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Prolonged Exposure Combined with Mindfulness-Based Meditation to Interfere PTSD

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Abstract

Posttraumatic stress disorder (PTSD) is a category of mental disorder intimately related to trauma, which causes adverse effects of individual health. Prolonged exposure is an evidence-based and effective psychotherapy for treating PTSD and mindfulness-based treatment is a non-trauma-focused complementary treatment for PTSD. According to the explorations that PE was combined with other therapies to treat PTSD, this article suggested that Prolonged Exposure can be combined with mindfulness-based meditation to interfere PTSD for the reason that mindfulness-based meditation demonstrates effect through psychological mechanisms through which PE treats PTSD effectively and mindfulness-based meditation can alleviate core symptoms of PTSD. The article also puts preliminary discussion on the mode of combination with PE and mindfulness-based meditation, which is expected to provide implications for further practice and research in treatment of PTSD.

Keywords

Posttraumatic Stress Disorder, Prolonged Exposure, Mindfulness-Based Meditation, Treatment Effect

延长暴露联合正念冥想对PTSD干预

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摘　要

创伤后应激障碍(Posttraumatic stress disorder, PTSD)是与创伤关联极度密切的一类心理障碍，会对个体的健康造成不良影响。延长暴露(Prolonged Exposure, PE)是被研究证据支持的有效治疗PTSD的心理治疗方法，正念治疗(mindfulness-based treatment)是非创伤聚焦的，治疗PTSD的补充疗法。借鉴将PE与其他疗法联合治疗PTSD的思路，本文提出PE联合正念冥想能够有效干预PTSD，因为：正念冥想能够通过PE治疗PTSD的心理机制起作用，同时能有效缓解PTSD的核心症状；并对今后PE与正念冥想结合的方式进行了初步探讨，期望对今后PTSD治疗的实践和研究提供思路。

关键词

创伤后应激障碍，延长暴露，正念冥想，疗效

1. 引言

创伤的发生已是日常生活中普遍的现象。有研究统计，全世界超过 70%的人经历过创伤事件(traumatic event, TE)，而且 30.5%的人经历过 4 次及 4 次以上(Benjet et al., 2016)。创伤性事件的种类包括了遭受生命威胁、躯体受伤、目睹暴力或极度痛苦的景象、以及遭遇性侵害等(McLean & Foa, 2011)。虽然遭遇创伤难以避免，但是大多数个体都会在经历创伤后随着时间的延长自然康复(Koopman, Classen, Cardena, & Spiegel, 1995)。然而还是有部分人群症状无法缓解从而发展成为创伤后应激障碍(Posttraumatic stress disorder, PTSD) (Riggs, Rothbaum, & Foa, 1995; Rothbaum, Foa, Riggs, Murdock, & Walsh, 1992)。PTSD 是与创伤关联极度密切的一类心理障碍(Lowell et al., 2018)。国外的调查显示 PTSD 的终生患病率为 6.4%，女性要高于男性(8.6% vs 4.1%) (Pietrzak, Goldstein, Southwick, & Grant, 2011)。在经历自然灾害的居民中，PTSD 的患病率明显高于正常。比如，盐城龙卷风灾害后对青少年的调查显示，PTSD 在灾害过去 6 月后的患病率为 55.84% (An, Huang, Chen, & Deng, 2019)；而在汶川地震后，在绵竹市的一项调查显示，震后 1 到 2 月的 PTSD 的患病率 86.2% (Zhang & Ho, 2011)。而一些特殊群体的 PTSD 患病率也更高，比如在战区服役的军人、患重大疾病的个体、急诊科技术人员、警察、消防员等(Davidson & Baum, 1986; Lommen & Restifo, 2009; Prigerson, Maciejewski, & Rosenheck, 2001)。其核心症状为创伤记忆闪回、躲避行为、认知情绪消极改变和高度警觉等(APA, 2013)，并且超过 50%的患者合并有情感和焦虑障碍，接近 50%的合并有物质滥用障碍(Pietrzak et al., 2011)。创伤对个体的正常功能会造成影响。近年来多项研究指出 PTSD 会对个体执行、认知、记忆等方面功能造成损害(Lagarde, Doyon, & Brunet, 2010; Narita-Ohtaki et al., 2018; Willoughby, Magnus, Vernon-Feagans, Blair, & Family Life Project, 2017; Yang, Guo, & Jiang, 2017)。经历灾后的个体的 PTSD 评分与生活质量评分呈负相关(Hu, Xu, & Liu, 2018)。

