Review Article

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Education and Training for Clinical Forensic Psychological Work with Juvenile Firesetting and Bomb Making

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Abstract

Juvenile firesetting and bomb making (JFSB) represents an important international issue in several disciplines (e.g., education, law enforcement, fire service, social services, and clinical forensic psychology). An examination of policies, laws, and attitudes revolving around JFSB behaviors, reveals startling knowledge gaps that create significant detrimental impacts on public safety. These same concerns reinforce the primacy of broad general education and training for psychologists in this area. This article reviews critical training factors with respect to JFSB that should be included in the training of all psychologists working with youth, public safety, and community mental health and exposing trainees to interdisciplinary experiences that are vital to provision of clinical forensic services needed in these cases. One section speaks to the educational relevance of developing diagnostic (DSM-5 Quadrant) and culturally responsive intervention skills. Additionally, this article discusses the role of practicums and advanced practicums, through which exposure to the many clinical forensic contours of JFSB cases, function as a proficient training platform. Finally, the article draws conclusions and offers future directions for education and training.

Keywords: Training in Professional Psychology, Juvenile Firesetting, Forensic.

Introduction

Juvenile firesetting and bomb making (JFSB) poses a major threat to public safety. Psychologists often play in critical role in the identification of, and later management of, the clinical forensic risks associated with these cases, which can be complex. Internationally, the public safety risks associated with JFSB are reflected in deaths, injuries, structural damages, and the fiscal and personnel costs stemming from these issues, along with the legal interventions that follow [1,2]. The prevalence of JFSB behaviors has been profoundly misconstrued as rare in the context of both public safety and psychology. Compounding this concern, a significant number of patients with JFSB behaviors have mental health disorders that are independent of their fire or explosives-related misconduct [1-3]. Given the prevalence of JFSB and the inherent difficulties related to correctly diagnosing, developing public safety sensitive, and culturally responsive, treatment plans for JFSB more professional education is necessary.

In sum, culturally responsive interventions, accurate diagnoses, interdisciplinary work, prevalence, and comprehensive risk assessments across multiple domains are considered a sine qua non for evidenced-based work with JFSB. An analysis of the current state of education and training over the last few decades reveals a concerning gap in JFSB related didactics. This reinforces the necessity for further review of the issues addressed in this article. Training and need topics covered include the true prevalence of JFSB, interdisciplinary training with JFSB, and a review of practicums and training in this area. Practice applications of the training covered include risk assessments, the primacy of public safety, culturally responsivity, and issues associated with diagnosis and interventions with JFSB. Finally, conclusions and recommendations for future research are examined.

Prevalence of JFSB

The prevalence rate and lack of cross-disciplinary attendance to JFSB places it near the top of the priority list for public safety risk assessments. JFSB is also a major international forensic psychological concern, as nations around the globe struggle to solve its complex and seemingly intractable clinical forensic psychological challenges. Internationally, JFSB constitutes an expensive, life-threatening problem for society and victims that is caused by youth under the age of 19 [4,5].

According to US statistics, juveniles in these incidents range in age from 3 to 19 [6-8]. A 2005 report from the Office of Juvenile Justice and Delinquency Prevention stated juveniles account for 54% of all arson arrests in the United States [9]. As noted on a juvenile

fire prevention internet site: "Arson is the only crime tracked by the FBI for which more juveniles are arrested than adults" [10]. A recent statistical analysis of 1698 juvenile arson cases referred to the Burn Institute of San Diego from multiple partners across the county in San Diego County provides a snapshot for one large metropolitan location in the US. 32.4% of these cases were children age 10 or younger. Roughly 39.2% of these children were in grades 1 through 6, with 4.5% in preschool or kindergarten [11].

Around 31% of all juvenile arson cases in the San Diego referral group took place on school grounds, at bus stops, or in school busses [12]. From 2007 to 2011 there were 5,690 reported fires on educational properties annually in the US [13]. The issue of JFSB in schools is not limited to the United States. For example, Cooper reported evidence from Kenya that school-based arson is a safety issue that extends to all regions and types of school (i.e., private and public) [14]. In Sweden, arson was identified as the primary cause of between 400 and 500 school fires with most of them attributed to juveniles. Moreover, somewhere from one to two school fires incidents take place in Sweden daily [15]. In Zurich, data indicated that the costs stemming from school fires rose by more than 170 per cent over a 10 year period [16]. Campbell reported $92 million in direct property damage from U.S. juvenile set fires in a year [13].

