *section on demographics*, therapy training, and participants' experience as therapists to gather relevant sample characteristics.

Part 1: recovered memories in general

This part focused on the frequency of therapists' experiences with patients who allegedly recovered memories in therapy, the types of events recalled, and whether this occurred more frequently with certain diagnoses. When we asked about purported memory recovery, we defined it as remembering a biographical event that was not previously conscious and also not recallable upon inquiry (wording contained in the question).

Part 2: details of potentially suggestive procedures

The *second part* explored details of potentially suggestive procedures for recovering assumed trauma memories. Step by step, participants were asked about the frequency with which they and their patients had assumed a hidden trauma behind symptoms, how they arrived at that assumption, and how they handled their own and their patients' assumptions. Therapists who indicated attempting to recover assumed trauma memories were asked about the interventions used and the actual frequency of memory recovery.

Part 3: evaluations of recovered memories

The *third part* (*evaluation of emerging memories*) examined various aspects of evaluating emerging memories, including the frequency of therapists' doubts about recovered memories, the impact of recovered memories on therapy progress, and the importance therapists attributed to the authenticity of recovered memories.

Table 1. Therapist responses concerning key survey items.

	Total sample		Cognitive-behavioral therapists		Psychodynamic therapists	
	N	Answer[1]	*N*	Answer[1]	*N*	Answer[1]
Part 1: recovered memories in general						
Has it ever happened during psychotherapy that a patient recalled a biographical event that she/he was not aware of before and could not remember even when asked about it?	258	Yes (78% [72, 82])	152	Yes (75% [67, 81])	99	Yes (80% [70, 87])
What percentage of patients you treated did this occur in?	200	*Md* = 20%	114	*Md* = 15%	79	*Md* = 35%
Part 2: details of potentially suggestive procedures						
Have you ever assumed that a traumatic event that is no longer remembered underlies a patient's symptoms?	235	Yes (82% [76, 86])	137	Yes (76% [68, 83])	92	Yes (90% [82, 95])
What percentage of patients you treated did this occur in?	192	*Md* = 10%	104	*Md* = 5%	83	*Md* = 15%
Did you usually attempt to uncover the event you assumed the patient did not remember?	192	Yes (49% [42, 57])	104	Yes (47% [37, 47])	83	Yes (52% [41, 63])
Have patients themselves ever suspected that a traumatic event that is no longer remembered underlies their symptoms?	235	Yes (83% [77, 87])	115	Yes (84% [76, 89])	74	Yes (80% [71, 88])
What percentage of patients you treated did this occur in?	194	*Md* = 10%	115	*Md* = 5%	74	*Md* = 20%
If you wanted to uncover unremembered experiences because of either your own or your patient's assumption: What interventions did you use?[2]	90	Affect bridges (48%)	49	Affect bridges (61%)	41	Dream interpretation (63)
		Dream interpretation (38%)		Exposure (39%)		Affect bridges (41%)
		Repeated questions (34%)		Repeated questions (33%)		Repeated questions (39%)
		Exposition (31%)		EMDR (29%)		Play therapy (27%)
		Age regression (26%)		Age regression (27%)		Guided imagery (24%)
		EMDR (23%)		Hypnosis (20%)		Age regression (24%)
		Play therapy (20%)		IRRT (20%)		EMDR (12%)
		Guided imagery (19%)		Prolonged exposure (19%)		Hypnosis (5%)
		Hypnosis (14%)		Play therapy (16%)		Family constellation (5%)
		IRRT (11%)		Family constellation (16%)		NLP (0%)
		Family constellation (11%)		Guided imagery (14%)		Prolonged exposure (0%)
		Prolonged exposure (10%)		Dream interpretation (10%)		IRRT (0%)
		NLP (2%)		Neurolinguistic (4%)		Exposure (0%)
		Other (28%)		Other (22%)		Other (34%)
In what percentage did these interventions actually lead to the recovery of memories?	90	*Md* = 30%	49	*Md* = 30%	41	*Md* = 30%
Part 3: evaluations of recovered memories						
Regarding the cases in which there were recovered memories: In what percentage did you doubt that the event recovered before or during your treatment actually happened?	176	*Md* = 5%	103	*Md* = 5%	67	*Md* = 10%
Referring to patients who recovered memories: How did the symptoms usually develop after memories were recovered?[1]	176	There was no change (13%)	103	There was no change (13%)	67	There was no change (14%)
		They rather improved (81%)		They rather improved (82%)		They rather improved (81%)
		They got worse (10%)		They got worse (8%)		They got worse (14%)
		I can't say (11%).		I can't say (12%).		I can't say (10%).
How important do you consider the authenticity of a recovered memory to be for the further treatment process? (1 = not important at all; 7 = very important)	219	(Rather) Unimportant (42%)	131	(Rather) Unimportant (38%)	82	(Rather) Unimportant (45%)
		Neither (19%)		Neither (22%)		Neither (15%)

(*Continued*)

Table 1. Continued.

	Total sample		Cognitive-behavioral therapists		Psychodynamic therapists	
	N	Answer[1]	*N*	Answer[1]	*N*	Answer[1]
		(Rather) Important (40%) *M* = 4.03 [3.84, 4.22] *SD* = 1.44		(Rather) Important (39%) *M* = 4.13 [3.89, 4.37] *SD* = 1.41		(Rather) Important (41%) *M* = 3.05 [3.63, 4.27] *SD* = 1.46
Part 4 – false memories in training and guidelines/views on trauma and memory						
Did you discuss the formation of false memories in psychotherapy in your psychotherapist training? (1 = never; 5 = very often)	211	Never (29%) Rarely (43%) Sometimes (20%) Often (5%) Very often (2%) *M* = 2.07 [1.94, 2.20] *SD* = 0.94	127	Never (34%) Rarely (46%) Sometimes (16%) Often (3%) Very often (2%) *M* = 1.94 [1.78, 2.10] *SD* = 0.91	78	Never (21%) Rarely (40%) Sometimes (29%) Often (9%) Very often (2%) *M* = 2.31 [2.09, 2.52] *SD* = 0.94
Would you like more support (in the form of supervision, intervision, training, information) in dealing with recovered memories of traumatic events and false memories?[3] (1 = definitely not; 5 = definitely yes)	211	(Rather) No (27%) Neither (19%) (Rather) Yes (53%) *M* = 3.37 [3.22, 3.52] *SD* = 1.10	127	(Rather) No (21%) Neither (15%) (Rather) Yes (64%) *M* = 3.52 [3.39, 3.76] *SD* = 1.04	78	(Rather) No (36%) Neither (24%) (Rather) Yes (40%) *M* = 3.10 [2.85, 3.36] *SD* = 1.12
Often, there are no memories of traumatic experiences that can be put into words.[3] (1 = incorrect; 5 = correct)	206	(Rather) Incorrect (29%) Neither (15%) (Rather) Correct (56%) *M* = 3.39 [3.24, 3.54] *SD* = 1.08	125	(Rather) Incorrect (35%) Neither (16%) (Rather) Correct (49%) *M* = 3.19 [3.00, 3.38] *SD* = 1.06	75	(Rather) Incorrect (20%) Neither (15%) (Rather) Correct (65%) *M* = 3.68 [3.44, 3.92] *SD* = 1.04
The more traumatic an event was, the less it can be remembered and put into words.[3] (1 = incorrect; 5 = correct)	206	(Rather) Incorrect (31%) Neither (29%) (Rather) Correct (40%) *M* = 3.08 [2.94, 3.23] *SD* = 1.06	125	(Rather) Incorrect (32%) Neither (35%) (Rather) Correct (36%) *M* = 2.99 [2.81, 3.17] *SD* = 1.02	75	(Rather) Incorrect (31%) Neither (16%) (Rather) Correct (53%) *M* = 3.24 [2.98, 3.50] *SD* = 1.11
The task of psychotherapy is to uncover inaccessible memories of traumatic experiences.[3] (1 = incorrect; 5 = correct)	206	(Rather) Incorrect (52%) Neither (28%) (Rather) Correct (20%) *M* = 2.50 [2.35, 2.64] *SD* = 1.07	125	(Rather) Incorrect (63%) Neither (22%) (Rather) Correct (15%) *M* = 2.29 [2.10, 2.48] *SD* = 1.06	75	(Rather) Incorrect (37%) Neither (37%) (Rather) Correct (25%) *M* = 2.76 [2.53, 2.99] *SD* = 1.01

Note: [1]Brackets contain 95% confidence intervals around means. [2]Multiple answers were allowed. Because relative frequencies were left skewed, the median is reported. Ordinal answers were dichotomised using proportional answers for each side of the midpoint and the midpoint. [3]Answers for each side of the scale midpoint are summarised to provide a more concise picture of results.

Part 4: views on memory and trauma, false memories in training, and guidance

In the *fourth part* (*views on therapy and trauma memory, and the role of false memories in training and guidelines*), we asked the therapists about their agreement with three statements on trauma and memory: (1) It is often the case that there are no memories of traumatic experiences that can be put into words. (2) The more traumatic an event was, the less it can be remembered and put into words. (3) The role of psychotherapy is to uncover inaccessible memories of traumatic experiences. These statements were created based on previous research on therapist beliefs (e.g., Patihis et al., 2014). Participants expressed their (dis-)agreement on a 5-point Likert scale (1 = incorrect to 5 = correct; see Appendix A for the whole questionnaire). Additionally, participants were asked whether false memories had been discussed during their therapy training, if they had guidelines for dealing with memory recovery, and whether they were interested in receiving more information on false memories.

