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Initiative

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Firefighters and their families must have access to counseling and psychological support.

Executive Summary

This brief white paper seeks to accomplish three major objectives. First, it supplies a very brief synopsis of information currently available regarding key elements of behavioral wellness programming affecting occupational health and safety within the fire service. Second, it provides a very succinct glimpse toward emerging best practices respecting evidence based and evidence informed prevention and intervention programs. Third, and perhaps most importantly, it recommends avenues by which to construct consistent nonproprietary mechanisms that can help ensure the continued application of evolving information and practices to fire service settings as new research and techniques emerge. Several critical aspects of psychological services for firefighters are examined, including behavioral wellness as a component of overall wellness and fitness initiatives, Employee Assistance Programs, occupational stress and exposure to potentially traumatic events, and evidence based treatment for specific psychiatric and psychological disorders. Aspects of personal, professional, and organizational development related to successful performance are also briefly considered. The 13th Initiative is critical within the complete health and wellness program of any fire service.

Introduction

Fostering, maintaining, supporting, and restoring sound behavioral health have become well recognized as essential elements of effective functioning in fire service settings. Unconsidered or even disdained a short generation earlier, organizational responsibility to ensure access to resources needed to address behavioral health implications of a fire service career is now reflected in a range of standards, programs, and initiatives. Topics related to behavioral health are included in a number of training areas. Programs developed to provide

psychological assistance and support are found in what may now be the majority of departments. There has been much progress achieved in a relatively short time. There is also, however, much progress that needs to be made. Although attention to issues involving behavioral health in the fire service has grown exponentially, solid understanding of the complexity of those issues and the interactions among them is only beginning to emerge. Much of the data being developed suggests a need for serious re-examination of many ideas that have become firmly engrained in the “common wisdom” of the industry.
Certain notions regarding work related stress that continue to be incorporated into training programs have, for example, become seriously outdated as new research has deepened our understanding of how people respond to adversity and demand. Specific techniques intended to abate psychological problems arising from workplace events gained widespread acceptance in the fire service but have increasingly been found to be inert or even counterproductive in rigorous studies by independent researchers. The best available techniques to address common occupationally related conditions such as post-traumatic stress disorder (PTSD) and depression are not typically available from the providers to whom personnel have greatest access while the techniques most commonly provided have been demonstrated to have limited impact on these conditions. The interactions between work and family, while often discussed, have not been well established or adequately studied.

Much of this seeming “disconnect” can be traced to a lack of direct interaction between those responsible for delivering information and services to the fire service and those involved in developing and researching the information and services that need to be provided. Fire service leaders cannot reasonably be expected to keep abreast of research reported in medical and psychological journals. Few among them would claim to be fully equipped to exercise highly technical levels of evaluation with respect to the types of information reported in those venues. Researchers and clinicians have rarely focused on specific application of their findings to the fire service, nor are they apt to be fully equipped to provide effective translation respecting the unique demands of the industry. Moreover, the extreme diversity with respect to settings, organizational structures, organizational cultures, missions, and activities that characterizes the American fire service further complicates any capacity to develop or employ “off the shelf” approaches to behavioral health and intervention.

OVERVIEW

Firefighting has consistently been included among the most stressful and the most hazardous occupations. Attention to its psychological impacts on providers has, however, been a relatively recent development. Little significant literature regarding psychological aspects of firefighting is found prior to the early 1980s and much of the literature now cited is surprisingly weak with respect to

empirical data and critical evaluative study. Indeed, much information now found in fire service literature and training materials regarding this vital component of firefighter health, wellness, and safety has been called into question as rigorous, systematic, and controlled research has emerged regarding concepts and approaches now firmly implanted in our industry.

The positive side of the equation is found in widespread endorsement of psychological services for firefighters in current standards and training matter. NFPA 1500 specifies that all fire service agencies, as a part of an effective program regarding health and safety, must make certain psychological services systematically available to employees. The International Association of Fire Fighters (IAFF) and the International Association of Fire Chiefs (IAFC) recognized the integral role of behavioral health in their Joint Labor Management Wellness-Fitness Initiative, allotting it an entire chapter in their manual and distinct status in their recommended programming. Any number of training curricula, especially those written in the past decade, treat issues of occupational stress and exposure prominently in areas ranging from basic recruit development to mass casualty planning and disaster response. It is possible and perhaps even likely that the majority of firefighters now have access to at least some form of psychological assistance in the context of their work.

