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The Risks and Rewards of Marriage for Fire Fighters: A Literature Review with Implications for EAP

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ABSTRACT. *EAPs may be able to better support fire fighters and their families if more is known about the marital and occupational stressors of this at-risk population. We conducted a review of literature to answer several questions. First, what is the actual rate of divorce among people working in fire service? Second, what factors relate to marital stability among fire fighters and is marital relationship predictive of job satisfaction, job safety, and overall job success in fire service? Lastly, are marital enrichment or relationship support programs in place in fire service families, and, if so, are they effective? Over 20 scholarly research works were examined that addressed marriage among fire fighters. Surprisingly, we could find empirical data on only the first question with the other questions largely missing as topics in the literature. Both U.S. census data and a large survey found rates of divorce for male fire fighters in the range of 12-14%, which was similar to national averages at the time. Other data was found on fire fighter family challenges, the spouses of fire fighters, and the marriages of volunteer fire fighters. Advances in counseling and other behavioral health services for fire fighters are also identified. Suggestions for EAP practice and future research are provided.*

Introduction

Fire fighters face a number of work-related stressors, including long work hours, rotating shifts, sleep deprivation, and repeated exposure to experiences that can be traumatic or even life threatening. These experiences place fire fighters at a high risk for mental health issues.^{1,2,3} The numbers are important: one study assessing traumatic reactions in fire fighters reported that 78% of fire fighters experienced at least one critical incident at work, and 40% reported experiencing significant emotional distress at work.⁴ Work stressors are associated with a multitude of harmful behavioral health consequences for fire fighters such as PTSD, substance use disorders, and depression.⁵⁻⁸

Some fire department employees have access to EAP counseling services to help cope with the chronic occupational and traumatic stressors typical of fire service. One example includes the fire fighters for the United States Pentagon.⁹

This kind of work can also sometimes prove difficult for maintaining the marriages of fire

fighters. Among 147 employees of an urban fire department (with two-thirds being fire fighters), almost half (48%) reported that “maintaining a relationship with one’s romantic partner” as a highly stressful part of the job.¹⁰ Of the 33 specific stressors assessed, maintaining romantic relationships ranked Number 5 as most stressful. When their romantic partner (95% were wives) were given the same survey, 43% of the spouses also rated maintaining a relationship with one’s romantic partner as a highly stressful part of the job for their husband. In another example, a survey of 396 volunteer fire fighters in Australia found that work/family needs were the top reason for leaving the fire service (cited by 51% of the sample).¹¹

On the other hand, when considering the human stress response more broadly, a satisfying marriage, spousal support, and emotional support from other people are reported to buffer the negative effects of job stress.¹² Marital relationships in general tend to have positive health impacts on both spouses.¹³ Having a supportive marriage and family that understands their fire service work has been also reported by fire fighters as helping with recovery after traumatic work experiences.^{14,15}

Fire Service Marriages at Risk for Divorce – According to Non-Scholarly Sources

Many articles have appeared in industry magazines that offer advice to fire fighters on how to keep a marriage healthy and if needed, how to maintain a second marriage and step-families as well.^{16,17} Other articles in fire service trade journals and self-help books offer marital advice to the spouses of fire fighters and to the spouses of fire chiefs.¹⁸⁻²¹

Although well intended, what is concerning about many of these trade magazine articles

offering marital advice are the assertions made about divorce rates being much higher for fire fighters than for the general population. See the following examples:

In 1975, McCarty reported in *Fire Command* magazine the findings from a non-scientific survey of 100 fire fighters.²² The results revealed a divorce rate of 5.3% for the fire fighters compared to the 2.9% divorce rate for the general U.S. population. This sample also had 11.8% of fire fighters who were remarried from a prior divorce.

