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BRIEF REPORT

# Behavioral Health Programs in Fire Service: Surveying Access and Preferences

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Due to the stressful nature of the job, firefighters are likely to be at increased risk for behavioral health problems. This study examined the access, attitudes, and preferences of a large sample of professional firefighters ($N = 2{,}156$) toward behavioral health services using an online survey. Overall, 81% of participants reported that they had access to behavioral health services through their fire service department, although smaller departments were less likely to offer such services. Despite available programs within fire service, firefighters most commonly reported that they would seek outside help from their spouse/family (67%) or private professional services (60%). Firefighters with fewer years in service were more likely to go to a spouse/family member, coworker, or officer for help, whereas those with more years were more likely to seek private professional services. Few firefighters directly stated that stigma would prevent them from using behavioral health services, yet a large percentage of firefighters (68%) reported that they would not recommend these services to colleagues, and stigma-related barriers were still among the most significant reported. "Clinicians who understand firefighter work culture" was rated as one of the most important components to a successful behavioral health program; a lack thereof rated as one of the most significant barriers. Offered together, these findings suggest that greater exploration of stigma in fire service is warranted, and attention toward training culturally competent clinicians to work with firefighters is needed.

*Keywords:* firefighters, mental health services, health care utilization, stigma, cultural competence

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Firefighters experience challenging and potentially traumatic stressors while ensuring public safety. Calls to fires, car accidents, disasters, and suicides often involve facing dangerous and disturbing scenes. The occupational stress experienced by firefighters can be overwhelming and may lead to a variety of health concerns (Kimbrel et al., 2011, 2015). Behavioral health issues such as substance abuse, obesity, depression, sleep problems, suicide, and posttraumatic stress disorder (PTSD) are relatively common among firefighters (Berger et al., 2012; Carey, Al-Zaiti, Dean, Sessanna, & Finnell, 2011; Gist, Taylor, & Raak, 2011; Haddock, Day, Poston, Jahnke, & Jitnarin, 2015; Soteriades, Hauser, Kawachi, Christiani, & Kales, 2008; Wieclaw et al., 2006). Binge drinking is prevalent in fire service, with an estimated 56% of professional firefighters engaging in at least one binge drinking episode a month (Haddock et al., 2012)—a stark contrast to the estimated 17.1% of the U.S. adult population that engages in binge drinking (Kanny et al., 2012). As many as 8%–26% of firefighters suffer from posttraumatic stress symptomatology (Del Ben, Scotti, Chen, & Fortson, 2006; Murphy, Beaton, Pike, & Johnson, 1999), and 13%–16% of firefighters are at risk for depression (Haddock, Jitnarin, Poston, Tuley, & Jahnke, 2011). The presence of each of these issues has been associated with a higher risk for engaging in suicidal behavior (Dill & Loew, 2012).

Because of the nature of this high-stress occupation and the prevalence of mental health issues in fire service, behavioral health programs are available "in house" for professional firefighters. Behavioral health programs, such as employee assistance programs (EAPs) and member assistance programs (MAPs), provide firefighters with referrals to treatment. Some large urban departments have dedicated counseling units with a strong peer support program as well as licensed mental health professionals (cf. New York Fire Department).

In addition to these programs, departments may utilize critical incident stress management (CISM), which is a range of services intended for harm reduction in trauma-exposed populations (Flannery & Everly, 2004). Recent studies found that firefighters were open to CISM and thought of critical incident stress debriefing (CISD), a component of CISM aimed to prevent the development of PTSD through postincident debriefing and psychoeducation, as beneficial (Jeannette & Scoboria, 2008; Wall, 2012). However, few studies support CISM's efficacy, and some studies suggest that CISD is potentially harmful (Gist & Taylor, 2008; Jeannette & Scoboria, 2008; Lewis, 2003; Lilienfeld, 2007).