A Gap in Service Training

Threats to personal and public safety from JFSB behaviors can range from playing with matches, lighters, or portable torches, to setting fires or building explosive devices. JFSB incidents can take place anywhere, at any time of day, in any community. Some of the more common locations are fields, homes, residential facilities, schools, or trash dumpsters. All of the materials needed for setting fires are often readily available to juveniles. The varied sites of offense and severity underscore the need for increased awareness of the importance that reporting plays in providing a safety net for both the community and the juveniles exhibiting JFSB behaviors or history.

This reporting is particularly important, as without it, a full assessment of the behaviors and any underlying diagnostic factors cannot be attained. The appropriate assessment and diagnosis is particularly important for cross-disciplinary professionals (e.g., attorneys, school personnel, law enforcement, mental health counselors, fire service personnel, psychologists, and social workers) who rely upon these diagnoses to help them understand motivation, intent, and likelihood of future related behaviors. However, once reported it is common for a JFSB incident to be addressed as a symptom, rather than as a behavior by professionals who lack competencies in the complex arena of JFSB and related areas. The authors agree that the absence of the required competencies (i.e., lack of adequate knowledge) to address the issues related to JFSB are of considerable clinical forensic concern [1]. It is also an education and training issue. A review of APA psychology program curricula in the United States found very little emphasis given to imparting formal training specifically about JFSB. There were a few Monitor and online articles over the years and some mention of firesetting in child clinical training tracks [17,18].

It appears that there are several barriers that interfere with the advancement of JFSB education and training in pre and post professional psychology trainings. Some of these barriers include a lack of support for the development of JFSB professional resources, and limited representation of faculty in curriculum planning committees with relevant experience with JFSB. Additionally, the views of JFSB as more of a subspecialty area, due to the misconceptions around prevalence and the historical downplay of the inherent risk of mental health needs in the population cause many training programs to shy away from this training topic [2]. The necessary interdisciplinary nature of work with JFSB cases further complicates both access to and development of appropriate training programs at both the practicum and professional level.

JFSB cases require the closely supervised and directed efforts of overlapping disciplines (Figure 1). For example, a typical, and relatively simple case, may involve the patient, parents, school, fire service, juvenile court, and attorneys. The evaluating or treating clinician must be aware of, responsive to, and obtain collateral information from, each of these sources. Therefore, key to the functional process is the full recognition that working appropriately with JFSB cases is more of a "team effort" across diverse disciplines [1]. As a result, the education and training must include effective preparation to the reality of psychologists that the best practice delivery of services to JFSB is achieved as part of an interdisciplinary team. This includes preparation of the psychologists in cultural awareness of the disciplines outside of their average clinical activities.

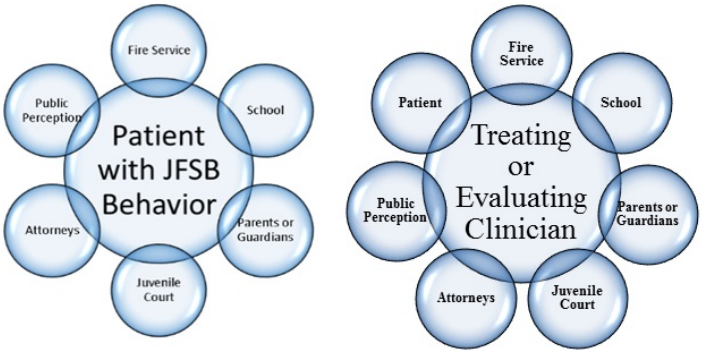

Figure 1: Overlapping Disciplines in JFSB work.

Interdisciplinary JFSB Competencies

There are several core interdisciplinary competencies vital for JFSB cases. The first, and arguably the most important, is respect for the expertise of the various members. Each disciplinary team member has something valuable to add to the work of the team with respect to these cases. No team member's expertise should be fully duplicated without additive value. It is a teaching moment in leadership and the construction of functioning work groups to evaluate what each prospective member brings to the team, and how they will function as a team. Given the complex nature and the multiple issues presented by JFSB behaviors and risks,

no solitary discipline can comprehensively address all the needs required in the case.