鉴于 PTSD 对心理健康造成的严重影响，对患病个体实施有效干预的重要性不言而喻。目前对 PTSD 的治疗方法主要为心理治疗和药物治疗(Stein & Rothbaum, 2018)。其中延长暴露(Prolonged Exposure, PE)治疗是被循证支持的一种聚焦创伤的心理治疗(Powers, Halpern, Ferenschak, Gillihan, & Foa, 2010)，在国外军方中以及心理协会的治疗手册中都被推荐为治疗 PTSD 的首要心理疗法之一(APA, 2017; VA/DOD,

2017)。随机对照试验已表明延长暴露疗法适用于多个人群(成人、儿童及青少年和军人等) (Foa et al., 2018; Rossouw, Yadin, Alexander, & Seedat, 2018; Zoellner, Roy-Byrne, Mavissakalian, & Feeny, 2018)，而且能够对合并有物质滥用、人格障碍等共病的患者产生疗效(Foa et al., 2013; Harned, Korslund, & Linehan, 2014)。虽然该疗法很有效果，但是在研究中也发现还有改善的空间。比如，一部分患者无法完成治疗(9%~39%) (Steenkamp, Litz, Hoge, & Marmar, 2015)，且治疗后的 PTSD 诊断率仍然较高(56%~61%) (Schnurr et al., 2007; Yehuda et al., 2014)。由于 PTSD 的症状和该疗法聚焦创伤的特点，治疗实践过程中，治疗师发现，患者在进行重要治疗环节——暴露时，容易产生回避，有时也会产生过度投入，这些都限制了延长暴露疗法的成功实施和疗效的呈现(Foa, Hembree, & Rothbaum, 2007)。

对治疗进行改进的一个重要方法，就是将 PE 与其他治疗方法相结合。早期的一项研究将 PE 疗法与认知重建疗法相结合，虽然与单纯的 PE 治疗相比，治疗效果未出现显著增强，但是为联合治疗开创了思路(Marks, Lovell, Noshirvani, Livanou, & Thrasher, 1998)。近年来，对 PE 联合药物治疗的研究开始逐渐增多(De Kleine, Hendriks, Kusters, Broekman, & van Minnen, 2012; Rauch et al., 2018; Simon et al., 2008; Tuerk et al., 2018; Yehuda et al., 2015)，较近的一项研究将治疗 PTSD 的一线药物舍曲林与 PE 联合，但治疗的效果与 PE 联合安慰剂未有显著差异(Rauch et al., 2018)。联合治疗效果明显的一项研究是将 PE 与环丝胺酸结合，联合治疗组治疗后症状评分所显示的反应率显著好于 PE 加安慰剂组(De Kleine et al., 2012)。

正念疗法(Mindfulness-based treatments)在东方有很深厚的根源，从 20 世纪 80 年代到 90 年代，这类治疗在精神疾病的治疗中开始得到不断发展(King, Block, Sripada, Rauch, Giardino, et al., 2016a)。基于正念的疗法已成为治疗 PTSD 的重要的非聚焦创伤的补充治疗方法。正念的概念，即“不加评判注意到当下未经加工呈现的经验”(Kabat-Zinn, 2003)。正念治疗的形式有多种，包括正念减压(Mindfulness-based stress reduction, MBSR)、正念认知(Mindfulness-based cognitive therapy, MBCT)、正念暴露疗法(Mindfulness-based exposure therapy) (Boyd, Lanius, & McKinnon, 2018; Gallegos, Crean, Pigeon, & Heffner, 2017; King, Block, Sripada, Rauch, Giardino, et al., 2016a)等，一项回顾研究指出，关注当下的治疗与聚焦创伤的疗法在治疗 PTSD 上同样有效而且有更低的脱落率(Frost, Laska, & Wampold, 2014)。在过去十年的研究中被证明是一种能够有效针对逃避、负性观念的技术，还包括 PTSD 症状中的自责、羞耻和内疚(Banks, Newman, & Saleem, 2015; Follette, Palm, & Pearson, 2006; Lang et al., 2012)。