In 1978, Fjelstad reported in *Fire Chief* magazine the findings from a survey of 61 male fire fighters from one county in California.²³ This report was based on data from her doctoral dissertation study.²⁴ It found a divorce rate of 9.5% for the fire fighters, compared to a 3.7% rate for the general U.S. male population in 1975. The rest of the men in this fire fighter sample included 72% who were married, 11.5% who were single, and 7% who were remarried.^{NOTE 1}

In a 2003 article in *Fire Chief* magazine, Rawles stated: “Firefighters have one of the highest divorce rates when compared to other occupations.”²⁵ [no factual source cited].

In a 2012 report from the website *Fire Engineering University*, Norwood and Rascati stated: “Suicide, divorce, substance abuse and heart attack rates among firefighters are among the highest in the nation.”²⁶ [no factual source cited].

Swanson (2012), in a blog on the leadership network website, stated: “The divorce rates for firefighters is over 60%”.²⁷ Note that this statistic was linked to a website page with various highlights of divorce statistics from the 2000 U.S. Census but which does *not* actually list a divorce rate specifically for fire fighters.²⁸ Rather, it featured the highest rate

of divorce being for the industry group of dancers/choreographers – at 44%.

An article by Willing appeared in *Fire Chief* magazine in 2014 that claimed: “The divorce rate among firefighters is higher than that of the general public.”²⁹ [no factual source cited].

Also in 2014, on a website blog for first responders, Sweeney – referring to fire fighters and other emergency service professionals – claimed that: “...divorce, substance abuse, and heart attack rates in these professions are among the highest in the nation.”³⁰ [no factual source cited].

The idea that the marriages of fire fighters are prone to trouble and eventual divorce has also surfaced in newspaper stories and on television shows.

In a 2006 article on the hazards of fighting wildfires, the *New York Times* stated “It is not a job that fits well with married life.” The article goes in to quote a fire fighter with 36 years experience with wildfire forestry management who said: “You’re gone for long times. There is a fairly high divorce rate” (p. A10).³¹ [no factual source cited].

The popular TV program *The Dr. Phil Show* had an episode in 2008 on how to help couples to “fireproof their marriage”.³² The show claimed that: “Police officers and firefighters have to look death in the face every day. Their stress levels are so intense that 75 to 90 percent of their marriages end in divorce.” [no factual source cited].

At a recent International Association of Fire Fighters (IAFF) behavioral health meeting, the association leadership challenged this consistent media message of high divorce rates among those working in fire service. This veracity of this issue prompted our group to review the literature. It is our opinion that

the assumption of higher divorce among fire fighters is actually not true and per that perpetuating this stereotype may even be potentially harmful to fire fighters and their spouses as a source of added social stress.

Given that the majority of professional and volunteer fire fighters are married, the role of the marital relationship is important to fully understanding the lives of those in fire service.^{3,23} If abnormally high rates of marital dissolution are truly characteristic of fire service, then future research efforts should reflect this need. Conversely, if fire fighters actually have normative or even lower than average rates of marital dissolution, understanding the positive dynamics of fire fighter couples could inform the tailoring of EAP counseling services and other therapeutic or educational interventions for couples.

Our goal in this research brief is to describe for the EAP community the knowledge base regarding marital relationships in fire service and to stimulate more research on the topic. Therefore, we conducted a review of the literature to address the following research questions:

RQ1. What is the rate of divorce among those working in fire service?

RQ2. What factors relate to the marital stability of fire fighters? And is the stability of the marital relationship predictive of job satisfaction, job safety, and overall job success in fire service?

RQ3. Are marital enrichment or relationship stability support programs in place for assisting fire service families, and, if so, how effective are they at maintaining the relationship and preventing divorce?

Methods

To find articles to answer these questions, we searched over 100 databases including Academic Search Complete, PsycINFO, MEDLINE, PsycARTICLES and Google Scholar. The following search terms were used in various combinations: *fire fighter, first responder, couple, wife, husband, spouse, marital, marital satisfaction, marriage, and divorce*. We narrowed the search to only include articles published in peer-reviewed journals. Some articles and scholarly conference papers were gleaned from the references within articles that we identified after the formal literature search process.