As discussed previously, shared understanding is vital to building trust and effective communication. Each team member has professional terminology and language used uniquely within their discipline [2]. There is also a wide array of acronyms used in the everyday dialogue of each group. Juvenile firesetting is described with a large number of unique identifiers. These differences are due to differences in intended audience, regional language, historic references, service specific jargon, and inconsistent approaches to motivational theories of juvenile firesetting [19,20]. Because there are significant inconstancies in method, theory, and identification of future firesetting behavior risk in juveniles is especially important to develop an agreed on core of definitions from the beginning within the interdisciplinary team [21].

The interdisciplinary team must operate with an ongoing safety sensitive focus that includes detection, preparation, and prevention, proactive and learning orientation with respect to these cases [1]. This requires the ability to assess and implement culturally responsive interventions that also promote safety in the context of the location that firesetting is taking place. This may be a home, a group home, public outdoor locations, or, very commonly, in a school. School teachers and other adults with significant knowledge of the geography, social constructs and culture, and the youth within that context can become key informants and instrumental in supporting treatment objectives. This information further provides the team with the ability to implement strategies that reduce the frustration of these informants (i.e. teachers, coaches, and caretakers). This frustration stems from what become additional demands, frequently outside their realm of expertise, on their time and resources. These additional demands take them away from standard duties and the heightened anxiety which then spreads throughout the space may exacerbate the current issues. Collateral informant frustration may be reduced by a sense that an accessible and prompt referral response system for JFSB behaviors is readily available, without requiring more than a pre-structured report for the multidisciplinary team.

Team developed community resources for these types of cases, such as the aforementioned pre-structured report, are necessary to provide a foundation for the structure of a program to address the diffuse issues in this area. In practice, such types of scaffolding of the interdisciplinary team approach for JFSB behavior reduction must be guided by empirically based knowledge. This data must be used to inform the major decisions that shape the interventions directed at reduction of the JFSB behavior. The complexities and uncertainties associated with JFSB cases make the role of science ever more relevant for clinical supervisors facilitating interdisciplinary meetings.

An Overview of the Interdisciplinary Case Conferences

Clinical training in an interdisciplinary case conference environment has several advantages. First, trainees are exposed to diverse approaches to assessment, intervention, and problem solving strategies. Second, JFSB cases can present preloaded with ethical dilemmas and their resolution in interdisciplinary teams is an important decision making experience for any trainee from a practicum student to a seasoned, professional, licensed forensic psychologist. The third major benefit is the comprehensive breadth and depth of knowledge that can be developed about the case in a short period of time.

At a minimum, interdisciplinary team for JFSB should include a member from each of the units impacted by, or vested in the outcome of the outcome of the clinical JFSB behavioral intervention. Examples of these units include, but are not limited to, are schools, law enforcement, pre-existent or currently treating mental health clinicians, social workers, and fire service based juvenile fire setter education and intervention programs. The youth's guardians (every adult responsible for at least 25% of a youth's daily care and not just one representative) must be included on this interdisciplinary team as well, though they will not attend most of the meetings. Their support is vital to the success of the interventions.

Once constructed, the complete team will first meet to establish trust, gather information, and explain the goal of the intervention program. This will ease much of the tension and prevent unnecessary conflict arising from misunderstandings or disparate goals. During this meeting all appropriate releases of information should be signed to allow for dialogue to be shared freely between members present at case meetings as necessary.

HIPAA, FERPA, and other privacy laws and statutes should be discussed at this time. This provides an excellent training opportunity for discussion around topics such as how much information is enough, and how much sharing is too much. Each team member will have their own concerns and pre-conceived ideas about this topic. Therefore, it is vital that every team member contribute to the conversation to avoid future misunderstandings, or hesitation in revealing important case details to the team.

After this initial meeting, a risk assessment with the clinical forensic psychologist or forensic psychology team is conducted to build a clinical view of the behavior and motivations. Following the psychological evaluation of risk the main interdisciplinary team (minus the guardians) reconvenes to discuss the findings. The team construction and the professional evaluation are assessed separately from one another and, when combined, convey the level of concern with respect to recidivism and risk of harm to self, others, and/or property [2].

The comprehensive planning and interventions archived through the collection of this data and the meetings must be translated into an actionable agenda for the JFSB case. During this second meeting the team may confidently, and confidentially, craft and plan a culturally responsive intervention plan aimed at reducing the JFSB behavior. These plans may include interventions targeted at only the minor or targeted at the minor and the guardian, or the minor and another entity such as a school, dependent on the circumstances and findings from the initial meeting.