Despite the availability of behavioral health programs, firefighters may be resistant to seeking treatment. Firefighters have reported limited use of EAPs (McMahon, 2010). In addition to the "tough guy" mentality of fire service (Miller, 1995), other barriers to treatment utilization among emergency responders may include concerns about stigma (Bulala, 2013; Halpern, Gurevich, Schwartz, & Brazeau, 2009; Hom, Stanley, Ringer, & Joiner, 2016), concerns about confidentiality (Løvseth & Aasland, 2010; McMahon, 2010), lack of clinician familiarity with the culture (McMahon, 2010), failure to recognize a critical incident, and negative expectations of treatment (Halpern et al., 2009). As the number of barriers to treatment seeking increases, a firefighter's likelihood of utilizing behavioral health programs decreases (Bulala, 2013). A recent study by Hom and colleagues (2016) examined treatment utilization in firefighters with a history of suicide ideation, plans, or attempts. This study found 77% of participants had accessed some type of mental health service (93% of those with attempts, 77% with suicide plans, and 68% with ideation).

With the exception of the studies noted above, little is known about the accessibility, utilization, and barriers to behavioral health treatment utilization in fire service. The purpose of the current study was to explore firefighter access and preferences regarding behavioral health services.

# Method

## Participants and Procedures

This study was approved by the Institutional Review Board of Texas A&M University. Barriers to behavioral health programs and solutions to said barriers were identified through theme analyses of 20 focus groups conducted across the country by our research team. These themes were then used to generate a brief survey of firefighters' attitudes and beliefs about behavioral health programs that was reviewed and revised by senior firefighters and peer counselors who led focus groups. A link to the survey was placed on the International Association of Fire Fighters (IAFF) website where the survey was announced. The IAFF is a labor union representing over 300,000 members across the United States and Canada. The survey was open to firefighters and paramedics in both countries. Data were collected via SurveyMonkey. A total of 2,156 IAFF members completed the online survey.

## Measures

The survey instrument consisted of 67 questions (see online supplemental Appendix). The first section of the survey instrument contained one item designed to assess firefighters' access to behavioral health programs through their department and a subitem to gather the specific types of services available. The second section included seven items to measure knowledge of, and confidence in, behavioral health programs. Participants responded to the items on a 5-point Likert scale ranging from "strongly disagree" to "strongly agree." Section 3 contained six items that assessed who firefighters would go to for help. These items used a 5-point Likert scale ranging from "strongly disagree" to "strongly agree." The fourth section queried personal endorsement for behavioral health programs and stigma concerns with five items on the same Likert scale. In Section 5, firefighters indicated how important 17 components of a behavioral health program were on a 5-point Likert scale ranging from "extremely unimportant" to "extremely important." Section 6 assessed 11 possible barriers to seeking behavioral health care on 5-point Likert scale ranging from "not a barrier" to "insurmountable barrier." The seventh section of the survey was designed to assess the efficacy of 12 behavioral health program promotion techniques using a 5-point Likert scale ranging from "completely ineffective" to "extremely effective." The final section included eight demographic questions.

## Data Analysis

SurveyMonkey data were imported into SPSS. The final data set was analyzed via SPSS Version 23. As noted above, Sections 2–7

used a 5-point Likert scale for ratings. For ease of presentation, we only report here the percentage of firefighters who either "strongly agreed" or "agreed" with survey statements in Sections 2–4. Thus, these responses were collapsed into a single "agreed" category. Similarly, in Section 5, we collapsed the "important" and "extremely important" categories into a single category (i.e., "important"). In Section 6, we collapsed the "significant barrier" and "insurmountable barrier" categories into a single "significant barrier" category. Finally, in Section 7, we collapsed the "highly effective" and "extremely effective" categories into a single "highly effective" category.

The majority of the data are summarized in terms of frequency of responses. Chi-square analyses were performed to examine access to services for varying department sizes. Analyses of variance (ANOVA) were conducted to explore differences between firefighters of differing time in service and rank on choice of sources for behavioral health help, with post hoc analyses using Tukey's test.

## Results

The majority of the sample was male (93%). Participants were 3% Hispanic, 2% African American, and 89% Caucasian. Rank in fire service ranged from line duty firefighters through chief/commissioner. These demographics are similar to those found nationally in fire service: 4% female, 8% Hispanic or Latino, and 7% African American (U.S. Bureau of Labor, 2016). The mean age of participants was 42 ($SD$ = 9.7), which is consistent with the makeup of fire service (45% of firefighters are age 30–49; Haynes & Stein, 2017). Full demographics can be found in Table 1.