The downside is that we have no means to systematically ensure that information and services reaching firefighters through these various conduits represents the best and most efficacious approaches currently available. More specifically, there is substantial reason for concern that personnel may currently be receiving information and services that reflect outdated, outmoded, or discredited theories and techniques. There is growing evidence that some particular approaches may provide, at best, only cursory assistance and may risk further complicating already difficult situations for at least some recipients. Clearly, current efforts need to be reviewed, revised, and refined to ensure that we consistently deliver the best information and assistance possible based on the best scientific and professional evidence available.

The evolution of our approaches to emergency medical services provides an illuminating analogy to consider. EMS is an area in which the expertise that provides foundation for effective action resides outside the fire service itself. As a consequence, the systems and interactions needed to guide development of concepts and techniques central to competent execution must be engaged through mechanisms that differ significantly from those typically employed within the fire service. Where technical expertise needed to independently evaluate complex data from another domain is not fully developed and the subjects in play, although accepted as important, are not themselves central elements of a discipline’s principal mission, decisions tend to rely on digests and conclusions provided through second-hand sources. The further removed these secondary sources may be from the actual processes of research and development, the greater the risk that important decisions may be inadvertently compromised, even where the best

of intentions are clearly present.

It has taken more than three decades to build the structures through which EMS activity has become increasingly guided by standards consistent with the practice of evidence-based medicine (EBM). This evolution, as those close to the process can attest, has not always been easy nor has it been smooth or seamless. Yet the issues debated now increasingly center around the demonstrable efficacy of treatments and techniques. The venues for those debates are increasingly refereed academic and professional journals and sessions (as opposed to trade magazines and conferences). Most importantly, decisions are increasingly based on systematic evaluation of empirically studied outcomes. As a consequence, critical elements of care have improved, while the compassionate aspects of caring have gained a value all their own.

Recently, for example, protocols governing cardiopulmonary resuscitation (CPR) were significantly altered to place greater emphasis on uninterrupted chest compression, which now takes more precedence over both rescue breathing and the immediate application of shock. This has represented, from the first responder vantage, a rather distinct departure from concepts and techniques that had been taught and practiced faithfully for years. These decisions were principally made by field application of CPR, including many with limited or no acquaintance with “curbside delivery”. Still, however, the changes were implemented with little resistance and preliminary results in several systems suggest substantial improvement in return of spontaneous circulation (ROSC) rates, especially for cardiac arrest patients presenting with ventricular fibrillation.

Contrast this with changes in protocols regarding medical anti-shock trousers (MAST) a decade or so earlier. Despite persuasive empirical evidence that MAST application failed to improve survival for trauma patients and might even yield paradoxical impacts on mortality and length of hospitalization, many field providers strongly resisted removal from their armamentarium and hotly disputed the accuracy of empirical findings that appeared to countermand their personal observations and experiences. This debate continued for nearly a decade and still flares up in isolated quarters from time to time despite increasingly clear consensus in the medical community that the indications for MAST are limited at best while the list of contraindications is extensive (see both NAEMSP Position Paper and Cochrane Review of Evidence Based Medicine).
The most important distinction between these two scenarios may well be found in the clearly established consensus process used by the American Heart Association to promulgate and revise standards for CPR. The process was extensive, well orchestrated, and highly systematized, involving more than 380 physicians and other professionals in extensive and meticulous evaluation of published evidence and its distillation into specific protocol recommendations.

Their findings were detailed and published in a special issue of *Circulation*, the

leading professional journal in the specialty. The protocols published form the accepted standard for training and certification, regardless of the training source or vendor. The integrity, objectivity, and independence of the process were kept paramount and no single source or program was positioned to wield undue influence or promotion. While the protocols recommended continue to be the subject of critical investigation and modifications can be expected as further information develops, there has been no appreciable “pushback” from adherents of current methods and certainly no claims that the research on which the recommendations were based should be disregarded and current protocols continued.

When systematic protocols for CPR were first proposed almost three decades earlier, there was limited science on which to base decisions. Opinions were argued on the basis of competing interpretations of what limited data were known. Sufficient science has accumulated in the years since so that evidence can be weighed and recommendations made on the basis of solid research and extensive clinical data. Current decisions now seek precision rather than persuasion as their benchmarks.

This systematic approach to evidence based practice now extends widely into many areas of current medical practice, and the movement toward evidence based medicine increasingly affords providers the capacity to refer to guidelines based on similar processes of analysis when deciding the best treatment options. In psychological practice as well, and particularly in areas central to fire service concerns (e.g., traumatic stress, depression, substance abuse), such syntheses have become increasingly available as research data have accumulated across the past decade.