Data analysis

All data were analyzed using the statistical software packages R (Version 3.6.1; R Core Team, 2019) and RStudio (Version 1.2.5019; RStudio Team, 2019). The packages used for analyses included "ggplot" (Wickham, 2016), "effsize" (Torchiano, 2020), "summarytools" (Comtois, 2019), and "ggthemes" (Arnold, 2021).

It is important to note that due to the absence of mandatory questions, some therapists left certain questions unanswered. Additionally, there was a slight attrition rate, and skip patterns resulted in varying numbers of valid responses throughout the survey.

For separate reports on cognitive–behavioural therapists (CBT) and psychodynamic-analytical therapists (PDT), therapist groups were created based on their training. However, as mentioned in the sample characteristics section, seven participants indicated being trained in both or neither of the two main therapy schools. These participants were included in the overall sample results but not in the specific therapy school analyses. Even though we did not specify hypotheses beforehand, we explored differences between the two main therapy schools. We analyzed median differences using Wilcoxon rank sum tests with continuity correction and differences between proportions using chi-square two-sample tests for proportions with continuity corrections. Welch two sample t-tests were used to test differences between continuous scales.

Results

Results are presented based on the identified research gaps outlined in the introduction. The main results presented in the following are summarised in Table 1. Please refer to the online repository on OSF for the original data and analysis scripts (https://osf.io/rk9pc/).

Part 1: recovered memories in general

Most therapists in the sample (78%, 95% CI [72, 82], $n = 201/258$) reported that one or more of their patients had recovered memories during psychotherapy that they had not been able to recall prior to treatment even when prompted to do so. This trend was observed across both therapy approaches, with cognitive behavioural therapy (CBT) therapists reporting a rate of 75% (95% CI [67, 81], $n = 114/152$) and psychodynamic therapy (PDT) therapists reporting a rate of 80% (95% CI [70, 87], $n = 79/99$). This difference did not attain statistical significance (X^2 (1, $N = 251$) = 0.53, $p = .47$).

When asked about the percentage of their treated patients who experienced purported memory recovery, all 200 therapists reported a median of 20%; CBT therapists ($n = 114$) reported a median of 15%, whereas PDT therapists ($n = 79$) reported a significantly larger median of 35% ($W = 2913.5$, $p < .01$). In response to a multiple-choice question (multiple responses possible), 200 psychotherapists stated that patients had allegedly recovered memories of various negative events including emotional abuse (76%, $n = 152/200$), sexual abuse (67%, $n = 134/200$), neglect (64%, $n = 128/200$), physical violence (44%, $n = 88/200$), and accidents (26%, $n = 52/200$). Additionally, 56% ($n = 112/200$) of therapists reported the recovery of positive childhood memories. Notably, 36% ($n = 72/200$) of therapists reported recovering events that allegedly occurred within the first 3 years of life. Therapists provided additional information about various events in their responses to open questions, most of which fitted into one of these categories (see online repository for details).

Moreover, 48% of 200 therapists indicated that certain diagnoses were more likely to be associated with purported memory recovery. The most frequently mentioned diagnoses (multiple choice with multiple responses possible) were posttraumatic stress disorder (PTSD, 32%), depression (13%), unspecified personality disorders (10%), emotionally unstable personality disorder (10%), anxiety disorder (8%), and dissociative disorder (7%). Some therapists also provided open answers that can be accessed in the online repository in the original language (German).

When asked about their proceedings in case a memory had (allegedly) been recovered (multiple choice with multiple responses possible), 53% ($n = 106/200$) said they treated the memory – being it a trauma memory – with a trauma intervention. In their open responses regarding the interventions they used, the therapists listed typical trauma interventions such as EMDR, stabilisation, mental imagery, (narrative) confrontation. Thirty-six percent ($n = 71/200$) indicated to have explored the memory further, 33% ($n = 66/200$) said to have tried to clarify it, 35% (n = 69/200) said they took the case to supervision/intervision,

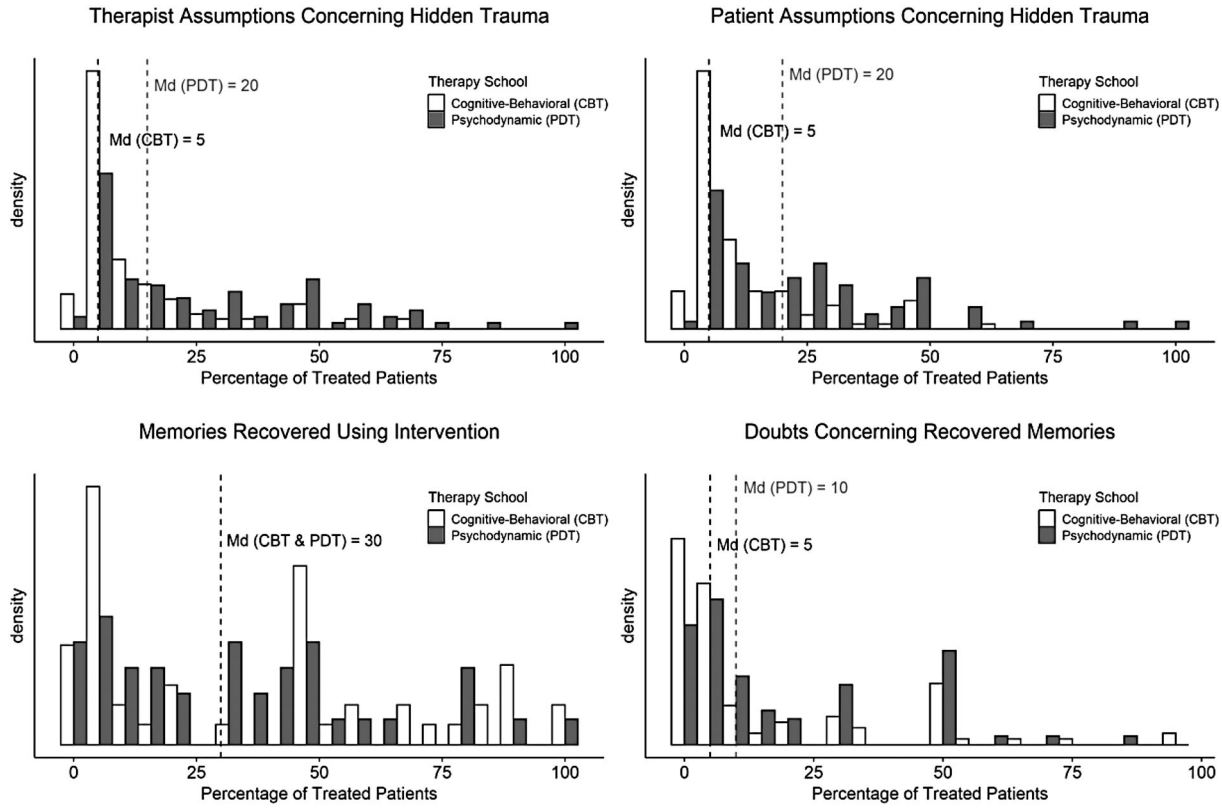

Figure 1. Estimated relative frequencies of therapist and patient assumptions concerning hidden trauma, memory recovery using interventions and doubts concerning recovered memories.

Note. The full wordings of the four items are (from left to right and up to down): "Have you ever assumed that a traumatic event that is no longer remembered underlies a patient's symptoms? What percentage of patients you treated did this occur in?"; "Have patients themselves ever suspected that a traumatic event that is no longer remembered underlies their symptoms? What percentage of patients you treated did this occur in?"; "In what percentage did the interventions [used to uncover assumed memories] actually lead to the recovery of memories?"; "Regarding the cases in which there were recovered memories: In what percentage did you doubt that the event recovered before or during your treatment actually happened?"

22% ($n = 43/200$) indicated to have talked about possible false memories. Only 3% ($n = 6/200$) stated they expressed concern about whether the underlying event actually occurred while 4% ($n = 8/200$) indicated to not have elaborated on the memory. We also allowed for open answers that can be accessed in the online repository in the original language (German).

Part 2: details of potentially suggestive procedures to recover assumed trauma memories

Therapists' assumptions and actions

Most therapists (82%, 95% CI [76, 86], $n = 193/235$) reported that they had already assumed that a traumatic experience underlay a patient's symptoms, even when no such memory had been reported. Among CBT therapists (76%, 95% CI [68, 83], $n = 104/137$), this was reported significantly less frequently than among PDT therapists (90%, 95% CI [82, 95], $n = 83/92$; X^2 (1, $N = 229$) = 6.60, $p = .01$). However, the 193 affirming therapists noted that these assumptions occurred infrequently, with a median rate of 10% of patients (CBT: $Md = 5\%$; PDT: $Md = 15\%$ of patients, difference statistically significant with $W = 2808$, $p < .01$). Figure 1 illustrates the left-skewed distribution, indicating that only a few therapists made such assumptions frequently. Among the 192 therapists who had ever made a trauma assumption, 15% ($n = 29$, 95% CI [11, 21]) indicated that they made trauma assumptions in at least 50% of their patients.

When asked about the reasons behind their assumptions, therapists provided a variety of answers. Approximately 56% of therapists ($n = 101/181$) reported specific symptoms exhibited by the patient such as body symptoms, PTSD symptoms, and dissociative symptoms. Other reasons given included general patient behaviour (41%, $n = 74/181$; e.g., avoidance and defense, intense or low emotional reactions), overall symptoms (21%; $n = 38/181$), absence of alternative explanations for the symptoms (17%; $n = 31/181$), and their personal experience as therapists (15%, $n = 27/181$).

