

Reports of Recovered Memories of Abuse in Therapy in a Large Age-Representative U.S.

National Sample: Therapy Type and Decade Comparisons

Lawrence Patihis¹ and Mark H. Pendergrast²

¹University of Southern Mississippi

²Independent scholar and science writer

Corresponding author: Lawrence Patihis, Department of Psychology, 118 College Drive #5025,
Hattiesburg, MS 39406. Email: L.Patihis@usm.edu

Abstract

The potential hazards of endeavoring to recover ostensibly repressed memories of abuse in therapy have previously been documented. Yet no large survey of the general public about memory recovery in therapy has been conducted. In an age-representative nonclinical sample of over 2,000 adults in the United States, we found that 9% (8% weighted to be representative) of the total sample reported seeing therapists who discussed the possibility of repressed abuse, and 5% (4% weighted) reported recovering memories of abuse in therapy for which they had no previous memory. Participants who reported therapists discussing the possibility of repressed memories of abuse were 20 times more likely to report recovered abuse memories than those who did not. Recovered memories of abuse were associated with most therapy types, and most associated with those who reported starting therapy in the 1990s. We discuss possible problems with such purported memory recovery and make recommendations for clinical training.

Keywords: Repressed memory, trauma, abuse, psychotherapy, memory war, recovered memory therapy

Reports of Recovered Memories of Abuse in Therapy in a Large Age-Representative U.S.
National Sample: Therapy Type and Decade Comparisons

There have been indications that the debate over repressed memories of childhood abuse is not resolved. The central question in this controversy is whether attempting to help clients to recover purportedly repressed memories of abuse leads to memory distortions that harm rather than heal clients (see McNally, 2012). Freud (1893–1895/1953) appears to have introduced the belief that memories of traumas are often repressed—and this belief still persists among the general public as well as a majority of clinicians, yet is more rarely endorsed by experimental psychologists (Patihis, Ho, Tingen, Lilienfeld, & Loftus, 2014a). Based on previous surveys (e.g., Poole, Lindsay, Memon, & Bull, 1995; Yapko, 1994;), one of us (Pendergrast, 1996) estimated that “several million” cases of recovered memory arose by the mid-1990s (p. 504). This figure was based on extrapolated estimates from surveys of therapists, rather than a large survey sampling the general population, a limitation we address in the current article. It is unclear to what extent the practice of recovered memory therapy continues in the 21st century. It is an important question because skeptics have posited that recovering allegedly repressed memories of abuse—completely unknown before seeking therapy—is potentially harmful (e.g., Lilienfeld, 2007; see also Crawford et al., 2016; Parry, Crawford, & Duggan, 2016; Scott & Young, 2016;), can lead to estrangement within families (e.g., Loftus, 1997), and legal prosecutions (see Connolly & Read, 2006). Nevertheless, to varying degrees, others have defended the scientific standing of repressed memory or related concepts (e.g., Brewin & Andrews, 2014; Brown, Schefflin, & Whitfield, 1999; Dalenberg et al., 2012; Freyd, 1994;). In this study, we investigate the prevalence of purported recovered memories of abuse in therapy, as

well as prevalence rates over time and by psychotherapy type. To our knowledge, it is the first such survey of its kind.

The narrative of the history of repressed memory recovery in therapy is often framed as increasing in the 1980s, fueled by a number of influences, including the publication of the book *The Courage to Heal* (Bass & Davis, 1988), and culminating in the “memory wars” of the 1990s (e.g., Crews, 1995; McNally, 2012; but see Patihis & Younes Burton, 2015). After related lawsuits and the publication of critical books and studies in the 1990s, some posited that the practice of recovered memory therapy became much less frequent in the 21st century (e.g., Barden, 2016). Nevertheless, others have found that *beliefs* in repressed memories have persisted among both the general public and clinicians (Ost, Wright, Easton, Hope, & French, 2013; Patihis et al., 2014;).

The Theory of Unconscious Repressed Memories, and the Evidence

The theory that traumatic experiences can be selectively repressed was put forward by Breuer and Freud (1895/1953). The theory posits that memory for a traumatic experience is stored, is rendered unconscious and inaccessible for a period of years, yet can ultimately be recovered in detail. Freud (1916/1949) later suggested that the underlying mechanism for this type of amnesia was the motivated forgetting of painful material. Freud was influenced by the work of physicians in the French schools of hypnotism—for example, the theory that trauma leads to dissociative symptoms as put forward by Janet (1887). The idea of selective, unconscious, and unexplained gaps in memory appears to go back to the early roots of hypnotism in France (e.g., Puységur, 1812; see also Laurence & Perry, 1988, p. 112). This theory is maintained in modified form by some theorists more recently (e.g., Dalenberg et al., 2012; DePrince et al., 2012; Freyd, 1996; Van der Kolk & Fisler, 1995). Indeed, the idea that traumas

can be stored, become inaccessible, and yet recoverable later is part of the description of dissociative amnesia (selective type) in the Diagnostic and Statistical Manual-5 (DSM-5; American Psychiatric Association, 2013).

Nevertheless, there are others who do not subscribe to the theory of repressed memory or selective dissociative amnesia. These skeptics are concerned that there is no credible evidence that people can suffer traumatic abuse for years, be unaware of these events afterwards, and recover them accurately (see Holmes, & Schallow, 1969; Holmes, 1990; Loftus, 1993; Patihis et al., 2014a; Patihis, Lilienfeld, Ho, & Loftus, 2014b). The skepticism about the existence of repressed memories stems in part from research that has found that experiences that involve strong emotions and excitatory hormone/neurotransmitter release (e.g., epinephrine; corticosteroids) are encoded and consolidated better than non-emotional events (e.g., Alkire, 2003; Buchanan, & Lovallo, 2001; Cahill & Kensinger, 2007; for a meta-analysis on cortisol and memory, see Shields, Bonner, & Moons, 2015). Indeed, research on posttraumatic stress has been interpreted to converge on the conclusion that traumas are remembered “all too well” (McNally, 2003; p. 242).

Others argue that some areas of modern research do support the idea of repressed memory or selective dissociative amnesia. For example, Anderson and Green (2001) used a think/no-think technique to instruct some participants to either think about a word or to try not to think about a word. They reported that the latter words were suppressed and subsequently not remembered well later; something they argued was related to Freudian repression. Nevertheless, Bulevich, Roediger, Balota, and Butler (2006) were not able to replicate these findings, and others have questioned the link between memory inhibition and repressed memory (Hayne, Garry, & Loftus, 2006; Patihis et al., 2014b). Similarly, motivated forgetting of trauma-related

words in the directed forgetting paradigm has been argued to provide evidence for something akin to repression of traumatic memories (as argued by DePrince et al., 2012; but see Patihis & Place, in press). In addition, Dalenberg et al. (2012) related the idea that trauma can lead to dissociative amnesia to studies that measured the relationship between trauma and dissociative symptoms. Even if the relationship between trauma and dissociation is strong (but see Patihis & Lynn, 2017)—that does not establish evidence for selective dissociative amnesia (see Lynn et al., 2014). In summary, none of these paradigms properly assess whether a trauma can be stored, rendered inaccessible due to trauma, and subsequently become ultimately retrievable.

Memory Distortion Research

Related to research attempting to establish whether unconscious repressed memories are plausible, is research that investigates how memories can be distorted using techniques similar to those used in some therapies. Bartlett (1932) suggested that memories are not recorded but are reconstructed according to knowledge we hold in schemas and expectations. Loftus and Palmer (1974) established experimentally that changing a single suggestive word in a question can alter memory for a video of a car crash. Similarly, Loftus, Miller, and Burns (1978) established that memory of details in a narrative of a traffic accident was distorted by incorrect post-event suggestion (e.g., the misleading suggestion of a stop sign when a yield sign was actually present). Decades of research subsequently confirmed that suggestive and misleading post-event information surreptitiously hidden among true information consistently distorts memory in a wide variety of subject groups. This “misinformation effect” even held for individuals with unusually strong memory ability (Patihis et al., 2013), and for memories for stressful events experienced under great duress (Morgan, Southwick, Steffian, Hazlett, & Loftus, 2013).

By the early 1990s there was some uncertainty whether entire episodic events could be implanted in memory distortion research. Subsequently, a number of research reports established that misleading post-event information, especially when repeated, can implant memories of whole events that did not take place. False memories or beliefs have been implanted of entire episodes of being lost in the mall (Loftus & Pickrell, 1995), spilling punch on the parents of the bride at a wedding (Hyman & Billings, 1998), and for committing a crime (Shaw & Porter, 2015; see also Wade, Garry, Pezdek, 2018; Shaw 2018). False memory studies that have been estimated in systematic reviews to implant memories at rates of approximately 15% (Brewin & Andrews, 2017) and 30% (Scoboria et al., 2017) of participants on average. Patihis and Younes Burton (2015) point out that there is sufficient evidence of the implantation of detailed episodic false memories in therapy and hypnosis going back as far as the 1880s (e.g., for events we are sure did not happen, such as alien abduction and past lives; see also Clancy, 2005; French, 2016a, 2016b).

Misleading post-event information appears to be one of the most powerful ways to begin the implantation of false memories, but other techniques that mimic some psychotherapy techniques have elicited false memories. For example, guided imagery (Garry, Manning, Loftus, & Sherman, 1996; Hyman & Pentland, 1996;), hypnosis (Laurence & Perry, 1983), dream interpretation (Mazzoni, Loftus, Seitz, & Lynn, 1999), and social contagion (Roediger, Meade, & Bergman, 2001) have also been shown to lead to memory distortions or false memories/beliefs.

The theory that explains why memory distortions occur is the source monitoring framework (Johnson, Hashtroudi, & Lindsay, 1993), and other related conceptual models (e.g., reality monitoring: Johnson & Raye, 1981; associative activation and monitoring: Gallo &

Roediger, 2002; fuzzy trace theory: Reyna & Brainerd, 1995). A modal explanation of memory distortions is that an event is experienced and after time has passed all that remains are memory traces of that original event, and source monitoring errors can occur whereby misleading post-event information can become confused with the original event at retrieval. That is, the individual forgets the source of the traces of information they have in memory. For example, they cannot remember whether the stop sign was seen in the original event or just visualized mentally during the misinformation stage of a study. The source monitoring framework also explains how dreams, imaginings, semantically related items, and current cognitions can be mistaken as occurring in the original event—if sufficient time has passed to weaken the link between the source of the information and the information itself.