Additional follow up case meetings are typically brief. Several of them will involve the juvenile and guardians, in order to discuss the progress of the intervention plan. A regularly scheduled interdisciplinary meeting for JFSB allows the provider to systematically build capacity for protection of the youth and the public by strengthening connectivity for all those involved in the case. In the end, the clinical supervisor's leadership at these meetings is a key element to facilitating safety and preventing adverse consequences for the public. For the practicum student, observing the clinical supervisor leading these meetings is an instructive modeling tool for treatment and other issues related to public safety risk assessments.

Common First-Contact Approaches for JFSB Case Intervention

JFSB research literature describes two frequently used methods of intervention when working with these types of forensic psychology cases. These are clinical cognitive-behavioral psychological assessments and community education programs [2,22,23]. The psychological assessment may be conducted contemporaneously with, after, or before, but always separately from, a juvenile firesetting intervention specialist's assessment of suitability for a community fire safety educational program. These professional, non-clinical fire safety surveys are commonly referred to as "JFS Risk Assessments." They are auxiliary material, and should be valued for their purpose in determining the appropriateness of the community educational programming to the overall intervention protocol. These "JFS risk assessments" are usually modeled on FEMA's national youth firesetting prevention and intervention programs, most recently referred to as the Youth Firesetting Prevention and Intervention (YFPI). The FEMA-based interviews and similar approaches can be useful for gathering information for an educational safety program. These educational safety programs can be a useful component of the overall intervention program, similar to adult supervision reviews, and school behavioral notes.

Unfortunately, these "JFS risk assessments" are frequently seen as the first and only necessary step in evaluation of JFSB behavior. The "JFS risk assessments" delivered by the fire service are frequently mistaken for being actual psychometrically sound instruments, even by seasoned professionals. In no way should these instruments ever replace or be used as supplements in psychological evaluations. The use of these instruments and their protocols in a vacuum may result in non-referral for youth suffering from significant psychological distress or symptoms [2].

Individuals offering educational programs are often ill-equipped to adequately assess and intervene in response to the full scope of potential clinical or forensic issues presented by JFSB cases. As such, juveniles exposed solely to the educational program may pose an even greater risk to public safety because uniformed parents and referral sources may erroneously assume that a juvenile is receiving adequate care through these circumscribed JFS educational services. Despite the wide-spread belief otherwise, education alone is insufficient do deal with the full scope of issues presented in the majority of these cases.

The open discussion of the valid uses and psychometric properties of the instruments and information being gathered provides a teaching moment for the interdisciplinary group, as chance to establish a unified vocabulary, learn each other's core professional values, and build trust. For the remainder of this article risk assessment will refer to the psychological assessment of risk by a licensed clinician utilizing appropriate clinical instruments and clinical evaluation techniques.

Training for Risk Assessment and the Primacy of Public Safety with JFSB

To stress on a point not well addressed in prior literature, there remains an inescapable relationship between forensic mental health services and public safety with regards to JFSB. As a result, JFSB imposes two corollary duties for licensed and qualified mental health professionals. First, any effort to address the clinical forensic issues associated with JFSB must not ignore or underestimate the pressing need to protect the public. Second, in order to approach meeting public safety concerns, interventions must focus the cognitive-behavioral techniques on the presenting JFSB circumstances or incident in order to reduce the risk levels that range from low to extreme [12].

Above all else, defining what is meant by public safety as it applies to JFSB assists with addressing it. In this case, it is not enough to categorically identify what the risk is (i.e., firesetting) but the actual dimensions or level of the assessed potential threat (i.e., low, medium, high, extremely high) that is posed by it [1]. Historically, some examiners are often preoccupied almost exclusively with the psychotherapeutic side of this JFSB issue. However, unlike other forms of treatment, forensic psychological interventions must account for both linear and cyclical representations of JFSB that can have an ameliorating effect on the risk for future firesetting or bomb making. The intent here is to bring greater conceptual clarity to JFSB public safety issues.

The risk assessment must begin with recognition of this primacy of public safety risk created by the JFSB behaviors [1]. This starts with an understanding that JFSB behavior is a form of arson. Arson is a legal term that refers to an illegal intentional effort to start a fire or detonate an explosive device [25]. Forensically, every state has laws that cover arson. In New York, it is NY Code § 150.20, in Texas it is § 28.02, and for California it is penal code 450-457.1. Although all states define arson differently, the FBI's Uniform Crime Reporting (UCR) Program defines arson as "any willful or malicious burning or attempting to burn, with or without intent to defraud, a dwelling house, public building, motor vehicle or aircraft, personal property of another, etc."

