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ORIGINAL PAPER

Emotion-Based Interventions for Clinicians

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Abstract
The primary purpose of this article is to introduce emotion-based interventions to clinicians that may not be familiar with such techniques. The article explains how emotion-based interventions could help transform the effectiveness of psychotherapy beyond that of traditional interventions alone, which are associated with cognitive behavioral or psychodynamic psychotherapy. Research suggests that techniques of emotional awareness, emotional validation, self-compassion, understanding the origin of emotions, forgiveness, grief work, and memory reconsolidation could offer novel interventions to improve therapeutic outcomes. A clinical example of panic disorder is provided to demonstrate how emotional interventions would be distinguished for traditional cognitive and behavioral interventions. Clinicians are encouraged to integrate emotional interventions in conjunction with cognitive and behavioral techniques that they may already currently be familiar with to optimize their clinical practice.

Keywords Emotion · Psychotherapy interventions · Memory reconsolidation · Emotional awareness · Emotional validation · Self-Compassion

Emotion-Based Interventions for Clinicians

While both psychodynamic and CBT have been found to be effective treatments, the effect size of these treatment approaches is still relatively low (Cuijpers et al., 2010; Renner et al., 2014; Kolovos et al., 2016). Both psychodynamic therapy and CBT traditionally rely on cognitive interventions in treating psychopathology; psychodynamic therapy involving an increased self-understanding or insight and CBT through changing irrational cognitions. The efficacies of these traditional interventions as agents of change have been called into question (Ahn & Wampold, 2001; Bell et al., 2013; Wampold, 2015). In a meta-analysis, Longmore & Worrell (2007) find that challenging irrational beliefs in CBT may have no additional benefit to psychotherapy. Correlational evidence does demonstrate a relationship between psychotherapy outcomes and insight (Jennissen et al., 2018), however this research is not causal, insight be a be a result of successful psychotherapy not necessarily the cause. This research questions previous assumptions about the mechanisms of change in psychotherapy (changing irrational beliefs, developing insight). If this truly is what causes change in psychotherapy what accounts for the low effect sizes? One explanation may be the assumption of unidirectionality in the A-B-C model. This assumption which psychotherapy is so reliant upon, that cognitions should be used to change emotions, could be inaccurate or incomplete. Much evidence exists in the psychological literature for emotions affecting cognitions and behavior (Stevens, 2021). The assumption that changing negative emotions is best addressed through changing cognition or behavior may limit clinicians in what interventions they provide for their patients. This article provides an introduction for interventions that clinicians can use to directly address emotions in psychotherapy. Some of these interventions may be considered new approaches, while others may be a recontextualization of intuitive interventions therapists already do. The goal is to broaden the scope of interventions that therapists can choose from in clinical practice, and step out of traditional cognitive paradigms for treatment. It has been estimated that 80–85% of psychological disorders are related to challenges with emotion (Werner & Gross, 2010), not necessarily cognition. Learning disabilities may be best addressed from a cognitive perspective, but if someone

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feels awful about themselves, it could be better to address the emotion directly through an emotions-based approach, rather than trying to change a cognition to then have a secondary effect on an emotion.

There is currently a focus on "third wave" behavioral and cognitive therapies, which emphasize mindfulness and emotional acceptance, often associated with acceptance and commitment therapy or dialectic behavioral therapy (Dimidjian et al., 2016). These approaches involve helping patients to recognize their emotional experience and have been shown to be effective, although the effect sizes are also small (Öst, 2014). This may be because beyond emotional acceptance, there is a lack of interventions directly addressing the emotions. Therapies like emotion-focused therapy and experiential dynamic therapy are more comprehensive in their approach to working with emotion, however these approaches tend to emphasize the therapeutic relationship and the experiencing of emotion, while focusing less on specific emotional interventions (Greenberg, 2010; Lilliengren et al., 2016). Additionally for practitioner's not trained in these therapeutic modalities it may be difficult to integrate the techniques into their practice without a major paradigm shift. Below emotional interventions will be reviewed individually and outlined starting with emotional awareness, acceptance/validation, self-compassion, utilization of emotion, and ending with memory (affect) reconsolidation. They are presented in this fashion, from the basic to the more advanced, to provide clinicians with a stepwise approach and an overall framework for working with emotion. However, the most appropriate interventions will depend upon the patient's needs.