考虑到延长暴露疗法的限制因素和正念疗法的总体特点，受联合治疗方式的启发，本文提出，在延长暴露疗法联合正念冥想，有助于提高患者的情绪加工能力，从而能更好地在治疗师的指导下在治疗过程中得到更好“暴露”，针对性地解决 PTSD 症状问题，最后达到更好的疗效。本文将在延长暴露 PTSD 治疗的理论框架下，基于目前研究证据，对该联合治疗方式进行讨论。

2. 延长暴露疗法治疗 PTSD 的理论基础及心理机制

延长暴露疗法的一种反复的、系统的暴露治疗，其治疗成份包括 Vivo 暴露(*in vivo* exposure, IVE)，Imaginal 暴露(Imaginal exposure, IE)，创伤记忆加工，呼吸训练等，是聚焦于创伤的疗法(Foa et al., 2007)。延长暴露治疗 PTSD 的理论主要基于两个模型。一个是恐惧抑制学习理论。该理论主要是基于巴普洛夫的条件反射理论，提出创伤性事件是一个非条件刺激，而它是与许多中性刺激关联的(比如声音、气味、人等)，当中性刺激(条件刺激)和创伤事件在记忆中形成联系，那么面对中性刺激时就会激活与创伤应对相关的恐惧反应，产生回忆倾入、回避和高度警觉等症状。与此相对，在缺少非条件刺激(创伤)的情况下给予个体条件刺激(与创伤事件相关的中性刺激)，因为发生了条件刺激和非条件刺激期望的改变，个体对条件刺激所激发的恐惧反应会降低(Colwill & Rescorla, 1986; Rescorla & Wagner, 1972)。延长暴露疗法正

是在治疗条件下，通过 Imaginal 暴露和 Vivo 暴露，让患者接触中性刺激，从而提供了恐惧消除学习的条件。另一个是情绪加工理论。该理论认为恐惧的发生是基于记忆中的认知结构，即恐惧结构。该结构包括恐惧刺激、恐惧反应及它们的意义。正常的恐惧结构能够帮助个体应对危险(比如看见爆炸立刻躲避或卧倒)。但在 PTSD 的病理条件下，恐惧结构错误地将恐惧反应与客观安全的刺激联系起来，并由此形成了夸大的认知观念(“这个世界是危险的”)。在此基础上，该理论提出要改变病例恐惧结构必须将恐惧结构激活，然后提供新的信息进行整合。而延长暴露疗法正好能够提供以上两个条件。通过治疗，患者将不再相信安全的情境会带来令人恐惧的信息(Foa & Kozak, 1985; Foa & Kozak, 1986)。

基于这两个理论框架，结合目前临床实证研究，PE 治疗 PTSD 的心理机制和中介因素可以概括为：1) 情绪的投入，是指在治疗中恐惧、焦虑等情绪在暴露中的激活。2) 与创伤相关刺激的治疗中习惯化(WSH)，一般是指 Imaginal 暴露中患者的不适水平的降低。3) 与创伤相关刺激的治疗间习惯化(BSH)，一般是两次治疗间患者的不适水平降低。4) 创伤记忆的组织，是指患者在治疗师的指导下对片段化的创伤记忆进行组织使其连贯化和细节化。5) 信念改变，包括自我感觉到掌控力和心理忍受力的提升，以及在治疗模型中最得到实证支持的创伤相关的负性观念的改变。6) 恐惧抑制学习，一般是指在动物实验中在暴露条件下条件恐惧反应的减少，然而在临床试验条件下直接评估十分困难，一般是在 PE 疗法中加入与恐惧消除相关的药物进行研究。在最新研究心理机制中介因素的评价框架下，这六项机制中，信念的改变和治疗间的习惯化具有最强的证据支持，抑制学习和情感投入具有中等强度证据支持，创伤记忆组织和治疗中的习惯化的证据支持最少(Cooper, Clifton, & Feeny, 2017)。