Nearly one half of the 192 answering therapists (49%, 95% CI [42, 57], $n = 95/192$) reported that they had made at least one attempt to recover the assumed memory based on their trauma assumption. This trend was observed to a similar extent among both CBT therapists (47%, 95% CI [37, 47], $n = 49/104$) and PDT therapists (51%, 95% CI [41, 63], $n = 42/83$) with no statistically

significant difference between the therapy schools (X^2 (1, $N = 187$) = 0.24, $p = .62$).

Patient assumptions and therapists' reactions

Most of the 235 answering therapists (83%, 95% CI [77, 87], $n = 195/235$) reported that their patients had assumed the presence of a traumatic experience behind their symptoms, even when they had not initially reported any memory. This trend was observed to a similar extent among both CBT therapists (84%, 95% CI [77, 90], $n = 115/137$) and PDT therapists (80%, 95% CI [71, 89], $n = 74/92$; no statistically significant difference between the therapy schools, X^2 (1, $N = 229$) = 0.26, $p = .61$). However, the answering 192 therapists noted that patient assumptions were infrequent, with a significantly higher median rate of 15% of patients (CBT: $Md = 5\%$; PDT: $Md = 20\%$; $W = 2578$, $p < .01$). The distribution of these occurrences was again skewed to the left (see Figure 1).

When answering a multiple-choice question with multiple answers possible, 194 therapists provided insights into their reactions to patient assumptions. Common responses included neutral reactions such as leaving the assumption uncommented (44%, $n = 85/194$) or seeking advice from colleagues (38%, $n = 74/194$). However, 37% ($n = 72/194$) indicated attempts to recover the assumed memory. Critical reactions were also reported such as discussing the assumption with the patient (34%, $n = 66/194$) and informing the patient about the possibility of false memories (27%, $n = 52/194$). Some therapists provided additional responses in the open-answer option that often aligned with the aforementioned categories (see data repository). Multiple answers were selected by most therapists, with only a small percentage choosing solely to recover the assumed memory (7%, $n = 14/194$) or inform the patient about false memories (1%, $n = 2/194$). Also, 12% ($n = 23/194$) of these therapists reported both informing about false memories and attempting to recover assumed memories.

Therapeutic techniques to recover memories

The 90 therapists (CBT: 49, PDT: 38) who had attempted memory recovery reported a wide range of techniques in a multiple choice question (multiple answers possible). The most frequently employed, with a relative frequency of at least 10%, included the hypnoanalytic technique affect bridges (48%, $n = 44/90$; Watkins, 2008) as well as dream interpretation (38%, $n = 34/90$), repeated questioning (34%, $n = 31/90$), exposure (31%, $n = 28/90$), age regression (26%, $n = 23/90$), EMDR (23%, $n = 21/90$), play therapy (20%, $n = 18/90$), imaginative psychotherapy (19%, $n = 17/90$), hypnosis (14%, $n = 13/90$), and family constellation (14%, $n = 13/90$). Table 1 provides the relative frequencies for both therapy methods. Whereas affect bridges (CBT: 61%, $n = 30/49$; PDT: 41%, $n = 16/38$) and repeated questioning (CBT: 33%, $n = 16/49$; PDT: 39%, $n = 15/38$) were relatively common in both groups, dream interpretation was particularly prevalent in the PDT group (63%, $n = 31/49$ vs. 10%, $n = 4/38$). Some therapists also provided diverse responses in the open-answer option, indicating the use of various other interventions, many of which corresponded to the aforementioned categories (see Data repository).

The majority of the 90 therapists reported that their interventions led to a memory recovery in a minority of cases ($Md = 30$ in both therapy schools). The distribution was left-skewed (see Figure 1). However, 40% of these therapists (95% CI [30, 51], $n = 36/90$) indicated successful memory recovery in at least 50% of cases. Ten of these therapists also reported that they had assumed unremembered trauma memories behind symptoms in at least 50% of their patients (11%, 95% CI [6, 20], $n = 10/90$).

Relating these results to the number of therapists who answered the first item regarding therapist assumptions ($N = 235$) revealed that 35% (95% CI [29, 41], $n = 82/235$) reported having intentionally recovered assumed memories using specific interventions at least once. There was no significant difference between therapy schools, with 32% of CBT therapists (95% CI [25, 41], $n = 44/137$) and 37% of PDT therapists (95% CI [27, 48], $n = 34/92$) engaging in this practice at least one time (X^2 (1, $N = 229$) = 0.38, $p = .54$).

Part 3: evaluations of recovered memories

Therapists were asked how frequently they doubted the authenticity of recovered memories and their reasons for doing so. Among the 176 responding therapists (CBT: 103, PDT: 67), doubts about the authenticity of recovered memories were reported very rarely, with a median of 5% (CBT: $Md = 5\%$, PDT: $Md = 10\%$; $W = 2795.5$, $p = 0.03$; see Figure 1). In response to a multiple-choice question (multiple answers possible), therapists provided the following reasons for doubting the memories: the patient seemed prone to suggestion (41%, $n = 72/176$), prone to known or assumed suggestive influences (36%, $n = 63/176$), the event seemed extremely unlikely (30%, $n = 53/176$), the patient might have sought personal benefit from recovering trauma memories (26%, $n = 46/176$), and based on the science of memory, the remembered events seemed highly improbable (26%, $n = 46/176$).

More than one half of the 123 therapists (CBT: 66, PDT: 53) who responded to a multiple-choice question (multiple answers possible) stated that they ignored their doubts because whether or not the event or events actually occurred did not affect the progress of therapy. Additional reactions included sharing the doubts with the patient (44%, $n = 54/123$), seeking advice from colleagues (41%, $n = 50/123$), attempting to clarify what happened (27%, $n = 33/123$), disregarding the doubt and assuming the event took place (7%, $n = 9/123$), and avoiding the topic (2%, $n = 3/123$).

When asked to rate the importance of memory authenticity for the treatment process on a 7-point scale ranging from 1 (*not important at all*) to 7 (*very important*), the

responses of the 219 answering therapists were clustered around the midpoint. The mean rating was $M = 4.03$ (95% CI [3.84, 4.22], $SD = 1.44$, $Md = 4.0$), with 42% ($n = 92/219$) saying that memory authenticity is (rather) not important and 40% ($n = 88/219$) saying it is. Thus, therapists overall seem to disagree on this question. The small difference between therapy schools was not statistically significant ($t(167) = 0.88$, $p = .38$) with CBT therapists providing a mean rating of $M = 4.13$ (95% CI [3.89, 4.38]) and PDT therapists a mean rating of $M = 3.95$ (95% CI [3.63, 4.27]).

We finally asked how treatment progressed after memory recovery. Thirteen percent ($n = 23/176$) of the answering therapists (CBT: 103, PDT: 67) reported no change in symptoms (CBT: 13%, $n = 13/103$; PDT: 13%, $n = 9/67$). The majority (76%, $n = 134/176$) noted an improvement (CBT: 82%, $n = 84/103$; PDT: 79%, $n = 53/67$), whereas 10% ($n = 18/176$) indicated that symptoms worsened (CBT: 8%, $n = 8/103$; PDT: 13%, $n = 9/67$), and 11% ($n = 19/176$) could not determine the outcome (CBT: 13%, $n = 13/103$; PDT: 8%; $n = 5/67$). None of the differences between the therapy schools attained statistical significance ($.35 < p < 1$).

Part 4: views on trauma and memory/false memories in training and guidelines

Training and guidelines

Out of 211 answering therapists (CBT: 127, PDT: 78), 29% ($n = 61/211$) reported that false memories were "never" discussed in training, 43% ($n = 91/211$) stated they were "rarely" discussed, and 20% ($n = 42/211$) indicated that they were "sometimes" discussed, resulting in a left-skewed distribution. The mean score was $M = 2.0$ (95% CI [1.94, 2.20], $SD = 0.94$, $Md = 2$), with slight descriptive differences between therapy schools. PDT therapists reported more frequent discussions of false memories in training compared to CBT therapists (CBT: $M = 1.94$, 95% CI [1.78, 2.10]; PDT: $M = 2.31$, 95% CI [2.10, 2.52]) (see Table 1 for detailed results). This difference was statistically significant ($t(158) = -2.78$, $p < .01$, $d = -0.4$, 95% CI [−0.69, −0.12]).

To explore whether discussing false memories in therapy training influenced therapists' suggestive behaviour in practice, we computed correlations between the frequency of discussions in training and therapists' attempts to recover assumed memories as well as recovery frequencies. False memory discussion in training and recovery attempts correlated at $r(170) = -.15$, 95% CI [−.30, .01], $p = .04$. Thus, therapists who had discussed false memories in training reported attempts to recover assumed memories slightly less frequently. However, there was no correlation with frequency of actual memory recovery, $r(85) = .16$, 95% CI [−.05, .36], $p = .13$. Views on trauma and memory were not associated with discussions of false memories in therapy training either ($-.04 < rs < .08$, all *ns*).

Seventy-eight therapists openly responded to the question whether they knew criteria to distinguish genuine from false memories. Overall, they mostly named (psychological) plausibility and how the memory emerged and developed (see online repository for the complete set of answers in German).

A large majority of the 205 therapists who responded to this question (84%, $n = 172/205$; CBT: 87%, $n = 110/127$; PDT: 80%, $n = 62/78$) reported that they did not have *guidelines* on how to handle recovered traumatic memories, whereas 10% ($n = 21/205$; CBT: 10%, $n = 13/127$; PDT: 9%, $n = 7/78$) stated that they did have guidelines, and 6% ($n = 12/205$; CBT: 3%, $n = 4/127$; PDT: 12%, $n = 9/78$) were unsure. None of the differences between therapy schools were statistically significant ($.25 < p < .96$).

