We Are Constantly Expected To Disregard Ourselves And Our Personal Needs: Addressing The Daily Stressors Of Private Emergency Medical Services

Erich Jimenez Bonilla

California State University - San Bernardino

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WE ARE CONSTANTLY EXPECTED TO DISREGARD OURSELVES AND OUR PERSONAL NEEDS: ADDRESSING THE DAILY STRESSORS OF PRIVATE EMERGENCY MEDICAL SERVICES

A Thesis
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Public Health

by
Erich Bonilla
June 2019
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Approved by:

Monideepa B. Becerra, Committee Chair, Health Science and Human Ecology
Paulchris Okpala, Committee Member, Health Science and Human Ecology
Sen Padilla, Committee Member, Health Science and Human Ecology
ABSTRACT

Background Private Emergency Medical Services serve a vital role in the community, as such they are subject to job related stress. Currently, there is a limited amount of research related to the stressors related to the job.

Objective The purpose of this study was to define the type of daily stressors faced by Private EMS personnel and investigate how they impact their Sense of Coherence.

Study Design A mixed methods approach was used in this study to obtain the necessary data. Semi-structured ono-on-one interviews were conducted with current employees of an EMS agency that provides 911 service in their area. After the interviews, the participants were administered a survey.

Participants/setting Current EMS employees were invited to participate in an interview, in a location and time of their choosing. Both Paramedics and Emergency Medical Technicians (EMT) were invited to participate.

Results Critical call incidents, while impacting the mental health of EMS provides, it does not impact them with the same magnitude of operational stress. Operational stress originates from the daily task, interactions and availability of resources. Operational stress was demonstrated to have a large impact on Sense of Coherence.

Conclusion Operational stress can have a larger impact on Sense of Coherence of EMS personnel. Research is needed to determine which EMS model helps mitigate the impacts of operational stress on the EMS personnel.
ACKNOWLEDGEMENTS

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CHAPTER ONE
INTRODUCTION

Emergency Medical Services (EMS) can be divided into three different categories: (1) the fire department managed by EMS, which is a part of the services provided by the local government to their community; (2) third service agencies which are similar to but not associated with the fire departments managed by EMS; they are their own separate entity within the local government; and finally, (3) private EMS providers that contract with a county to provide services in exchange for the opportunity to bill their patient’s insurance companies (Zavadsky and Hooten, 2017). Private EMS companies allow EMS services to be provided to a local community without an associated cost to the taxpayers. Private EMS providers have been estimated to provide nearly 50% of all EMS services within the United States and have been contracted with the Federal Emergency Management Agency to provide services in the case of natural disasters (Lauer & Delahousey, 2018). While private EMS personnel provide a vital service to many communities, many times they may be seen as (personal experience) less valuable and less knowledgeable than public serviced based EMS providers, even though they have to meet the same licensing requirements as the public service employees (EMSA, 2018).

Furthermore, several work-related events can add to an EMS staff’s everyday stressors. For example, EMS providers often face hostile environment, such as extreme heat or cold, working on open freeways during an accident,
being on scene of an active crime scene, and even when entering a patient’s house there could be incidences of protective pets, or hoarding conditions (Cabrera, 2013). Even when the environment factors are properly managed there is the potential of having to manage a scene where a patient is having a mental health emergency and is violent, or the family of the patient is being emotional which could lead to confrontation between the EMS personnel and the family. Such stresses are present in the EMS field because of the demands, that arise from the “work related stressors like shift work, scheduling demands and relationship stressors with peers and superiors” (Lamplugh, Jr., 2017). According to Bennett et al, 2005, “organizational stress also seemed to contribute to levels of anxiety and depression more than the stress associated with incidents”.

Private EMS does not usually provide comfort stations, similar to a breakroom for office employees, they can include bathrooms, and areas to heat food, for their employees, instead they post, “the practice of placing an EMT/paramedic unit on a street corner or parking lot to await calls” (Appel et al, 2017), their employees. When posting is coupled with the System Status Management, a dispatching system “in which ambulances are distributed throughout a city according to historical call data. Peak hours and days of the week, as well as geographical areas, determine where an ambulance parks. When a crew goes out on a call, all other units are given new locations in order to maintain coverage” (Brennan and
Krohmer, 2006). Crews are faced with the stress of driving, cramped conditions within the ambulance, and the constant need to be on alert for their safety.