The initial movement to incorporate psychological services into fire service occupational health and safety programs had very little data on which to base its preliminary recommendations and little research was then being conducted. Though that situation has now evolved sufficiently to allow more rigorous and systematic review of theories and techniques, little has yet been undertaken in the way of designing and conducting such reviews. Much of what is currently taught and practiced in the fire service therefore reflects only limited impact from the substantial advances made in these fields.

Recommendation # 1*: Standards for provision of evidence based and evidence informed psychological information and services to firefighters should be developed in a fashion analogous to that used by AHA (see above) and other established sources of EBM guidelines (e.g., Cochrane Reviews; the UK National Institute for Clinical Excellence [NICE], Oxford Centre for Evidence Based Medicine, et al.).*

This process must be rigorously designed and carefully orchestrated to ensure systematic and objective critical review of established evidence, and must be widely

inclusive of well established representatives from relevant segments of the psychological research community.

Much as the AHA guidelines included specific focus on a series of aspects and issues relevant to the broader picture of resuscitation, so must this process sort through the evidence and offer recommendations regarding several distinct areas in which psychological services can meaningfully impact health, safety, and performance in the fire service (see below).

Recommendation # 2*: Training and information regarding evidence informed standards should be disseminated and advocated through nonproprietary professional venues.*

Successful implementation of any such standards depends in large measure upon success in building a system to encourage their dissemination and adoption. Information and training regarding psychological services for firefighters has been relegated principally to proprietary entities with strong allegiances to specific techniques and approaches. Even where authoritative consensus documents have been produced (such as the US Department of Defense/National Institute of Mental Health consensus report on *Mental Health and Mass Violence*, the NICE guidelines for treatment of PTSD, or the *Cochrane Review* updates on psychological debriefing), the findings have been resisted by training groups affiliated with approaches not endorsed or contraindicated in those reports. Dissemination of consensus standards for incident management have, by contrast, benefited greatly from nonproprietary mechanisms of distribution and training. These mechanisms have particularly helped to neutralize parochialism regarding differences between competing systems and to focus refinement on commonalities and advancements. Examples of appropriate avenues would include USFA, the National Fire Academy, The National Fallen Firefighters Foundation, and similar nonproprietary venues,

Behavioral Wellness and Resilience

The relationship between fitness and performance is well established with respect to psychological as well as physical wellness. Moderate aerobic conditioning has shown a robust impact on stress resilience in both physical and psychological dimensions. The major modifiable risk factors associated with the cardiac and respiratory conditions that comprise the greatest portion of fire service line of duty deaths involve behavioral and lifestyle factors. Accordingly, behavioral elements must be recognized as critical components of effective wellness and fitness initiatives. These must be given the same emphasis and integration given physical conditioning in the operation and evaluation of wellness and fitness programming.

While most wellness and fitness programs hold statements endorsing this

prescription, it has often proven difficult to translate that endorsement into measurable impact. Behavioral and lifestyle factors that increase health risk are easily rationalized, contentious to address, and are often deeply imbedded in cultural aspects of fire service life. Fat exceeds fiber in much firehouse fare, despite widespread recognition that coronary artery disease is the largest killer of on-duty firefighters. Wellness programs universally discourage smoking but most departments still permit or refrain from full enforcement of prohibitions against smoking in stations and apparatus. Even the most obvious areas for behavior change can be deceivingly difficult to impact without full and open commitment from all elements of the organization, both formal and informal.

More complex cultural and behavioral risk factors, especially those involving interactions across a range of emotional, behavioral, and cultural dimensions, prove even more difficult to effectively address. Emergency response driving, for example, remains a tenacious problem despite well developed courses to teach the technical aspects of response safety. Prior study of driver education programs has long established that knowing how to drive properly does not ensure proper driving. The factors that promote and maintain risky response driving include interactions of emotional arousal, behavioral dysregulation, and cultural expectation that driving courses and regulations alone are generally insufficient to overcome. Achieving the impact we seek in complex areas of safety, especially those involving behavior and compliance, will require much greater attention to human factors. This will require much more thorough integration of behavioral management into the overall construction of all health, safety, and wellness initiatives.

In the beginning, doing anything at all was a step beyond what had previously been offered and hence a sign of progress. The impacts we seek and require now will demand much greater sophistication in design, development, implementation, and evaluation. There is a substantial and growing body of information regarding effective behavior change strategies with respect to health promotion programming that must be transported and adapted to fire service initiatives. There is an increasing fund of knowledge respecting social marketing of behavior change strategies. Human factor engineering is an increasingly sophisticated interdisciplinary field.