3. 正念疗法能够通过 PE 治疗 PTSD 的机制起作用

3.1. 情绪的投入

在情绪加工理论中，情绪的投入是激活恐惧结构的必要过程。在研究中，情绪的投入常用个体的主观不适评分(Subjective Units of Distress Scale, SUDS)来测量，用到的其他方式还有面部恐惧评级或生理心理替代指标(如心率)。研究证明，PE 的实施过程中，情绪的投入和治疗的结果是相关的。早期的一项小型开放型试验指出，治疗后 PTSD 症状评分减少与 Imaginal 暴露中观察者面部恐惧评分($r = 0.78$) (observer-coded facial fear)和最高 SUDS ($r = 0.71$)相关(Foa, Molnar, & Cashman, 1995)。在对退伍老兵进行暴露治疗的过程中，心率从静息到高峰的变化值与治疗后每天体验到的侵入症状的减少相关($r = 0.70$) (Pitman et al., 1996)。一项研究将遭受暴露或性侵的女性纳为被试，用标准的 PE 和 PE 与认知重建疗法两种方式进行干预，治疗后 PTSD 的症状评分与最后一次治疗中的 Imaginal 暴露高峰 SUDS ($r = 0.48$)比第一治疗中 Imaginal 暴露高峰 SUDS 更为相关($r = 0.09$) (Rauch, Foa, Furr, & Filip, 2004)。另一项研究发现，第一次 Imaginal 暴露中，相比症状无改善的患者，治疗前 SUDS 和峰值 SUDS 的变化在 PE 治疗后症状得到改善的患者中更大(van Minnen & Hagenaars, 2002)。当然也有研究报道情绪的投入和 PTSD 症状的好转没有特定的联系(Harned, Ruork, Liu, & Tkachuck, 2015)。

正念冥想有助于延长暴露中情感的投入。通过正念冥想的个体能够更好控制注意力。面对刺激物时(Imaginal 暴露中的回忆，Vivo 暴露中的场景)，正念能够更有效的指导注意(比如专注问题解决，或者停在某个感受当中)，而不是产生自动化反应(比如，自动回避暴露中的回忆、场景等) (Baer, 2003; Frewen et al., 2008; Shapiro, Carlson, Astin, & Freedman, 2006)，除此以外，正念的训练还能有效减少对思维反刍的消极反应(Feldman, Greeson, & Senville, 2010)。正念冥想有助于消除情绪投入过程中的障碍。PTSD 个体焦虑的水平有所增高(Lang, Kennedy, & Stein, 2002)，焦虑通过影响植物神经功能从而干扰情绪的投入(Chang et al., 2019)；而 Vujanovic 等人报道焦虑敏感性和正念呈负相关，高度的焦虑与低正念水平下的高

度焦虑唤起有关(Vujanovic, Zvolensky, Bernstein, Feldner, & McLeish, 2007)；这些研究提示正念的练习可能可以通过缓解焦虑而增加情绪投入的能力。另外，对于经验的觉察能够降低心理不适，采取了不加评判态度的个体更愿意去面对激起恐惧或其他强负荷的情绪刺激，这样有助于克服回避(Arch & Craske, 2006)，增强情绪的投入。

3.2. 习惯化的产生

习惯化的发生是恐惧结构改变的重要信号。治疗中习惯化的评估主要是测量 Imaginal 暴露中 SUDS 峰值和 SUDS 末值的变化，治疗间的习惯化一般是测量两次治疗的 SUDS 均值的变化，不同研究选择的测量时机不尽相同。一项研究报道 WSH 与下次治疗的症状改善相关，而且 WSH 越明显，症状改善越快，总体反应越好(De Kleine, Smits, Hendriks, Becker, & van Minnen, 2015)。但其他的研究尚不支持 WSH 与 PE 治疗 PTSD 的效果有关(Nacasch et al., 2015; Pitman et al., 1996; van Minnen & Foa, 2006; van Minnen & Hagenaars, 2002)。而目前的研究更支持 BSH 与 PE 治疗 PTSD 的过程相关。有 5 项研究通过测量 SUDS 峰值或均值 SUDS 在第一次和最后一次治疗中的变化来反应 BSH，结果都表明 BSH 与 PE 治疗 PTSD 的结果显著相关(Gallagher & Resick, 2012; Harned et al., 2015; Nacasch et al., 2015; Rauch et al., 2004; van Minnen & Foa, 2006)。通过生理心理学测量的 BSH (第一次治疗到最后治疗的静息－高峰心率变化)与暴露治疗后 PTSD 的症状评分中度相关($r = 0.51$) (Pitman et al., 1996)。

