



Content Validation of the Johns Hopkins Model of Psychological First Aid (RAPID-PFA) Expanded Curriculum

George S. Everly, Jr.

The Johns Hopkins Bloomberg School of Public Health and The Johns Hopkins School of Medicine
Please address correspondence to Dr. Everly: geverly1@jhu.edu

Christina M. Kennedy

Psychology Department, Loyola University Maryland

Abstract: *There appears to be virtually universal endorsement of the need for and value of acute “psychological first aid” (PFA) in the wake of adversity. In this paper, we describe the content validation of an expanded curriculum of The Johns Hopkins RAPID-PFA model of psychological first aid. The RAPID-PFA model has been found in previous studies to possess content as well as applied clinical validation. The curriculum was modified by the inclusion of expanded foundations in neuroscience, the inclusion of perspective taking, a unique model of psychological triage, a focus upon mechanisms of action to mitigate acute distress and foster a future orientation, and devoting greater time to classroom application. The process of content validation of the RAPID-PFA curriculum entailed the assessment of attitudes of confidence and preparedness, knowledge, and resilience. Results of the current content validation suggest the 12-hour expanded RAPID-PFA curriculum, initially based upon structural modeling analysis, can improve self-perceptions of both confidence and preparedness in the application of PFA, knowledge related to the application of immediate mental health interventions, and self-perceptions of personal resilience, that may be enduring.*

Keywords: Psychological first aid, PFA, resilience, Johns Hopkins RAPID-PFA, crisis intervention

The authors wish to thank Natalie Semon at the Johns Hopkins Center for Public Health Preparedness.

Psychological first aid (PFA) may be thought of as a form of psychological crisis intervention designed to foster resilience. Crisis intervention techniques were spawned in World War I as a direct result of the failure of traditional psychotherapeutic interventions to foster resilience amongst frontline soldiers (Artiss, 1963; Everly & Lating, 2017). Crisis intervention techniques designed to stabilize stress reactions, mitigate acute distress, and foster a future orientation were implemented and found to be superior to then-extant and more traditional interventions (Artiss, 1963), a finding that would be demonstrated again 80 years later in response to the World Trade Center disaster of September 11, 2001 (Boscarino, Adams, & Figley, 2005, 2011). The first noteworthy mention of PFA, per se, as a means of fostering human resilience was in the context of a curriculum developed in 1944 for the United States

Merchant Marine during World War II. The paper was read at the Centenary Meeting of the American Psychiatric Association in Philadelphia on May 15–18, 1944. The Merchant Marine paper was later published in the *American Journal of Psychiatry* (Blain, Hoch, & Ryan, 1945). The authors noted the following:

Natural defense mechanisms such as fatalistic attitudes and wishful thinking lose their protective ability as the law of averages make each succeeding attack seem more dangerous to the individual. Can it be said that the strongest defense consists in the most active offense in the battle of nerves as it does in other battles? That here, also, fore-warning is fore-arming. (p. 629)

This is an Open Access journal. It adheres to the CC BY-NC-ND 4.0 Creative Commons licensing guidelines for copyrighted material. For terms and conditions of permitted uses, please see <https://creativecommons.org/licenses/by-nc-nd/4.0/legalcode>.

Moreover, they noted, “Our suggested course in psychological first aid and prevention . . . aims to help prevent the development of maladjustments and neurotic symptoms, and to aid people in dealing with their tensions and personal problems” (p. 631). The curriculum was developed to acknowledge that psychological distress on shipboard was a significant risk factor for poor performance and the development of psychological casualties at sea, especially during wartime. Following this seminal work, the theoretical roots of psychological first aid expanded when Thorne (1952) asserted that there was potential to mitigate chronic adverse psychological sequelae through rapid recognition of and appropriate intervention for current acute psychological distress. In 1954, the American Psychiatric Association published a monograph advocating for and describing the principles and practice of PFA as a means of fostering resilience in the wake of adversity (American Psychiatric Association, 1954).