Bringing information from the forefronts of these domains to bear on those behavioral issues most impacting occupational health and safety risks in the fire service can help the industry to prepare andmount more effective targeted strategies to impact specific risk factors and profiles.

Recommendation # 3*: Develop a “state of the art” review of empirically anchored information and theory applicable to behavioral aspects of wellness, fitness, and safety in the fire service.*

One component of an effective set of consensus reviews and recommendations should center specifically on these aspects of behavioral wellness, health promotion, and human factor impacts. This represents a somewhat more specific domain of research, practice,
information, and expertise than those usually considered in fire service thinking regarding psychological services. The working group needed to evaluate information and propose strategies should reflect bases of expertise developed in active research areas such as military and aeronautic training, health psychology, social marketing, and cultural dimensions of organization development. The charge for this aspect should include specific target risks (e.g., smoking, diet, exercise compliance, response driving), including both behavioral and sociocultural determinants of conformity and compliance.

Recommendation # 4: ***Develop, in concert with fire service safety and training professionals, effective vehicles to incorporate current empirically informed theory and practice.***

Effective programming in this area will, of necessity, require greater sophistication in design, development, and outcome evaluation of projects, but these projects must remain feasible to implement across the extreme diversity of organizations and communities the American fire service represents. Translation of the strategies arising from Recommendation 3 should be assisted by and vetted through representative leaders in fire service health and wellness programming with the specific charge of maximizing adaptability and ease of implementation while maintaining treatment fidelity. Process evaluation of implementation strategies should be included as an essential element.

Employee Assistance Programs

Employee Assistance Programs (EAPs) provide the “front line” of behavioral health assistance for most fire service organizations. These programs are descendents of efforts begun as early as the 1940s to provide company or union sponsored avenues by which employees whose performance was hampered by substance abuse could gain the treatment and support needed to return to productivity. Contemporary programs now encompass a wide range of services, from basic counseling to managed behavioral health care. Recent surveys suggest that one-third of the nation’s nonagricultural employees have access to EAP assistance, with that figure nearing saturation for larger employers in high impact settings. Still, however, there is astoundingly little consensus regarding what services an EAP should provide, how those services should be delivered, or through whom those services should be provided. More significantly, there is a virtual absence of solid information regarding the efficacy of the services delivered by these means.

The overall aim of EAPs is generally tied to cost effective maintenance of employee productivity. What efficacy related studies have been reported have generally been of the return on investment (RoI) type, though methods used for

calculating RoI have been inconsistent and imprecise. Much of the information has been couched, overtly or covertly, in the context of demonstrating and promoting service value in support marketing objectives. Critical evaluation of program performance using empirically measured clinical and organizational outcomes has been limited. While it is quite clear that these programs are widely perceived to be beneficial and that the typical cost (about $22 per covered employee annually in one recent survey) is low enough to virtually assure favorable cost benefit ratios, there is a substantial difference between an effort being more beneficial than doing nothing and developing that effort to provide the maximum benefit it can generate. The critical “gatekeeper” and “first contact” functions of these programs demand greater effort to ensure that maximum benefit is reliably and consistently achieved. NFPA 1500 mandates that all fire service agencies should provide access to Employee Assistance Programs for their members. The standard is, however, essentially silent regarding services to be provided, acceptable models for service delivery, or required training and certification for providers. It is completely silent regarding acceptable treatment for specific conditions or how intervention efficacy is to be determined and reported. The consequence is that while some very large and well funded agencies have developed outstanding programs that are well tailored to the needs of their personnel, the organization in which they serve, and the occupation they represent, most firefighters likely have, at best, access only to “off the shelf” external programs that may or may not be equipped to effectively address unique needs of firefighters and their families.

Recommendation # 5*: Develop quantifiable, operationalized standards for Employee Assistance Programs serving fire service personnel and their families.*

While the current requirement for member access to EAPs is a sound and necessary start, what is more important is that these programs deliver needed services through qualified providers in a competent manner that can reliably and consistently achieve meaningful results. Each of these parameters must be operationalized and quantifiable standards established for acceptable levels of performance and delivery. The consensus group needed to accomplish this goal should include representation from an ongoing working group established by the Center for the Study of Traumatic Stress at the Uniformed Services University of Health Sciences (CSTS/USUHS) to evaluate and assist EAP programming in the corporate sector, along with selected representation of organizations such as the Employee Assistance Professionals Association (EAPA), the Employee Assistance Society of North America (EASNA), and the Society for Human Resource Management (SHRM).