目前的研究提示正念治疗能够促进习惯化产生。一项研究证明，经过 MBSR 训练的被试在经历社会评价绩效相关应激后，相比对照组(waitlist control)能产生更好的皮质醇适应(cortisol habituation)，这提示正念训练能够更好帮助 PTSD 患者面对 Imaginal 和 Vivo 暴露中的压力(Manigault et al., 2019)，从而有助于习惯化。在正念治疗强迫症的探索中，有研究指出通过培养对侵入想法的不加评判的观点，正念可能可以有效缓解压抑和对想法的回避，从而能够在暴露治疗中加强习惯化(Hale, Strauss, & Taylor, 2013)，这对 PTSD 的治疗也有借鉴意义。有研究证明身体的觉察和疼痛的习惯化相关，能够产生习惯化的个体身体觉察度较高，痛苦扩大化倾向更弱(Ginzburg et al., 2015)。而正念的训练正是有助于身体的觉察，并促进痛苦的转化(Deikman, 1982)和脱敏(Baer, 2003)。另外，正念的练习通过有意的注意等训练，能够促进自我调节和自我管理(Brown & Ryan, 2003)，从而在面对焦虑的情绪时不会产自动化反应(如逃避)，有助于提高自身对于不适体验的忍受力(Shapiro et al., 2006; Shapiro & Schwartz, 2000)，减轻暴露治疗中的不适。

3.3. 创伤记忆的组织

在 PE 治疗中创伤记忆的组织可能通过不断地 Imaginal 暴露，治疗师指导下的创伤记忆加工，和家庭作业中听与创伤记忆有关的录音等环节得到加强(Foa et al., 2007)。较早的探索创伤记忆组织与 PE 治疗效果的研究，运用了新颖的方案来评估创伤记忆的片段化(如重复、未完成想法、填充语气词)和组织度(反映某种认识，决定或计划的言论)。测量首次和最后一次治疗的 Imaginal 暴露中的创伤回忆后发现，最后一次叙述内容更多而且更有组织度，而且这种变化与 PTSD 症状的改善相关($r = 0.73$) (Foa et al., 1995)。之后的研究虽然运用了相同或更全面的评估方法，但除了发现创伤记忆比一般记忆更零散之外，并没有发现创伤记忆的组织度和 PTSD 症状的改善有明显相关(Bedard-Gilligan, Zoellner, & Feeny, 2017; van Minnen, Wessel, Dijkstra, & Roelofs, 2002)。二者的关系可能还需要用更统一、客观的评估方法进行进一步研究。

正念冥想中的超然(detachment)，是指个体能够充分地在大脑和身体中经历事件，但不过度卷入，“深刻看到世界和思想本质的一种洞见”(Kabat-Zinn, 2003)，能够清楚感知回忆的内容和情绪，是创伤记忆组织的基础。一项以老年人为被试的研究发现，相比对照组基于正念的积极体验情节记忆得到了更大提

升，在干预后 4 个月效果依然明显(Banducci et al., 2017)。另一项研究以抑郁症复发的患者为被试，用MBCT 疗法和等待组干预，从三个维度(Pstart, Pstay, Pstop)测量思维反刍的倾向，发现经 MBCT 治疗的患者更不容易沉浸在负性思维状态中(Banducci et al., 2017)。Roberts 等人的研究运用了情感词回忆测试和心理健康状况的自我报告问卷来测试经历了正念训练和积极对照组处理的被试，发现经历冥想训练后在积极效价词汇的处理效率上进步更大，而且这种进步也与心理健康状况的改善有关(抑郁和焦虑的减少)(Roberts-Wolfe, Sacchet, Hastings, Roth, & Britton, 2012)。因此，正念的练习有助于创伤记忆组织过程中，片段化、消极化等内容的减少。