We have discussed the antagonistic—but not mutually exclusive—theories of repressed memory and of source monitoring theory. We also addressed some of the empirical evidence that inform this debate. Nevertheless, for the continued practice of the recovery of repressed memories in therapies, one of the most important factors is whether clinicians and the public *believe* that it is possible and fruitful to do so. So, we now turn our attention to not whether there is evidence for repressed vs. false memories, but whether important groups of people believe in ostensibly repressed memories. Is there any evidence that the theory of repressed memory is believed by sufficient numbers of clinicians and the public for the practice of attempted memory recovery to still happen?

Psychologists' and the Public's Beliefs about Repressed Memory

In the early 1990s researchers began to investigate beliefs about memory among clinicians. For example, in 1992, Yapko (1994) found that 23% of clinicians with doctorates in a US sample ($N = 208$) agreed that traumatic memories recovered during hypnosis objectively

must actually have occurred. Similarly, Dammeyer, Nightingale, and McCoy (1997) found that 58% of clinicians with Ph.D.'s in a US sample ($n = 108$) indicated a strong belief in repressed memories, whereas only 34% ($n = 109$) of experimental psychologists did. These patterns of beliefs are not restricted to the United States, nor to that time period. More recently, Magnussen and Melinder (2012) surveyed licensed psychologists in Norway and found that when asked whether recovered memories of traumatic events were real, 63% said yes ($N = 858$). Similar patterns were found in the United Kingdom, where approximately 70% of Chartered Clinical Psychologists ($n = 125$) strongly agreed with the idea the mind is capable of unconsciously blocking out memories of traumatic events (Ost, Easton, Hope, French, & Wright, 2017). Patihis et al. (2014a) found that 60% of practicing clinicians in the United States ($n = 58$) agreed to some degree with the idea that traumatic memories are often repressed, while only 19% of clinical psychology researchers did ($n = 62$). In addition, 43% of practicing clinicians also agreed to some degree with the statement that repressed memories can be retrieved in therapy accurately, compared to 16% of clinical psychology researchers. These surveys show two things: (1) that an adequate percentage of clinicians believe in the possibility of repressed memory recovery, and (2) non-practicing researchers appear to be relatively more skeptical (see also French & Ost, 2016).

For repressed memories to be pursued in therapy, sufficient numbers of the general public would have to also believe that traumas can be repressed and later retrieved. Golding, Sanchez, and Sego (1996) found that many undergraduates in a US sample believed in repressed memories to some degree. Students indicated a mean score of 5.6 on a scale from 1 (repressed memories are *never accurate*) to 10 (*always accurate*). About 24% of the students indicated that therapists who encouraged individuals to recall repressed memories use legitimate methods, and 73%

believed that these therapists both use legitimate methods and implant false memories. Simons and Chabris (2011) found that 63% of the U.S. public agreed that memory works like a video camera, 48% agreed that memory is permanent, and 55% believed memory can be enhanced through hypnosis. Patihis et al. (2014a) found high levels of agreement with the concept of repressed memories in US and UK public samples, and in a US undergraduate sample. More than 77% of these samples agreed to some degree with the idea that traumatic experiences are often repressed, and more than 64% agreed to some degree that they could be accurately recalled in therapy. These findings indicate that a sizable portion of the general public and students believed in repressed memory. The proportions of both clinicians and the public that are open to the theory of repressed memories appear sufficient to maintain the practice of memory recovery of repressed memories to at least some extent. However, this may depend upon the type of therapy, and whether the aims of treatment are to resolve past trauma.

Psychotherapy Types

The common term for therapy that actively seeks to exhume alleged repressed memories has been “recovered memory therapy” (e.g., Myers, Myers, Herndon, Broszkiewicz, & Tar, 2015). However, practitioners rarely, if ever, use this descriptor. Very few modern-day psychotherapies currently explicitly declare that they attempt to recover memories of abuse, but there are some that are more likely to attempt to resolve past traumas than others. For example, attachment therapies (Chaffin et al., 2006), eye movement desensitization reprocessing (EMDR; Shapiro & Maxfield, 2002), emotion focused therapy (Greenberg, 2004), and survivor groups (Randall, 1995) all possess the narrative that past traumas have affected current states of psychological functioning. Some modern iterations of psychodynamic therapy, though derived from Freudian psychoanalysis, place surprisingly little focus on memory and trauma (e.g., see

Shedler, 2010). The theoretical underpinnings of cognitive and behavioral therapies (Skinner, 1963; Beck, 1970) usually place little focus on past trauma or memory recovery. However, these theoretical divisions between therapies can become blurred in practice: behavioral exposure therapy can sometimes involve recall of traumatic past events (Foa et al., 1999), as can some iterations of cognitive behavioral therapy (e.g., trauma-focused CBT: Cohen, Mannarino, Kliethermes, & Murray, 2012). In addition, there is some evidence that therapists that call their therapy cognitive-behavioral sometimes introduce non-evidence based techniques from other approaches (Hipol & Deacon, 2013).

The Relationship between Recovered Memories and Dissociative Identity Disorder

A subset of cases that recover memories of abuse are reported to also lead to Dissociative Identity Disorder (DID; formerly known as multiple personality disorder [MPD]). The idea that trauma leads to dissociation was proposed by Janet (1887). Prince (1906) took that idea one step further in a detailed case study about women who reportedly experienced multiple identities. These identities each had different names, and were accompanied by gaps in memory. Prince (1906) argued that this “traumatic neurosis” was caused by “an almost daily series” of “nervous shocks,” which he likened to being hit by a train (pp. 23, 69). In the 1970s and early 1980s, stories of multiple personalities were popularized in books and films (e.g., Schreiber, 1973; Smith & Pazder, 1980; for skepticism see Nathan, 2011; Spanos, 1994). Some proponents argue that severe trauma can lead to severe dissociation (see Dalenberg et al., 2012), dissociative amnesia (Harrison et al., 2017), and in some cases the splitting of a singular identity into multiple identities, parts, alters, or subpersonalities (Brand, Loewenstein, & Spiegel, 2014; Gleaves, 1996; Riskin, 2013; Ross, 2006). The modal theory, which varies depending on the source, is that these identities are at times unable to recall the experiences of other personalities

within a single person. This leads to clients feeling that they have “lost time.” It is also posited that the reason for the fragmentation into different personalities is severe trauma that is often unknown to the client (i.e. dissociative amnesia for that trauma). This theory has been referred to as the posttraumatic model of DID (e.g., Gleaves, 1996).

Nevertheless, Spanos (1994) and Lilienfeld et al. (1999) argued that the sociocognitive model of DID presented a plausible alternative explanation to the posttraumatic model. The sociocognitive model of DID posits that the purported presentation of multiple identities in therapy is caused by the social influence of a wide variety of sources promoting the idea of multiple personalities, such as books, media, cues from therapists, and observations of individuals who have enacted multiple identities. The sociocognitive model postulates that clients are given the implicit goal (though sometimes explicit) to report and play the role of multiple identities, and subsequent multiple role enactments are legitimized and maintained by social reinforcement and the promise of psychological improvement. These theories are important to the practical matter of DID treatment, and several authors have argued that this subset of recovered memory cases that involve MPD/DID may be particularly iatrogenic and harmful (e.g., Aldridge-Morris, 1989; Bootzin & Bailey, 2005; McHugh, 1995; Piper, 1994; but see Brand et al., 2014).

We have reviewed the history, theories, and evidence on the interrelated topics of unconscious repressed memories, false memories, beliefs about memory, therapy types, and MPD/DID. We now use that background information to help us form a number of research questions designed to assess the prevalence of recovered memories of abuse previously unknown to the client, and related questions.

The Present Study and Research Questions

Although previous research has indicated a continuation of *beliefs* in repressed memory, it is not known to what extent this translates to actual occurrence of recovered memories of abuse in therapy. Indeed, no one has, to our knowledge, conducted a survey on the prevalence of recovered memories of abuse during therapy in the general population. For that reason, most of our predictions cannot be very precise in this first study. We formed the following research questions based on the information we presented above, and we discuss each question or prediction briefly.

Research Questions on Prevalence Overall and Over Time

Research Question 1: What percentage of therapists discuss repressed memories with their patients? Patihis et al. (2014a) found that many clinicians agreed to some degree the idea that memory of trauma is repressed, though less so than clinicians did in the 1990s, so we predicted low but non-zero prevalence.

Research Question 2: What proportion of people remember in therapy abuse that they were not previously aware of? Given the media coverage and popular books about the potential harm of repressed memories (e.g., Hassler, 1994; Loftus & Ketcham, 1994) we predicted lower prevalence rates of recovered memories in clients starting therapy after the year 2000. We predicted a peak in therapy that started in the late 1980s and early 1990s, non-zero prevalence before 1980, and non-zero prevalence after 2000 (based on Patihis et al., 2014a).

Research Question 3: What proportion of those who recover memories of abuse also develop DID? Barden (2016) argued that the diagnosis of MPD/DID has diminished substantially recently, noting that litigation in the 1990s caused closures of some practices specializing in MPD/DID, and a subsequent decrease in legal cases and research publications on MPD/DID. Pope, Barry, Bodkin, and Hudson (2006) found that scientific publications had

decreased in numbers since the mid-1990s. Accordingly, it is reasonable to predict that the prevalence of MPD/DID in therapy has decreased since the 1980s and 1990s.

Research Questions on Associations

Research Question 4: Associated therapy types. We also sought to clarify which types of therapies are associated with beliefs and practices related to repressed memories. From a theoretical standpoint, we would expect near-zero prevalence of repressed memory recovery in therapies that have a theoretical approach that does not aim to recover or forgotten trauma (e.g., behavioral, cognitive). Based on our earlier discussion, we may expect that therapies that have a focus on resolving psychological trauma as a cause of psychological disorders (e.g., attachment, EMDR, emotion focused therapy) should be more associated with recovered memories than those that do not focus on trauma (e.g., cognitive behavioral therapy).

Research Question 5: Associated types of abuse. Some books and articles on the topic of recovered memories have discussed repressed memories of sexual abuse (e.g., Bass & Davis, 1988; Brown, Schefflin, & Whitfield, 1999; Freud 1893–1895/1953, Freyd, 1994). Hence, we predicted that sexual abuse may be the abuse-type that is most associated with purported recovered memories of abuse.

Research Question 6: Differences in gender. Many of the aforementioned influential articles and books tended to discuss the recall of repressed sexual abuse (e.g., Bass & Davis, 1988) and MPD/DID (Schreiber, 1973) predominant in women. For this reason, we expected the prevalence of recovered memories and MPD/DID to be greater in women than men.