Cumulatively, though limited body of literature exists on the stressors of EMS staff, the empirical evidence nonetheless highlight several work-related stressors and putative relation to well-being. As such, the goal of this study is to explore the types of stressors private EMS providers experience in their daily work life, how that impacts their well-being, especially mental health, and further explore how that impacts their sense of coherence (SOC).

SOC, which was first proposed by Aaron Antonovsky in 1979, is a measure of “the extent to which one has a pervasive, enduring though dynamic, feeling of confidence that one’s environment is predictable and that things will work out as well as can reasonably be expected” (Collingwood, Jane, 2016). An individual’s SOC, reflects a coping capacity of people to deal with everyday life stressors and consists of three elements: comprehensibility, manageability and meaningfulness (Super, Wagemakers, Picavet, Verkooijen, & Koelen, 2016), can impact their feeling of self-worth and make them question why they continue to do any particular thing. According to Antonovsky, “a person with strong SOC is more likely to feel less stress and tension, and to believe that he or she can meet the demands” (Collingwood, 2016) of workplace or life situations, in turn leading to less negative health outcomes. For example, a study conducted by (Apers et al., 2016), demonstrated that people with a high SOC did not experience a lot of stress, as well as Myers and colleagues (2011) noted that patients with high SOC
had more positive health outcomes and suffered fewer depressive symptoms and episodes. Understanding the daily stressors of private EMS providers and the relationship to SOC remains limited in the literature.

**Purpose of Study**

The reason for this study is to begin to expand the knowledge base regarding private EMS personnel's personal feelings of value, their SOC and if the manner in which the communities they serve impact their SOC. This information will be useful in creating future research opportunities and provide data that could be used in the development of future interventions benefiting the mental health of EMS workers.

**Research Questions**

Research question 1) What are the daily stressors private EMS staff face?

1a: What are the physical barriers/burden to well-being EMS staff face in their daily work-related activities? –examples: sitting in the ambulance, no stations, bathrooms, sitting in corner, not eating lunch, etc.

1b: What are the structural barriers/burden to well-being EMS staff face in their daily work-related activities? –examples: demanding job, not having enough staff, not having enough equipment.
1c: How do the daily work-related activities influence EMS staff mental health well-being? OR What is the current state of perceived mental health status among EMS staff due to work-related activities? –examples: all the mental health variables

Research question 2) How does the daily stressors relate to sense of coherence among private EMS staff?

**Significance to Public Health**

Addressing the daily stressors that the EMS staff face and how that impacts their SOC is imperative. By understanding such factors, targeted health education interventions to alleviate the burden of chronic ill health among this population can be implemented. This will in turn may increase the respect the private EMS providers feel they receive which will help to further strengthen their sense of coherence. As members of the community we need to understand that all people that serve the community must be afforded a sense of gratitude and respect and that by judging their worth without regard might impact not just the people they are helping, but the very providers we have come to rely on being there twenty-four hours a day, seven days a week.

This study will help with the mastery of some of the core competencies for the Master of Public Health Degree. Data collection and analysis will expand one’s knowledge on the use of evidence-based approaches to public health. This study also has the potential to influence public policy, because it could be used to
advocate for a political solution to the problem presented. Most importantly, this study will allow one to assess the needs, assets and capacities of private EMS community, so that targeted interventions can be developed and implemented in an attempt to improve the health outcomes of this population.
CHAPTER TWO
LITERATURE REVIEW

An integrative review was conducted to ensure a plethora of study designs could be included due to the limited literature on the topic. A query was run in PubMed/MEDLINE for articles published within the last 5 years, using a combination of the following key words: emergency medical services, perception, satisfaction, compensation, demographics, workplace. Given that there are no studies on sense of coherence among EMS staff, that was not searched for the literature review. The search was conducted between September and October 2018. The search parameters where establish to include the most recent literature and allow for studies conducted in the United States; therefore, articles that had been published in the last 5 years, written in English, and conducted in the United States were chosen. Exclusions were made for editorials and commentaries. Studies that discussed patient care, in hospital care, or interactions between hospital staff and emergency medical service staff were also excluded because they did not provide insight into the topic of research. The query resulted in 17 articles being selected for further analysis, of those 11 were deleted because they did not meet the inclusion criteria. A final six articles (Figure 1) were used for the literature review.
Figure 1 PRISMA guidelines for literature review.
As shown in Table 1, seven studies have been identified that met the inclusion criteria, but after reviewing the articles only six of those articles were included because one of the articles can be considered a supplement to a previous study. Analyzing the six included studies, all can be classified as cross-sectional surveys. The total number of respondents to the surveys equaled 20,077.