When asked whether they were interested in receiving *support* on how to handle recovered and false memories, 53% ($n = 112/211$) responded with *definitely yes* (14%, $n = 29/211$) or *rather yes* (39%, $n = 82/211$), whereas 27% ($n = 57/211$) chose *rather not* (24%, $n = 51/211$) or *definitely not* (3%, $n = 6/211$), and 19% ($n = 40/211$) were undecided. The mean score was $M = 3.37$ (95% CI [3.22, 3.52]), indicating a moderate level of interest. The mean difference between therapy schools was significant ($t(153) = 3.01$, $p < .01$), but small ($d = 0.44$, 95% CI [0.16, 0.73], CBT: $M = 3.57$, 95% CI [3.39, 3.76]; PDT: $M = 3.10$, 95% CI [2.85, 3.40]).

Views on trauma and memory

Table 1 and Figure 2 present the results regarding views on trauma and memory. Overall, PDT therapists more frequently considered the three statements ("Often, there are no memories of traumatic experiences"; "The more traumatic an event was, the less it can be remembered"; "The role of psychotherapy is to uncover inaccessible memories of traumatic experiences") to be correct or rather correct. However, in both therapy schools, a substantial number of therapists believed that there are often no memories of traumatic experiences that can be put into words (CBT: 49%, $n = 61/125$, correct or rather correct, PDT: 65%, $n = 49/75$, correct or rather correct) and that the severity of an event impacts negatively on its memorability (CBT: 36%, $n = 45/125$, correct or rather correct, PDT: 53%, $n = 40/75$, correct or rather correct). PDT therapists judged both statements significantly more often as (rather) correct (X^2 (1, $N = 200$) = 4.53, $p = .03$ and X^2 (1, $N = 200$) = 5.08, $p = .02$). A smaller but notable minority in both schools agreed that therapy should aim to recover inaccessible memories of traumatic experiences with again, with PDT therapists significantly more likely to agree (CBT: 15%, $n = 19/125$, correct or rather correct, PDT: 25%, $n = 19/75$ correct or rather correct, X^2 (1, $N = 200$) = 7.50, $p < .01$) (see Table 1 for detailed results).

To explore whether these potentially suggestive views related to self-reported suggestive therapy practices, we computed correlations between these views and four key elements of the suggestive process: (1) whether therapists had ever assumed a traumatic memory behind a patient's symptoms, (2) in how many patients they had done so, (3) whether they had ever attempted to recover an assumed memory, and (4) how often they had actually

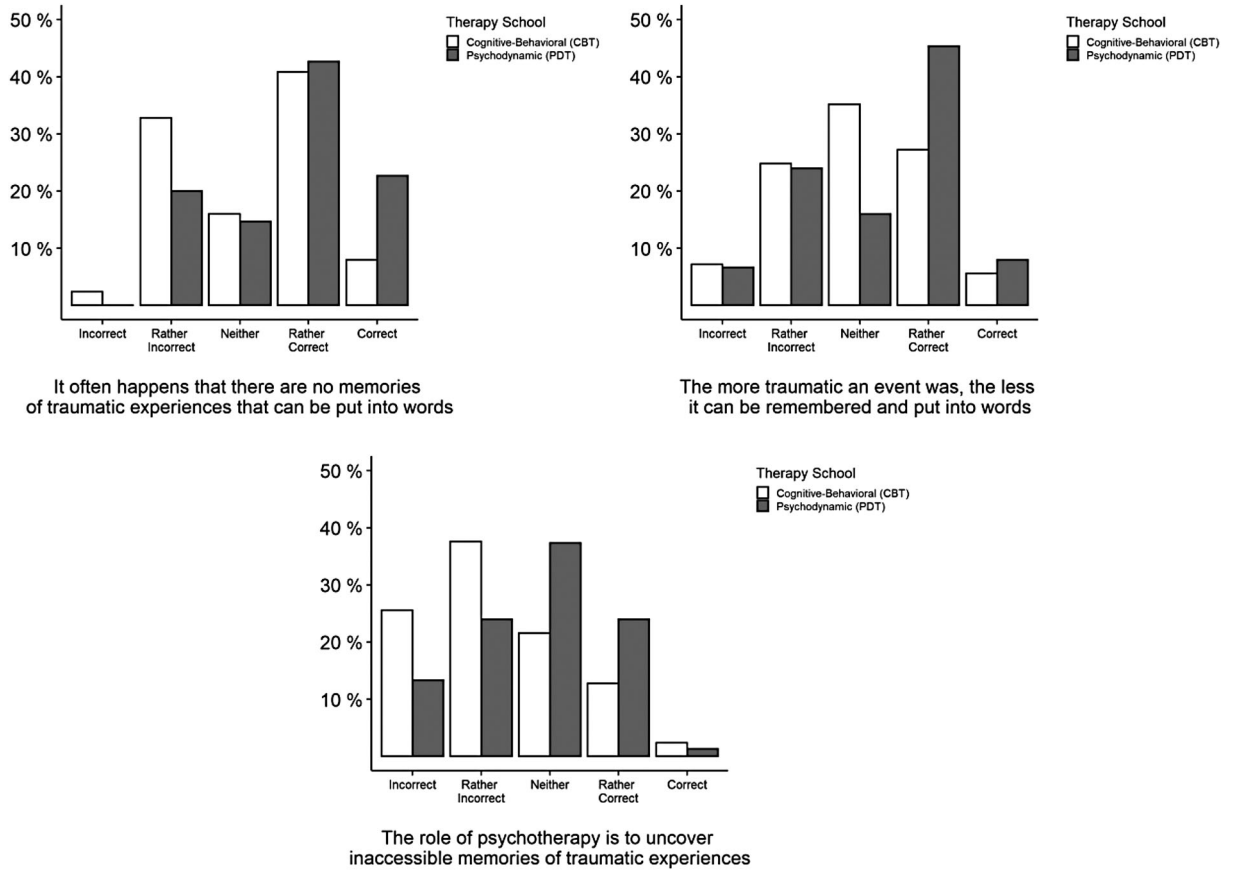

Figure 2. Views on trauma and memory, and the role of psychotherapy in memory recovery.

recovered an assumed memory using a specific therapeutic technique for that purpose. The results are presented in Table 2. A consistent pattern emerged: Whereas all three items correlated moderately with therapists' assumptions, perceiving the recovery of traumatic memories as a therapeutic task displayed the strongest association with actual therapeutic behaviour. It demonstrated the highest correlation with recovery attempts, $r(165) = .46$, 95% CI [.33, .47], $p < .01$, and was the only item that correlated significantly with actual memory recovery, $r(182) = .35$, 95% CI [.14 .52], $p < .01$. Both effects were of a medium to large size.

Discussion

This online survey of 258 psychotherapists aimed to address unresolved research questions about memory recovery in psychotherapy practice and to gain a nuanced understanding of the phenomenon from the perspective of psychotherapists.

Recovered memories in general: more than just abuse memories

Overall, our results suggest that therapists from both therapy schools are quite likely to encounter the recovery of alleged memories from patients with various diagnoses at least once in their careers. Hence, our findings show that memory recovery is a relevant phenomenon of therapy practice and deserves more attention in research and therapy training.

The focus on negative events, particularly on sexual abuse and physical violence as criminal offenses, necessitates a closer examination of how these purported traumatic memories are recovered as this may indicate that recovering purported memories often results from a search for assumed trauma. Moreover, therapists noted an association between the retrieval of alleged memories and the manifestation of PTSD symptoms. Why this was not the case for dissociative disorders, although dissociative amnesia plays an important role in this diagnosis, remains an open question we cannot answer based on the collected data. Finally, one third of the therapists reported the recovery of purported memories from the first three years of life which may be false due to infantile amnesia (Bauer, 2015; Howe & Knott, 2015) and should be treated with special caution (Howe, 2000, 2013, 2022).

However, according to the participants of this study, many purportedly recovered childhood memories refer to positive experiences as well, and these are unlikely to be attributed to symptoms and then searched for

Table 2. Correlations of views on trauma and memory with key suggestive Behaviour.

	Often, there are no memories of traumatic experiences	The more traumatic an event was, the less it can be remembered	The task of psychotherapy is to uncover inaccessible memories of traumatic experiences
Ever assumed trauma behind symptoms as a therapist?	.21**[.08, .34]	.14* [01, .27]	.14* [.01, .27]
In how many of your patients did you assume a trauma?	.22** [.07, .36]	.17* [.02, .31]	.23** [.09, .37]
Ever attempted to recover memory based on own assumption?	.03 [−.13, .18]	.27** [.12, .40]	.46** [.33, .57]
How often did you then recover memories using a retrieval technique?	.20 [−.40, .01]	.08 [−.14, .29]	.35** [.14, .52]

Note: Table displays Pearson correlations with 95% confidence intervals. *$p < .05$. **$p < .0.01$. All items were presented with a 5-point rating scale (1 = "incorrect", 2 = "rather incorrect", 3 = "neither correct nor incorrect", 4 = "rather correct", 5 = "correct").

by using suggestive techniques. Possibly then, they are mostly recovered spontaneously. Spontaneous memory recovery involves the sudden recollection of single, relatively concise experiences from one's past that have not been retrieved for an extended period of time due to either a scarcity of memory cues or the forgetting of an earlier remembering (forgot-it-all-along effect; Anthony & Janssen, 2023; Schooler et al., 1997; Shobe & Schooler, 2001). Trauma memories that were spontaneously recovered have been conceptualised as involuntary autobiographical memories (Dodier et al., 2023) and can arise when one is confronted with incidental cues such as an open question by a therapist (Goodman et al., 2019). Research has shown that spontaneously recovered trauma memories are more likely true than purported memories that came up after an extensive search process (Geraerts et al., 2009; McNally & Geraerts, 2009).