Despite, the aforementioned laws found in many states, laws are illustrated as ineffective in deterring or preventing juvenile firesetting and bomb making. This may be due in part to the failure of the public and many professional agencies to recognize that arson is not a crime conferred to felony status by age. While these JFSB acts may be spoken of in lighter terms outside of legal documents, such as fireplay or match play, with no implications

related to their intentions for juveniles, the actual legal status of the JFSB act may always be charged as arson if the ignition of the heat source was intentional and for an other than approved cause, such as cooking. In summary, public safety is probably threatened more by poor and misinformed choices in the selection of JFSB assessment tools that generically categorize them than by the inherent risk of all recidivism lumped together. For the forensic psychological examiner, it may be wise to define risk acceptance criteria in conjunction with a multidisciplinary team, that combined provide a threshold measurement for acceptable JFSB risk level. In this case, if the evaluated risk does not achieve the designated threshold, then the examiner has a basis for concluding that there is sufficient information to make a dispositional decision in the case. However, there is a caution to be weary of choosing a risk rating solely based on numbers alone because there is also a need to consider culturally responsive individual factors [24].

An empirically guided public safety risk assessment rating approach for JFSB

Risk assessment has shown to be a useful gauge to examine the impact of risk-reducing interventions [26]. These threats do not only come from the act itself which is inherently dangerous, but also the threats to the future of the young person as a consequence of the information placed into the report [24]. The safety risks stemming from reoffending are distinguishable and represent a tipping point when compared against other clinical factors [26].

There is no universally recognized or strong guidance for making an informed public safety risk assessment for JFSB [24]. Risk assessment for JFSB behaviors encompasses more than the linear elements typically identified in traditional forensic psychological evaluations. The risk assessment should be quantitatively data driven by the analyses of all the relevant information and concern, taking into consideration the qualitative importance of other factors from a public safety standpoint. The risk assessment method discussed here, while aimed at public safety, represents an early effort to highlight an empirically guided approach that is consistent with the theoretical framework of Forensic Assessment and Therapeutic Jurisprudence Assistance Model or FATJAM [24].

There are at least five approaches that can be used while conducting risk assessments with JFSB. Some of these include: unstructured clinical judgment, structured clinical judgment, empirically guided clinical judgment, actuarial assessment, or clinically adjusted actuarial assessment [27,28]. For JFSB, more often than not, an assessment reviews static, historical factors that are not likely to change, and/or dynamic factors, which are factors subject to change over time. In the adult literature, static factors have been shown to be most predictive [27,29].

The recommended practice here is an empirically guided (EG) approach because it utilizes risk factors based on a review of the research literature and reinforces the public safety triangle previously discussed. This EG approach increases the likelihood of demonstrating concurrent and predictive validity [27,28]. Since interventions are an inevitable part of the work with JFSB, an evidenced based theoretical approach or conceptualization should also be included. This type of risk assessment requires an examiner to analyze assets, identify vulnerabilities, project consequences, and catalog the implicit threats for and by a youth they are evaluating.

Competent practice with JFSB operates within an underlying risk assessment framework. A similar framework can be used to determine the resources the practitioner will continue consulting and later search for in their future or continued careers as licensed psychologists. Understanding risk assessments is inherent in clinical practice. Risk assessments offer decision rules that assist psychologists make optimum decisions on how to best manage JFSB patients. A similar line of reasoning may be applied to diagnosis and introducing culturally responsive interventions with JFSB, as an accurate diagnostic picture facilitates culturally responsive treatment [30].

Diagnostic implications on the risk rating and treatment planning Training for JFSB

Juvenile firesetting and bomb making coincides with an array of complex behaviors that occur with varying degrees of severity. The precision of a diagnostic impression can offer important information relevant to understanding the diverse clinical forensic contours of JFSB. However, forensically, there is a non-linear relationship between diagnosis and JFSB as a public safety threat. While a JFSB can have specific DSM-5 disorders, they are, for the most part, independent from a low or extreme risk assessment rating [1]. In other words, a diagnosis does not convey the actual JFSB risk level. It only conveys the direction of the risk in regard to motivation, or likelihood of recidivism. For example, the increased presence of psychiatric disorders in juveniles can fuel unwanted circumstances beyond clinical management, as psychiatric disorders are associated with recidivism [31-35].