Australian psychiatrist Beverly Raphael (1986) argued that in the wake of a disaster up to 25% of the affected population could prosper from PFA; however, tactical descriptions of PFA were lacking. Everly & Flynn (2006) initially outlined an approach to tactical application of PFA, but the recommendations were evidence-informed as opposed to evidence-based. Perhaps reflecting the recognition that traditional counseling in the wake of disaster, terrorism, and related adversity were inadequate, a notion confirmed by Boscarino, Adams, and Figley (2005, 2011), the International Federation of Red Cross and Red Crescent Societies (2003), the World Health Organization (2003), and the Inter-Agency Standing Committee of the United Nations (2007) all recommended some form of PFA. Underscoring the strategic importance of these recommendations it should be noted that they were made in the absence of evidenced-based support (Bisson & Lewis, 2009; Fox, Burkle, Bass, Pia, Epstein, & Markenson, 2012).

In 2000, the Centers for Disease Control and Prevention (CDC) and the Association of Schools of Public Health (ASPH) established the Centers for Public Health Preparedness (CPHP) to educate and train the public health workforce to prepare and respond to acts of domestic terrorism, as well as other disasters that might threaten the public health and welfare of the United States. In 2004, CDC and ASPH directed CPHP network members to create the CPHP Mental Health and Psychosocial Preparedness Exemplar Group to address the mental health aspects of terrorism and mass disasters. One of the constituent recommendations of the CPHP Mental

Health and Psychosocial Preparedness Exemplar Group for further development was the creation of a list of core disaster mental health competencies. One of the manifestations of this initiative was a consensus document that consists of a set of recommendations for core disaster mental health competencies (Everly, Beaton, Pfefferbaum & Parker, 2008). Similar recommendations can be inferred from Hobfoll et al. (2007). A CDC-funded initiative confirmed previous recommendations and re-formulated the recommendations in a new heuristic (McCabe et al., 2014). A natural corollary to these recommended competencies was the development and validation of a tactical model of PFA. Under the auspices of the Johns Hopkins Center for Public Health Preparedness, the Johns Hopkins RAPID model of PFA was created using consensus recommendations for content construction, while the model and its derivatives were validated through content validation and clinical application (Everly, Barnett, & Links, 2012; Everly et al., 2014; Everly, Lating, Sherman, & Goncher, 2016; McCabe et al., 2014).

A follow-up inquiry of real world applicability was conducted by way of survey outreach to former participants in RAPID-PFA training. Consistent with the findings of McCabe et al. (2014), RAPID-PFA was found to be capable of real world impact. The survey was conducted utilizing available emails from those who enrolled in RAPID-PFA from October 2010-April 2013. The last response was received on April 29, 2013. Of the 580 emails identified for the survey, over 120 were returned as non-deliverable. Of the approximately 460 that were delivered, 26% (n=119) were returned for analysis.

Findings indicate that 76% and 77%, agree/strongly agree that they are “willing” and “confident,” respectively, to provide PFA in disasters/emergencies. Furthermore, 82% agree/strongly agree that PFA training made them better listeners, and 78% indicated they are more confident in building rapport with others. While 20% indicated that they had an opportunity to use their PFA skills as part of a disaster response, 23%, 15%, and 30% indicated that they had used PFA skills in non-disaster settings at least once, twice, or three or more times, respectively. The current paper is an effort to pursue further content validation on an expanded version of the Hopkins’ RAPID PFA curriculum. In designing the revised expanded curriculum, we employed an adaptation of the basic framework for the development of a clinical science as recommended by Millon (1987), which entails historical review, theoretical development, content

validation, and clinical trials. Given that the RAPID-PFA intervention model has been shown to be based upon historically and theoretically sound foundations (Everly et al., 2012; Everly, McCabe, Semon, Thompson, & Links, 2014), as well as empirical validation (Everly et al., 2016; McCabe et al., 2014), that which remains for the expanded curriculum is content validation. This paper reports on that initiative.

Method

Curriculum

The RAPID-PFA curriculum assessed in this report consisted of an expansion of previous efforts in that the original curriculum was 6 hours in duration, whereas the current expanded curriculum consists of 12 hours. The original curriculum used as its centerpiece the heuristic acronym RAPID, which stands for:

- **Reflective Listening;**
- **Assessment** of the current presentation through the lens of binary psychological screening and dimensional appraisal of factors that are likely to augment or deter a rapid recovery focusing upon dimensions such as cognitive capacity, affective expression, social adaptability, interpersonal resources, and readiness for intervention;
- **Psychological Triage** (prioritizing attending to severe vs. mild reactions);
- **Intervention** (using cognitive and behavioral interventions to mitigate acute distress); and,
- **Disposition** (consideration of next steps, including the need for facilitation of access to continued care as well as follow-up).