Furthermore, consistent with findings based on patient surveys (Patihis & Pendergrast, 2019a), emotional abus and neglect were reported most often. These memory recoveries may refer to existing memories that were newly labelled or interpreted differently during psychotherapy. Relabelling may come with suggestive changes of memories, but does not necessarily involve the creation of new purported memories (Lynn et al., 2019). As Lynn et al. (2019) pointed out, such a process is not inherently problematic, but might be an important step towards developing a feeling of resilience and power through a different life narrative.

Taken together, we hypothesise that many therapists, who often observe spontaneous recoveries of positive memories and the relabeling of existing memories, might consequently possess a broad and uncritical perspective on memory recovery. This may decrease their awareness of problematic "memory" recovery, that is, the suggestive search for suspected memories, especially when they lack training and information about suggestion and false memories. Again, this points at the need to include courses on memory science in therapy training where the problematic and less problematic recovery processes can be disentangled.

Details of potentially suggestive procedures to recover trauma memories

Our results draw a complex picture of suggestive procedures in therapy practice. We identified three key findings: (1) Suggestive therapy procedures remain an issue of concern. (2) Although most therapists employ memory recovery practices only sporadically, some use them consistently. (3) Therapists show a variety of reactions to patients' assumptions about possible trauma they have experienced and often take a critical stance.

Suggestive therapy procedures remain an issue of concern

All aspects of the suggestive procedure were reported with considerable frequency. *Assumptions regarding unremembered trauma* underlying symptoms are made by most therapists at least once in their career, and most of the therapists treat at least one patient who assumes trauma behind symptoms. This does not automatically lead to behavioural consequences, because *recovery attempts* were reported not by all, but a substantial portion of psychotherapists who had dealt with assumptions regarding an unremembered trauma (49% after own assumptions, 37% after patient assumptions). Of those who tried to recover alleged memories, almost all *did recover* at least one memory. Thus, potentially harmful therapy practices were reported with alarming frequency, albeit by a minority of therapists. We conclude that suggestive therapy practices cannot be dismissed as isolated cases, as sometimes suggested in the literature (Brewin, 2021). Considering the consensus that recovering purported memories based on mere assumptions about possible traumatic experiences can be harmful and should be avoided (Brewin & Andrews, 2017), our findings show that suggestive therapy procedures remain a concern also in Germany (Otgaar et al., 2019; Shaw & Vredeveldt, 2019).

Regarding the techniques used to recover memories, there was a substantial overlap with techniques reported by therapists in studies from the 1990s (Andrews et al., 1999; Polusny & Follette, 1996). It is important to note that the most frequently reported techniques in our

study were affect bridges and dream interpretation. These techniques are meant to interpret the internal states and behaviour of a patient and usually aim to identify underlying experiences. They were followed by repeated questioning that clearly aims to elicit answers based on a priori assumptions. All of these techniques are highly suggestive when used to reconstruct what are only assumed memories. Using these techniques in this context is thus clear evidence for problematic therapy procedures (Lindsay & Read, 1994; Loftus & Davis, 2006).

Interestingly, therapists also reported the use of state-of-the-art trauma-focused interventions such as eye movement desensitisation and reprocessing (EMDR), trauma exposure, and imagery rescripting and reprocessing therapy (IRRT). Especially the importance of EMDR has grown compared to previous studies, and it has recently been reported frequently by recovered memory patients as well (Patihis & Pendergrast, 2019a). These trauma-focused techniques provide evidence-based interventions for patients with existing trauma memories but are not meant for memory reconstruction. Because they rely on mental imagery, they may be as suggestive as other imagery techniques when used with patients to recover memories (Hyman & Kleinknecht, 1999; Lindsay & Read, 1994). Our findings thus emphasise the significance of recent research on how these evidence-based techniques may have a suggestive influence on memory (for studies on EMDR, see Houben et al., 2018, 2021) as well as the need to emphasise that these techniques were designed to deal with existing memories and not to recover them.

We also obtained evidence that a substantial number of patients may (try to) initiate suggestive recovery procedures themselves. This finding is consistent with previous research on patient assumptions about sexual abuse before therapy (Rubin & Boals, 2010) and on vague patient suspicions preceding memory recovery (Andrews et al., 2000). It also adds to studies showing that trauma memories are often recovered outside of therapy (Dodier & Patihis, 2021; Patihis & Pendergrast, 2019a). Thus, therapists must be prepared for patients who assume that they have hidden trauma and may even demand recovery attempts. This may be a delicate situation and should ideally be discussed in therapy training to prepare future therapists.

Although most therapists employ memory recovery practices only sporadically, some use them consistently

Whereas most therapists report only few cases of suggestive procedures (rare assumptions and rare memory recoveries), a substantial minority seems to engage in them on a regular basis: Eleven percent of the therapists reporting recovery attempts indicated that they both assumed *and* recovered purported trauma in a majority of their patients. This proportion of therapists is large enough to warrant serious attention. It suggests that a relatively small subgroup of therapists may contribute to many cases of false memories. These therapists employ problematic suggestive interventions to recover assumed trauma memories. Given the correlation between recovery of alleged memories and the view that therapy should uncover memories, they may do so because they believe it is their role as therapists.

However, the approach taken by most therapists may be characterised as less systematic and rather ambiguous. They may believe that traumatised patients experience memory shortcomings (see subsection on Views on Memory and Trauma below), occasionally assume trauma memories in some patients, and rarely decide to attempt to recover these memories actively. This may be either because they are aware of the risks associated with false memories or because they do not always consider such an approach to be crucial for advancing the therapy. It is important to note that, to some extent, this interpretation of the data remains speculative. Considering the inherent limitations of large quantitative surveys, future research could include in-depth interviews with therapists to provide further insights into how they perceive and handle memory recoveries and suggestion in therapy.

Therapists show a variety of reactions towards patients' assumptions regarding possible trauma experiences and often take a critical stance

Therapists employ a diverse set of strategies when dealing with patient assumptions, and they may even take a critical stance toward memory recovery. The number of therapists who reported engaging in critical discussions of patient assumptions was approximately the same as that attempting to recover memories. One quarter even said that they had emphasised the possibility of false memories. Many therapists may thus be aware of the risks associated with searching for hidden trauma memories, and they may well openly communicate these risks to their patients. Interestingly, a small minority of therapists reported both informing patients about false memories and attempting to recover assumed memories. Based on our data, we cannot say whether these therapists discussed false memories with their patients to obtain their informed consent before starting recovery attempts (Lynn, 2001; for a recent discussion, see Loftus & Teitcher, 2019; Patihis & Pendergrast, 2019a); if they first recovered memories and then informed patients about the risk of a false memory; or if they started recovery attempts with some patients but told others about the risk of false memory. Nonetheless, it is evident that some therapists are aware of the risks associated with memory recovery but still engage in suggestive memory searches. This highlights the need for future research into how therapists choose their different strategies for dealing with trauma assumptions, and how often they ask about informed consent before using potentially suggestive techniques.

Evaluations of recovered memories

Our data suggest that therapists rarely doubt the authenticity of recovered memories – not because of an active decision-making process, but because many consider the authenticity to be less relevant to treatment progress. Even when therapists had doubts, they most commonly chose to ignore them because they deemed them inconsequential. Similarly, when asked about the importance of memory authenticity for the treatment process, many therapists did not view it as significant. However, a considerable number of therapists reported having shared their doubts with patients. This once again suggests that therapists use different strategies depending on the therapy situation or the patient.

Crucially, a large majority of the therapists reported seeing improvements in patient symptoms after memory recovery. This is only a subjective perception and no systematic measurement of therapy effectiveness as suggested by Lynn et al. (2019), but it still suggests that therapists' attitudes towards alleged memory recovery may be shaped by the perception that it has a positive impact on therapy outcomes. If recovering purported memories is perceived as a beneficial phenomenon leading to therapeutic progress, the question whether these memories are based on real experiences may appear secondary to many therapists. Thus therapists may approach alleged memory recovery from a different perspective than memory scientists, but should be aware of the potentially negative consequences of false memories (e.g., in criminal cases) for both patients and the accused (Loftus, 1997). Therapist training may well need to enhance communication and sensitivity to these issues.

Views on memory and trauma along with false memory in training and guidelines

Most therapists indicated a belief that trauma memories can often not be memorised, and many agreed that this is more likely the more traumatic the experience was. These findings align with previous research on beliefs about trauma and memory among psychotherapists (Otgaar et al., 2019). Such beliefs are a matter of concern because they can contribute to suggestive procedures that facilitate the development of false memories. Zappalà et al. (2023) found significant correlations between various beliefs about trauma memory repression and patients recovering trauma memories as well as therapists discussing possibly repressed trauma memories in therapy practice. In our study, we found a moderate correlation between these beliefs and therapist assumptions about hidden trauma and their relative frequency. Notably, the belief that more traumatic events are even harder to remember correlated with self-reported use of potentially suggestive therapeutic procedures, specifically with the decision to attempt memory recovery.