3.4. 信念改变

测量反应创伤后负性信念的方法通常为创伤后认知量表(Post-Traumatic Cognitions Inventory, PTCI)，是一个具有 36 个条目与 PTSD 相关负性认知的自我报告量表；其他的方法包括与威胁再评估(threat reappraisals)有关的一类认知变量。三项研究发现治疗前后 PTCI 的变化与 PTSD 症状的变化有关(Foa & Rauch, 2004; Hagenaars, Van Minnen, & de Rooij, 2010; Nacasch et al., 2015)。其中一项研究还发现 PTCI 的变化和之间的习惯化是两个独立的显示症状好转的指标(Nacasch et al., 2015)。另有四项研究检验了时间变化和 PTSD 症状变化的关系，这些研究通过多种有效力的统计方法的运用(比如，滞后混合效应回归)，来评估信念变化和 PTSD 症状变化在时间上的相关性，最后发现 PE 治疗中信念的改变显著地预测了接下来 PTSD 症状的好转(Kumpula et al., 2017; McLean, Su, & Foa, 2015; Oktedalen, Hoffart, & Langkaas, 2015; Zalta et al., 2014)。

正念的练习能够引导个体专注当下，促进重新认知(reperceiving)，这与心理学概念中的去中心化、去自动化和超然有关，能帮助个体接触到经验的本质而不是回到即刻的反应模式中(Shapiro et al., 2006)；而且，重新认知也能促进个体认识“主体”和“客体”，即认识到个人内在经验的不等于现实，实现心理的发展(Kegan, 1982)。通过正念训练的再次认知，可以让个体对大脑中的记忆“去认同化”(Shapiro et al., 2006)。正念对于负面情绪的关照，强调个体从经验和现象上意识到情感不需要害怕或躲避，即认识到它们的暂时性(Segal, Williams, & Teasdale, 2002)。这些因素都与认知的转变有关，因为在 PE 治疗 PTSD 的 Imaginal 暴露过程，患者需要认识到“记忆”不等同于“现实”，“世界并没有想象中的那么危险”(Foa et al., 2007)。并且已研究报道，练习 MBCT 的 PTSD 患者的症状的好转，也伴随着 PTCI 中 PTSD 相关认知评分(自责)的降低(King et al., 2013)。

3.5. 恐惧抑制学习

在具体试验中，很难将恐惧抑制学习介导 PTSD 症状好转的过程，与其他同时发生的机制区别开，比如习惯化的产生和创伤负性认知的转变(Cooper et al., 2017)。一般来说，是通过加入能够加强恐惧抑制学习的认知增强剂(如 D-环丝胺酸(DCS)或氢化可的松)来评估，如果实验组比对照组效果好，则说明恐惧抑制学习在症状好转的过程中起到促进作用。一项研究表明，接受 PE + DCS 治疗的患者 PTSD 评分要比加入安慰剂组的患者更好(Difede et al., 2014)。有两项未发表的研究也支持这一结果(Burton, Youngner, McCarthy, Rothbaum, & Rothbaum, 2014)。另一项小型的研究也发现经过 DCS 加强后，患者的治疗反应速度更快，在 PTSD，抑郁，焦虑，SUDS 评分方面的症状改善也更明显，但三个月后有症状的复发。也有研究报道 DCS 的加入并不能给 PE 带来更好的疗效(Henn-Haase et al., 2010)。

同样，从试验中很难直接观测正念冥想对于恐惧抑制学习产生的效应。但神经心理学的研究能够找到一定证据。与恐惧消除相关的三个脑区为：海马、前额叶皮质和杏仁核。而研究发现正念能够影响这些结构的功能，产生促进恐惧消除的改变(Kummar, 2018)。例如，基于体素的形态学测量发现，在控制

了年龄、性别、熟练度、原有海马体积等因素后，与非冥想者相比，积极的长期冥想者海马区灰质的密度更高，体积也更大(Holzel et al., 2008; Luders, Kurth, Toga, Narr, & Gaser, 2013; Luders, Thompson, & Kurth, 2015; Luders, Thompson, et al., 2013; Luders, Toga, Lepore, & Gaser, 2009)。研究也发现冥想者的眶额皮层右侧的灰质体积更大(Luders et al., 2009)；同时还发现正念冥想与前额皮质的背侧和腹侧区域的激活有关，而这个过程同时伴随着杏仁核激活的减弱(Lutz et al., 2014; Opialla et al., 2015)。