Out of all survey respondents, 81% reported that they had access to behavioral health services through their department, 12% did not, and 7% were unsure as to whether their department offered such services. Respondents then indicated specific services they had access to through their department: 75% reported access to individual counseling, 74% to drug and alcohol counseling, 60% to family and couples services, 37% to peer support systems, and 28% to follow-up care. A chi-square test of goodness of fit was performed to determine whether behavioral health services were similarly available to all department sizes. Accessibility of behavioral health services for the eight department sizes (0–50 employees, 76%; 51–100 employees, 87%; 101–300 employees, 94%, 301–500 employees, 95%; 501–1,000 employees, 93%; 1,001–1,500 employees, 94%; 1,501–5,000 employees, 96%; 5,000 + employees, 96%) was not equally distributed, $\chi^2(7, N = 1974) = 110.75$, $p < .001$.

Ratings of knowledge about and confidence in department behavioral health programs revealed that 64% were aware of available services and how to access these services, respectively. In addition, 52% were assured of confidentiality. Meanwhile, 53% of firefighters knew services would be provided by a trained professional and 28% knew services would be provided by a trained peer. Only 24% knew services would be provided by someone with an understanding of the emergency responder culture, and 24% were confident of adequate follow-up care.

When firefighters were asked who they would go to if they were in need of assistance or counseling, firefighters most commonly reported that they would seek help outside of fire service from their spouse/family (67%) or private professional services (60%).

Table 1
*Demographic Characteristics (N = 2,156)*

| Characteristic | Value |
|---|---|
| Age, y (mean ± *SD*) | 41.9 ± 9.7 |
| Gender | |
| Male | 92.6 (1,996) |
| Female | 5.2 (113) |
| Ethnicity | |
| Caucasian | 88.6 (1,911) |
| Mexican | 2.2 (48) |
| African American | 1.5 (32) |
| American Indian or Alaskan Native | 1.4 (31) |
| Puerto Rican | 0.4 (9) |
| Asian | 0.3 (7) |
| Native Hawaiian or Pacific Islander | 0.3 (7) |
| Cuban | 0.3 (6) |
| Other | 0.8 (17) |
| Duration of time in fire service | |
| 0–3 years | 4.3 (92) |
| 4–6 years | 6.9 (149) |
| 7–15 years | 32.0 (689) |
| 16–20 years | 16.7 (361) |
| >20 years | 38.4 (828) |
| Rank | |
| Officers | 40.1 (865) |
| Firefighters | 45.7 (985) |
| EMS personnel | 2.0 (43) |
| Other | 8.2 (178) |
| Department size | |
| 0–50 | 27.7 (598) |
| 51–100 | 22.5 (486) |
| 101–300 | 24.3 (523) |
| 301–500 | 6.8 (147) |
| 501–1,000 | 6.6 (142) |
| 1,001–1,500 | 4.4 (94) |
| 1,501–5,000 | 4.7 (101) |
| >5,000 | 1.3 (28) |

*Note.* Data presented as % ($n$), except where otherwise noted. Age, gender, ethnicity, and time in fire service are similar to those found nationally in fire service (Haynes & Stein, 2017; U.S. Bureau of Labor, 2016).

Firefighters were least likely to seek assistance from an officer (31%); within professional fire service, officers include the rank of lieutenant, captain, battalion chief, assistant chief, and fire chief. A series of one-way ANOVAs were conducted to determine from whom firefighters (from various tenure in fire service) would be most likely to seek help. There was a significant linear trend in years in fire service for seeking help from a spouse/family member, $F(1, 2{,}084) = 57.82$, $p < .001$, $\eta^2 = .027$; a coworker, $F(1, 2{,}075) = 67.19$, $p < .001$, $\eta^2 = .031$; an officer, $F(1, 2{,}057) = 46.08$, $p < .001$, $\eta^2 = .022$; private professional services, $F(1, 2{,}079) = 36.47$, $p < .001$, $\eta^2 = .017$; and department/union EAP/MAP services, $F(1, 2{,}082) = 8.17$, $p < .01$, $\eta^2 = .004$. Follow-up post hoc analyses with Tukey's test indicated that firefighters were more likely to seek help from a spouse/family member, coworker, or officer if they had been in fire service for fewer years, whereas more seasoned firefighters were more likely to seek help from a private professional service or department/union EAP/MAP service (see Table 2). In addition, there were significant differences between ranks in seeking help from a spouse/family member, $F(3, 2{,}038) = 11.32$, $p < .001$, $\eta^2 = .016$; a coworker, $F(3, 2{,}029) = 7.24$, $p < .001$, $\eta^2 = .011$; or private