The most influential belief, however, was whether therapists considered memory recovery to be one of the tasks of psychotherapy – which was the case for one-fifth of therapists. This shows the importance of the self-defined objectives of psychotherapy for the risk of false memory development. It must be stressed that assuming memories and "recovering" them is not evidence-based practice. The risks associated with these therapeutic procedures have been widely recognised in cognitive and clinical psychology (Brewin & Andrews, 2017; Lindsay & Read, 1994). This raises the intriguing question why many therapists still seem to maintain problematic views despite this awareness. Addressing this issue warrants further investigation in future research.

An important question is whether the beliefs observed here can be changed through training (Otgaar et al., 2022). The discussion of false memories in therapy training did not correlate with any of the belief items in our study, nor with the frequency of actual memory recovery. There was, however, a significant correlation with memory recovery attempts ($r = .15$) showing that attempts were less frequently reported when therapists had discussed false memories in training. Thus, discussions about false memories may prevent therapists from starting suggestive procedures but seem to have little or no effect once the search for assumed memory has already begun in therapy. Future research may clarify the role of therapist training on false memories and facilitate the design of effective training curricula for which there is still a need: A significant majority of therapists indicated having no guidelines on the recovery of purported trauma memories, and more than one half of them expressed interest in support on how to handle recovered memories on trauma. Such efforts may change therapy practices, particularly among most therapists who use suggestive therapy practices only sporadically.

Cognitive–behavioural and psychodynamic therapy: substantial rates of problematic therapy practices in both therapy schools

In our study, the differences between the two therapeutic schools were primarily related to the prevalence of assumptions about trauma. PDT therapists tended to report more frequently both their own and patients' assumptions that symptoms were indicative of traumatic but unremembered experiences. We also found higher mean agreement among PDT therapists with statements about memory, trauma and psychotherapy that correlated with problematic therapy practices. Taken together with the results on trauma assumptions, these findings suggest that PDT therapists are more prone to a suggestive mindset than CBT therapists.

However, we found no evidence for differences regarding self-reported suggestive behaviour and recovery rates. Therapists from both schools reported substantial rates on a similar level regarding the frequency of recovery

attempts based on therapists' assumptions as well as recovering assumed trauma memories. The greatest difference seemed to occur regarding the techniques used to recover memories with PDT therapists reporting dream interpretation much more frequently.

Thus, our study adds to the literature indicating that suggestive psychotherapy is not a school-specific problem but may rather be related to attitudes and beliefs (cf. Patihis & Pendergrast, 2019a). Considering that, for instance, dissociative amnesia is listed as a potential outcome of trauma in both the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM-5*; American Psychiatric Association, 2013) and the *International Classification of Disorders (ICD-11*; World Health Organization, 2022), this finding might not appear as surprising upon closer examination. These manuals serve as the primary reference for licensed therapists from both therapeutic approaches in Germany. Therapists from both schools may misunderstand the classification criteria and assume that psychogenic amnesia is a common result of trauma (see Mangiulli et al. (2022) and Otgaar et al. (2023)). This belief then can lead to problematic, i.e., suggestive therapeutic practices in both therapy schools (for a critical discussion, see also Otgaar et al., 2019).

Limitations of the study

Some limitations must be considered. First, the data collected in this study relied mainly on retrospective reports, which can be considered as rough estimates and should be interpreted as tendencies rather than reliable indicators. Additionally, relative frequencies were indicated on a percentage slider with the lowest tick at 0%, then 5%, 10%, and so on. This may have led to a slight overestimation of the numbers, given that a large proportion of therapist reports fell within the 0%–10% range. Moreover, some participants reported that they found it challenging to answer general questions, because they typically tailor their approach to each individual patient in their everyday practice.

Second, despite our efforts to create items with clear and concise wording, studying the current topic with quantitative surveys remains challenging. Terms such as "trauma", "memory", and "memory recovery" can be understood in broader senses than that intended in the context of the science of false memory.

Third, we did not specifically inquire whether therapy practices had changed over a therapist's career. Thus, it is possible that more experienced therapists engaged in suggestive practices in the past but have since discontinued such approaches. However, none of the therapists reported such a change, even when open-ended responses were possible. Furthermore, the items assessing trauma and memory views referred to therapists' current opinions and correlated with suggestive therapist behaviour. Nevertheless, it would be interesting if future research explicitly investigated whether therapists have been informed about suggestion and false memory and whether this has an impact on their therapeutic practice (see, e.g., Polusny & Follette, 1996).

Fourth, this study focused exclusively on psychological psychotherapists who have undergone extensive training with regular quality assurance. It is plausible that suggestive practices play a more significant role in less professional forms of therapy or counseling in which training, regulation, and requirements may be less rigorous. Future studies could explore different forms of therapy and counseling to gain further insights into this issue.

Finally, it is important to emphasise that this survey does not provide an estimate of the frequency of false memories in therapy. It dealt with therapy settings that are more prone to the occurrence of false memories and should thus be avoided. However, it is impossible to determine the veracity of the recovered memories reported in this study – whether they were true, false, or a combination of the two.

Conclusion

A considerable portion of therapists in this sample utilised suggestive therapeutic techniques to recover presumed trauma memories, but only a smaller subset of therapists appears to engage consistently in recovered memory therapy. These therapists may perceive it as their role to recover assumed memories even though this might lead to false memories. We therefore conclude that suggestive practices remain a concern in (German) psychotherapy.

These findings should be taken as a motivation to increase efforts to effectively communicate memory science to (future) psychotherapists. It is worth noting that more than one half of the therapists were positive about support on how to handle trauma memory recovery and false memories and we found evidence for a small training effect preventing the initiation of suggestive procedures.

Possibly, future communication with therapists about memory recovery and false memory may benefit from taking the perspective of psychotherapy practitioners into account. This perspective may be rather uncritical due to observations that recovered memories can arise spontaneously during discussions about a patient's past, encompass both positive and negative experiences, and typically lead to symptom improvement. One way to communicate more effectively with psychotherapists could therefore be to carefully disentangle spontaneously recovered memories, reinterpretations of existing memories and suggestive memory recovery techniques. This may ensure that therapists are equipped with accurate information to critically evaluate memory recovery techniques and promote responsible therapeutic approaches.

Open Scholarship

This article has earned the Center for Open Science badges for Open Data and Open Materials through Open Practices Disclosure. The data and materials are openly accessible at https://osf.io/rk9pc/ and Appendix of the article (see manuscript)..

Disclosure statement

No potential conflict of interest was reported by the author(s).

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References

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). https://doi.org/10.1176/appi.books.9780890425596

Andrews, B., Brewin, C. R., Ochera, J., Morton, J., Bekerian, D. A., Davies, G. M., & Mollon, P. (1999). Characteristics, context and consequences of memory recovery among adults in therapy. *British Journal of Psychiatry*, *175*(2), 141–146. https://doi.org/10.1192/bjp.175.2.141

Andrews, B., Brewin, C. R., Ochera, J., Morton, J., Bekerian, D. A., Davies, G. M., & Mollon, P. (2000). The timing, triggers and qualities of recovered memories in therapy. *British Journal of Clinical Psychology*, *39*(1), 11–26. https://doi.org/10.1348/014466500163077

Andrews, B., Morton, J., Bekerian, D. A., Brewin, C. R., Davies, G., & Mollon, P. (1995). The recovery of memories in clinical practice: Experiences and beliefs of British Psychological Society practitioners. *The Psychologist*, *8*, 209–214. https://pure.royalholloway.ac.uk/en/publications/the-recovery-of-memories-in-clinical-practice-experiences-and-bel.

Anthony, K., & Janssen, S. M. J. (2023). A brief overview of research into the forgot-it-all-along effect. *Topics in Cognitive Science*. https://doi.org/10.1111/TOPS.12670

Arnold, J. B. (2021). *ggthemes: Extra Themes, Scales and Geoms for "ggplot2". R package version 4.2.4*. https://cran.r-project.org/package=ggthemes

Arslan, R. C., Walther, M. P., & Tata, C. S. (2020). Formr: A study framework allowing for automated feedback generation and complex longitudinal experience-sampling studies using R. *Behavior Research Methods*, *52*(1), 376–387. https://doi.org/10.3758/s13428-019-01236-y

Battista, F., Mangiulli, I., Patihis, L., Dodier, O., Curci, A., Lanciano, T., & Otgaar, H. (2023). A scientometric and descriptive review on the debate about repressed memories and traumatic forgetting. *Journal of Anxiety Disorders*, *97*. https://doi.org/10.1016/j.janxdis.2023.102733

Bauer, P. J. (2015). A complementary processes account of the development of childhood amnesia and a personal past. *Psychological Review*, *122*(2), 204–231. https://doi.org/10.1037/a0038939

Brainerd, C. J., & Reyna, V. F. (2005). *The science of false memory*. Oxford University Press.