Recommendation # 6: *Provide training and support for fire service managers, benefits administrators, and related parties in utilizing the standards developed to create or contract EAP services, and in the evaluation of EAP performance.*

Much as guidance, training, and assistance are available for agencies in developing specifications for apparatus and equipment, agencies should be assisted in developing specifications for their EAPs and evaluating their performance according to those specifications. This should be accomplished through venues such as the training programs of the National Fire Academy, the National Fallen Firefighters Foundation, the International Association of Fire Chiefs, as well as training venues of EAPA, EASNA, and SHRM.

Occupational stress exposure and mitigation

"Critical incident stress debriefing" (CISD) and its various extensions and derivatives have become almost synonymous with psychological services programs for fire and rescue organizations. More recently, CISD and related approaches have been expanded through amalgamation into a somewhat amorphous collection of techniques dubbed "critical incident stress management" (CISM). While sweeping and sometimes intemperate claims regarding scientific grounding and empirical efficacy have often been made in the marketing of these enterprises, little in the way of sound study could initially be found in the reputable literature of the mental health disciplines.

The widespread adoption of these techniques, however, stimulated their independent and objective study by serious researchers in several countries. Despite their broad adoption, a substantial and growing body of research has repeatedly found such interventions to be inert at best with respect to preventing adverse outcomes. Several solid studies have found selectively paradoxical outcomes for some. The concerns raised by these findings have led many health oversight groups including the World Health Organization, the UK National Center for Clinical Excellence, the Cochrane Reviews of Evidence Based Medicine, and other widely respected bodies to issue guidelines recommending against widespread use of these techniques.

There has remained, however, a strong and entrenched social movement in several quarters of the fire and rescue services that has actively resisted prudent modification of CISD and CISM theory and protocols. The CISD movement was principally crafted as a "self help" enterprise utilizing peer providers volunteering to serve as supporters of their colleagues, supplemented by counselors or chaplains. Strongly motivated to be of help, participants sought out training in packaged techniques that purveyors emphatically claimed represented the best, if not the only valid form of assistance. Organizations marketing training and other products to support the movement took shape and, perhaps understandably, similarly tended to "oversell" their products.

Much of the flow of information reaching those involved with delivery of these approaches, especially at the peer level, has remained tightly controlled by vendors that have sometimes gone to great effort to downplay the impact of critical findings from medical and psychological researchers and keep that information

from reaching their established constituencies. Since there are few if any systematic channels outside those vendors through which such information reaches the fire service, the industry at large is likely to have remained relatively uninformed respecting the notable controversy surrounding current approaches. More importantly, the industry has also been shielded from exploration of the substantial progress that has been made in areas related to occupational stress and impacts, and remains generally unaware of options and alternatives available to approach these issues using tools and techniques that have shown empirically demonstrable results.

This is a complex area requiring interaction across many elements of the occupational health and safety equation. The most crucial preventatives at the organizational level, for example, do not involve prophylactic application of uniform interventions after exposure but rather depend on daily utilization of effective approaches to incident management and operational review—the best way to control incident stress is, after all, to control stressful incidents. The best preventatives at the professional level are related to capacity and capability (knowledge and skill) with respect to the occupational tasks and activities required by the incident, hence to overall training and preparation rather than to training in mental health concepts *per se*. The factors that most enhance personal resilience are connected to reasonable physical conditioning on the one hand and management of concomitant life strains—often unrelated to the specific event—on the other. These are therefore more related to wellness and fitness programs, and to proactive utilization of an effective EAP, than to separate, parallel programs or initiatives.

Immediate response to specific events has been increasingly understood to be better conducted through basic organizational activities that follow “collect and protect” strategies rather than initiation of specific mental health interventions. Indeed, narrative reconstruction of the event and plumbing of its most difficult elements, aspects central to traditional approaches, are now widely viewed as specifically contraindicated. Screening for outcomes such as PTSD and depression, long argued as an important aspect of early intervention, has not proven efficacious through traditional interactions but can be accomplished reliably and non-intrusively through very short and very simple self-report instruments administered about three weeks following exposure. Referral for effective treatment in those cases where natural resolution stands impeded is critical, but the treatments most commonly offered to firefighters and their families have not proven effective while those with best empirical efficacy may not be widely available.

Recommendation # 7: *Develop clear standards for providing empirically supported, evidence based and evidence informed assistance in addressing the impact of occupational encounters*.