Table 2
*Endorsement per Source From Whom Firefighters Seek Support Relative to Years in Fire Service*

| Help source | Years in fire service | | | | |
|---|---|---|---|---|---|
| | 0–3 ($n$ = 90) | 4–6 ($n$ = 146) | 7–15 ($n$ = 679) | 16–20 ($n$ = 360) | >20 ($n$ = 814) |
| Spouse/family | $4.14_a$ (.98) | $3.92_b$ (1.17) | $3.86_c$ (1.06) | $3.67_a$ (1.09) | $3.51_{abc}$ (1.15) |
| Coworker | $3.51_a$ (1.04) | $3.48_b$ (1.04) | $3.35_c$ (1.04) | $3.17_{abd}$ (1.08) | $2.98_{abcd}$ (1.05) |
| Officer | $3.33_a$ (1.09) | 3.11b (1.10) | $2.88_{ac}$ (1.10) | $2.72_{ab}$ (1.11) | $2.67_{abc}$ (1.06) |
| Chaplain | 3.20 (1.15) | 2.83 (1.16) | 3.01 (1.20) | 3.00 (1.16) | 3.10 (1.14) |
| Private professional services | $3.32_a$ (1.02) | $3.27_b$ (1.08) | $3.52_{bc}$ (.99) | $3.63_b$ (.97) | $3.71_{abc}$ (.95) |
| Department/union EAP/MAP services | 3.27 (.93) | 3.27 (1.12) | $3.28_a$ (1.10) | 3.32 (1.15) | $3.44_a$ (1.12) |

*Note.* Data presented as $M$ ($SD$). Higher scores indicate firefighters were more likely to seek support from a source. Subscripts refer to within-row comparisons. Means having the same subscript are significantly different at the .05 significance level. EAP = employee assistance program; MAP = member assistance program.



professional services, $F(3, 2{,}033) = 3.44$, $p < .05$, $\eta^2 = .005$. Follow-up post hoc analyses with Tukey's test indicated that line firefighters were more likely than officers to seek help from a spouse/family member ($M = 3.85$, $SD = 1.10$ and $M = 3.56$, $SD = 1.11$, respectively), $p < .001$, or a coworker ($M = 3.29$, $SD = 1.10$ and $M = 3.07$, $SD = 1.01$, respectively), $p < .001$, whereas officers ($M = 3.66$, $SD = 0.95$) were more likely than line firefighters ($M = 3.52$, $SD = 1.03$) to seek help from private professional services, $p < .01$.

Ratings of personal endorsement for behavioral health programs and stigma concerns indicated that 32% of firefighters would recommend the department's behavioral health services to others. In addition, 47% of firefighters agreed that their department's management actively supported addressing behavioral health issues. Meanwhile, 23% of firefighters agreed that stigma prevented them from using behavioral health services, and 29% agreed that using these services might damage their reputation. Notably, only 3% of the firefighters reported that they would think less of people who use behavioral health programs.

Firefighters rated how important various components of a behavioral health program were to them. Components with the highest endorsements for importance were clear communication about available behavioral health programs and their benefits (89%), professional services for individuals (89%), and a clinician who understands the work culture (88%).

The barriers most commonly endorsed as significant barriers to behavioral health programs were clinicians who are unaware of the work culture (53%), fear of breach in confidentiality (51%), and stigma (43%). Cost was rated the most minor barrier (0% of participants considered cost a major or insurmountable barrier).

The behavioral health program promotion techniques most frequently endorsed as highly effective were a website (65%), training target leadership (58%), training for union officials (58%), a hotline (51%), and behavioral health trainings (50%).

## Discussion

To our knowledge, this study is the first to provide a thorough assessment of access, attitudes, and preferences regarding behavioral health programs in fire service. Our survey of a large sample of professional firefighters revealed that most firefighters reported that they had access to behavioral health programs (81%) and knew how to access them (64%). However, behavioral health services were not uniformly available to all departments. Smaller departments were less likely to offer behavioral health services (0–50 employees, 76%; 51–100 employees, 87%). Out of the 3,200 departments with IAFF locals, the average department size is 200 employees (J. Brinkley, personal communication, February 24, 2017). With such a large proportion of departments with fewer than 200 employees, it is essential that firefighters in smaller departments have access to behavioral health services.