4. 正念治疗能够对直接针对 PTSD 产生良好疗效

有研究提出，基于正念的疗法能够通过注意的转移，减轻患者对创伤相关刺激的注意偏向，从而有效减轻侵入症状。但这一观点还有待实证证据的进一步支持(Boyd et al., 2018)。一项试验性研究对 27 名童年虐待幸存者用 MBSR 技术进行干预，之后测量 PTSD 症状评分，发现躲避/情感麻木症状是评分下降最显著的(Kimbrough, Magyari, Langenberg, Chesney, & Berman, 2010)。另一项研究用 MBCT 技术对患有 PTSD 的退伍军人进行干预，在发现 MBCT 治疗 PTSD 症状的效果优于对照组的同时，同样也发现躲避/情感麻木症状降低最明显(King et al., 2013)。以上研究提示正念练习中对经验开放的态度，接近恐惧刺激的意愿，有助于回避症状的减轻。一项研究报道经 MBSR 治疗的患 PTSD 的退伍老兵在心理健康评分(属于健康相关生存质量评分一部分)比对照组显著提高(Kearney, McDermott, Malte, Martinez, & Simpson, 2013)，另一项研究也发现经 MBCT 治疗后创伤相关认知得到改变(King et al., 2013)。说明正念的练习有助与改善 PTSD 患者的负性情绪和认识。一项研究将 4 个试验的 MBSR 治疗 PTSD 退役军人的数据进行了二次分析，觉察和不反应能力的提高是与 PTSD 症状的改善持续相关的两个重要属性，并报道正念的提高与高度警觉和情感麻木的减少关系最大(Stephenson, Simpson, Martinez, & Kearney, 2017)。Corrigan 提出，解离症状是正念状态连续体上的一个极端状态(Corrigan, 2002)，状态的构建与解离呈负相关(Michal et al., 2007)。正念练习可能直接针对解离症状产生疗效，因为通过当下的专注和培养对自身和他人的联系，能够减少解离症状的核心特征(对当下，他人和自己联系的减弱) (Zerubavel & Messman-Moore, 2015)。但这一观点仍需要更多实证研究支持。一项 meta 分析纳入了 18 项研究，调查了基于正念的疗法对于 PTSD 的疗效，比较正念疗法相比对照组，在 PTSD 症状的评分减少上的差距，报告效应量为 Hedges' g = −0.44 (−表明正念疗法的效果更好)，当对照组为等待组时，Hedges' g = −0.59，而且被试正念的水平也得到了显著提高 g = 0.52，说明正念疗法能够在增强正念状态的同时对 PTSD 症状产生疗效(Hopwood & Schutte, 2017)。综上所述，基于正念的疗法能够对 PTSD 的核心症状起到缓解作用从而产生疗效。

值得注意的是，已有研究将正念疗法和暴露疗法结合起来。King 等人开发了基于正念的暴露疗法 MBET (King, Block, Sripada, Rauch, Giardino, et al., 2016a; King, Block, Sripada, Rauch, Porter, et al., 2016b)。这种疗法主要是将 MBCT 中的正念训练和非创伤的回避情境 Vivo 暴露结合了起来，包括四个部分：PTSD 心理教育，身体的正念和 Vivo 暴露，情感的正念和 Vivo 暴露，以及自我同情的训练。经该疗法治疗的 PTSD 退伍军人 PTSD 评分相比对照组下降明显，各核心症状也有明显下降。与现在关注疗法(Present-centered group therapy, PCGT)相比，MBET 和 PCGT 都能使 PTSD 退伍军人的症状评分下降，但只有 MBET 组的达到统计学上具有更大的效应量(d = 0.92 vs d = 0.43)，同时 fMRI 检测发现，经 MBET 治疗的患者症状的好转脑区功能活动的改变更明显。初步研究显示 MBET 有助于社交情感危险相关的神经加工，从而有助于症状的减轻。这为 PE 与正念疗法的结合提供了实践经验。

5. 小结

PE 是一种有效的治疗 PTSD 的心理疗法，但是标准的 PE 疗法并不适合所有 PTSD 人群，因此存在改良的空间，之前的研究提示我们，PE 联合其他治疗方式是一种可以借鉴的思路，因此本文提出，PE

联合正念冥想是一种可行的方法，因为：1) 正念冥想可以通过 PE 治疗起作用的机制起作用，从而达到增强 PE 的效果；2) 基于正念的疗法可以直接对 PTSD 的症状产生疗效，从整体上增强治疗效果。并且有研究证明，正念冥想和暴露疗法的结合，是可以对 PTSD 起到治疗作用的。