Emotional Interventions

Emotional Awareness

Emotional awareness is the ability to recognize one's emotions and is often considered the opposite of alexithymia, which is an inability to recognize feelings. Although alexithymia is not a psychological disorder itself, it is related to numerous psychological disorders (Conrad et al., 2009; Frewen et al., 2008). Emotional awareness is closely related to interoceptive awareness, which involves recognition of one's body state (Herbert et al., 2011). If one is to cope effectively with themselves and their environment the ability to perceive their emotions is an important feedback mechanism, and emotional awareness is considered part of emotional intelligence (Agnoli et al., 2019). If an individual is unaware of their emotions, it will likely adversely affect their ability to make decisions about how to behave (Nielsen & Kaszniak, 2006). Furthermore, to accept, regulate, or utilize emotions one must first recognize the emotion. Clinicians can help patients improve emotional awareness through interventions like mindfulness, emotional journaling, or talking about one's internal experience. Many psychotherapies have embraced mindfulness, which allows patients to become more aware of their feelings and helps patients to separate their sense of self from their emotional experience. Yet, once a patient recognizes the negative emotions, further interventions are necessary to change the negative emotional experience.

Emotional Acceptance and Validation

A whole group of psychotherapy approaches are based around the concept of emotional acceptance (Hayes & Hofmann, 2017), which often been used in conjunction with mindfulness as well. The theory is that the acceptance of emotions has a positive effect on mental health and functioning (Campbell-Sills et al., 2006; Twohig & Levin, 2017). Teper & Inzlicht (2013) found that emotional acceptance mediated the relationship between mindfulness and improved executive function. Indicating emotional acceptance has an effect outside of the construct of mindfulness. Clinicians can encourage emotional acceptance by helping their patients to stay present with their feeling states once the feelings arise. Clinicians can help to validate patient's emotions, by reflecting the patient's feelings back to the patient either verbally or non-verbally, which will also help improve emotional acceptance. Emotional validation helps ensure to the patient that their experience is real, important, and okay. Many patients will shame or discourage themselves from having their emotional experience, which leads the patient to invalidate their feelings. Some patients may learn, nothing good ever came from being angry and invalidate their anger. If someone is taking advantage of us, the emotion of anger acts as a mechanism to let us know things are not okay. Emotional validation helps the patient to accept feelings that may have been previously pushed out of awareness. Research on emotional invalidation demonstrates that childhood emotional invalidation causes emotional inhibition in adulthood which predicts levels of psychological distress (Krause, et al., 2003). Emotional validation has long been considered an important part of psychotherapy (Greenberg, 2008), and while an understudied topic, some studies do demonstrate the mental health effects of emotional validation (Benitez et al., 2019; Shenk & Fruzzetti, 2011). Reflective functioning, a parent's ability to reflect back the child's mental or emotional state has been studied much more broadly. Research on reflective functioning, which is closely related to emotional validation, finds that reflective functioning can predict secure attachment and lower rates

of psychopathology (Katznelson, 2014; Camoirano, 2017; Schultheis et al., 2019).

Self-Compassion

Self-compassion involves meeting one's emotions with kindness and understanding as opposed to criticism and judgment (Neff, 2003). Many studies have demonstrated that self-compassion is related to increased well-being and is inversely related to psychopathology (MacBeth & Gumley, 2012; Zessin et al., 2015). A recent meta-analysis found self-compassion interventions to be effective, however, the definition of a self-compassion intervention varied, often including mindfulness and emotional regulation skills (Ferrari et al., 2019). Self-compassion uniquely involves changing how individuals respond to their feelings. While mindfulness and emotional regulation can be important interventions often these concepts overlap in studies, making it difficult to isolate the strength of self-compassion interventions (Kiliç, et al., 2021). Self-compassion involves identifying with your distressful emotional experiences and offering comfort, whereas mindfulness typically involves separating the self from one's experience (Neff & Germer, 2013). Self-compassion involves both increasing compassion toward self and reducing uncompassionate responds to the self, and both are uniquely important to psychological health (Neff et al., 2018). Research suggests that self-compassion may have a much stronger effect on reducing mental health symptoms than mindfulness (Baer et al., 2012; Van Dam et al., 2011). Research also indicates that self-compassion may work too by improving the tolerance for distressful negative emotions, which then opens up a space for clinicians to help patients practice emotion regulation skills and utilize the emotion as well (Inwood & Ferrari, 2018). Clinicians can help patients to practice self-compassion by having patients slow down their response process to their emotions and offering a kinder response to their feelings. Additionally, having patients respond to their feelings as if they were responding to a friend's feelings can also help patients learn to respond more positively to their own feelings.