Despite the availability of behavioral health services from most departments, the majority of professional firefighters in this study reported that they would prefer to go to a spouse/family member (67%) or to a private professional service (60%) if they needed assistance or counseling, rather than using department services. This is consistent with results from the findings by North and colleagues (2002), which asserted that firefighters who worked the Oklahoma City bombing were most likely to turn to friends and family for help. However, it appears that over their years in fire service, firefighters become less likely to seek help from a spouse/family member, coworker, or officer—and become more likely to seek help from a private professional service or department/union EAP/MAP service. This maps onto our finding that line firefighters are more likely to reach out to a spouse/family member or worker, whereas officers are more likely to use private professional services, because firefighters who have been in service longer have often moved into an officer role. These results are consistent with studies showing that experienced firefighters report less social support from both family and employer than new recruits (Regehr, 2009; Regehr, Hill, Knott, & Sault, 2003). Nevertheless, findings from this study indicated that firefighters were, surprisingly, less likely to reach out to coworkers for help as years in service increased. Because of the comradery and close bonds formed within the firehouse, firefighters often report that they prefer to talk to peers who understand the distinct and specific stressors and problems related to the profession (Jeannette & Scoboria, 2008).

In contrast with the literature on military veterans (Crawford et al., 2015; Kim, Thomas, Wilk, Castro, & Hoge, 2010; Whealin, Kuhn, & Pietrzak, 2014), this study found that relatively few firefighters indicated that stigma would prevent them from using behavioral health services (23%) or that using these services might damage their reputation (29%). While these findings are encouraging, we still observed that a relatively large percentage of

firefighters (68%) would not recommend behavioral health services to other firefighters, and stigma-related barriers were still rated as the second and third most significant barriers (fear of breach in confidentiality, 51%; stigma, 43%). These barriers are consistent with those most frequently endorsed in Hom et al.'s (2016) study. Together, these findings suggest that firefighters may feel more self-stigma than perceived public stigmatization by others. In fact, while only 3% of our sample reported that they themselves would think less of those who used behavioral health service, 37% of firefighters in another recent survey reported concerns of "being thought less of by others" for seeking treatment (Hom et al., 2016). Additional exploration of stigma in fire service is warranted to decipher these effects.

One particularly important barrier appears to be a lack of clinicians who are familiar with firefighter culture, as clinicians' lack of cultural awareness was the leading perceived barrier to behavioral health program usage (53%), which is consistent with previous findings in fire service (McMahon, 2010). The present study also found that firefighters viewed the presence of clinicians who truly understood firefighter work culture as one of the most important components to a successful behavioral health program (88%). In fact, the general president of the IAFF has acknowledged the need for practitioners who understand the fire service profession and mental health disorders that often accompany this line of work (IAFF Center of Excellence, n.d.).

## Limitations

A few cautionary notes must be added. First, this survey is not a psychometrically validated instrument but was created from firefighter concerns. Second, these data consist of responses from firefighters in both the United States and Canada, yet because nationality of respondents was not queried, possible disparities between firefighters of these countries could not be monitored. Third, these data were collected in 2010, and stigma related to mental health conditions may be declining (cf. former First Lady Michelle Obama's "The Campaign to Change Direction"). A follow-up survey may capture changes resulting from the current efforts to increase behavioral health in fire service by both the IAFF and National Fallen Firefighters Foundation (Gist et al., 2011; National Fallen Firefighter Foundation, 2014). Continued efforts to understand and promote access to and utilization of evidence-based treatment for behavioral health problems will be significant not only for individual firefighters but also for the public whom they serve.

## Implications/Recommendations

Firefighters remain an understudied professional group with an extraordinary contribution to public safety. That contribution comes with inflated psychological risks. Additional understanding of the status and utilization of behavioral health programs for emergency responders will strengthen the profession while suggesting areas for improved intervention and hardiness training. This brief report is the first step in establishing a literature base of firefighter attitudes and beliefs regarding behavioral health services.

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