PE 疗法如何与正念疗法进行结合，还存在很多探讨空间。可能的形式有：1) 参照 MBET 疗法的形式，将正念疗法和 PE 疗法的要素结合，成为一种新式的治疗方法。比如，将 MBET 中的 Vivo 暴露替换为 Imaginal 暴露，或许在指导性、操作性方面效果更好，并能更有效的针对创伤进行治疗。这种结合方式可以提高治疗效率，但也存在丢失两种治疗的核心要素(比如，正念训练时间不够长，或者没有进行充分的暴露)，从而降低整体治疗效果的风险。2) 在正念疗法结束后再进行 PE 治疗，例如，在完成一个周期的 MBCT 或 MBSR 后，再开始标准的 PE 治疗。对于部分症状较重的患者来说，直接进行暴露治疗可能会加重症状，有研究显示患者治疗前的心理状况与 PE 的治疗依从性相关(Belleau et al., 2017)，而正念疗法的脱落率是较低的(0%~29%) (Boyd et al., 2018)，同时能够有效改善整体心理状态和认知功能，这种结合方式可以在改善患者的心理健康状况的基础上进行暴露治疗，从非创伤聚焦转向创伤聚焦，循序渐进，可能能够增加患者对 PE 治疗的反应率和适应性。但这种做法必然会增加治疗周期，导致部分患者无法坚持完成治疗。3) 每次 PE 治疗前，进行一定的正念冥想。比如进行 10~20 分钟的正念冥想练习后，再开始标准的 PE 治疗。在治疗前的正念练习能够提高患者的觉察能力，从而能增进患者每次治疗的投入度、习惯化和情绪，达到加强疗效的效果。这种结合方式可以不用延长治疗周期，但是加长了每次治疗的时长，对治疗师组织实施的要求较高。4) 在移动端(手机，平板电脑等设备)实施正念治疗和 PE。远程实施正念治疗已经有多项研究在开展，并证明是有效促进个体心理健康的方法(Mikolasek, Berg, Witt, & Barth, 2018)，但对 PTSD 治疗的研究还缺乏。远程 PE 治疗 PTSD 已证明疗效不劣于 PE (Acierno et al., 2017; Yuen et al., 2015)，同时外国军方已开发了手机软件 PE Coach 用于 PE 治疗的实施(Reger et al., 2013)。可将针对 PTSD 的正念冥想以及 PE 内容移植于手机应用，使患者在程序的指导下逐步完成治疗环节，从而拓宽了 PTSD 治疗的实施条件。但移动端实施干预较难针对不同患者开展个性化治疗。可能的解决方案为当程序采集患者的信息后(人口学资料，创伤信息，心理量表评分等)，根据已有数据支持，自动制定一套合理的正念疗法与 PE 结合的方案提供给患者。这个方案的实践还需从技术实现和疗效评估两个方面开展研究获得进一步支持。

具体哪一种结合方式有利于 PTSD 治疗，还需要更多地实证研究去探索。另外，正念治疗的方式有多种，本文是在正念核心概念上去探讨与 PE 的结合的，并未对哪一种正念训练去与 PE 结合作出限定。而这个问题的研究可能会引出更多问题，比如：正念疗法与 PE 治疗的 PTSD 机制的关系结构是怎样的？PE 产生疗效的过程与正念的关系是怎样的？Hoffart 等 2015 年的研究报道，个体内自我同情的改变与 PTSD 症状的缓解相关，但 PTSD 症状的改变并不能有效预测自我同情的变化(Hoffart, Oktedalen, & Langkaas, 2015)。目前，关于这两个问题的研究还比较缺乏。基于多个时间点的调查数据结合结构方程模型的运用将会有助于问题的解释，除此之外，还需要开展更多的研究。相信这部分研究将会为 PE 与正念疗法的结合提供更为可靠的依据。

正念疗法能够通过 PE 治疗 PTSD 的心理机制起作用，也能直接对 PTSD 产生治疗效果，因此 PE 与正念疗法的联合可能是一种更为有效的治疗 PTSD 的方法，因为它综合了聚焦创伤治疗和非聚焦创伤治疗两种模式的特性。这为今后 PTSD 的心理治疗提供了研究思路。

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