Diagnostically, research evidence indicates that comorbidity is not uncommon in JFSB [11]. There are sometimes confusing choices for symptoms, difficulties in conducting the required analysis, and problems stemming from the inexperience of an examiner who is attempting to make sense out of all the available JFSB diagnostic information. Collectively, these same factors often lead to an unsystematic approach that has unwanted clinical forensic and public safety implications. The extant research literature has examined clinical trajectories for using symptom patterns frequently noted in the diagnostic work with JSFB.

The empirical basis that supports training on how formulating diagnostic scaffolding consists of symptoms found in four DSM-5 mental disorders or what may be referred to as the DSM-5 Quadrant. The quadrant of disorders includes Attention Deficit Hyperactivity Disorder (ADHD), Autism Spectrum Disorder (ASD), Post-Traumatic Stress Disorder (PTSD), and Conduct Disorder (CD). The DSM-5 Quadrant refers to the cluster of ADHD, CD, PTSD, and CD symptoms that are assessed for in an effort to formulate a diagnostic picture in JFSB, and does not refer to actual diagnosis of these disorders [1].

The DSM-5 Quadrant is sensitive to the unique psychological presentation of JFSBs by integrating categorical and dimensional factors that are easy to apply and are analytically appealing. The DSM-5 Quadrant can be disaggregated into the aforementioned four wireframes of symptoms associated with DSM-5 disorders (i.e., ADHD, ASDM, CD/ODD, and PTSD) [23]. To tackle JFSB issues, the guidance provided by the DSM-5 Quadrant facilitates decision making by allowing practitioners and researchers to assess symptom severity for the four disorders that it cuts across. This cross-cutting approach is consistent with the DSM-5 [30].

In addition to signaling the importance and seriousness of the JFSB behaviors, providing competent and comprehensive risk assessment assists in the identification of appropriate interventions to be used. JFSBs are significantly more likely than other psycho-legal referral cases to present issues that include a collection of symptoms found in the DSM-5 Quadrant. The implementation of the DSM-5 Quadrant for assessments is the first step in planning interventions for JFSBs. The accumulation of the symptoms functions as the clinical evidence that may be later used a metric used to gauge the most effective strategies for working this forensic population that is due in large part to the complex configuration of behavioral difficulties, ethno racial factors, trauma and developmental pathways into JFSB [30]. The impact on treatment as a result of the diagnostic portrait provided by the DSM-5 Quadrant (i.e., dimensional and categorical features) means that the symptom patterns can be clearly identified and then targeted for culturally responsive intervention [1].

Training for Culturally Responsive Diagnosis and Treatment Planning with JFSB

In the recommended approach, each JFSB case is expected to present with diverse issues, and using this approach may increase communication and reliability among various qualified mental health providers who work with these cases. In general, the effectiveness of this approach hinges on the clinical forensic needs of the JFSB and the competencies of the examiner [1]. On a technical level, it requires an examiner to recognize that their interpretations must also include a number of ethno racial variables that may not be easily reflected in the overall risk acceptance for a particular JFSB.

In addition to the clinical factors discussed above, JFSB is contemporaneously associated with a broad range of biopsychosociocultural factors that are found in disorders but can change throughout the developmental stages of childhood and adolescence. The diagnostic work with JFSB involves many decision criteria and culturally relevant variables regarding risk taking, cultural norms regarding fire-use, parental supervision, and even the willingness of the youth with JFSB behavior and their parents to work with one or more of the members of the multidisciplinary team. For example, providing treatment with the use of the DSM-5 Quadrant (i.e. dimensional and categorical features) means that JFSB may have interventions aimed that the symptoms associated with the greatest distress and impairment in a patient. In many cases, a JFSB referred may have more severe symptoms compared with those who have any of the previously discussed disorders alone. As a result of the complex issues presented can take full advantage of the competencies of the team by introducing efficacious treatments for the overlapping disorders that have been developed. If implemented widely in intervention practice, such integrated treatment programs could significantly impact clinical outcomes for JFSB. The practicums and advanced practicums are the training platforms for developing the competencies required in these cases.