Research Question 7: Proportion that become estranged from family. Based on reports of past cases of recovered memories (e.g., McHugh, Lief, Freyd, & Fetkewicz, 2004), we predicted that repressed memory recovery would frequently lead to the cutting off of family

relationships, and we sought to assess the degree to which those broken relationships are resumed later.

Research Question 8: What is the association between therapists discussing repressed memory and recovered memories of abuse? We discussed earlier that suggestion and social influence can lead to memory construction (e.g., Roediger et al., 2001). We predicted that those who had a therapist who discussed the possibility of repressed memories would report recovered memories of abuse more frequently than those whose therapist did not discuss repressed memories.

Research Question 9: How the reported abuse was recalled. We examine where and how the purported recovered abuse memories were recalled. Due to the education disseminated to some psychotherapy clients that memories may return in the form of flashbacks, dreams, and during guided imagery, we predicted that abuse memories would be recovered both inside and outside therapy sessions.

Research Question 10: Socioeconomic status. Lower SES individuals may receive therapy of varying quality, compared to high SES individuals. Because our sample's average SES may differ from the overall US population, we examine whether lower SES within our dataset will be associated with higher rates of therapists discussing repressed memories, recovered memories, and MPD/DID.

Method

Participants

A total of 2,524 adults—aged 20 and above—were recruited via Amazon Mechanical Turk (AMT; see Buhrmester, Kwang, & Gosling, 2011) in the United States, and the majority participated for \$0.50 compensation (increased to \$1 for those 70 or above due to slow data

accumulation). Of these 2524 respondents, we excluded 198 likely inaccurate responses (77 located outside the U.S., 90 inconsistent on age report, 31 self-reported they skimmed the survey when asked at the end of the survey with assurance that they would still receive compensation), leaving a dataset for analysis of 2,326 participants. We had two methods of excluding participants who were inconsistent about reporting their age: one being a consequence-free question asking them if they lied about age at the end of the survey (21 excluded, 8 gave correct age and were recoded) and the detection of duplicate attempts to complete the study with inconsistent age reports (69 excluded). We recruited using quotas for each age group (e.g., 20–29; 30–39) based on the age distribution of adults in the US from the 2010 Census (U.S. Census Bureau, 2011a). We were able to meet our quotas for an age-representative sample in most age groups (distribution given in Table S1 in Supplemental Material) with notable underrepresentation of those 90 and above (only 6 recruited of our target quota of 20 in their 90s). Mean age was 46.8 ($SD = 16.73$; range 20–98). In the sample 42.8% (996) reported being male, 56.9% (1324) female, and .3% (6) chose “other (please specify),” with typed responses such as “bigender” and “nonbinary.” Ethnicity was reported as 6.1% (142) Hispanic or Latino, with 93.9% (2183) choosing Not Hispanic or Latino. The distribution for race was: 83.4% (1939) White, 7.3% (169) Black or African American, 5.9% (138) Asian, 0.9% (22) American Indian or Alaska Native, 0.3% (7) Native Hawaiian or Other Pacific Islander, and 2.1% (49) more than one race. The mean for self-reported socioeconomic status (SES) was 5.02 ($SD = 1.71$; range 1–10; bell-shaped distribution shown in Figure S1 in Supplemental Materials) using the 10 rung ladder Scale of Subjective Status (Ostrove, Adler, Kuppermann, & Washington, 2000; cf. $M = 5.85$, $SD = 1.78$ in U.S. random sample, Operario, Adler, & Williams, 2004). Forty-eight US states were represented, as was the District of Columbia, with only Delaware and North Dakota

having no participants (see Table S2 in Supplemental Materials for count by US state). Although New Jersey and Virginia were overrepresented (around 20% each in our sample; whereas collectively NJ and VA account for about 5% of the total US population), the sample distribution otherwise approximated state-by state population distribution.

Sampling

Sample Size. Sample size was chosen to be 2,500 for a number of reasons, one being that we expected low prevalence of recovered memories in a nonclinical sample. Though it should be noted that we had little prior research to help us predict a precise expected prevalence to help in power calculations. Other sample-size considerations were cost, representativeness, and the ability to compare prevalence by therapy types and half-decades and thus have sufficient data to make such comparisons.

Sampling by Age. Initial data collection involved few age restrictions until preset quotas were reached for each age group. After each age range reached each quota, the survey was stopped and relaunched with new age restrictions (e.g. age 40 and above only, then 50 and above, etc.). Those under 20 were not invited during any iteration due to our trying to match the distribution of those 20 and over from the Census data, and the expected relatively low prevalence of therapy and the other life experiences we were asking about. We made it impossible to complete the survey if the participants entered their age *or* their year of birth outside the specified age range. Some age ranges quotas filled up within a few days (20–29, 30–39, 40–49), some took between one and three weeks (50–59, 60–69), and some took the full four weeks to come close to quota, and then only after compensation increased to \$1 (70–79, 80–89); some did not reach quota in the four weeks of data collection (90 and over).

Materials and Procedure

Participants chose to participate after seeing notice of a 10-minute study called “Life Experiences” on AMT. Supplemental Appendix A provides an example screenshot of the advertisement as it appeared on AMT. They were told it was an anonymous study: they were not required to enter their name or any other identifiable information. “Repressed memory” or “therapy” were not mentioned in the posting, in order to avoid the self-selection of people differentially interested in therapy or recovered memories. Participants answered demographic questions first and then answered questions about whether they had ever received counseling or psychotherapy. If they chose “yes,” they were then asked a number of follow-up questions, such as which year the therapy started and what therapy-type was the therapy they had received. They were permitted to choose more than one therapy type. Then participants were asked two key questions: “During the course of counseling or therapy, did your therapist ever discuss the possibility that you might have been abused as a child but had repressed the memories?” and “During the course of therapy, did you come to remember being abused as a child, when you had no previous memory of such abuse?” The response options were “Yes,” “No,” and “Don’t know/not sure.” We also asked questions about where and how abuse was remembered, what were the forms of abuse, duration of abuse, current beliefs about the veracity of the recovered memories, whether the recovered memories also involved MPD/DID, and whether there was cutting off of contact with family members. The questionnaire and skip-question logic is given in Supplemental Appendix B of the Supplemental Materials.

We then also asked similarly worded questions pertaining to family members and acquaintances (data not fully reported in this article for reasons of space and focus; a future article will report and discuss these data more completely). We also invited comments. Data

were collected over 28 days in March and April 2017. The survey took a mean of 11 minutes to complete (median 7 minutes).

Results

Descriptive Statistics

Out of our sample of 2,326, 46.5% (1082) reported that they had ever had counselling or therapy. Of those 1,082, the mean year in which they received therapy was 2001 ($SD = 12.6$; range 1950–2017). The most prevalent therapy type was cognitive behavioral at 25.5% (276) of those who received therapy, followed by behavioral 22.1% (240), emotion focused 16.9% (183), marriage counseling 14.5% (157), Christian-based 5.2% (56), internal family systems 4.0% (43), twelve-step 3.8% (41), and several other therapy types with percentages less than 3%.

Research Questions on Prevalence

Research Question 1: Percentage of therapists discussing repressed memories with their patients. Of those 1,082 who reported receiving therapy, 20.1% (217) reported that their therapist discussed the possibility that they, the client, might have been abused as a child but had repressed the memories. This amounts to 9.3%, 95% CI [7.9%, 10.3%] of our total sample of 2,326 (square brackets indicate Clopper & Pearson, 1934, ‘exact’ binomial 95% confidence intervals for proportions throughout).

Adjustments for Gender, Race, and Ethnicity. Adjustments for gender, ethnicity, and race using cross tabulations of our data and 2010 Census data (U.S. Census Bureau, 2011a, 2011b) were made to make adjustments due to differences between our sample and the US population (see Table S3 in Supplemental Material, with calculation spreadsheet embedded). We calculated a weighted percentage estimate of 8.3% [7.3%, 9.5%] reported that their therapist had

discussed the possibility that they had been abused and repressed the memory. If this were extrapolated, this would approximate to an estimate of 18.5 million out of a total 225.5 million US population aged 20 or over (U.S. Census Bureau, 2011a).

Adjustment for AMT Completion Rates. The completion rate reported by AMT was 84% (those who clicked on the survey link, completed the survey and correctly entered the secret code into AMT for compensation), and the bounce rate was 9% (participants who clicked on the survey link but then decided not to accept it). If we make the assumption that all the 16% (who failed to complete the survey) had neither therapy nor recovered memories (which is arguably unlikely), the adjustment to our reported figures would be reduced by a multiplication factor of .84. For example, our estimate of 8.3% who experienced a therapist who discussed the possibility that they had been abused and repressed the memory would be reduced to 7.0% [6.0%, 8.2%] (15.7 million)—still a considerable percentage.

Half Decade Comparisons. Figure 1 illustrates the proportion of participants who first started therapy within each decade-half from 1970 onwards who had a therapist who discussed the possibility that the client might have been abused as a child but had repressed the memories. There were insufficient data for therapy beginning before 1970. As can be seen, there is a peak in those starting therapy between 1990–1994 (25.3%) and 1995–1999 (27.0%). Before the 1990s, the percentages fluctuate approximately around 20%, and since 2000 the percentages were between 15% and 20%.

Research Question 2: Proportion of people remembering abuse in therapy that they were not previously aware of. Of those 1,082 receiving therapy, 11.3% (122) reported that during the course of therapy they came to remember being abused as a child, when they had no

previous memory of such abuse. This amounts to 5.2% [4.3%, 6.2%] of our total sample of 2,326.

Adjustments for Gender, Race, and Ethnicity. The adjusted weighted percentage of those who reported recovered memories of abuse in therapy that they had previously not known about was 4.0% [3.2%, 4.9%] (see Table S4). If extrapolated, this would approximate to an estimate of 9.1 million in the US population aged 20 or over (unweighted = 11.8 million).

Adjustment for AMT Completion Rates. Adjusting for AMT completion rates, the estimate of those who have recovered memories of abuse in therapy that they had previously not had any memory of would be reduced to 3.4% [2.7%, 4.2%] (7.6 million).

Half Decade Comparisons. Figure 2 illustrates the proportion, by half decade, of psychotherapy clients who recovered memories of abuse in therapy. There was a peak of 17.9% in those beginning therapy between 1990 and 1994, and the percentage is still around 8.9% in the last two years (2015–2017).