The population for the included studies where all nationally certified Emergency Medical Technicians (EMT) and paramedics. Each of these studies had varying sample sizes, and no specific study location was provided, except that they were conducted in the United States. Each of the six studies had different objectives that included: (a) demographics, characteristics, and factors that are related to compensation disparities among EMT-Basics and Paramedics, (b) reasons for leaving EMS, benefits, and staff satisfaction, (c) and the prevalence of workplace incivility, workplace incivility reducing factors, and how these related to workplace culture.
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Table 1 shows the results of each of the six studies
Evaluating the results of the integrative review demonstrates that while a wide variety of topics regarding EMS personnel health have been studied, most of the data analyzed was from a 10-year cross-sectional survey. This survey was not a longitudinal study, therefore allowing for the individual biases of the individuals participating. There was a wide variety of topics that were analyzed, varying from demographics to reason individuals leave this career choice. Two of the six studies included discussed income disparities, whether it was in regard to the different EMS job classification or overall salary when compared to other medical professionals. Finally, there was one study included that discussed hostile work environment and attempted to address some of the workplace culture that could lead to this behavior. While income disparities and a hostile work environment can contribute to individuals leaving this career, these studies did not define the daily stressors faced by private EMS personnel.

While there are no studies on SOC among EMS staff, existing studies have shown the importance of addressing such a variable. For instance, Eriksson et al. conducted a systematic review to assess how SOC is related to health. After evaluating 458 scientific publications and 13 doctoral theses, the authors noted that SOC is substantially related to perceived health, especially mental health. Furthermore, this relationship existed, regardless of race/ethnicity, nationality, study design, age, and sex of participants (Eriksson & Lindström, 2006). Likewise, Eriksson and Lindstrom, in evaluating SOC and its relation to
quality of life noted a strong positive relationship (Eriksson & Lindström, 2007). SOC assessment among EMS staff, however, has yet to be evaluated.

Summary

The systematic analysis of the literature notes that not only is there limited amount of empirical evidence that focuses on EMS staff and their stressors. While no studies to-date have addressed SOC in the EMS staff, existing studies do highlight the need to address SOC. As such, this study plans to not only evaluate daily stressors of EMS staff but also SOC among the population.
CHAPTER THREE

METHODS

Study Design

This was a qualitative study, utilizing one-on-one in depth interviews using semi-structured questions. The results were analyzed using grounded theory approach.

Data Source and Collection

Data for this study was obtained from currently employed private EMS employees. A post interview survey on Sense of Coherence, which was developed by Antonovsky, was administered after the interview process.

Participant Recruitment

A total of 8 interviews were conducted amongst private EMS in the Riverside County area of California. Study participants were chosen as a population of convenience. Interview dates and times were arranged for the convenience of the interviewee. Participants were informed of the voluntary nature of the interview, and verbal consent, along with none identifiable consent forms were obtained prior to the beginning of the interview from all the individuals included in the study.

Interviews were conducted in person at a designated time and location as expressed by the study participants. All interviews were recorded to provide for
future transcription. The interviews were conducted by the study author. Interviews lasted between 18 minutes to 29 minutes. Additional probe questions were asked when clarification of a respondent’s answer was needed. A total of 8 interviews were transcribed verbatim for analysis. Interviews were transcribed in full by the study author, resulting in transcripts between 5 to 9 pages long.

Measures

Semi-structured interview questions were developed to investigate EMS stressors. No demographic questions were included in the interview, to provide anonymity to the study participants.

A SOC survey was also included as part of the interview process. The participants were asked to complete the survey after they had completed the interview.

Data Analysis

Each interview was analyzed in its entirety and independently for emerging themes using an inductive content analysis approach. Themes where identified and a codebook was developed from theses themes. The codebook was reviewed and revised. The final codebook was organized by using an axial coding approach that allowed the combination of similar themes to address the research questions.
Data from the SOC survey was then compiled and analyzed to determine any themes relating EMS stressors and the impact it has on their SOC.