Utilization of Emotion

All emotions are valid and can be useful. This is frequently confusing because often emotions can be distracting and seem irrelevant to the situation at hand. This is where a lot of the confusion around the usefulness of emotions exists. All emotions are valid, but not all emotions are germane to the current situation or context (Berkowitz & Harmon-Jones, 2004). For example, watching a movie may activate sadness from past memories and although the movie contains elements of sadness, the larger reaction of sadness is about the individual's past and not about the movie itself. Before utilizing an emotion patients should be at a moderate level of arousal, which has been shown to be most effective for psychotherapy (Carryer & Greenberg, 2010; Corrigan et al., 2011). Patients having extreme emotional reactions should work on regulating their emotions to a more moderate state before trying to utilize the emotion. In this moderate state of emotional arousal clinicians can help patients to recognize when their emotion is related to the situation at hand and when the emotions may be related to some past event.

Internal vs. External Origin of Emotions

The first step of this intervention is to determine if the source of the emotion is internal, external, or both. A patient with anger, may be continually angry about a past event, unable to move past the anger. Alternatively, the patient could have a current environmental stressor for which the anger is alerting them to address. In many cases, anger can be both internally and externally driven where an environmental stressor activates past feelings of anger. The distinction is important because an external stimuli should be responded to with an external action, whereas internal feelings need to be responded to internally. For example, a patient who is angry at work because their boss is taking advantage of them, may need to set better boundaries in that relationship. Setting boundaries with a boss may seem easy, but it the patient has never stood up for themselves it could be much more difficult. Many times, in these cases the clinicians will need to work with the next emotion, maybe the fear that comes for the patient with setting boundaries, before overcoming the externally driven anger. Often what seems like an easy solution can sometimes be hard to achieve. In these cases, the external emotion of anger is the result of an internal emotion fear of conflict. Often the behavior that seems obvious to enact by the therapist yet eludes the patient for some reason, means working with internal emotions.

In cases, where the emotion is internally driven, there may be no legitimate environmental cause for the anger. This does not mean the emotion should be ignored. It means the patient has past unresolved anger and benign environmental stimuli are activating this anger. Extreme emotional reactions to small or benign environmental events usually signals that an unresolved emotion from the past exists within the patient. Exploring these emotions would be useful, with the goal of helping the patient to eventually let go of the difficult emotion. Holding on to unresolved emotions only hurts the individual.

Forgiveness and Self-Forgiveness

Interventions like forgiveness may be necessary to let go of the past emotions that are still affecting the patient today. Forgiveness of others often involves letting go of the hurt that others have caused us. Self-forgiveness is often necessary when the emotion is directed toward the self, commonly seen in the emotions of guilt or shame. Guilt and shame are often activated to prevent individuals from engaging in behaviors that they know are wrong or bad. This is the useful purpose of guilt and shame. Often for self-forgiveness to occur individuals must make a change, where they no longer have the desire to engage in that harmful behavior the guilt or shame is trying to prevent. Once the individual no longer needs the guilt or shame to manage their behavior they are then in a position in which they can forgive, giving the guilt or shame back to the old self. For example, a patient who feels guilt about his past substance abuse, would need to understand why they abused substances. Perhaps that was the only way they could cope with their feelings. Then by developing improved coping skills to manage emotion they won't need substances to cope. At this point once having undergone these self changes the patient can now truly forgive themselves of the guilt. Because the guilt is no longer needed as a tool to prevent them from abusing substances. Interventions involving utilization of emotion, through directly addressing the emotion itself as opposed to emotional regulation skills, can truly transform unwanted feelings. Learning what is driving the emotion and taking steps to respond to it or let go of the emotion will prevent the reoccurrence of that emotion and this has a long-term therapeutic effect, apart from just managing the feeling.

Grief

An example of this would be a state of depression brought on by complicated sadness. Here to transform the emotion of depression the patient will need to accept their sadness by grieving their loss. Through accepting and acknowledging their sadness the patient can now grieve, allowing them to let go of the past complicated sadness. This intervention is based in Greenberg's work on primary and secondary emotions (Greenberg, 2006). The primary emotion in this case would be the sadness resulting from the loss. Secondary emotions are responses to one's primary emotion. Perhaps one experiences sadness as shameful or just too uncomfortable to accept, the shame or discomfort would be the secondary emotion. The conflict between the primary and secondary emotion causes a state of dissonance within the mind resulting in the feeling of depression. Greenberg also notes that tertiary emotions can exist creating layers of emotion between the primary emotion and the emotion outwardly expressed. Grief involves accepting the emotion of sadness; however Greenberg's work applies to all emotions. Some work has suggested that working with grief is an underutilized intervention in psychotherapy (Markin & Zilcha-Mano, 2018). Stevens (2021) outlines further interventions for the utilization of emotion in psychotherapy.