Results

Our investigation yielded a total of 19 scholarly research articles in peer-reviewed journals that specifically addressed marital relationship issues among fire fighters. Also included were two conference research reports and a research-based book. We also found more than 20 other articles that examined mental health aspects of fire fighters but did not include marital relationships as factors of the study. Some of these other clinically-focused works are described in the Discussion section.

RQ1. What is the rate of divorce among those working in fire service?

Only two published research studies reported empirical information that compared divorce rates among fire fighters to national norms.

Although focusing on law enforcement, McCoy and Aamodt conducted the most authoritative study of this question. It was based on an analysis of the 2000 national census data for the United States and determined the divorce rates for 449 different occupations.³³ This

data found that 14.08% of fire fighters were divorced compared to average divorce rate of 16.35% for the total U.S. employed population. This finding was not divided by gender, but the vast majority of fire fighters were male. This data found that fire fighters had a divorce rate that was similar to the average. Like fire fighters, police officers are also mistakenly assumed in the media and other non-scientific sources to have troubled marriages and high divorce rates. Also, the rate of divorce for police officers was 15.01% and similar to fire fighters.

In 2015, Haddock and colleagues reported results from surveys of employees in 31 fire departments located in the U.S., with this data being part of two larger grant-funded research projects.³⁴ Among the 1,407 male fire fighters, the age-standardized (age 19-54) prevalence of being currently divorced was 11.8% compared with an average of 9.4% for the total male U.S. population obtained from other records. This study also showed that a higher percentage of male fire fighters were married compared to males in the same age group nationally (77% vs. 58%, respectively). In contrast, among the 49 female fire fighters in the study, the age standardized (age 19-54) prevalence of being currently divorced was 32.1% compared with an average of 10.4% in the total female U.S. population. Also, fewer female fire fighters were married than the general population of same-aged females (43% vs. 55%). Thus, among a large multi-state sample of fire fighters, the rate of divorce for men was similar but slightly higher than the national average for males across all occupations. But for women, the divorce rate was three times the national average for similarly aged women across all occupations. But keep in mind that these findings for female fire fighters, although interesting, are based on a very small sample and thus requiring further research and replication.

RQ1 Summary. Only two articles were obtained that provided credible data on marital status and divorce rates of fire fighters with other comparative data. Both studies used large datasets, one archival national data and the other a large survey. Both studies found that male fire fighters had a divorce rate in the range of 12%-14% and that this level of divorce was similar to national averages at the time (within 2% of the norm). This conclusion from peer-reviewed research sharply contrasts with the message from the non-scientific reports in fire industry publications and the popular press which (incorrectly) describe abnormally high rates of divorce among fire fighters.

RQ2. What factors relate to the marital stability of fire fighters? And is the stability of the marital relationship predictive of job satisfaction, job safety, and overall job success in fire service?

No studies were found in the peer-review literature on fire fighters that used a longitudinal research study design necessary to test for factors predictive of marital stability or divorce over a period of time. Marital stability as a predictor of fire fighter job factors also has not been examined in the studies we reviewed.

RQ3. Are marital enrichment or relationship stability support programs in place for assisting fire service families, and, if so, how effective are they at maintaining the relationship and preventing divorce?

No studies were found in the peer-review literature on fire fighters that focused on marital relationship support programs and no studies used a longitudinal research design necessary to test if such marital support programs were predictive of stability or divorce later in time.

Other Findings from the Literature

Given the large set of articles we obtained, we turned next to examining the findings from papers that used a cross-sectional study designs to address topics focusing on the marriages and families of fire fighters. We grouped these works into the following three areas: Fire fighter family challenges; spouses of fire fighters; and the marriages of volunteer fire fighters.

Fire Fighter Family Challenges

Some articles assessed family challenges and coping mechanisms to respond to these problems. Common areas of difficulty for the families of fire fighters included shift-work stressors, work-family conflict spillover, and competing with the fire house social atmosphere that functions as “second family” at the worksite.