**Ethics**

The study was reviewed and approved by the California State University – San Bernardino Institutional Review Board (Project number IRB-FY2019-120).
CHAPTER FOUR
RESULTS

Private Emergency Medical Service respondents were asked to describe stressors that they face on a daily basis during their work. Open coding resulted in the identification of 9 themes relating to EMS stressors. Using axial coding 9 identified themes were grouped into similar groups resulting in a total of 5 themes to address the research questions. The results demonstrated five major emergent themes: 1) management, 2) resource and structural support, 2) job tasks and physical barriers, 3) mental health variables and associated resources, 4) co-workers. In addition, a self-efficacy themes emerged that is further discussed below. Cumulatively, the emergent central theme was stressors that impact private EMS personnel's sense of coherence.

Management

Management support is critical to the success of any company, their leadership can lead to a productive work environment or one where the employees become disenfranchised which can lead to employee turnover. The responses by the interviewees included one-word responses such as “lack of consistency”, and “management” (when asked what the main stressor associated with the job). The following quotes from the interviewee’s provide further insight into the management related stressors felt by private EMS personnel.
“There is also the lack of support from our management, we’re a number, we’re replaceable it doesn’t matter if I’ve been there 5 minutes or 5 years.”

“He viewed that once you worked for the company more than 2 years, because your wages went up, you actually cost the company more and you were worth less, therefore you were a cancer that plagued the company and brought down the net worth.”

“Well you’re married to a fireman; you should make enough money to where you don’t have to work as much.” Like that’s the rational, not the I should pay my people more, my people are struggling, that is his view, his problem solver… it’s that you should go marry someone who makes more money.”

“I’d put it an 8 out of 10 just based on, what did management change this time and what rule is being enforced now that wasn’t being enforced prior. (nervous laugh)”

“I’ve seen the favoritism in terms of scheduling when I was picking up shifts, that, that, you know, certain folks that are closer to other people in the organization, either by pasted personal relationships or through past partnerships on the job that may get more access to shifts than others. You can almost see who’s going to get the next promotion based on who’s hanging out with the clique that goes to (large musical event)”

“…where you just need a time out and you can’t and shouldn’t be running another call and management is saying “get back to work.” Basically, telling us,
whether they’ve told us or indirectly you’re getting the vibe that they don’t care about us. “I don’t care what you’re going through, you’re a head and a heartbeat, we need you to go make money for us” is how it comes across.”

Structural Support/Resources

Private EMS personnel face many stressors in their daily work, many times, it beings at the beginning of the shift and impacts them throughout their shift. Topics including staffing levels, the availability of equipment, the revolving door policy advocated by the company and private EMS personnel are topics that were discussed during the interviews. Some of the responses given by the interviewee where in the form of single words of thought that included “lack of stations”, “a parking lot or street corner” (when referring to posting locations), “(the unit is) not stocked properly” and being a “hot swap crew” (a crew that takes over an off going crew’s unit, but is expected to be available for a call the moment the unit arrives, no time to restock or check the unit). The following quotations from the respondents serve to illustrate the structural/ resources stressors faced by private EMS personnel.

“Nobody wants to work for us, it’s a really high turnover rate, people use this company as a stepping stone, it’s always been that way, instead of a career.”

“(the) company has been known as a stepping stone, and a revolving door, nobody comes her to stay here”
“But they don’t really appreciate their, uhhh, senior employees, to the point where it’s reflected in their pay. They say this, they say that, but honestly it if you talk to anybody that’s been here more than 8, 10 years, most of the things they’re going to bitch about is not getting paid enough, and it’s not like they want this amazing job where they make 3, I mean 6 figures, but it needs to be something that’s, you know, livable. Most people I believe can’t. I don’t believe that I could afford to provide for a family working here, unless I lived here every day, and worked every day.”

Physical Barriers/Job Tasks

While all interviewees expressed that they are working in private EMS because it provides a rewarding feeling when they get to help those in need. They also, stated that there are occasions that the tasks associated with the job can be a source of stress. When you couple this with the physical barriers, such as access to food, restroom, and the constant barrage of information from their radios, pagers, and mobile dispatch terminal (MDT), a picture begins to emerge that provides an understanding to the physical/job task barriers. The following quotes from the interviewee provide insight into the physical and job task barriers and helps demonstrate how they can impact the private EMS providers stress level.

“Then the actual call there’s stressors right, like are there barriers to your care, is there too many family members, is the patient being combative or
unwilling to, or ummm, or is it something super serious and emotionally going to fuck you up, is it a pediatric full arrest, is it a drowning, you know, there’s just they keep going on and on and then there is the fear of making a mistake.”