Practicums and Advanced Practicums in JFSB

Historically, practicums have served as the scaffolding for all the clinical training that follows it [36,37]. According to the Committee on Clinical Training, during practicum training "… the student attains levels of competence in the core foundational and functional competency domains needed to make effective use of future training experiences in the practice of professional psychology." Consistent with APA standards, the JFSB training program preceding the writing of this article was designed to sequentially facilitate the development of culturally responsive clinical competencies developed from practicum to licensure [38-42].

Many gaps found in the practicum students' academic training in psychology concepts and theories are addressed via the core clinical forensic practice experiences of JFSB. The diffusion of symptom and circumstance presentation in heterogeneous JFSB cases requires solving multidimensional problems with complex histories and rich clinical documentation. Approaching these cases with a structured, directed, systematic methodology, while exercising practices consistent with the standard practicum guidelines provides excellence in training and substantial opportunity to develop clinical and practical wisdom and skills [43]. There are a number of ways that JSFB practicums facilitate the transfer knowledge. In this case, the training highlights the relevance of repeated exposures to clinical forensic services that build upon and affirm previous learning experiences. The focus in this JFSB behavioral assessment and intervention practicum and advanced practicum includes experiences in direct services to clients, individual, family, professional, and community psycho-education, formal documentation, formal case presentations, group and individual supervision and other acceptable professional psychology activities. There is another important, but often overlooked, source of transfer in many of these education and training discussions. The transfer of knowledge between trainees and the practicum site occurs through non-training specific activities (e.g., seminars, records review, and coordinating interdisciplinary work with teams) and relationships with diverse professionals on site.

Pre-Professional JFSB Skill Development

The development of a well prepared JFSB team is critical to collaboratively achieved success in JFSB behavior reduction. In such a team, members are provided opportunities to benefit from a variety of learning experiences. For pre-licensure trainees, these experiences include the added benefit of a professional work

environment that exposes them to diverse disciplines, similar to practicum and internship placements in medical or correctional facilities. In fact, it is the opinion of these authors that when combined with general didactic training, a specialized practicum that incorporates small-group discussion, case presentations, and direct JFSB contact, proves to be of considerable advantage for a trainee over that of organized lectures in an isolated discipline. In an interdisciplinary service delivery framework that fulfills the increasing role that teams play in JFSB work, the education and training of ethnoracial and public safety issues are adequately addressed as a natural concurrence of the patient population and referral questions. Moreover, from an education and training perspective, this type of concerted training effort serves to strengthen linkages between communities, psychology, and other disciplines that are charged with addressing the public safety priorities found in JFSB cases.

Two examples of these successful linkages have emerged from a recent training cohort. A then practicum student, now a post-doctoral fellow, has established a combined training program for fire service and mental health professionals in isolated fire protection districts. Another student working with an inter-state Deputy State Fire-Marshall's training commission has influenced the adoption of best practice standards for cross-training of fire service and mental health professionals for working with JFSB cases. Additionally, the successful research, publications, and professional development that arose from this cohort training are having an impact on the federal standards of training for "JFS Risk Assessments."

Contrary to a concern that a JFSB focused training program would result in a lack of translatable general skills, these students developed not only generalized practice skills, these pre-professionals have developed significantly advanced skill sets for clinical research and practice. These skills, and therefore these students, are now sought after by professionals due to the high demand for professionals with knowledge and experience in JFSB.

Conclusions and Recommendations for the Future

The contextual analytic strategy used in this article reveals the role that JFSB training can function as a framework for developing a sequence of competency based clinical forensic experiences. A JFSB practicum's attention to the primacy of public safety, prevalence and relevance risk assessment, diagnosis, culturally responsive interventions along with interdisciplinary teams are consistent with the guidance provided in various psychology training resources [38,39,43]. In terms of the future, there are at least three far-reaching JFSB training goals.

First, address the development of students through alternative specialty areas that allow for activities that buttress competency based lifelong learning [44,45]. Second, improve upon the accuracy of self-evaluations that promote continuous professional growth. Finally, improve the structures that will allow easier and rapid access to empirical data collected from practitioners that can be later used to shape education and training in psychology [37]. The future challenge of the next decade of the 21st Century is for the profession to craft more effective ways to address the multivariate issues related to public safety (e.g., antiterrorism, racially motivated violence, and JFSB). Given the comparative dearth of clinical forensic and research literature it is our hope that competencies to work with JFSB becomes a central part of a drive towards lifelong learning.

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