Research Question 3: Proportion of those who recovered memories of abuse who also developed DID. Of the 122 reporting recovered memories of abuse in therapy, 13.1% (16) reported that they also came to believe that they suffered from MPD/DID. This was 0.69% [0.39%, 1.11%] of our total sample of 2,326.

Adjustments for Gender, Race, and Ethnicity. The weighted percentage estimate for coming to believe one has MPD/DID (following a recovered memory in therapy) is 0.45% [0.22%, 0.82%] of people recovered memories of abuse in therapy that they had previously not had any memory of (see Table S5). If extrapolated, this would approximate to an estimate of 1.0 million in the US population aged 20 or over (unweighted = 1.6 million).

Adjustment for AMT Completion Rates. The weighted percentage estimate for coming to believe one has MPD/DID (following a recovered memory in therapy) would be reduced to 0.38% [0.17%, 0.73%] (0.85 million if extrapolated).

Half Decade Comparisons. Figure S2 in the Supplemental Material illustrates the proportion (by half-decade at which therapy was started) of those who recovered memories of abuse and who also came to believe they had MPD/DID. There was a peak of 42.9% in 1980–1984 and the percentage is around 30.0% for the past two years (2015–2017).

Research Questions on Associated Factors

Research Question 4: Associated therapy types.

Therapist discussing the possibility of repressed memories. Table 1 shows the prevalence of therapist suggestion of repressed memories by therapy type, organized from highest percentage rate to lowest (showing only rows with sufficient numbers, i.e., 10 or more; see Table S6 in Supplemental Material for full list of therapies). In Table 1, every therapy type was associated with some incidence of therapist suggestion of repressed memories, with attachment therapy showing the highest percentage “yes” and cognitive behavioral therapy the lowest.

Recovery of abuse memories. Table 2 shows the frequency of recovered memories of abuse within therapy types represented with more than 10 participants (see Table S7 for full list). In Table 2, attachment therapies were associated with the highest percentages—whereas cognitive behavioral and psychodynamic were associated with the lowest percentage of therapy users recovering memories.

Cognitive and behavioral without co-occurring other therapies. We examined cognitive and behavioral psychotherapy types more closely within 101 participants who indicated both a

therapist discussing the possibility of repressed memory *and* recovered memories of previously-unknown childhood abuse. Of these 101, 18 indicated their therapy had included cognitive behavioral therapy. Of these 18, 11 indicated co-occurring therapies outside cognitive or behavioral, and 7 (39% [17%, 64%]) indicated no other co-occurring therapy types (i.e., they had received only receiving cognitive behavioral therapy). Similarly, 35 of these 101 participants indicated behavioral therapy, and 18 of these 35 (51% [34%, 69%]) indicated no other co-occurring therapy apart from behavioral (or behavioral with some cognitive).

MPD/DID. Table S8 in the Supplemental Material shows the frequency, by therapy type, of the participants coming to believe they had MPD/DID. Attachment, emotion-focused, Christian-based, and behavioral therapies had the highest percentages (> 20%), while cognitive and marriage therapy were among the lowest (< 5%).

Research Question 5: Associated types of abuse. Participants were able to choose more than one category for the types of abuse memories that were recovered. Emotional abuse was most prevalent (74% [65%, 81%], $n = 90$), followed by physical (51% [34%, 69%], $n = 63$), sexual (42% [33%, 51%], $n = 51$), neglect (22% [15%, 31%], 27), and satanic ritual abuse (2% [0.2%, 6%], $n = 2$).

Research Question 6: Gender.

Gender of client. There was no significant difference between male and female clients in their reports of a therapist discussing the possibility of repressed memories (20.5% male; vs. 19.4% female clients), $\chi^2(1, N = 1082) = 1.83, p = .768$, Odds Ratio (OR) = 0.97 [0.71, 1.32]. Female psychotherapy clients had similar proportions of recovered memories (11.4%) compared with male clients (11.1%), $\chi^2(1, N = 1082) = 0.89, p = .926$, OR = 1.03 [0.69, 1.52]. However, male psychotherapy clients who reported a recovered memory disproportionally came to believe

they had MPD/DID (30.2%; 13 of 43), compared to female psychotherapy clients (3.8%, 3 of 79), $\chi^2 (2, N = 122) = 17.1, p < .001, OR = 0.09 [0.02, 0.34]$. Of the 5 participants who reported being neither male nor female—and who had received therapy—none indicated therapist suggestion nor any recovered memories.

Gender of therapist. There was no statistically significant difference between the proportion of male and female therapists who discussed the possibility of repressed abuse memories, $\chi^2 (2, N = 122) = 0.12, p = .94, OR = 1.14 [0.44, 2.96]$. However, of the 16 clients who came to believe they had MPD/DID, they disproportionately had male therapists (75%, 12) compared to female therapists (25%, 4), $\chi^2 (1, N = 16) = 9.3, p < .001, OR = 0.18 [0.05, 0.59]$.

Research Question 7: Proportion that became estranged from family. Of the 122 reporting recovered memories of abuse in therapy, 42.6% [33.7%, 51.9%] (52) reported that they had cut off contact with family members as a result of their new memories, with 57.4% (70) indicating they had not cut off contact. Of the 52 who cut off contact with family members, 9.6% [3.2%, 21.0%] (5) indicated they had since resumed full contact, 38.5% [25.3%, 53.0%] (20) indicated resuming limited contact, and 51.9% [37.6%, 66.0%] (27) indicated they had not resumed contact. Of the 122 reporting recovered memories of abuse in therapy, when asked if they still believe that their recovered memories of abuse are accurate, 92.6% [86.5%, 96.6%] (113) chose “yes,” and 7.4% (9) chose “no.”

Research Question 8: Relationship between therapists discussing repressed memory and recovered memories of abuse. Of the 217 participants whose therapists discussed the possibility that they might have been abused as a child but had repressed the memories, 46.5% [39.8%, 53.4%] (101) reported that during the course of therapy they came to remember being abused as a child of which they had no previous memory of (50.2%, 109, indicated no recovered

memory; 3.2%, 7, indicated “don’t know”). By way of contrast, of the 833 who did not have a therapist discuss the possibility of repressed memories, only 2.3% [1.4%, 3.55] (19) reported recovering memories of abuse (96.5%, or 804, indicated no; 1.2%, 10, indicated “don’t know”). This cross tabulation is shown in full in Table S9 of the Supplemental Material, and was statistically significant: $\chi^2 = 456.9, p < .001$. The odds ratio on these two variables in dichotomous form (yes, not yes) was OR = 34.6 [21.0, 58.1].

Research Question 9: How the reported abuse was recalled. Of those reporting recovered memories of abuse during the course of therapy, 29.5% [21.6%, 38.4%] (36) reported remembering the abuse inside a therapy session, 29.5% [21.6%, 38.4%] (36) outside a therapy session, and 41.0% [32.2%, 50.3%] (50) reported both inside and outside a therapy session. When asked how they remembered the formerly forgotten abuse, participants were permitted to choose more than one option. The most prevalent choice was flashbacks 39.3% [30.6%, 48.6%] (48), followed by panic attacks 15.6% [9.6%, 23.2%] (19), guided imagery 9.0% [4.6%, 15.6%] (11), body memories 7.4% [3.4%, 13.5%] (9), triggered by someone else’s memory in counseling group 7.4% [3.4%, 13.5%] (9), hypnosis 6.6% [2.9%, 12.5%] (8), triggered by a case history in a book 4.1% [1.3%, 9.3%] (5), and dream interpretation 2.5% [0.5%, 7.0%] (3).

Research Question 10: Socioeconomic status. As shown in Table S10, we found that Lower SES (self-reporting on rung 5 or less) individuals reported similar proportions of having experienced therapists discussing repressed memory and recovered memories of abuse, compared to Higher SES (rung 6 or higher) individuals ($ps > .6$). However, we found that among those who recovered abuse memories in therapy, Higher SES individuals reported higher rates of MPD/DID (22.4%), compared to Lower SES individuals (5.6%), $\chi^2(1, N = 120) = 7.50, p = .006$, OR = 4.85 [1.44, 16.3].

Participant Comments

At the end of the survey participants were asked to comment about the impact of repressed memories on their or others' lives, and to name any types of therapies that they knew that involve repressed memories. They were also asked for comments on the survey itself. Supplemental Appendix C documents the informative comments (28 pages' worth). A common response to the type of therapy question was hypnosis, which was mentioned over 50 times, and EMDR (eye movement desensitization reprocessing), which was mentioned more than 10 times, with regression, cognitive, and behavioral therapies also being mentioned a few times. In response to the question about the impact of repressed memories, we had many informative responses, such as:

I believe I have repressed memories from trauma! I am highly suspicious of something that may have happened, but I am not sure and have no memory. [Female, 26]

I have an uncle who was acquitted of murdering his neighbor in the late 1970s. Years later, the neighbor's son recalled a "recovered memory" of my uncle leaving the house the night of the murder. The case was re-opened. He was found guilty. [Male, 40]

My sister committed suicide three years after repressed memories were brought to her attention in 2011 through hypnotherapy. I am 100% certain that these "memories" were false. I was very close to my sister our whole lives and we never experienced sexual abuse or molestations of any kind, but this therapist somehow convinced her that she was raped/molested and sexually abused by multitudes of people including our doctor and dentist as well as multiple family members. [Female, 47]

Discussion

We investigated the prevalence of the recovery of purportedly repressed memories of childhood abuse in therapy, in an age-representative nonclinical sample of adults in the United States. We found that nearly half of the respondents had sought psychotherapy at some point in their lives. Approximately one in five people who sought therapy reported that their therapists discussed the possibility that they might harbor repressed memories of abuse, and approximately

one in ten of those who sought therapy subsequently came to believe that they had retrieved previously forgotten abuse memories. After making adjustments for demographics and ethnicity to match the U.S. population, we estimate 8% (unweighted: 9% of sample) consulted with therapists who discussed the possibility of repressed abuse, and 4% (unweighted: 5%) may have recovered putative memories of abuse. These figures were only moderately reduced if we assume that all participants who previewed but did not complete the study had none of these experiences (to 7.0% and 3.4%, respectively). Those whose therapists discussed the possibility of repressed abuse were 20 times more likely to recover abuse memories than those whose therapists did not. The data revealed a peak percentage for those beginning their therapy in the 1990s for reports of therapists discussing the possibility of repressed abuse memories and of clients recovering memories of abuse. The prevalence rates were only moderately lower in the decades before and after. Recovered memories of abuse occurred in most therapy types. These results shine a light on the prevalence of previously non-remembered recovered memories of abuse—what some have argued could be caused by potentially harmful therapy practices (e.g., Lilienfeld, 2007).