“Daily stressors, ummm, for the most part, probably the most stressful thing is dealing with people who are utilizing 911 in a none emergent way. Basically, we call it 911 abuse, whether it’s true abuse or if it’s misinformation because some people are ignorant of what is really going on, they just don’t know, not that they’re stupid, they just don’t know any better. So, we get a lot of call we deem as bullshit, you know, abdominal pain, or a chronic issue, somebody has Crohn’s disease, where they’re always in chronic pain and they use 911 to get pain meds, and get seen in the ER faster or a common cold, right now it’s flu season people are getting the flu, and yes sometimes it can be severe, other times people call 911 because they think it’s a quick fix, and they’ll get instant gratification, I call 911 I’m having an emergency, whoever shows up at my door is going to fix my problem, and they’re going to get me to the hospital as soon as they can, and when I get there the doctors and nurses and everybody is going to beg, or wait on my beck and call, and I’m going to get fixed right away.”

“there’s multiple ambulances out of my station, their called satellite stations, it’s just a few couches, a T.V., a microwave and a bathroom; it’s supposed to be our comfort station if it’s too hot or too cold, or raining, or you know levels are good they post multiple units in there, however most dispatchers like to sprawl us throughout the city to be available, and we end up spending
most our time posting on street corners. So, you’re stuck in the ambulance, not allowed to leave, just kinda sitting there waiting for a call.”

“You are mobile. Ummm, I like to reset my trip B odometer so that every shift I can see how many miles I’ve driven, and I think on average it’s about 140 miles in a 12-hour shift and sometimes you’re just driving in a 5-block radius. So, that’s a lot of miles, really not a 5-block radius, but you know what I mean a relatively small area, but yeah no you… We drove from (street intersection) to (hospital) to bring them back to (street intersections) (approximately 170-mile round trip), and that was just 1 call, but yeah. Ummm, post moves, post moves are brutal, you can get dispatched to one post and in transit be get posted somewhere else or you can get to that post, get comfortable and then you know, another unit gets a call then you’re reassigned.”

“Always on call, we don’t have lunches, we don’t have breaks, we don’t get anything like that.”

“Well yeah, it’s uncomfortable, you’re stuck in this little box, you’re stuck with your partner, you can’t even stretch out your legs, and then you’re worried about food…”

“Oh MY GOSH, depends are you a day crew or a night crew. If you’re a day crew you try and remember which Starbucks or gas station has the cleanest facilities. If you are a night crew… a lot of gas stations close their bathrooms at night either to clean or reduce the traffic of the transient population; so, I have urinated in a parking lot more than once.”
“No, you have a pager that either vibrates or has an audible alarm and you got the radio that, the radio traffic that is all; all traffic that is being dispatched at all times. “

“Well, that’s the catch 22 or the double edge sword is ummm, technically by the book you’re not supposed to, you’re supposed to always be monitoring the radio either in your unit or your HT and always have your pager on and on you”

Mental Health and Access to Resources

Much has been studied about mental health for other first respondent, but little has been studied in terms to private EMS providers. The interviewees were asked to discuss some of the daily mental stressors they face as long as any available resources provided by the company. While some of the mental stressors relate to the type of job they do such as “fear of making a mistake” or having to put yourself second for the benefit of the patient, or the low pay associated with the job; most of the mental stressors arise from the interactions between private EMS providers and their management, and some of the interpersonal interactions between first responder agencies. The following quotes serve to illustrate the wide variety of mental stressors faced by private EMS staff.

“What happens if you make a mistake in the treatment? What happens if you make a mistake as an EMT driving? What happens if you accidently back up into a patient’s vehicle, and then when you pull forward you accidently clip the fire engine? Like, what’s going to happen? Are you going to get in trouble for
that? Do you get reemed on scene, not only by the patient or the fire crew? And then you get back and you get a write up from your employer, like there’s just a lot.”

“We are constantly expected to, you know, disregard ourselves and our personal needs and uhhh, you know, our biological needs at times to conduct the company’s business.”

“... not required but urged to notify our communications department of whether or not we are going to be using the restrooms. Even in doing that, if we’re dispatched to a code-3 (911 call) and we take an excessive amount of time, while using the restroom facilities we’re, you know, held to a… they, they… almost as if they want to reprimand us for that. We’ll be approached supervisors, ummm, interrogated as to why it took so long, we are constantly spoken to about whether or not we notified our communications center before we used the restroom, and management as a whole has this idea, that crews and employees constantly use the excuse of restrooms to try to delay or get out of being dispatched to calls.”