The curriculum was expanded in the following ways: a discussion of recent finding from neuroscience applicable to PFA was added, perspective-taking was added to empathic engagement, an updated model of psychological triage was presented, the focus upon mechanisms of action to mitigate acute distress and foster a future orientation was operationally honed, and greater time was spent in classroom application. The content for the latest curriculum is derived from Everly and Lating (2017) *The Johns Hopkins Guide to Psychological First Aid*. The instruction was provided by the author of the RAPID-PFA textbook.

Subjects

Subjects were 40 healthcare personnel consisting of nurses, physicians, and public health professionals in both management and frontline application. Subjects participated in a 12-hour in person RAPID-PFA program over the course of two consecutive days. The program was initially run with 16 subjects, then repeated with 24 subjects two Prior to the start of the RAPID-PFA training, subjects were queried concerning their confidence in applying PFA. Their responses clustered slightly higher than “unconfident.” After the training, their responses clustered slightly higher than “confident.” The differences between the two sets of responses once numerically quantified were found to be statistically significant and indicative of a large effect size. **Table 1** provides the relevant statistics.

Prior to the start of the RAPID-PFA training, participants were queried concerning objective facts relevant to an understanding of PFA or its foundations. After the training, participants were posed the same questions. The differences between the two sets of responses once numerically quantified were found to be statistically significant and indicative of a large effect size. **Table 2** provides the relevant statistics.

Prior to the start of the RAPID-PFA training, subjects were queried concerning their preparedness for applying PFA. Their responses clustered slightly higher than “unprepared.” After the training, their responses clustered slightly higher than “prepared.” The differences between the two sets of responses once numerically quantified were found to be statistically significant and indicative of a large effect size. **Table 3** provides the relevant statistics.

Prior to the start of the RAPID-PFA training, subjects were queried concerning their confidence in exercising personal resilience. Their responses clustered slightly higher than “unconfident.” After the training, participants were posed the same questions. Their responses clustered slightly higher than “confident.” The differences between the two sets of responses once numerically quantified were found to be statistically significant and indicative of an effect size slightly exceeding small. **Table 4** provides the relevant statistics.

Prior to the start of the RAPID-PFA training, subjects were queried concerning their preparedness in exercising personal resilience. Their responses clustered slightly higher than “unprepared.” After the training, participants were posed the same questions. Their responses clustered slightly higher than “prepared.” The differences between the two sets of responses once numerically quantified were found to

be statistically significant and indicative of an effect size slightly exceeding small. **Table 5** provides the relevant statistics.

Table 1	Confidence1	Confidence2
Mean	14.55	19.20
SD	3.00	2.44
SEM	0.47	0.39
N	40	40
t=10.2493		
df = 39		
p value is less than 0.0001		
Cohen's d = 1.700		

Table 2	Knowledge1	Knowledge2
Mean	3.92	5.76
SD	1.62	2.14
SEM	0.26	0.35
N	38	38
t = 5.6960		
df = 37		
p value is less than 0.0001		
Cohen's d = 0.969		

Table 3	Prepared1	Prepared2
Mean	14.1	19.15
SD	3.48	3.33
SEM	0.55	0.53
N	40	40
t = 9.0673		
df = 39		
p value is less than 0.0001		
Cohen's d = 1.482		

Table 4	ConfResil1	ConfResil2
Mean	6.00	6.45
SD	1.13	1.69
SEM	0.18	0.27
N	40	40
t = 2.1259		
df = 39		
p value equals 0.0399		
Cohen's d = 0.313		

Table 5	PrepResil1	PrepResil2
Mean	5.83	6.43
SD	1.28	1.87
SEM	0.20	0.30
N	40	40
t = 2.3283		
df = 39		
p value equals 0.0252		
Cohen's d = 0.374		