Prevalence over Time: Research Questions 1–3

The history of repressed memory production in therapy is often framed as the prevalence increasing in the 1980s and cumulating in the “memory wars” of the 1990s, followed by a steep decline. Although our study demonstrates a peak reports of recovered memories and therapist suggestion in participants indicating they started therapy in the 1990s, incidence was also non-trivial in therapy commenced before the 1980s and into the 21st century (> 5% of those receiving therapy). Moreover, some of those reporting recovered memories also reported coming to believe that they suffered from MPD/DID as recently as 2015–2017 (with a peak in the early 1980s). These findings seem to contradict the argument, (e.g., Barden, 2016) , that successful litigation

against certain therapists for creating false memories of abuse have all but eliminated memory-recovery oriented practices, such as those that are geared to memory recovery in presumptive cases of DID. One possible explanation for the non-negligible occurrences in the last few years of recovered memory, therapist suggestion, and MPD is that although litigation and media coverage have declined, actual incidences of repressed memory and MPD/DID in therapy have not declined as much. How one interprets these results depends upon whether one subscribes to a posttraumatic model of DID (e.g., Gleaves, 1996), or a sociocognitive model of DID that might be more skeptical of the veracity of aspects of multiple identities and related recovered memories (e.g., Spanos, 1994; Lilienfeld et al., 1999).

Association Research Questions 4–10

Reports of the recovery of purportedly repressed abuse was found in connection with every therapy type sufficiently represented in our sample. It should be noted that some participants indicated several psychotherapy types. Following a similar pattern as expected in Research Question 4, some therapies that process past trauma were associated with higher than average prevalence of recovered memories of abuse (e.g., attachment, emotional freedom technique, EMDR, acceptance and commitment, internal family systems), some therapies had rates that were moderately above average (emotion-focused, hypnosis, survivors group, behavioral, Christian-based, twelve-step), while others had moderately lower but still non-zero prevalence (e.g., cognitive behavioral). In particular, EMDR's higher association with recovered memories is interesting given recent research associating eye movements with increased false memory rates (Houben, Otgaar, Roelofs, and Merckelbach, in press). In addition, some of these therapies, such as hypnosis, might in this context be considered risky in terms of memory inaccuracies and potential harm (Lynn, Lock, Myers, & Payne, 2016; Lynn et al., 2013).

When we isolated those who only indicated cognitive and/or behavioral therapy, we found numerous reports of therapists discussing the possibility of repressed memory and recovered memories of abuse in therapy. This indicates that in some cases, therapists that work under the banner of therapies that have no theoretical orientation towards repressed memories may nevertheless incorporate techniques that might elicit recovered memories. This finding may be informed by research that has found that those therapists who report that they perform cognitive behavioral therapy nevertheless often incorporate other techniques that are not empirically supported (Hipol & Deacon, 2013). Rather than being confined to psychodynamic therapies that transparently declare that they will recover repressed memories, the practice appears to occur within most psychotherapy types, at least according to patient report.

We found a number of additional unexpected results. For example, in Research Question 5 we expected a preponderance of recovered memories to be related to sexual abuse, but recovered memories of emotional and physical abuse were both more prevalent. Even though satanic ritual abuse was only endorsed 2% of the time (2 individuals), it is perhaps concerning that any such cases could be still reported sincerely in 2017. Furthermore, in Research Question 6, we expected that more women than men might recover memories of abuse, since many self-identified feminist therapists believed in recovered memories, and the reportedly influential book *The Courage to Heal* (Bass & Davis, 1988) focused on women. Yet our data indicate that men and women reported recovered abuse memories in comparable percentages. Indeed, male therapists encouraged a belief in multiple personalities more than female therapists.

Based on past reports of repressed memories (e.g., McHugh et al., 2004), we expected a sizable proportion of those who recovered memories of abuse to become estranged from family

(Research Question 7). Indeed, we found about half of those reporting recovered memories cut off contact with family members, and the vast majority still believed in their abuse memories.

As we predicted in Research Question 8, participants whose therapists discussed the possibility that the client had been abused and had repressed it had far more recovered memories of abuse during therapy compared to those whose therapists did not discuss that possibility. This correlational finding requires caution before assuming a causal link. It is possible that therapist suggestion leads to putative recovered memories, or patients could bring up the topic themselves and the therapists then discuss. In either case, therapist validation of the theory of memory repression may lead to the kinds of suggestions that have been shown to cause false memories in empirical research. The concern that such validation might lead to families being split-up appears warranted, as 42% of participants who recovered memories of abuse subsequently cut off contact with someone in their family, and only half of those resumed any contact later.

In Research Question 9, we predicted that recovered memories would be recalled inside and outside of therapy sessions via the mechanism of interpreting imagining. Indeed, approximately 30% of those who recovered abuse memories did so outside of a therapy session, even though they were concurrently in therapy. Although one explanation could be that they recalled these memories due to present-day cues, another possibility is that they may have been given the expectancy—by therapists, books, or group process—that repressed memories may resurface in the form of flashbacks, panic attacks, dreams, and so forth (c.f., Kirsch, 1997; Brainerd & Reyna, 2005; Lynn, Krackow, Loftus, Lock, & Lilienfeld, 2013; McNally, 2017). Indeed, flashbacks and panic attacks were the two leading modalities for recovering memories, and these can happen inside or outside of therapy sessions. Purported memories in flashbacks and panic attacks might be given a high degree of credibility by the individual. Nevertheless, it is

possible that memories could be constructed to help explain the high levels of arousal in such experiences.

In Research Question 10 we wondered whether lower SES individuals may receive therapy of varying quality, and therefore report higher rates of therapists discussing repressed memories, recovered memories, and MPD/DID. On the contrary, we found similar proportions in lower and higher SES individuals of therapists discussing repressed memory and recovered memories of abuse. Unexpectedly, we found that higher SES individuals reported higher rates of MPD/DID.

Our study has some limitations. There is the possibility of error in our dataset due to misunderstanding what was meant by repressed memory (see Melchert & Parker, 1997). This might be addressed with a study asking participants what repressed memories mean. Other problems include skimming questions and/or by liberal yes-bias responding (see Fleischer, Mead, & Huang, 2015). Nevertheless, participants with a persistent yes-bias would have been excluded from our analysis (those who answered “yes” to two consequence-free questions asking if they skimmed or misstated their age). In addition, answering “yes” to our central questions came with the disadvantage of prolonging the survey. Also, participants’ qualitative comments and additional quantitative responses to questions asking about friends or family who had experience of repressed memory (both in Supplemental Materials) converged with our main findings that repressed memories are not rare. Another concern is that participants filling out Internet surveys for payment may be systematically different from the general population, such as SES, exposure to trauma, and tendency to seek therapy. Nevertheless, we found no evidence that lower SES individuals disproportionately report more recovered memories. Another possible concern is that respondents who already had a strong interest in the issue of repressed memories

would disproportionately take part in this self-selected survey. We attempted to avoid this outcome by calling it a “Life Experiences” survey and delaying the introduction of the subject of repressed memories. Adjusting for AMT completion rates did not alter the estimated percentages sufficiently to alter the general conclusions of this article. Another consideration that should be made clear is that there is no way of determining the accuracy of the reported memories of abuse (some may be true, some false).

Given these potential limitations, there are some constraints on generality (see Simons, Shoda, & Lindsay, in press). We collected a sample, and made statistical adjustments, in order to attempt to generalize to the US population aged 20 and over. However, there are varying levels of uncertainty with regards to the extent the results generalize. Our results justifiably generalize to AMT users in the US, though of course our sample was chosen to be age-representative to match the U.S. Public. However, actual prevalence rates in the U.S. population could possibly fall outside the 95% confidence intervals in this article due to unmeasured sampling bias that comes from non-random selection. Generalization from individuals that participated on AMT to the U.S. population is tentative until a large random sample, or diverse replications, are obtained. To begin the process of obtaining such diverse replications, we found similar percentages in a student sample (e.g., therapists discussing repressed abuse: 21% students vs. 20% AMT sample; recovered memories of abuse: 10% students vs. 11% in AMT sample; see Supplemental Material).

The results show nontrivial proportions of reports of repressed memory recovery of abuse in therapy—including therapy commenced both before the 1980s, and after the 1990s. If our questions were understood and participants answered carefully, it appears that a belief in and practice of recovered memories of repressed abuse, as well as the debate about their veracity,

may continue for some time. Moreover, many clients that reported recovered memories of abuse also cut off contact with family. In cases of recovered memories of abuse during therapy, there is the possibility of difficult legal prosecutions of alleged abuse that happened decades ago (see Connolly & Read, 2006). Many such cases that are allowed to proceed due to some jurisdictions having flexibility in statutes of limitations for such cases (see Connolly, Coburn, & Chong, 2017). These cases present unique difficulties due to the time elapsed between the event and trial: challenges such as finding physical evidence, and the reliability of eyewitness testimony for the distant past. There are clinical implications as well. The results clarified that most types of therapies appeared to be associated with the recall of putatively recovered memories that were not known about before therapy. If subsequent research converges with our findings, it cannot be assumed that trainees in psychotherapies without theoretical roots in repression theory (e.g. behavioral, cognitive) do not need forewarning about repressed memories. One possible solution would be for the American Psychological Association, and other professional associations, to require clinical training that includes relevant research on trauma and memory, memory distortions, and the potential hazards of repressed memory recovery (e.g., research reviewed in our introduction). Dissemination directly to the public may also help, because if the public does not believe in repressed memories, or at least knows the potential hazards, there will be less demand for therapists that attempt to recovery memories. In addition, Crawford et al. (2016) documented less adverse effects in therapy where clinicians forewarn of potential side effects, and we therefore echo Cannell, Hudson, and Pope's (2000) suggestion that clients entering therapy should be given information about the potential hazards of recovered memories of abuse as part of informed consent.