“I can see where people would get frustrated, we don’t get paid very well, we get ran into the ground, we’re exhausted but we keep having to work, we keep having to pick-up shifts because we have bills to pay, cost of living keeps going up, but our wages aren’t matching.”

“On the mental health side, what I’ve noticed is that you are always kept at a higher level of a base stress level. Like you don’t have a place where you can
actually go and relax, like it’s not relaxing sitting in a vehicle for 12-hours a day, like you know, like I said it’s like a long road trip, like a road trip is fun, but there is a higher level of stress, you know, because you are doing something that you are involved, you are not relaxed, you are not able to check out, like even when you are sitting in the ambulance in the parking lot, you don’t know who’s going to walk up to you, …”

“On the flip side of that, there’s this, you know, understanding by the employees that the work we do, requires that of us, but the company seems to really take advantage of that and manipulates their employees”

“You get a lot of flak, fire departments are mad at you, the family members are mad at you, the patients are mad at you; why did you take so long to get here; because I came from (city name) and I’m responding into (different city name) what do you want me to do it takes time to get there, is that my fault, no it’s not my fault.”

Many of the impacted individuals do not necessarily seek mental health assistance because of the stigmatization associated, such as being perceived as weak, or being targeted by the company. Even knowing that they would benefit from any help, they chose to remain silent.

“They don’t want to expose themselves, they don’t want to be labeled or disciplined or stigmatized as having a mental health issue.”

Finally, regarding mental health resources, there seems to be a consensus by the interviewees that the company does not provide enough
resources and the limited mental health resources do not have staff that understands the needs of the private EMS personnel. Here too, the associated quotes serve to illustrate this disassociation between employees and management.

“There’s no actual person that has skills, and they come from the field, usually. At least a lot of the times, when I ask the psychiatrist, do they have any field experience, they don’t. They just came straight out of school and their beginning their career.”

“You know, it’s someone that went to school to become a psychologist or psychiatrist, but they truly don’t understand what we do or experience every day.”

“They are just trying to show that they care and offer resources, but not truly offer us adequate resources.”

Co-workers

On occasion there is the possibility of the interpersonal interactions between partners can create sources of stress within the individuals on a shift. It could be as simple as a personality differences to preset expectations amongst members of the crew. This form of stress can also be felt by an employee when a member of a crew does not have a permanent partner, due to staff shortages, which can open them to working with a multitude of individuals.

“I don’t have a permanent partner so there’s the stressor of am I going to be ALS today, am I going to be BLS today, am I going to have a partner, who’s
my partner going to be, am I going to like this partner, am I not going to like this partner, or is this partner a good paramedic or not a good paramedic, am I going to have to be on my toes today, or can I just do my job.”

Even when working with other agencies these feelings can arise because of the interaction between the crews. Again, this can be because of preset expectations, which can change from fire crew to fire crew, between hospital shifts and even the general public.

“your… people you work around, ahhh, the hospital, ahhh, the public in general, they can treat you like dicks and be assholes to you. You just have to sit there and take it. So, there’s multiple things that can cause stress daily.”

Self-Efficacy

There are individuals within private EMS that have confidence in their ability to manage the daily stressors associated with job, including the any negative fallout of adverse responses, but these individuals are rare or in some cases truly don’t recognize the mental health dangers that can develop from this sense of confidence.

“Absolutely, it’s got nothing to do with the demands of the job, the demands of the job I’m fine. I’m confident in my ability, I’m confident in my partners ability. We’re experienced, we’ve run calls. I can deal with that, I can deal with the fallout of, you know, seeing infants in full arrest, and whether they
make it or not make it, you know. But those aren’t daily stressors, those are occasional stressors, and I know how to deal with those”

Sense of Coherence

Analyzing the results of the post interview survey, allowed us to correlate the impact the above-mentioned stressors had on the interviewee’s sense of coherence. The following were some of the significant results noted: 100% of the respondents felt they are treated unfairly, 88% reported low feelings of self-worth (often or sometime), 75% reported that they rarely or never felt they lacked control, 50% found little meaning to life (often or sometimes), 38% found pain in their daily life. Based on the quantitative results of the survey, self-worth, which relates to the qualitative of not being treated fairly, was low.
CHAPTER FIVE
DISCUSSION

With a rapidly growing and aging population EMS provides a vital interface between the sick and injured people in the field and the stability of the emergency room. Yet, for the service they provide little has been done to address the stressors they face. In this study we were interested in investigating the impact of the stressors they face and the impact these stressors has on their sense of coherence. This was important to comprehend because it allows us to postulate if the providers feel that they have control of their lives or if they are just surviving.