A 2012 study from British Columbia, Canada, compared 94 male members of a fire department with 91 matched males employed in the same general community.³⁵ Those working in fire service did not differ on a standardized measure of marital satisfaction from the males working in other occupations. Thus, similar to the findings on divorce rate, this comparative study found fire fighters had levels of marital satisfaction on a par with other occupations.

Regehr and colleagues conducted several studies of fire fighters to understand the role of social supports both from fellow fire fighters and other in the fire department and also from family and friends.³⁶ Their first study collected surveys from 164 fire fighters in Australia. It confirmed that fire fighters often experience work-related critical incidents that result in symptoms of traumatic stress and depression and that the availability of social support helped to reduce these

negative consequences. The second study was conducted in the Toronto area and again found stressful job experiences were common and that social support was a helpful buffering factor but had the unexpected finding that that more experienced fire fighters had *less* social support (both from personal networks and from coworkers) than did new recruits.³⁷ A third study involved qualitative interviews with 10 fire fighters in Toronto and explored the dynamics of peer support.³⁸ It found that fire fighters' over-reliance on coworkers who shared the same firehouse workspace also lead to exclusion of their family members and that the psychological coping styles of avoidance and emotional numbing by fire fighters after traumatic incidents made it more difficult to open up emotionally to their spouses.

Another study was conducted with over 500 line fire fighters, truck operators and officers in the New Orleans area after the natural disaster of Hurricane Katrina in 2005.⁷ In this sample, the 70% who were living with their families had lower levels of depression symptoms than the other 30% who were not living with their families during the rescue and recovery work. Apparently, the relatively more accessible marital and family support for those who could return to their home after work each day made a difference in buffering some of the emotional demands on these fire fighters. Of interest to EAPs, participation in some form of group counseling (59% of the sample) post-event was unrelated to later developing depression symptoms.

A 2007 study of 241 fire fighters in multiple regions of South Africa also investigated the intersection between job and family stressors.³⁹ Fire fighters who were married had the highest levels of general stress compared to those who were single and divorced. A major stressor for married fire fighters was the frequent shift work schedules

that resulted in long periods of time spent away from the spouse and family. A related consequence was a lack of involvement of the fire fighter in day-to-day parenting of the children and other family functions. The risk for danger and bodily harm on the job to the fire fighters also added to the stress reported by the spouse/partner.

Another study examined the role of fatherhood and parenting role performance among 473 fire fighters who were.⁴⁰ It used data from the 2010 Survey of Fire fighters Work and Family Lives, which included participants from 12 fire departments located in the southern United States, to explore key issues of managing work-family stressors. Results found that greater work-to-family conflict was associated with working long shifts (> 60 hours per week), lack of sleep, and high job stress and that this kind of conflict resulted in higher parenting stress and lower satisfaction with parenting.

A 2014 study collected survey data from 422 full-time fire fighters in two cities in Taiwan.⁴¹ The job strain model characteristics of high job demand and low job control are common to fire fighting work. This high stress combination of factors was related to working long hours and to a lack of autonomy in doing the work. Not having enough time and personal resources to effectively manage both work and family demands contributed to stress. The lack of leisure time activities also was a factor in greater stress among fire fighters. This study was one of the few to discuss the role of the EAP. It suggested that the EAP service would only be effective when the fire station chief really supported the use of EAP counseling and trauma support services by the fire fighters.

The kinds of work-family challenges and coping mechanisms discussed in these articles suggest areas ripe for future research.

Spouses of Fire Fighters

In her review of fire fighter spouse literature available in 1975, Noran relays that characteristics that reduce the effects of stressful life events available to fire fighters included camaraderie with coworkers and positive fire service symbols. However, these work-based factors are unavailable to the spouses and family members challenged by secondary occupational distress experienced by the fire fighter.⁴²

Pfefferbaum and colleagues investigated the effects of the 1995 Oklahoma City bombing on the partners of fire fighters who were involved in responding to the event.⁴³ Results found that 81% of the fire fighters and 52% of the fire fighter's wives reported having one or more bombing-related PTSD symptoms post-incident. In addition, over one-third of the wives reported at least one lasting change in their relationships post-bombing despite little to no exposure and no physical injuries.