Brenneis, C. B. (1999). The analytic present in psychoanalytic reconstructions of the historical past. *Journal of the American Psychoanalytic Association*, *47*(1), 187–201. https://doi.org/10.1177/00030651990470010301

Brewin, C. R. (2021). Tilting at windmills: Why attacks on repression are misguided. *Perspectives on Psychological Science*, *16*(2), 443–453. https://doi.org/10.1177/1745691620927674

Brewin, C. R., & Andrews, B. (2017). Creating memories for false autobiographical events in childhood: A systematic review. *Applied Cognitive Psychology*, *31*(1), 2–23. https://doi.org/10.1002/acp.3220

Comtois, D. (2019). *summarytools: Tools to quickly and neatly summarize data. R package version 0.9.4*. https://cran.r-project.org/package=summarytools

Desjardins, T., & Scoboria, A. (2007). "You and your best friend Suzy put slime in Ms. Smollett's desk": Producing false memories with self-relevant details. *Psychonomic Bulletin & Review*, *14*(6), 1090–1095. https://doi.org/10.3758/BF03193096

Dodier, O., Barzykowski, K., & Souchay, C. (2023). Recovered memories of trauma as a special (or not so special) form of involuntary autobiographical memories. *Frontiers in Psychology*, *14*, 1268757. https://doi.org/10.3389/fpsyg.2023.1268757

Dodier, O., & Patihis, L. (2021). Recovered memories of child abuse outside of therapy. *Applied Cognitive Psychology*, *35*(2), 538–547. https://doi.org/10.1002/acp.3783

Dodier, O., Patihis, L., & Payoux, M. (2019). Reports of recovered memories of childhood abuse in therapy in France. *Memory (Hove, England)*, *27*(9), 1283–1298. https://doi.org/10.1080/09658211.2019.1652654

Geraerts, E., Lindsay, D. S., Merckelbach, H., Jelicic, M., Raymaekers, L., Arnold, M. M., & Schooler, J. W. (2009). Cognitive mechanisms underlying recovered-memory experiences of childhood sexual abuse. *Psychological Science*, *20*(1), 92–98. https://doi.org/10.1111/j.1467-9280.2008.02247.x

Goodman, G. S., Gonzalves, L., & Wolpe, S. (2019). False memories and true memories of childhood trauma: Balancing the risks. *Clinical Psychological Science*, *7*(1), 29–31. https://doi.org/10.1177/2167702618797106

Herman, J. L., & Schatzow, E. (1987). Recovery and verification of memories of childhood sexual trauma. *Psychoanalytic Psychology*, *4*(1), 1–14. https://doi.org/10.1037/h0079126

Holmes, D. S. (1994). Is there evidence of repression? Doubtful. *Harvard Mental Health Letter*, *10*(12), 4–6.

Houben, S. T. L., Otgaar, H., & Roelofs, J. (2021). Psychological myths as therapeutic instructions in eye movement desensitization and reprocessing. *Journal of Psychology: Interdisciplinary and Applied*, *155*(2), 129–139. https://doi.org/10.1080/00223980.2020.1839374

Houben, S. T. L., Otgaar, H., Roelofs, J., & Merckelbach, H. (2018). Lateral eye movements increase false memory rates. *Clinical Psychological Science*, *6*(4), 610–616. https://doi.org/10.1177/2167702618757658

Howe, M. L. (2000). *The fate of early memories : Developmental science and the retention of childhood experiences*. American Psychological Ass. https://www.apa.org/pubs/books/4318900.

Howe, M. L. (2013). Feats of early memory: Courtroom tales of what adults claim to remember about early childhood events. In *Child forensic psychology* (pp. 39–64). Macmillan Education UK. https://doi.org/10.1007/978-1-137-29251-3_3

Howe, M. L. (2022). Early childhood memories are not repressed: Either they were never formed or were quickly forgotten. *Topics in Cognitive Science*, *0*, 1–11. https://doi.org/10.1111/TOPS.12636

Howe, M. L., & Knott, L. M. (2015). The fallibility of memory in judicial processes: Lessons from the past and their modern consequences. *Memory (Hove, England)*, *23*(5), 633–656. https://doi.org/10.1080/09658211.2015.1010709

Hyman, I. E., & Kleinknecht, E. E. (1999). False childhood memories: Research, theory, and applications. In L. M. Williams & V. L. Banyard (Eds.), *Trauma and memory* (pp. 175–188). SAGE.

Kihlstrom, J. F., & Hoyt, I. P. (1990). Repression, dissociation, and hypnosis. In J. Singer (Ed.), *Repression and dissociation - Implications for personality theory, psychopathology, and health* (pp. 181–208). The University of Chicago Press.

Lindsay, D. S., Hagen, L., Read, J. D., Wade, K. A., & Garry, M. (2004). True photographs and false memories. *Pyschological Sciences*, *15*(3), 149–154. https://doi.org/10.1111/J.0956-7976.2004.01503002.X

Lindsay, D. S., & Read, J. D. (1994). Psychotherapy and memories of childhood sexual abuse: A cognitive perspective. *Applied Cognitive Psychology*, *8*(4), 281–338. https://doi.org/10.1002/acp.2350080403

Loftus, E. F. (1997). Repressed memory accusations: Devastated families and devastated patients. *Applied Cognitive Psychology*, *11*(1), 25–30. https://doi.org/10.1002/(SICI)1099-0720(199702)11:1<25::AID-ACP452>3.0.CO;2-J

Loftus, E. F., & Davis, D. (2006). Recovered memories. *Annual Review of Clinical Psychology*, *2*(1), 469–498. https://doi.org/10.1146/annurev.clinpsy.2.022305.095315

Loftus, E. F., & Teitcher, J. (2019). Invasion of the mind snatchers: A nation full of traumatic memories. *Clinical Psychological Science*, *7*(1), 25–26. https://doi.org/10.1177/2167702618797107

Lynn, S. J. (2001). Hypnosis, the hidden observer, and not-so-hidden consent. *American Journal of Clinical Hypnosis*, *43*(3/4), 291–292. https://doi.org/10.1080/00029157.2001.10404283

Lynn, S. J., Krackow, E., Loftus, E. F., Locke, T. G., & Lilienfeld, S. O. (2015). Constructing the past: Problematic memory recovery techniques in psychotherapy. In S. O. Lilienfeld, S. J. Lynn, & J. M. Lohr (Eds.), *Science and pseudoscience in clinical psychology* (pp. 210–244). The Guilford Press.

Lynn, S. J., McNally, R. J., & Loftus, E. F. (2023). The memory wars then and now: The contributions of Scott O. Lilienfeld. *Clinical Psychological Science*, 216770262211330. https://doi.org/10.1177/21677026221133034

Lynn, S. J., Merckelbach, H., & Polizzi, C. P. (2019). Reflections on recovered memories: Comment on Patihis and Pendergrast (2019). *Clinical Psychological Science*, *7*(1), 22–24. https://doi.org/10.1177/2167702618795700

Maldonado, J. R., & Spiegel, D. (2015). Dissociative disorders. In A. Tasman, J. Kay, J. A. Liebermann, M. B. First, & M. B. Riba (Eds.), *Psychiatry* (pp. 1178–1198). John Wiley & Sons.

Mangiulli, I., Otgaar, H., Jelicic, M., & Merckelbach, H. (2022). A critical review of case studies on dissociative amnesia. *Clinical Psychological Science*, *10*(2), 191–211. https://doi.org/10.1177/21677026211018194

McNally, R. J., & Geraerts, E. (2009). A new solution to the recovered memory debate. *Perspectives on Psychological Science*, *4*(2). https://doi.org/10.1111/j.1745-6924.2009.01112.x

Meyersburg, C. A. (2015). Recovered memories. *The Encyclopedia of Clinical Psychology*, 1–3. https://doi.org/10.1002/9781118625392.WBECP191

Nübling, R., Jeschke, K., Ochs, M., & Schmidt, J. (2014). *Zur ambulanten psychotherapeutischen Versorgung in Deutschland [On the state of the psychotherapy outpatient care in Germany]*

Ost, J., Wright, D. B., Easton, S., Hope, L., & French, C. C. (2013). Recovered memories, satanic abuse, dissociative identity disorder and false memories in the UK: A survey of clinical psychologists and hypnotherapists. *Psychology, Crime & Law*, *19*(1), 1–19. https://doi.org/10.1080/1068316X.2011.598157

Otgaar, H., Howe, M. L., Dodier, O., Lilienfeld, S. O., Loftus, E. F., Lynn, S. J., Merckelbach, H., & Patihis, L. (2021). Belief in unconscious repressed memory persists. *Perspectives on Psychological Science*, *16*(2), 454–460. https://doi.org/10.1177/1745691621990628

Otgaar, H., Howe, M. L., Patihis, L., Mangiulli, I., Dodier, O., Huntjens, R., Krackow, E., Jelicic, M., & Lynn, S. J. (2023). The neuroscience of dissociative amnesia and repressed memory: Premature conclusions and unanswered questions. *Legal and Criminological Psychology*.

Otgaar, H., Howe, M. L., Patihis, L., Merckelbach, H., Lynn, S. J., Lilienfeld, S. O., & Loftus, E. F. (2019). The return of the repressed: The persistent and problematic claims of long-forgotten trauma. *Perspectives on Psychological Science*, *14*(6), 1072–1095. https://doi.org/10.1177/1745691619862306

Otgaar, H., Mangiulli, I., Riesthuis, P., Dodier, O., & Patihis, L. (2022). Changing beliefs in repressed memory and dissociative amnesia. *Applied Cognitive Psychology*. https://doi.org/10.1002/ACP.4005

Patihis, L., Ho, L. Y., Tingen, I. W., Lilienfeld, S. O., & Loftus, E. F. (2014). Are the "memory wars" over? A scientist-practitioner gap in beliefs about repressed memory. *Psychological Science*, *25*(2), 519–530. https://doi.org/10.1177/0956797613510718

Patihis, L., & Pendergrast, M. H. (2019a). Reports of recovered memories of abuse in therapy in a large age-representative U.S. National sample: Therapy type and decade comparisons. *Clinical Psychological Science*, *7*(1), 3–21. https://doi.org/10.1177/2167702618773315

Patihis, L., & Pendergrast, M. H. (2019b). Reports of recovered memories in therapy, informed consent, and generalizability: Response to commentaries. *Clinical Psychological Science*, *7*(1), 32–36. https://doi.org/10.1177/2167702618804206

Polusny, M. A., & Follette, V. M. (1996). Remembering childhood sexual abuse: A national survey of psychologists' clinical practices, beliefs, and personal experiences. *Professional Psychology: Research and Practice*, *27*(1), 41–52. https://doi.org/10.1037/0735-7028.27.1.41

R Core Team. (2019). *R: A language and environment for statistical computing*. R Foundation for Statistical Computing. https://www.r-project.org/.