Memory (Affect) Reconsolidation

Memory reconsolidation is the process of changing a memory when it is reactivated. The term affect reconsolidation has also been used to describe the therapeutic effect of this process, because the goal of psychotherapy is to change the emotional response, not necessarily the memory itself (Stevens, 2019). When a memory becomes activated it becomes labile and subject to change. Memory reconsolidation involves activating the old memory and providing a new mismatch experience. For example, if a patient had an experience where they felt worthlessness and this has continued to affect their self-worth, a clinician would reactivate this memory along with the emotion of unworthiness. Then the clinician would offer a mismatch condition, by trying to activate a feeling of worth within the patient to pair with the unworthiness. This mismatch causes a reconsolidation of the memory, changing the patient's overall experience of himself or herself. The mismatch condition should be unique enough to reconsolidate the memory, but not too unique where a new memory would be created. Reactivating the old memory of unworthiness without a different mismatch condition, would likely only reinforce the old memory. Alternatively, if the mismatch condition is too extreme, then the patient creates a new memory instead of reconsolidating the old memory. An example of this would be the clinician telling the patient he or she is worthy or that their friends think they are worthy. This could be too great a mismatch, the patient creates two separate memories, one that they are unworthy and as second that others think that they are worthy.

Memory reconsolidation is uniquely different then extinction training (Elsey et al., 2018). Extinction training involves creating a new memory and is subjective to spontaneous recovery (Monfils et al., 2009; Vervliet et al., 2013). Memory reconsolidation and extinction have been demonstrated to be distinct neurobiological processes in rodents (Baldi & Bucherelli, 2015; Suzuki et al., 2004). In psychotherapy memory reconsolidation is used for multiple emotions, while extinction is usually solely used for fear memories (Wellington, 2012). While the application of memory reconsolidation as an intervention in psychotherapy is still developing, some have considered memory reconsolidation to be the universal mechanism of change in psychotherapy (Lane et al., 2015), and it has been likened to

the corrective emotional experience (Levenson et al., 2020). With memory reconsolidation, the goal of therapy is not just regulating or managing emotion, but a long-term enduring emotional change.

An Emotional Approach to Psychotherapy

Emotion-based therapeutic approaches currently exist, and some are well researched including Greenberg's emotion focused therapy (Pascual-Leone & Greenberg, 2007) or Fosha's accelerated experiential dynamic psychotherapy (Iwakabe et al., 2020). These approaches involve some of the interventions mentioned above. Below is an example using panic disorder for how clinicians can incorporate these emotional interventions into their current treatment regimens, as opposed to switching to an entirely different regimen.

Clinical Example- Applying Emotion Inventions to Panic Disorder

Panic disorder is a condition where patients experience panic attacks at seemingly random times. Many traditional psychotherapy approaches involve learning to manage the panic response after the onset of the attack. Techniques like relaxation or deep breathing help individuals learn how to modulate their panic. Additionally, cognitive interventions help put the panic disorder in context and prevent further anxiety. This can be done by applying rational understanding to help patients recognize that, a panic attack is not a heart attack, having anxiety is okay, and individuals shouldn't be overly critical of themselves for having anxiety. However, these interventions are targeted toward managing the anxiety/panic by modulating the subsequent emotional response after the panic attack occurs. While these interventions are useful they do not necessarily prevent the onset of future panic attacks. To prevent the onset of a panic attack, the emotion that drives the panic needs to be identified and treated. Once the emotional stimulus is identified, and a treatment like memory reconsolidation occurs, then the onset of future panic attacks will cease.