Menendez and colleagues conducted a qualitative study with wives of fire fighters who participated in rescue efforts during the terrorist attacks on September 11th, 2001 in the U.S.⁴⁴ They found that these women coped by maintaining patterns of connectedness with other spouses of fire fighters and by attending vigilantly to their family's needs.

A qualitative study by Regehr and colleagues featured the perspectives of the spouses of fire fighters.⁴⁵ Interviews with a dozen wives of fire fighters in the Toronto area confirmed how the shiftwork schedules, the strong connectedness with other fire fighters and emotional distance made it more challenging to provide support to their husbands.

In 1988, Zimmerman and colleagues demonstrated that fire fighters' wives

changed personal health-related behaviors (diet and exercise) when husbands participated in an employee health program.⁴⁶

Hildebrand's 1986 paper presents a self-help program for spouses of workers in stressful jobs. The program offers ways for spouses to learn how to offer social support to their partners that is designed to improve coping with fire service specific stressors (c.f., ASSIST for families).⁴⁷ The report offered no data on the use or effectiveness of the program.

Taken together, these studies document a range of difficulties facing the spouses of fire fighters in the domain of work-family conflicts and job-related stress conditions common to fire service work demands. The data also suggest the potential for indirect benefits to spouses of fire fighters receiving general health training. EAPs could offer educational trainings on coping skills and access to family support direct service practical resources (childcare, eldercare, concierge services) to benefit the spouses of fire fighters.

Volunteer Fire Fighters

Even though most volunteer fire fighters do not have access to EAP services, we included articles pertaining to volunteer fire fighters and families because so little is known about the marriages of fire fighters. Researchers at La Trobe University in Australia have conducted a series of survey-based studies of volunteer fire fighters and their families.^{48,49}

Cowlshaw and colleagues used data from a study of 201 couples with one of the marital partners who was a volunteer rural fire fighter.^{50,51} They concluded that work-family spillover and inter-role conflict have negative effects on volunteers and on the families. Fire fighters had a tendency to socially withdraw from the family after tragic events at work. While this withdrawal may protect the

individual fire fighter, it emotionally taxes their loved ones. Greater withdrawal behavior by the fire fighter was associated with less relationship intimacy between the partners and higher levels of partner distress.

In another study involving interviews with 20 managers of volunteer fire service programs in Australia, the results identified several themes, including: volunteers' difficulty prioritizing family needs ahead of the fire brigade work responsibilities; leaving household and business responsibilities for the family members to perform rather than the fire fighter; a lack of time with family; and interruptions to family routines and activities because of responding to fires.⁵²

These findings lay a foundation for future research and point to areas of possible EAP's service to fire fighter families.

Discussion

Our primary question regarding marital dissolution in fire service via divorce rates was satisfactorily answered through two articles which demonstrated that male fire fighters (who comprise the vast majority of all fire fighters) have divorce rates similar to the national average.

We were also interested in whether or not the marital relationship had a positive impact on job satisfaction, job safety, and overall job success for those working in fire service. But we found little empirical data directly on these questions. However, a useful foundation exists via some of the findings from the data on fire fighter family challenges, spousal coping research, and the family life of volunteer fire fighters.

Finally, we wanted to investigate both the prevalence and efficacy of programs related to

bolstering marriages among workers in fire service. Hardly any research has been conducted in this specific area and so this query also remains unanswered.

The couples literature on other high-risk occupations lends some insight that may be applicable to fire service. For instance, studies of police couples have investigated the effects of occupational stress on marriage and how high-stress days on the job contribute to physiological distress, dyadic communication patterns and satisfaction with the marriage.⁵³⁻⁵⁵ Due to the high stress involved in military occupations, the literature on marriages of military couples also lends itself to comparison with fire fighter couples. Wexler and McGrath studied families separated by military duty and found a number of emotional and physical reactions to prolonged partner separation, including loneliness, insomnia, anxiety, and headaches.⁵⁶

Core aspects of fire service work such as shift work and the firehouse culture make fire fighters distinct from police officers, soldiers, and other types of first responders.^{57,58} Indeed, several recent research-based works exist that review the clinical literature for best practices in providing behavioral health services to meet the unique needs of fighter fighters.⁵⁹⁻⁶⁴ Other advances have been made in providing more effective EAP crisis response services to those working in fire service.^{65,66} However, these works tend to neglect the role of the marital relationship of the employee as a factor in mental health and work-related trauma experiences.