References

- Aldridge-Morris, R. (1989). *Multiple personality: An exercise in deception*. Hove, United Kingdom: Lawrence Erlbaum Associates.
- American Psychiatric Association (2013). *Diagnostic and statistical manual of mental disorders, fifth edition (DSM-5)*. Washington, DC: American Psychiatric Publishing.
- Barden, R. C. (2016). Memory and reliability: Developments and controversial issues. In P. Radcliffe, A. Heaton-Armstrong, G. Gudjonsson, & D. Wolchover (Eds.), *Witness testimony in sex cases*. Oxford, UK: Oxford University Press.
- Bass, E., & Davis, L. (1988). *The Courage to Heal: A Guide for Women Survivors of Child Sexual Abuse*. New York, NY: Harper Perennial.
- Beck, A. T. (1970). Cognitive therapy: Nature and relation to behavior therapy. *Behavior therapy, 1*, 184–200.
- Bootzin, R. R., & Bailey, E. T. (2005). Understanding placebo, nocebo, and iatrogenic treatment effects. *Journal of Clinical Psychology, 61*, 871–880.
- Brainerd, C. J., & Reyna, V. F. (2005). *The Science of False Memory*. NY: Oxford University Press.
- Brand, B. L., Loewenstein, R. J., & Spiegel, D. (2014). Dispelling myths about dissociative identity disorder treatment: An empirically based approach. *Psychiatry: Interpersonal and Biological Processes, 77*, 169–189.
- Brewin, C. R., & Andrews, B. (2014). Why It Is Scientifically Respectable to Believe in Repression: A Response to Patihis, Ho, Tingen, Lilienfeld, and Loftus (2014). *Psychological Science, 25*, 1964–1966.

- Brewin, C. R., & Andrews, B. (2017). Creating memories for false autobiographical events in childhood: A systematic review. *Applied Cognitive Psychology, 31*, 2-23.
- Brown, D., Schefflin, A. W., & Whitfield, C. L. (1999). Recovered memories: The current weight of the evidence in science and in the courts. *The Journal of Psychiatry & Law, 27*, 5–156.
- Buchanan, T. W., & Lovallo, W. R. (2001). Enhanced memory for emotional material following stress-level cortisol treatment in humans. *Psychoneuroendocrinology, 26*, 307–317.
- Buhrmester, M., Kwang, T., & Gosling, S. D. (2011). Amazon's Mechanical Turk: A new source of inexpensive, yet high-quality, data? *Perspectives on Psychological Science, 6*, 3–5.
- Cahill, L., & Alkire, M. T. (2003). Epinephrine enhancement of human memory consolidation: interaction with arousal at encoding. *Neurobiology of Learning and Memory, 79*, 194–198.
- Chaffin, M., Hanson, R., Saunders, B. E., Nichols, T., Barnett, D., Zeanah, C., ... & Letourneau, E. (2006). Report of the APSAC task force on attachment therapy, reactive attachment disorder, and attachment problems. *Child maltreatment, 11*(1), 76-89.
- Clancy, S. A. (2005). *Abducted: Why people come to believe they were kidnapped by aliens*. Cambridge, MA: Harvard University Press.
- Clopper, C.; Pearson, E. S. (1934). The use of confidence or fiducial limits illustrated in the case of the binomial. *Biometrika, 26*, 404–413.
- Cohen, J. A., Mannarino, A. P., Kliethermes, M., & Murray, L. A. (2012). Trauma-focused CBT for youth with complex trauma. *Child abuse & neglect, 36*, 528-541.
- Connolly, D. A., & Read, J. D. (2006). Delayed prosecutions of historic child sexual abuse: Analyses of 2064 Canadian criminal complaints. *Law and human behavior, 30*, 409–434.

- Crawford, M. J., Thana, L., Farquharson, L., Palmer, L., Hancock, E., Bassett, P., ... & Parry, G. D. (2016). Patient experience of negative effects of psychological treatment: results of a national survey. *British Journal of Psychiatry, 208*, 260–265.
- Crews, F. (1995). *The memory wars: Freud's legacy in dispute*. London, England: Granta Books.
- Dalenberg, C. J., Brand, B. L., Gleaves, D. H., Dorahy, M. J., Loewenstein, R. J., Cardeña, E., ... & Spiegel, D. (2012). Evaluation of the evidence for the trauma and fantasy models of dissociation. *Psychological Bulletin, 138*, 550–588.
- Dammeyer, M. D., Nightingale, N. N., & McCoy, M. L. (1997). Repressed memory and other controversial origins of sexual abuse allegations: Beliefs among psychologists and clinical social workers. *Child Maltreatment, 2*, 252–263.
- Fleischer, A., Mead, A. D., & Huang, J. (2015). Inattentive responding in MTurk and other online samples. *Industrial and Organizational Psychology, 8*, 196–202.
- Foa, E. B., Dancu, C. V., Hembree, E. A., Jaycox, L. H., Meadows, E. A., & Street, G. P. (1999). A comparison of exposure therapy, stress inoculation training, and their combination for reducing posttraumatic stress disorder in female assault victims. *Journal of Consulting & Clinical Psychology, 67*, 194–200.
- French, C. C. (2016a). Alien contact and abduction claims. In D. Groome & R. Roberts (eds.). *Parapsychology: The Science of Unusual Experience. 2nd ed.* Pp. 48–64. London: Psychology Press..
- French, C. C. (2016b). Reincarnation claims. In D. Groome & R. Roberts (eds.). *Parapsychology: The Science of Unusual Experience. 2nd ed.* Pp. 82–95. London: Psychology Press.

- French, C. C., & Ost, J. (2016). Beliefs about memory, childhood abuse, and hypnosis amongst clinicians, legal professionals and the general public. In R. Burnett (ed.). *Wrongful Allegations of Sexual and Child Abuse*. Pp. 143-154. Oxford: Oxford University Press.
- Freud, S. (1893–1895/1953). The psychotherapy of hysteria. [pp. 145–174] In J. Strachey (Ed. & Trans.), *The standard edition of the complete psychological works of Sigmund Freud* (Vol. 2). London, UK: Hogarth Press.
- Freud, S. (1916/1949). Motivated forgetting. (pp. 199-205). Reprinted from *The Psychopathology of Everyday Life*, 1916. New York, NY, US: Prentice-Hall.
- Freyd, J. J. (1994). Betrayal trauma: Traumatic amnesia as an adaptive response to childhood abuse. *Ethics & Behavior*, 4, 307–329.
- Gallo, D. A., & Roediger III, H. L. (2002). Variability among word lists in eliciting memory illusions: Evidence for associative activation and monitoring. *Journal of Memory and Language*, 47, 469–497.
- Garry, M., Manning, C. G., Loftus, E. F., & Sherman, S. J. (1996). Imagination inflation: Imagining a childhood event inflates confidence that it occurred. *Psychonomic Bulletin & Review*, 3, 208–214.
- Golding, J. M., Sanchez, R. P., & Sego, S. A. (1996). Do you believe in repressed memories? *Professional Psychology, Research & Practice*, 27, 429–437.
- Gosling, S. D., Vazire, S., Srivastava, S., & Oliver, J. (2004). Should We Trust Web-Based Studies? A Comparative Analysis of Six Preconceptions about Internet Questionnaires. *American Psychologist*, 59, 93–104.
- Greenberg, L. S. (2004). Emotion-focused therapy. *Clinical Psychology & Psychotherapy*, 11, 3–16.

- Harrison, N. A., Johnston, K., Corno, F., Casey, S. J., Friedner, K., Humphreys, K., ... & Kopelman, M. D. (2017). Psychogenic amnesia: syndromes, outcome, and patterns of retrograde amnesia. *Brain, 140*, 2498–2510.
- Hassler, P. (Producer). (1994). Memories/nightmare in Haiti/TKO [Television series episode]. In D. Hewitt (Executive producer), *60 Minutes*. New York, NY: CBS News Productions.
- Hayne, H., Garry, M., & Loftus, E. F. (2006). On the continuing lack of scientific evidence for repression. *Behavioral and Brain Sciences, 29*, 521–522.
- Hipol, L. J., & Deacon, B. J. (2013). Dissemination of evidence-based practices for anxiety disorders in Wyoming: A survey of practicing psychotherapists. *Behavior Modification, 37*, 170–188.
- Holmes, D. S. (1990). The evidence for repression: An examination of sixty years of research. In J. L. Singer (Ed.), *Repression and dissociation: Implications for personality theory, psychopathology, and health* (pp. 85–102). Chicago, IL: University of Chicago Press.
- Houben, S. T. L., Otgaar, H., Roelofs, J., & Merckelbach, H. (in press). Lateral eye movements increase false memory rates. *Clinical Psychological Science*.
- Hyman Jr, I. E., & Pentland, J. (1996). The role of mental imagery in the creation of false childhood memories. *Journal of Memory & Language, 35*, 101–117.
- Hyman, I. E., & James Billings Jr, F. (1998). Individual differences and the creation of false childhood memories. *Memory, 6*, 1–20.
- Johnson, M. K., & Raye, C. L. (1981). Reality Monitoring. *Psychological Review, 88*, 67–85.
- Johnson, M. K., Hashtroudi, S., & Lindsay, D. S. (1993). Source monitoring. *Psychological Bulletin, 114*, 3–28.

- Kensinger, E. A. (2007). Negative emotion enhances memory accuracy: Behavioral and neuroimaging evidence. *Current Directions in Psychological Science, 16*, 213–218.
- Laurence, J. R., & Perry, C. (1983). Hypnotically created memory among highly hypnotizable subjects. *Science, 222*, 523–525.
- Laurence, J. R., & Perry, C. (1988). *Hypnosis, will, and memory: A psycho-legal history*. New York, NY: Guilford Press.
- Lilienfeld, S. O. (2007). Psychological treatments that cause harm. *Perspectives on Psychological Science, 2*, 53–70.
- Lilienfeld, S. O., Lynn, S. J., Kirsch, I., Chaves, J. F., Sarbin, T. R., Ganaway, G. K., & Powell, R. A. (1999). Dissociative identity disorder and the sociocognitive model: recalling the lessons of the past. *Psychological Bulletin, 125*, 507–523.
- Loftus, E. (1993). The Reality of Repressed Memories. *American Psychologist, 48*, 518–537.
- Loftus, E. F. (1997). Repressed memory accusations: Devastated families and devastated patients. *Applied Cognitive Psychology, 11*, 25–30.
- Loftus, E. F. (2005). Planting misinformation in the human mind: A 30-year investigation of the malleability of memory. *Learning & Memory, 12*, 361–366.
- Loftus, E. F., & Ketcham, K. (1994). *The myth of repressed memory: False memories and allegations of sexual abuse*. New York, NY: St. Martin's Press
- Lynn, S.J., Krackow, E., Loftus, E.F., Lock, T.G., & Lilienfeld, S.O. (2014). The remembrance of things 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). New York, NY: Guilford Press.