This is clearly an area in which those with the best information must be brought into direct and unfettered contact with those for whom these applications are intended. The "usual suspects" approach to this problem has failed to form the connections needed and a systematic effort to build a focused consensus project is clearly required. That project should focus on established researchers, fire service medical directors, and others with independent technical competence needed to develop systematic proposals. It must also involve a diverse sample of occupational health providers to assist in transforming effective intervention strategies into workable programs for fire service organizations. Specific external representation should include the Early Interventions group of the International Society for Traumatic Stress Studies (ISTSS) along with CTS/USUHS and the working group for the *Psychological First Aid* project of the National Center for PTSD (PFA/NCPTSD).

Recommendation # 8**: *Develop and disseminate nonproprietary curricula to prepare fire service agencies, their EAP providers, and other related personnel to develop, administer, and evaluate occupational support initiatives.***

The proprietary vendor approach to disseminating information and programs has been a substantial factor in inhibiting the development of more effective strategies in this domain. Curriculum should be developed with input from authoritative sources (as referenced above) and disseminated through venues such as National Fire Academy hand-off courses, NFFF training activities, and similar vehicles where adaptability and currency can be established as the "bottom line" determinants. Parallel avenues for training and dissemination courses should be pursued through vehicles such as ISTSS, CTS/USUHS, and PFA/NCPTSD.

Evidence based treatment for specific conditions

"Psychotherapy" and "psychotherapist" are very generic terms that encompass nearly boundless latitude. Included within this broad rubric are very precise and well studied methods of treatment for very specific conditions, administered by highly trained and tightly credentialed experts operating under the strictest of professional guidelines to achieve measurable and verifiable results within specific timeframes as a part of well bounded therapeutic relationships. Also included, however, may be amorphous and ill conceived interventions that proffer ungrounded claims of efficacy for widely varying conditions, delivered by persons of good intent but limited training who hold marginal credentials. Some of these approaches may not only lack evidence for their efficacy but may actually have been shown to be ineffective or counterproductive. More importantly, while more generic approaches can be quite helpful for a range of problems of lesser overt severity, cases requiring specialty care should be quickly and efficiently referred for specialist treatment.

While it is clear in general medicine that nurse practitioners, physician assistants, and other care extenders have very useful and important roles to play in routine and

preventative medical care, timely and appropriate referral to specialists for advanced care is a known and respected parameter of appropriate treatment and practice. Similar standards should also be expected in the behavioral health domain.

Certain conditions such as PTSD and clinical depression are known to be associated with fire service occupational risk profiles. Evidence based treatments for these conditions (and many others) are constantly updated and are available to competent specialists treating these conditions. There is also, however, strong evidence that these treatments are not always available to fire service employees through the resources or referral networks of their EAP and/or managed care carve out organizations.

Given that specification and management of benefit programs are often handled through external entities that may have limited understanding of fire service risk factors and treatment needs, it is important that the fire service provide usable guidance regarding how to write specifications for health insurance and other benefit programs that will ensure access to specialists and treatments that may be needed by firefighters and their families.

Recommendation # 9: ***Develop specific standards for evidence based of occupationally related conditions such as PTSD, depression, and substance abuse.***

Specific standards calling for evidence based treatment of occupationally influenced conditions should be included in fire services standards for occupational health programs and employee benefit packages. These specific standards should form the basis for specifications to be used by fire service agencies in contracting for benefits programs and benefits administration. Specific representation should include the *Empirically Supported Treatments initiative* of the Clinical Psychology Division of the American Psychological Association (EST/APA), the Association for Behavioral and Cognitive Therapies (ABCT), and similar organizations with established independent interest in evidence based practice respecting conditions related to fire service risk profiles. Established EBM systems such as the *Cochrane Collaboration* should be employed to provide continually updated protocols for evidence based intervention.

Recommendation # 10: ***Programs to prepare agency executives and benefit administrators to understand the importance of these standards and to implement programs incorporating these standards and mechanisms should be developed and disseminated through vehicles similar to those discussed in*** **Recommendation 8** ***above, and through venues such as the benefits section of SHRM and other human resources organizations.***

Relationship to personal, Professional, & Organizational Development

It should be clear from the discussions above that behavioral health Initiatives can no longer expect to succeed unless and until they are fully integrated into strategically designed programs of personal, professional, and organizational development. Efforts must be geared as much toward the systems and cultures in which the industry operates as toward isolated elements of operations, training, and human resource administration. It is unrealistic to expect meaningful implementation of the behavior changes needed to support such initiatives where climate and culture continue to promote risk and denial.