Discussion

The results of the current study confirm the content validation of the core elements of RAPID-PFA curriculum expanded to a two-day delivery format with all outcome measures improving when comparing the pre-training scores to the post training scores. Effect sizes for the subjective perceptions of preparedness to conduct PFA and confidence in the application of PFA were both in excess of 1.0 which, when considering .70 as a criterion, are considered large. The objective assessment of factual knowledge related to PFA showed an effect size approaching 1.0, and again considered large. Worth noting, participation in the PFA training was also associated with increases in perceived resilience, although the effect sizes barely exceeded what would be considered a small effect size (.30 or less). While a rather small effect size, it should be noted that these findings may be interpreted as a sense of empowerment arising immediately after training. Given the real world impact data presented earlier, it may be inferred that these findings may be enduring. Such a conclusion is consonant with that of Noullet, Lating, Kirkhart, Dewey, & Everly (2018) that found empowerment arising immediately after training. Given the real world impact data presented earlier, it may be inferred that these findings may be enduring.

Such a conclusion is consonant with that of Noullet, Lating., Kirkhart, Dewey, & Everly (2018) who found that a similar curriculum designed for clergy and pastoral crisis interventionists was associated with increased personal resilience (effect size = .44) and lower levels of compassion fatigue (effect size = .47) when assessed one year after the training.

The RAPID-PFA model is largely differentiated from other models of emergent mental health aid and PFA in that it places unique emphasis upon mitigating acute distress and fostering hope and a future orientation. A recommendation in the *American Journal of Psychiatry* stated that shortly after a stressful event, it is important that those affected be provided empathic, practical psychological support beginning with a compassionate and supportive presence (Bisson, Brayne, Ochberg, & Everly, 2007, p. 1017). The preponderance of other such models rely upon empathic listening, the provision of information, and connecting individuals in distress with informal and professional resources, but often lack the acute practical support. As a result, such models have been criticized as failing to be sufficiently active in mitigating acute distress, not fostering acute resilience, and a reliance upon follow-up resources that may not be adequately trained, in short supply, or nonexistent in many disaster situations.

Pursuant to the consensus-driven development of the RAPID-PFA model, in a randomized clinical trial (Everly et al., 2016), RAPID-PFA has been shown to effect an acute reduction in state anxiety, accelerate recovery to baseline, and exert an acute calming effect greater than baseline, without any evidence of adverse iatrogenesis. The PFA model in a unique combination with direction in public health planning has also been shown to effect observable changes in public health-related actions (McCabe et al., 2014). Within the framework of an enhanced logic model and employing a multi-cohort, pre-test/post-test design to assess content validation as well as planning and impact outcomes one year later, significant improvements were observed in self-reported and objectively measured content variables. In addition, teams of participants proved capable of producing quality drafts of basic community disaster plans. PFA trainees confirmed upon follow-up one year later that their training proved useful in real-world trauma contexts. These findings in the aggregate suggest that not only does the PFA model curriculum possess content validity, but the intervention model itself possesses clinical effectiveness in reducing acute anxiety, and increasing self-perceptions of resilience. It holds promise in serving as a platform for public health planning as well.

Considering future directions, more clinical trials on the RAPID-PFA intervention with varied populations under varied circumstances are clearly called for. A randomized controlled clinical trial of the delivery of RAPID-PFA in a group format would be a logical next step.