- Lynn, S. J., Lock, T. G., Myers, B., & Payne, D. G. (2016). Recalling the unrecalable: Should hypnosis be used to recover memories in psychotherapy? In M. Heap & I. Kirsch (Eds.) *Hypnosis: Theory, Research and Application*, pp. 459–462. New York, NY: Routledge.
- Mazzoni, G. A., Loftus, E. F., Seitz, A., & Lynn, S. J. (1999). Changing beliefs and memories through dream interpretation. *Applied Cognitive Psychology, 13*, 125–144.
- McHugh, P. R. (1995). Witches, multiple personalities, and other psychiatric artifacts. *Nature Medicine, 1*, 110–114.
- McHugh, P. R., Lief, H. I., Freyd, P. P., & Fetkewicz, J. M. (2004). From refusal to reconciliation: Family relationships after an accusation based on recovered memories. *Journal of Nervous & Mental Disease, 192*, 525–531.
- McNally, R. J. (2003). Progress and controversy in the study of posttraumatic stress disorder. *Annual Review of Psychology, 54*, 229–252.
- McNally, R. J. (2012). Searching for repressed memory. In R. F. Belli (Ed.), *Nebraska Symposium on Motivation: True and false recovered memories. Toward a reconciliation of the debate* (Vol. 58, pp. 121–147). New York, NY: Springer.
- McNally, R. J. (2016). False memories in the laboratory and in life: Commentary on Brewin and Andrews (2016). *Applied Cognitive Psychology, 31*, 40–41.
- Melchert, T. P., & Parker, R. L. (1997). Different forms of childhood abuse and memory. *Child Abuse & Neglect, 21*, 125–135.
- Morgan, C. A., Southwick, S., Steffian, G., Hazlett, G. A., & Loftus, E. F. (2013). Misinformation can influence memory for recently experienced, highly stressful events. *International Journal of Law & Psychiatry, 36*, 11–17.

- Myers, B., Myers, J., Herndon, P., Broszkiewicz, N., & Tar, M. (2015). Beliefs about therapist suggestiveness and memory veracity in recovered-memory therapy. *Professional Psychology: Research and Practice, 46*, 270–276.
- Nathan, D. (2011). *Sybil exposed*. New York, NY: Free Press.
- Operario, D., Adler, N. E., & Williams, D. R. (2004). Subjective social status: Reliability and predictive utility for global health. *Psychology & Health, 19*, 237–246.
- 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*, 1–19.
- Ost, J., Easton, S., Hope, L., French, C. C., & Wright, D. B. (2017). Latent variables underlying the memory beliefs of Chartered Clinical Psychologists, Hypnotherapists and undergraduate students. *Memory, 25*, 57–68.
- Ostrove, J. M., Adler, N. E., Kuppermann, M., & Washington, A. E. (2000). Objective and subjective assessments of socioeconomic status and their relationship to self-rated health in an ethnically diverse sample of pregnant women. *Health Psychology, 19*, 613–618.
- Paolacci, G., Chandler, J., & Ipeirotis, P. (2010). Running experiments on Amazon Mechanical Turk. *Judgment and Decision Making, 5*, 411–419.
- Parry, G. D., Crawford, M. J., & Duggan, C. (2016). Iatrogenic harm from psychological therapies - time to move on. *British Journal of Psychiatry, 208*, 210–212;
- Patihis, L., & Place, P. J. (in press). Weak evidence for increased motivated forgetting of trauma-related words in dissociated or traumatized individuals in a directed forgetting experiment. *Memory*. doi: 10.1080/09658211.2017.1387666

- Patihis, L., & Younes Burton, H. J. (2015). False memories in therapy and hypnosis before 1980. *Psychology of Consciousness: Theory, Research, and Practice*, 2, 153–169.
- Patihis, L., Frenda, S. J., LePort, A. K., Petersen, N., Nichols, R. M., Stark, C. E., ... & Loftus, E. F. (2013). False memories in highly superior autobiographical memory individuals. *Proceedings of the National Academy of Sciences*, 110, 20947–20952.
- Patihis, L., Ho, L. Y., Tingen, I. W., Lilienfeld, S. O., & Loftus, E. F. (2014a). Are the “memory wars” over? A scientist-practitioner gap in beliefs about repressed memory. *Psychological Science*, 25, 519–530.
- Patihis, L., Lilienfeld, S. O., Ho, L. Y., & Loftus, E. F. (2014b). Unconscious repressed memory is scientifically questionable. *Psychological Science*, 25, 1967–1968.
- Pendergrast, M. (1996). *Victims of memory: Sex abuse accusations and shattered lives*. Hinesburg, VT: Upper Access.
- Piper, A. (1994). Multiple personality disorder. *The British Journal of Psychiatry*, 164, 600–612.
- Poole, D. A., Lindsay, D. S., Memon, A., & Bull, R. (1995). Psychotherapy and the recovery of memories of childhood sexual abuse: US and British practitioners' opinions, practices, and experiences. *Journal of consulting and clinical psychology*, 63, 426–437.
- Pope Jr, H. G., Barry, S., Bodkin, A., & Hudson, J. I. (2006). Tracking scientific interest in the dissociative disorders: A study of scientific publication output 1984–2003. *Psychotherapy and Psychosomatics*, 75, 19–24.
- Pope, K. S. (1996). Memory, abuse, and science: Questioning claims about the false memory syndrome epidemic. *American Psychologist*, 51, 957–974.
- Prince, M. (1906). *The dissociation of a personality: A biographical study in abnormal psychology*. New York, NY: Longmans, Green, & Co.

- Puységur, A. M. J. (1812). *Les fous, les insenses, les maniaques et les frenetiques*. Paris, France: J. G. Dentu.
- Randall, D. A. (1995). Curative factor rankings for female incest survivor groups: A summary of three studies. *Journal for Specialists in Group Work, 20*, 232–239.
- Reyna, V. F., & Brainerd, C. J. (1995). Fuzzy-trace theory: An interim synthesis. *Learning & Individual Differences, 7*, 1–75.
- Riskin, L. L. (2013). Managing inner and outer conflict: Selves, subpersonalities, and internal family systems. *Harvard Negotiation Law Review, 18*, 1–69.
- Roediger, H. L., Meade, M. L., & Bergman, E. T. (2001). Social contagion of memory. *Psychonomic Bulletin & Review, 8*, 365–371.
- Ross, C. A. (2006). Dissociative identity disorder. *Current Psychosis & Therapeutics Reports, 4*, 112–116.
- Schreiber, F. R. (1973). *Sybil*. New York, NY: Warner.
- Scoboria, A., Wade, K. A., Lindsay, D. S., Azad, T., Strange, D., Ost, J., & Hyman, I. E. (2017). A mega-analysis of memory reports from eight peer-reviewed false memory implantation studies. *Memory, 25*, 146–163.
- Scott, J., & Young, A. H. (2016). Psychotherapies should be assessed for both benefit and harm. *British Journal of Psychiatry, 208*, 208–209.
- Shapiro, F., & Maxfield, L. (2002). Eye movement desensitization and reprocessing (EMDR): Information processing in the treatment of trauma. *Journal of clinical Psychology, 58*(8), 933-946.
- Shaw, J., & Porter, S. (2015). Constructing rich false memories of committing crime. *Psychological Science, 26*, 291–301.

- Shaw, J. (2018). How can researchers tell whether someone has a false memory? Coding strategies in autobiographical false-memory research: a reply to Wade, Garry, and Pezdek (2018). *Psychological Science*. First published online. Doi:10.1177/0956797617703667
- Shedler, J. (2010). The efficacy of psychodynamic psychotherapy. *American Psychologist*, *65*, 98–109.
- Simons, D. J., & Chabris, C. F. (2011). What people believe about how memory works: A representative survey of the US population. *PloS one*, *6*(8), e22757.
- Simons, D. J., Shoda, Y., & Lindsay, D. S. (2017). Constraints on generality (COG): A proposed addition to all empirical papers. *Perspectives on Psychological Science*, *12*, 1123–1128.
- Skinner, B. F. (1963). Operant behavior. *American Psychologist*, *18*, 503–515.
- Smith, M., & Pazder, L. (1980). *Michelle remembers*. New York, NY: Pocket Books.
- U.S. Census Bureau (2011a). *Age and Sex Composition: 2010 Census Briefs*. Retrieved from <https://www.census.gov/prod/cen2010/briefs/c2010br-03.pdf>
- U.S. Census Bureau (2011b). *Overview of Race and Hispanic Origin: 2010 Census Briefs*. Retrieved from <https://www.census.gov/prod/cen2010/briefs/c2010br-02.pdf>
- Wade, K. A., Garry, M., Pezdek, K. (2018). Deconstructing rich false memories of committing crime: Commentary on Shaw and Porter (2015). *Psychological Science*. First published online. Doi:0956797617703667.
- Yapko, M. D. (1994). Suggestibility and repressed memories of abuse: A survey of psychotherapists' beliefs. *American Journal of Clinical Hypnosis*, *36*, 163–171.