Even at the individual level, behavior changes need the support of systems that provide *capacity*, *capability*, and *accountability*—stuff, staff, and structure—interact to promote health and safety. Essential expectations must be bred and reinforced within the individual, the occupation, and the enterprise. Recruits, for example, can be trained to know the right things to do and do things correctly, but the impact is quickly lost if they are sent from their academy classes into a work environment where doing things correctly may be ignored or even held in contempt. An organization can proclaim its commitment to health and safety but, absent funding and systems to support the daily integration of health and safety consciousness into workplace functioning across all aspects of the job, lasting impact is unlikely.

Moreover, where health and safety responsibility is “compartmentalized” as if a separate function rather than fully permeating all aspects of management, command, supervision, and performance, efforts to realign critical attitudes and behaviors are likely to be marginalized within the broader culture and those efforts are hence much less likely to succeed.

Culture change is accomplished over decades—even multi-year projects quickly face diminishing returns unless organizational commitment extends well beyond initial operating periods and outlives those who initiated the effort. Alterations in behavior at cultural and systemic levels are complex matters that require clarity and consistency on the one hand, tempered by tradition and adaptation on the other. Regulations can help initiate specific aspects of a climate of health and safety, and functional systems can help enable meaningful change. Still, however, cultural values must ultimately shift for lasting change to occur. These issues highlight again that while health and safety are products of behavior, behavior is a product of culture and experience. *Obedience*, *compliance*, and *conformity* are quite distinct concepts in social psychology. *Obedience* involves rote submission to formal regulation. Acceptance of the value and legitimacy of that authority is not a necessary condition for enforcement. While obedience may yield “short term” change in overt behavior, it does not usually alter cultural elements that may work in opposition. Absent formal sanctions, prior behavior patterns are likely to continue. People tend to resent this sort of heavy-handed approach in areas where they feel they should have professional respect and, overtly or covertly, will usually “push back.” Systems driven by obedience can

gain you a little but can cost you a lot.

Compliance involves the acceptance of formal regulation by tacit agreement respecting the value and legitimacy of the authority involved. Behavior may be reasonably consistent but remains subject to situational variation. *Conformity*, on the other hand, involves acceptance of the behavior as an element of a culture to which a person desires to belong. It represents the wide ranging expression of a system of norms and values that maintain behavior beyond the reach and scope of prescriptive regulation.

The fire service has, we may hope, gone beyond obedience and now seeks compliance. What we need is to take the nest step. Health and safety will not come through obedience and cannot be maintained through compliance alone. Conformity within a culture of health and safety must be the ultimate objective. Personal, professional, and organizational development efforts must strategically intersect and consistently interact for this objective to be realized.

Recommendation # 11*: Organizational development and implementation strategies should be a consistent element of all health and safety initiatives.*

Particular emphasis must be given to behavior change and maintenance strategies necessary to achieve conformity rather than simply gain obedience or secure compliance. This implies integration of organizational development and behavior change resources in all aspects of program development and dissemination, not simply in behavioral health and human resources arenas. Process evaluation of change strategies is also critical to further advancement.

Recommendation # 12*: Capacity building in organizational development should receive renewed and expanded emphasis in fire service training and education initiatives.*

There is a reasonably solid research literature surrounding issues of personal, professional, and organizational development. Issues such as occupational stress, for example, have stood hampered by reliance on constructs derived of clinical rather than developmental perspectives. While organizational development represents a central theme in many business and executive development programs, including those of the military, it has seen only superficial translation into fire service venues where training rather than education remains the dominant paradigm, even at executive levels. The National Fire Academy, in particular, should consider a substantially strengthened focus on education that promotes capacity in organizational development, perhaps modeled upon and articulated with programs such as the Harvard University Senior Executive Fellowship Program that now reaches only a very small and tightly selected cohort of fire service leaders.

Recommendations

Recommendation # 1: Standards for provision of evidence based and evidence

informed psychological information and services to firefighters should be developed in a fashion consistent with current principles of evidence based medicine (EBM).

Recommendation # 2: Training and information regarding evidence informed standards should be disseminated and advocated through nonproprietary professional venues.

Recommendation # 3: Develop a “state of the art” review of empirically anchored information and theory applicable to behavioral aspects of wellness, fitness, and safety in the fire service.

Recommendation # 4: Develop, in concert with fire service safety and training professionals, effective vehicles to incorporate current empirically informed theory and practice.

Recommendation # 5: Develop quantifiable, operationalized standards for Employee Assistance Programs serving fire service personnel and their families.

Recommendation # 6: Provide training and support for fire service managers, benefits administrators, and related parties in utilizing the standards developed to create or contract EAP services, and in the evaluation of EAP performance.