Since patients with panic disorder initially lack understanding of the cause of the panic attacks; to identify the stimulus the clinician needs to increase the patient's *emotional awareness*. *Emotional awareness* can be increased by talking about events or experiences that activate the emotion of anxiety. This is less of an external process and more of an internal process examining the patient's feelings and experiences to understand what triggers their panic and anxiety. *Emotional acceptance and validation* will also help the patient to accept and work with these unwanted emotions, further helping the clinician and the patient to identify what triggers their panic attacks. Here the therapist could help the patient to shift their focus internally by validating feelings, either by writing them down or expressing the feelings out loud. Often patients initially don't want to recognize what is driving the panic because it's shameful or the feelings are too overwhelming. Here *self-compassion* skills can help to normalize shame and traditional emotion regulation skills can help to manage shame or any other difficult emotions that may arise. The therapist can work with the patient in crafting a compassionate emotional response to overwhelming feelings, such as "its hard for me to be overwhelmed, I didn't choose this emotion, however I must take care of the feeling." These interventions will help the patient to recognize their emotions better, and what emotions/experience may active a panic attack. Once the patient can understand what is causing the panic attacks they can now decide what to do with the emotion(s). In *utilizing the emotion*, the patient might need to confront something difficult in their environment or recognize a primary emotion that they need to accept or forgive. Finally, the intervention of *memory reconsolidation* may be important in preventing future panic attacks. This process may seem counterintuitive at first, as the clinician would help to activate emotions the patient struggles to experience. Once these negative emotions are activated they can be repaired with a mismatch condition, changing the emotional nature of past memories. In changing this emotion, the patient will no longer experience panic attacks related to the distressful past event. Often in therapy once the panic attack is effectively managed there is an impetus to end treatment, but this doesn't necessarily resolve future panic atttacks. In accordance with memory reconsolidation research, for an enduring change, the initial emotion needs to be re-activated and re-paired (Lane & Nadel, 2020; Pascual-Leone & Greenberg, 2007).

Conclusions

Psychotherapy has emphasized and developed strong cognitive and behavioral interventions, while affective interventions have been slower to develop. This may be due to the abstract nature of emotion. Behavior is easy to measure and quantify. Cognitions can be easily expressed through language. While emotion has been harder to identify in the quantitative sense (Izard, 2010). Perhaps creating a bias, where scientists focus on what is easiest to measure about the human experience. However, with the increase in neuroimaging methods, affect has become much easier to quantify and is better understood (Wager et al., 2008), and the evidence is suggesting that emotional processes play

a valuable role in affecting thinking and behavior (Cromheeke & Mueller, 2014; Song et al., 2017).

Reductionistic models of psychotherapy like the A-B-C model do not fit within the complex brain findings from neuroscience (Cunningham et al., 2007; Pessoa, 2013; Frank et al., 2019). Emotion and cognition interact with one another along multiple pathways with feedback loops, making single linear models of brain processing obsolete (Pessoa, 2013). Moreover, it has been proposed that cognition and emotion may be two halves of a single continuum as opposed to two completely separate constructs (John et al., 2013; Pessoa, 2019). The broader concern for clinicians should be that both emotion and cognition are an interactive process where neither can be fully separated from the other. In this context, clinicians should recognize bidirectionality in cognition and emotion and work across therapeutic modalities for effective change. It's likely single treatment interventions and one size fits all approaches to psychotherapy will leave many patients behind. Clinicians should be nimble to change therapeutic tactics for the best interest of the patient regardless of standard therapeutic approaches.

In general psychotherapists would benefit by developing and practicing emotional-based clinical interventions to use in conjunction with traditional cognitive and behavioral interventions. Many clinicians already help patients to be more aware of their emotions, validate emotions, and teach self-compassion skills. Recognizing the value in labeling these tools as therapeutic interventions could help clinicians to think more broadly when choosing how to best help a patient. Additionally, clinicians should develop more advance clinical skills for treating emotion, such as helping patients to recognize if an emotion is externally or internally driven, utilizing emotions in making decisions, self-forgiveness/forgiveness, grief, and memory reconsolidation. Incorporating these interventions could greatly improve patient outcomes. Combining emotional interventions in conjunction with strong cognitive and behavioral skills that most clinicians are already well versed in should help to bolster effect sizes in therapy outcome studies. By labeling these emotional interventions as therapeutic techniques and not placing them under a single therapeutic modality should also help to increase their application and integrate psychotherapy as a science. Applying emotional interventions in psychotherapy expands what psychotherapists can do and creates the opportunity for further research in optimizing psychotherapy. Future studies could also benefit in comparing emotional, cognitive, and behavioral interventions to help clinicians to determine which interventions would be most optimal in which circumstances. When should interventions be targeted at thoughts as opposed to behaviors or at an emotional/experiential level? Do certain disorders or population groups respond better or worse to these different types of interventions? There is a need in helping practitioners to understand how and when to best apply these techniques. By moving beyond dated assumptions about how psychotherapy should work, new treatment techniques and interventions can be applied. Creating an open-minded approach to psychotherapy will help to expand the skill sets of psychotherapists to combat the growing mental health concerns of the general public.

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