References

- American Psychiatric Association (1954). *Psychological First Aid in Community Disasters*. Washington, DC.
- Artiss, K. (1963). Human behavior under stress: From combat to social psychiatry. *Military Medicine*, 128, 1011-1015.
- Bisson, J. I., Brayne, M., Ochberg, F., & Everly, G. S., Jr. (2007). Early psychological intervention following traumatic events. *American Journal of Psychiatry*, 164, 1016-1019. <http://dx.doi.org/10.1176/ajp.2007.164.7.1016>
- Bisson, J. I. & Lewis, C. (2009). Systematic Review of Psychological First Aid. Commissioned by the World Health Organization. Geneva, Switzerland: World Health Organization.
- Blain, D., Hoch, P., & Ryan, V. G. (1945). A course in psychological first aid and prevention. *American Journal of Psychiatry*, 101, 629-634. <http://dx.doi.org/10.1176/ajp.101.5.629>
- Boscarino, J.A., Adams, R.E., Figley, C.R. (2005). A prospective cohort study of the effectiveness of employer-sponsored crisis interventions after a major disaster. *International Journal of Emergency Mental Health*, 7,9-22.
- Boscarino, J., Adams, R., & Figley, C. (2011). Mental Health Service Use After the World Trade Center Disaster: Utilization Trends and Comparative Effectiveness. *Journal of Nervous and Mental Disease*, 199, 91-99.
- Everly, G.S., Jr., Barnett, D. J., & Links, J. (2012). The Johns Hopkins Model of Psychological First Aid (RAPID - PFA): Curriculum Development and Content Validation. *International Journal of Emergency of Mental Health*, 14(2), 95-103.
- Everly, G.S., Jr., Beaton, R.D., Pfefferbaum, B., & Parker, C.L. (2008). Training for disaster response personnel: The development of proposed core competencies in disaster mental health. *Public Health Reports*, 123, 13-19.
- Everly, G.S., Jr., & Flynn, B. (2006). Principles and practical procedures for acute psychological first aid training for personnel without mental health experience. *International Journal of Emergency Mental Health*, 8, 93-100.
- Everly, G.S., Jr., & Lating, J.M. (2017). *The Johns Hopkins Guide to Psychological First Aid*. Baltimore, MD: Johns Hopkins Press.
- Everly, G.S., Jr., Lating, J.M., Sherman, M., & Goncher, I. (2016). The potential efficacy of psychological first aid on self-report anxiety and mood. A pilot study. *Journal of Nervous and Mental Disease*, 204, 233-235.
- Everly, G.S., Jr., McCabe, O.L., Semon, N., Thompson, C.B., & Links, J. (2014). The Development of a Model of Psychological First Aid (PFA) for Non-Mental Health Trained Public Health Personnel: The Johns Hopkins

- RAPID-PFA. *Journal of Public Health Management Practice*, 20, S24–S29.
- Fox, J. H., Burkle, F. M., Jr., Bass, J., Pia, F. A., Epstein, J. L., & Markenson, D. (2012). The Effectiveness of Psychological First Aid as a Disaster Intervention Tool: Research Analysis of Peer-Reviewed Literature From 1990-2010. *Disaster Medicine and Public Health Preparedness*, 6, 247-252. doi:10.1001/dmp.2012.39.
- Hobfoll, S.E., Watson P., Bell, C.C., Bryant, R.A., Brymer, M.J., Friedman, M.H., ... Ursane, R. J. (2007). Five Essential Elements of Immediate and Mid-Term Mass Trauma Interventions: Empirical Evidence. *Psychiatry*, 70(4), 283-315.
- Inter-Agency Standing Committee (IASC) (2007). *IASC Guidelines on Mental Health and Psychosocial Support in Emergency Settings*. Geneva, Switzerland: Inter-Agency Standing Committee.
- International Federation of Red Cross and Red Crescent Societies (2003). *Community-based Psychological Support: A Training Manual*. Geneva, Switzerland: International Federation of Red Cross and Red Crescent Societies.
- McCabe, O. L., Everly, G.S. Jr., Brown, L. M., Wendelboe, A. M., Abd Hamid, N. H., Tallchief, V. L., & Links, J. M. (2014). Psychological First Aid: A Consensus-Derived, Empirically Supported, Competency-Based Training Model. *American Journal of Public Health*, 104(4), 621-628.
- McCabe, O. L., Semon, N., Thompson, C. B., Lating, J. M., Everly, G. S., Jr., Perry, C. J., ... Links, J. (2014). Building a National Model of Public Mental Health Preparedness and Community Resilience: Validation of a Dual-Intervention, Systems-Based Approach. *Disaster Medicine and Public Health Preparedness*, 8(6), 511-526.
- Millon, T. (1987). *Manual for the MCMI-II*. Minneapolis, MN: NCS.
- Noulet, C. J., Lating, J. M., Kirkhart, M. W., Dewey, R., & Everly, G. S., Jr. (2018). Effect of pastoral crisis intervention training on resilience and compassion fatigue in clergy: A pilot study. *Spirituality in Clinical Practice*, 5(1), 1-7.
- Raphael, B. (1986). *When disaster strikes*. New York, NY: Basic Books.
- Thorne, F.C. (1952). Psychological first aid. *Journal of Clinical Psychology*, 8(2), 210-211.
- World Health Organization. (2003). *Mental Health in Emergencies*. Geneva, Switzerland: World Health Organization.