Recommendation # 7: Develop clear standards for providing empirically supported, evidence based and evidence informed assistance in addressing the impact of occupational encounters.

Recommendation # 8: Develop and disseminate nonproprietary curricula to prepare fire service agencies, their EAP providers, and other related personnel to develop, administer, and evaluate occupational support initiatives.

Recommendation # 9: Develop specific standards for evidence based of occupationally related conditions such as PTSD, depression, and substance abuse.

Recommendation # 10: Programs to prepare agency executives and benefit administrators to understand the importance of these standards and to implement programs incorporating these standards and mechanisms should be developed and disseminated through vehicles similar to those discussed in Recommendation 8 above, and through venues such as the benefits section of SHRM and other human resources organizations.

Recommendation # 11: Organizational development and implementation strategies should be a consistent element of all health and safety initiatives.

Recommendation # 12: Capacity building in organizational development should receive renewed and expanded emphasis in fire service training and education initiatives.

References

American Heart Association. (2005). Report of the International Consensus Conference on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science with treatment recommendations. *Circulation, 112*(22 Suppl.).

Brymer, M., Layne, C., Pynoos, R., Ruzek, J. Steinberg, A., Vernberg, E., & Watson, P. J. (2005). *Psychological first aid: Field Operations Guide.* Washington, DC: National Center for PTSD/National Child Traumatic Stress Network.

Center for the Study of Traumatic Stress, Uniformed Services University of Health Sciences. (2007). Extensive information available at: http://www.centerforthestudyoftraumaticstress.org
Devilly, G. D., Gist, R., & Cotton, P. (2006 Ready! Fire! Aim! The status of psychological debriefing services and therapeutic intervention in the workplace and after disasters. *Review of General Psychology, 10,* 318-345.
Dickson, K., & Roberts, I. (2007). Medical anti-shock trousers (pneumatic anti-shock garments) for circulatory support in patients with trauma. In: *The Cochrane Library.* Oxford: Update Software. Abstract available at: http://www.cochrane.org/reviews/en/ab001856.html
Gist, R. (2002). What have they done to my song? Social science, social movements, and the debriefing debates. *Cognitive & Behavioral Practice*, **9**, 273-279.
Gist, R. (2007). Promoting resiliency and recovery in first responders. In L. Beutler, B. Bongar, & P. Zimbardo (Eds.), *Oxford Handbook on Disaster Psychology and Terrorism*, pp. 418-433*.* Cambridge UK: Oxford University Press.
Gist, R., & Devilly, G. J. (2002). Post-trauma debriefing: The road too frequently followed. *The Lancet, 360,* 741-742.
McNally, R. J., Bryant, R. A., & Ehlers, A. (2003). Does early psychological intervention promote recovery from posttraumatic stress? *Psychological Science in the Public Interest, 4*(2).
National Fire Protection Association. (2007). NFPA 1500: Standard on Fire Department Occupational Safety and Health Programs. Quincy, MA: Author.
National Institute for Clinical Excellence. (2004). *The management of depression in primary and secondary care* (Guideline No. 23). London, UK: National Health Service.
National Institute for Clinical Excellence. (2005). *The management of PTSD in adults and children*(Guideline No. 26). London, UK: National Health Service.
Oxford Centre for Evidence Based Medicine. (2007). Extensive information available at: http://www.cebm.net/
Ritchie, E. C. (Chair). (2001*). Mental health and mass violence: Evidence-based intervention for victims/survivors of mass violence* (NIH Publication No. 02-5138). Washington, DC: U.S. Government Printing Office.
Rose, S., Bisson, J. I., Churchill, R., & Wessely, S. (2007). Psychological debriefing for preventing post traumatic stress disorder (PTSD) (Cochrane Review). In: *The Cochrane Library*. Oxford: Update Software. Abstract available at: http://www.cochrane.org/reviews/en/ab000560.html.
van Emmerik, A. A., Kamphuis, J. H., Hulsbosch, A. M., & Emmelkamp, P. M. (2002). Single session debriefing after psychological trauma: a metaanalysis. *The Lancet, 320,* 766-771.
van Ommeren, M., Saxena, S., & Saraceno, B. (2005). Mental and social health during and after acute emergencies: emerging consensus? *Bulletin of the World Health Organization, 83*, 71-76.
World Health Organization. (2005, September 18). Single-Session Psychological Debriefing: Not Recommended**.** Geneva: World Health Organization.

Available online at: http://www.who.int/hac/techguidance/pht/13643.pdf