Implications for Future Research

We speculate that the common (but untrue) perception that fire fighter marriages are at greater risk of failure could have a negative effect on the marital experience of fire fighters. A belief that those engaged in high-

risk occupations are doomed to marital failure places fire fighters and spouses in a position in which they may feel their relationships are destined to fail. In addition, the notion that fire fighters are less capable than others at maintaining healthy relationships may create unwarranted stigma against fire service. This stigma may have the potential to deter well-qualified individuals from a career in fire service, or exacerbate relationship problems for fire fighters whose reputation is at stake, as in the event of those dealing with legal issues. Thus, we posit that false stereotypes concerning high divorce rates among fire fighters are potentially injurious to fire fighters and their families. Future research could test the role of committed relationships in fire fighter couples and whether beliefs concerning divorce are detrimental to fire fighters.

Another avenue for research lies in the fire fighter and spouse dyad and the influence that each partner has on the other's mental, emotional, and physical health. According to trends in the literature, a closer look at the relationship of both partners simultaneously may reveal useful differences between husbands and wives.⁵³ For example, see the pair of studies by Roberts and colleagues with police officer couples that collected daily diary data and matched it to physiological stress recordings and behavioral-analysis of video-taped conversations between partners.^{54,55} These studies showed how stress at work influenced patterns of positive and negative communication exchanges between the dyadic partners and their levels of satisfaction with the relationship.

As more women become volunteer and paid fire fighters, attention also is needed for exploring how this kind of work affects their marriages and family life.⁶⁷ The data from the 49 women in the study by Haddock, Jahnke and colleagues suggests a different marital

status profile for women in fire service than for men in fire service.³⁴ Jahnke reflected on some of these sex differences in her 2015 article in *Fire Rescue News*.⁶⁸ Others have recently explored how the heightened masculinity and heroic role characteristics of fire fighting as a profession are impacting the opportunities for women fire fighters to join work in fire service and be successful on the job.^{69,70}

Other gaps exist in the lack of research studies that assess change over time for fire fighters and their families. Although recent articles by Maslow and colleagues, and also by Skeffington and colleagues, focused on PTSD and thus did not fit with the themes of our investigation, we look forward to seeing future studies adopt their use of longitudinal data to study how fire fighter marriages mature and change over time.^{70,71}

The spouses of fire fighters represent an underserved population. By studying the at-home partner in fire fighter marriages in more detail we can gain a deeper understanding of how to reduce stress in fire fighters and in turn, potentially reduce associated health risks and work performance deficits.

The take home messages from our literature review of relevance to the EAP community include: 1) contrary to popular stereotypes, male fire fighters have a rate of divorce similar to other occupations; 2) certain occupationally unique aspects of the fire service lifestyle and working conditions can result in stress-related mental health disorders in fire fighters and this can also negatively impact their spouses; and 3) the gap in the knowledge base about how fire fighters can better cope with work and family demands to sustain their marriages must be addressed.

Notes

1 Fjelstad's 1977 dissertation thesis -- which formed the basis of her 1978 magazine article -- presented two different analyses of divorce issues with data of sample sizes of 61 cases and 90 cases, which cannot both be accurate as there were only 61 fire fighters total in the study.²⁴ The analysis with the 90 cases also is odd in that it included people who were divorced, married, and remarried but excluded single status. It is likely that this analysis mistakenly included most of the 44 women spouses also in survey sample and that is why no "singles" were represented. Thus, this apparent analytical error renders the study's main findings for divorce rate methodologically suspect.

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