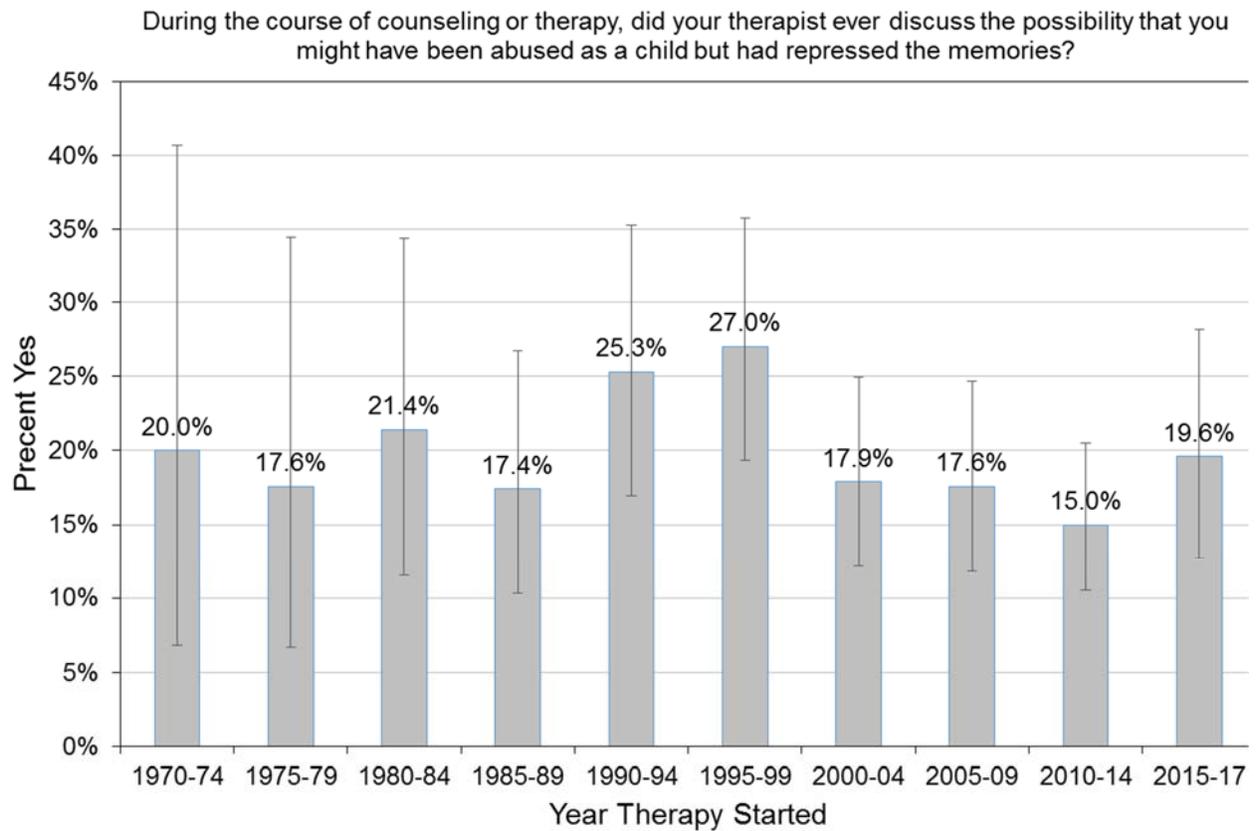


Figure 1. The proportion of participants who received therapy in a given half-decade who had a therapist who discussed the possibility that they might have repressed memories. Error bars represent 95% confidence intervals for sample proportions.

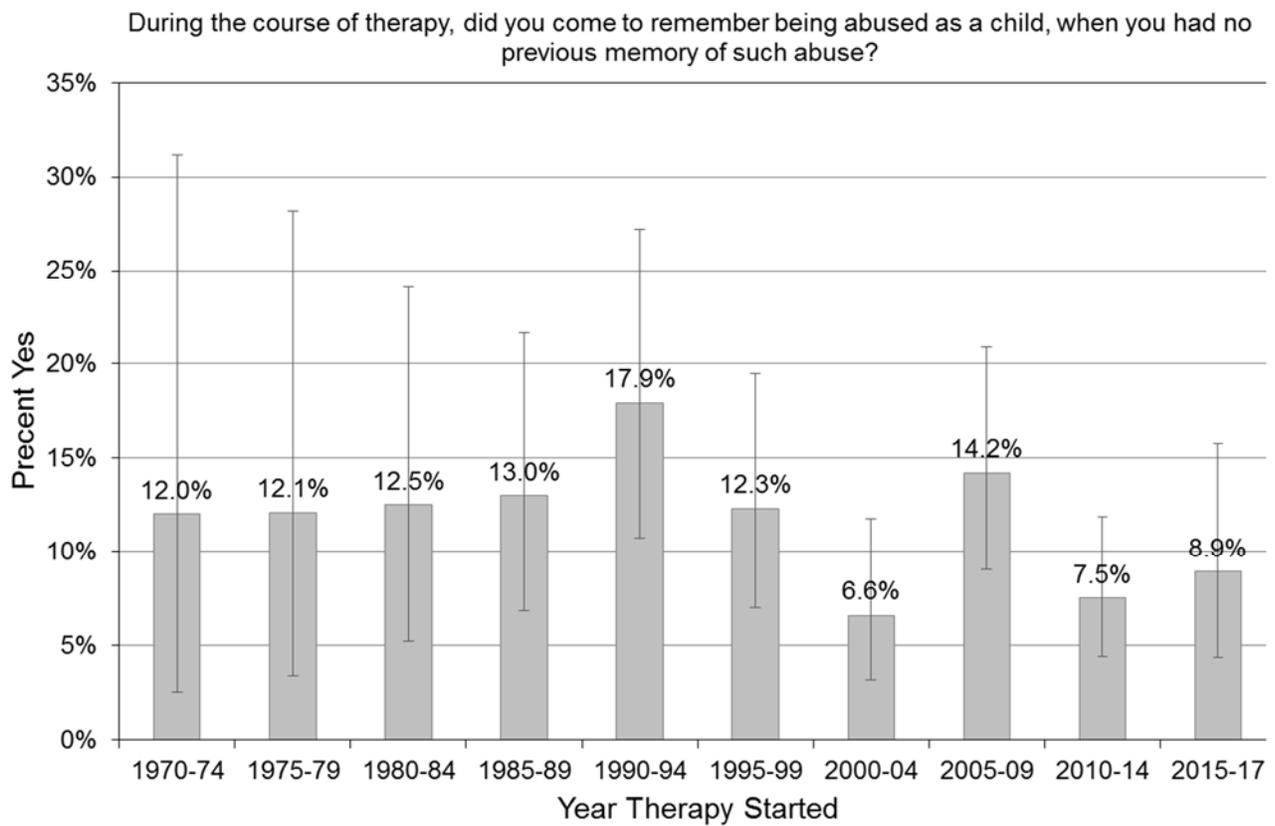


Figure 2. The proportion of participants who received therapy in a given half-decade who came to remember being abused in childhood in therapy. Error bars represent 95% confidence intervals.

Table 1

Prevalence of Therapists Discussing Repressed Memories within Therapy Types: Raw Count Numbers with Row Percentages in Parentheses (Ordered Descending by Percent Yes)

	During the course of counseling or therapy, did your therapist ever discuss the possibility that you might have been abused as a child but had repressed the memories?			Row Total
	Yes	No	Don't know	
Attachment Therapy	10 (71% [42%, 92%])	2 (14%)	2 (14%)	14
Attachment-based therapy	6 (55% [23%, 83%])	4 (36%)	1 (9%)	11
Emotional Freedom Technique	13 (48% [29%, 68%])	13 (48%)	1 (4%)	27
Survivors Group	11 (46% [26%, 67%])	13 (54%)	0 (0%)	24
Exposure Therapy	7 (39% [17%, 64%])	11 (61%)	0 (0%)	18
Accept. & Commitment (ACT)	8 (38% [18%, 62%])	12 (57%)	1 (5%)	21
Twelve-step program	14 (34% [20%, 51%])	25 (61%)	2 (5%)	41
Hypnosis	8 (33% [16%, 55%])	16 (67%)	0 (0%)	24
Behavioral Therapy	69 (29% [23%, 35%])	161 (67%)	10 (4%)	240
Christian-based therapy	15 (27% [16%, 40%])	39 (70%)	2 (4%)	56
Psychodynamic	5 (26% [9%, 51%])	14 (74%)	0 (0%)	19
Internal Family Systems	11 (26% [14%, 41%])	31 (72%)	1 (2%)	43
Emotion Focused Therapy	46 (25% [19%, 32%])	133 (73%)	4 (2%)	183
Marriage Counselling	33 (21% [15%, 28%])	118 (75%)	6 (4%)	157
Cognitive Behavioral Therapy ¹	56 (20% [16%, 26%])	208 (75%)	12 (4%)	276
Don't know (please elaborate)	15 (9% [5%, 15%])	143 (88%)	5 (3%)	163
Other (please specify)	12 (16% [8%, 26%])	61 (80%)	3 (4%)	76
Column Total	217 (20% [18%, 23%])	833 (77%)	32 (3%)	1082

Note. Percentages in parentheses are row percentages, and square brackets contain 95% confidence interval estimates. ACT = Acceptance & Commitment Therapy or related therapies. By definition, row total percentages = 100%. Order of therapies is shown in descending order of “yes” percentage. ¹Or Cognitive Therapy.

Table 2

By Therapy Type: the Prevalence of Recovering Memories of Childhood Abuse in Therapy that was Previously Not Remembered (Ordered Descending by Percent Yes)

	During the course of therapy, did you come to remember being abused as a child, when you had no previous memory of such abuse?			Row Total
	Yes	No	Don't know	
Attachment Therapy	8 (57% [29%, 82%])	5 (36%)	1 (7%)	14
Attachment-based therapy	4 (36% [11%, 69%])	7 (64%)	0 (0%)	11
Emotional Freedom Techniques	8 (30% [14%, 50%])	17 (63%)	2 (7%)	27
Accept. & Commitment (ACT)	5 (24% [8%, 47%])	16 (76%)	0 (0%)	21
Internal Family Systems	10 (23% [12%, 39%])	31 (72%)	2 (5%)	43
Exposure Therapy	4 (22% [6%, 48%])	14 (78%)	0 (0%)	18
Hypnosis	5 (21% [7%, 42%])	18 (75%)	1 (4%)	24
Survivors Group	5 (21% [7%, 42%])	18 (75%)	1 (4%)	24
Behavioral Therapy	41 (17% [13%, 22%])	193 (80%)	6 (3%)	240
Christian-based therapy	9 (16% [8%, 28%])	45 (80%)	2 (4%)	56
Twelve-step program	6 (15% [6%, 29%])	35 (85%)	0 (0%)	41
Emotion Focused Therapy	23 (13% [8%, 18%])	156 (85%)	4 (2%)	183
Marriage Counselling	19 (12% [7%, 18%])	134 (85%)	4 (3%)	157
Cognitive Behavioral Therapy ¹	25 (9% [6%, 13%])	242 (88%)	9 (3%)	276
Psychodynamic	1 (5% [0%, 26%])	17 (89%)	1 (5%)	19
Don't know (please elaborate)	7 (4% [2%, 9%])	151 (93%)	5 (3%)	163
Other (please specify)	6 (8% [3%, 16%])	67 (88%)	3 (4%)	76
Column Total	122 (11% [9%, 13%])	933 (86%)	27 (3%)	1082

Note. Percentages in parentheses are row percentages, and square brackets contain 95% confidence interval estimates. ACT = Acceptance & Commitment Therapy or related therapies. By definition, row total percentages = 100%. Order of therapies is shown in descending order of “yes” percentage. ¹Or Cognitive Therapy.