RStudio Team. (2019). *RStudio: Integrated development for R*. www.rstudio.com

Rubin, D. C., & Berntsen, D. (2007). People believe it is plausible to have forgotten memories of childhood sexual abuse. *Psychonomic Bulletin & Review*, *14*(4), 776–778. https://doi.org/10.3758/BF03196836

Rubin, D. C., & Boals, A. (2010). People who expect to enter psychotherapy are prone to believing that they have forgotten memories of childhood trauma and abuse. *Memory (Hove, England)*, *18*(5), 556–562. https://doi.org/10.1080/09658211.2010.490787

Schooler, J. W., Bendiksen, M., & Ambadar, Z. (1997). Taking the middle line: Can we accommodate both fabricated and recovered memories of sexual abuse? In M. A. Conway (Ed.), *Recovered memories and false memories* (pp. 251–292). Oxford University Press.

Scoboria, A., Lynn, S. J., Hessen, J., & Fisico, S. (2007). So that's why I don't remember: Normalising forgetting of childhood events influences false autobiographical beliefs but not memories. *Memory (Hove, England)*, *15*(8), 801–813. https://doi.org/10.1080/09658210701685266

Shaw, J., & Vredeveldt, A. (2019). The recovered memory debate continues in Europe: Evidence from the United Kingdom, The Netherlands, France, and Germany. *Clinical Psychological Science*, *7*(1), 27–28. https://doi.org/10.1177/2167702618803649

Shobe, K. K., & Schooler, J. W. (2001). Discovering fact and fiction: Case-based analyses of authentic and fabricated discovered memories of abuse. In G. M. Davies & T. Dalgleish (Eds.), *Recovered memories. Seeking the middle ground* (pp. 95–151). Wiley.

Torchiano, M. (2020). *effsize: Efficient effect size computation*. *R package version 0.8.1*. https://doi.org/10.5281/zenodo.1480624

van der Kolk, B. A., & Fisler, R. (1995). Dissociation and the fragmentary nature of traumatic memories: Overview and exploratory study. *Journal of Traumatic Stress*, *8*(4), 505–525. https://doi.org/10.1002/jts.2490080402

Watkins, J. G. (2008). The affect bridge: A hypnoanalytic technique. *International Journal of Clinical and Experimental Hypnosis*, *19*(1), 21–27. https://doi.org/10.1080/00207147108407148

Wickham, H. (2016). *Ggplot 2: Elegant graphics for data analysis* (2nd ed.). Springer.

World Health Organization. (2022). *ICD-11: International Classification of Diseases (11th revision)*. https://icd.who.int/

Zappalà, A., Mangiulli, I., Santtila, P., Loftus, E. F., & Otgaar, H. (2023). Beliefs and therapeutic practices related to traumatic memories among Italian cognitive behavioral therapists and trainees. *Journal of Criminal Psychology*. https://doi.org/10.1108/JCP-05-2023-0035

Appendix

Full questionnaire

Item[1]	Response format[1]
Demographics/therapy training and experience	
Please enter your age in years.	Any number between 1 and 120 (1-year-steps)
Please enter your gender.	Multiple choice • Male • Female • Diverse
What course of study qualified you for training as a psychological psychotherapist?	Multiple choice[2] • Psychology • Pedagogy • Social pedagogy
If other:	Open response
Are you currently still in therapy training?	Yes/No
You are/were trained in …	Multiple choice[2] • Psychological psychotherapy (adults) • Child and adolescent psychotherapy
Which therapy school was your training based on?	Multiple choice[2] • Cognitive-behavioural psychotherapy • Psychodynamic psychotherapy • Analytical psychotherapy • Systemic therapy
In which setting do you mainly work?	Multiple choice[2] • Outpatient • Inpatient • Partly inpatient
What additional qualifications (e.g., EMDR, schema therapy, etc.) do you have?	Open response
How many years of psychotherapeutic experience do you have? (incl. outpatient treatments as part of therapist training)	Any number between 0.5 and 90 (0.5-year steps)
Approximately how many cases have you treated since then? (1 case = min. 4 sessions)	Any number between 1 and 1.000000 (1-case steps)
Part 1: recovered memories in general	
Has it ever happened during psychotherapy that a patient recalled a biographical event that she/he was not aware of before and could not remember even when asked about it?	Yes/No
What percentage of patients you treated did this occur in?	0–100% (range ticks, 5% steps)
What were these memories mostly about?	Multiple choice[2] • Happy childhood memories • Memories from the first 3 years of life • Accidents • Sexual abuse • Physical abuse • Emotional abuse • Ritual abuse • Neglect • Other
If other:	Open response
Were there disorders or patient characteristics associated with memory recovery?	Yes/No
Which were they?	Open response
How did you proceed in cases where there were recollections that had previously been unaware and not recallable even when asked about?	Multiple choice[2] • I explored further • I tried to clarify what really happened • I treated a recovered trauma by means of the following intervention (text box follows) • I took the case to supervision/intervision • I informed the patient about possible false memories in psychotherapy • I expressed concern about whether the underlying event actually occurred • I did not elaborate on the recovered memories • Other

(*Continued*)

Continued.

Item[1]	Response format[1]
Intervention	Open response
If other:	Open response
Part 2: details of potentially suggestive procedures	
Have you ever suspected that a traumatic event that is no longer remembered underlies a patient's symptoms?	Yes/No
What led you to believe that?	Open response
What percentage of patients you treated did this occur in?	0–100% (range ticks, 5% steps)
Did you usually attempt to uncover the traumatic event patients did not remember?	Yes/No
Have patients ever suspected that a traumatic event that is no longer remembered underlies their symptoms?	Yes/No
What percentage of all patients you treated did this occur in?	0%–100% (range ticks, 5% steps)
How did you usually proceed in such cases?	Multiple choice[2] • I tried to uncover the suspected experience • I critically discussed the patient's assumption • I left the patient's suspicion as it was • I sought advice in supervision • I informed her or him about possible false memories • Other
If other:	Open response
If you wanted to uncover unremembered traumatic experiences whether because of your own assumption or your patient's: What interventions did you use?	Multiple choice[2] • I kept asking about it • Katathym imaginative psychotherapy • Dream interpretation • Neurolinguistic programming • Hypnosis • Affect bridges • Age regression • EMDR • Prolonged trauma exposure • IRRT • Exposure (in-vivo/-sensu) • Play therapy • Family constellations • Other
If other:	Open response
In what percentage did these interventions actually lead to the recovery of memories?	0%–100% (range ticks, 5% steps)
Part 3: evaluations of recovered memories	
Regarding the cases where memories were recovered: in what percentage did you doubt that the recovered event actually happened?	0–100% (range ticks, 5% steps)
What made you doubt it?	Multiple choice[2] • The event seemed extremely unlikely • From a psychological perspective, remembering the event seemed almost impossible • The patient seemed very suggestible to me • I suspected that the patient would like to derive a positive benefit from the disclosure of the event. • I suspected/knew (auto-)suggestive influences of the patient in advance. • Other
If other:	Open response
How did you handle your doubt?	Multiple choice[2] • I ignored the doubt because it does not matter for therapy whether the rediscovered event actually happened • I ignored the doubt and assumed that the event had happened • I tried to clarify what really happened • I avoided the topic. • I shared my doubt with the patient • I went to supervision • Other
If other:	
Referring to patients who recovered memories: how did the symptoms usually develop after memories were recovered?	Multiple choice[2] • There was no change • They rather improved

(*Continued*)

Continued.

Item[1]	Response format[1]
	• They rather got worse • I can't say.
How important do you consider the authenticity of a recovered memory for the following treatment process?	Rating scale • 1 (not important at all) • 2 (not important) • 3 (rather not important) • 4 (neither) • 5 (rather important) • 6 (important) • 7 (very important)
Part 4 – false memories in training and guidelines/Views on trauma and memory	
Did you discuss the formation of false memories* in psychotherapy in your training as a psychological psychotherapist? **A false memory is defined as a subjective belief that a particular event actually occurred, the pictorial imagination of an event, or a combination of both.*	Rating scale • 1(never) • 2 (rarely) • 3 (sometimes) • 4 (often) • 5 (very often)
Do you know criteria for distinguishing a memory from a false memory? If yes, please name them.	Open response
Does your work place (e.g., the facility where you work) have guidelines for dealing with recovered memories of traumatic events?	Yes/No/I don't know
Would you like more support (in the form of supervision, intervision, training, information) in dealing with recovered memories of traumatic events and false memories?	Rating scale • 1 (definitely no) • 2 (rather no) • 3 (neither) • 4 (rather yes) • 5 (definitely yes)
Often, there are no memories of traumatic experiences that can be put into words. The more traumatic an event was, the less it can be remembered and put into words. The task of psychotherapy is to uncover inaccessible memories of traumatic experiences.	Rating scale • 1 (incorrect) • 2 (rather incorrect) • 3 (neither) • 4 (rather correct) • 5 (correct)

Note: [1]Originally, the survey was in German. We provide the English translation of the item and response wordings. [2]Multiple answers were possible.