While much has been studied with relation of critical calls and the mental health of EMS providers, it is not until last year with the release of a study from the University of Arizona that provided concrete data that EMS professionals where at higher risk for suicide, 5.2% versus 2.2% amongst the general population (“Journal Watch,” 2019). This information quantifies the need for private EMS companies to facilitate the access to mental health services for their employees and to be proactive in the mental health of their employees.

Aside from stressors associated to critical calls, operational stressors can impact private EMS providers in a greater manner. These stressors can come from management, the lack of resources or the long hours because of the low salaries. This has led to a national shortage of EMTs and Paramedics (“Ambulance services face national paramedic shortage,” n.d.). Without
addressing these stressors to protect this vital career, we will see a public health crisis in out of hospital patient care.

Strengths and Limitations

Strengths. The date provided by the individuals interviewed is one of the strengths of this study because it allows the researcher direct access to the study population. Giving the study participants the choice of time and location of their interview, allowed them to select a location they were comfortable which produce more candid information.

Limitations. This study did have some limitations that future studies should attempt to address. The limited sample size could produce bias within the data provided. Bias could also be the result of obtaining the data from one operation and company. Finally, since the participants selected volunteered to be interview, there is the potential that the individuals chose to participate because of personal biases.

Recommendations for Research and Practice

Research Recommendations. Private EMS providers face many health issues, ranging from mental health disorders, such as PTSD, to higher incidences of substance abuse and suicides. While there is some research into the impact critical calls have on a provider, much needs to be investigated into
the operational stressors and their impact on the private EMS professional's health and employee retention. There is also a need to conduct further studies to investigate which model of EMS service would help mitigate the operational stress of private EMS.

**Practice Recommendations.** In an attempt to improve both the physical and mental health of private EMS providers we need to continue to address some of the issues identified by the interviewees such as providing better access to mental health resources, access to stations where they can disengage from the constant influx of information, and by creating access to restrooms, which could be accomplished by partnering with local community business and government facilities.

**Conclusion**

Private EMS professionals provide a vital service to the community they serve. Through the course of their career they will face many stressful situations relating to their line of work, but as noted in the data provided most of the stress the private EMS providers are subjected to comes from operational procedures and management. Addressing these stressors along with providing a livable wage, which could provide a work/life balance, would help improve the stressors faced by private EMS professionals and help increase employee retention, which could help alleviate the national EMT and paramedic shortage.
APPENDIX A

INTERVIEW QUESTIONS
1) How many hours do you usually work in a week?

2) What are some daily stressors you face as an EMS staff member?

3) Do you feel valued as an EMS staff? Why or why not?
APPENDIX B

CONSENT FORM
Consent Form
EMS support assessment

You are invited to participate in a study concerning the support that EMS staff feel they need. This study is being conducted by and Mondeeppa Bhattacharya Becerra, DrPH, MPH, CHES (Faculty Researcher) and Erin Bonilla (Student Researcher) from the Department of Health Science and Human Ecology at CSUSB. This study has been approved by the Institutional Review Board of CSUSB.

Purpose:

The purpose of this project is to assess what do EMS staff experience as daily stressors and thus the needs that they may have.

Procedure:

You will be asked a few questions verbally and your responses will be recorded digitally and deleted once transcribed. You will then be asked to fill out a short survey of 13 questions. The whole procedure will take 1 hour.

Risks and Benefits:

Very few studies exist on the needs of EMS and none to date have addressed SOC. This study will benefit the field to provide the foundation for more targeted programs. Some of you may feel uncomfortable sharing your daily stressors. If you do feel uncomfortable, you are free to leave the study at any point.

Confidentiality:

No names will be collected. All data will be saved in a password protected computer at CSUSB and data will only be presented in summary format. To protect your privacy, the study will only do one-on-one interviews and no information about name of employer will be collected.

Right to Refuse:

Your participation is voluntary. Your withdrawal will not impact your work. You can refuse to answer any question or request any of your answers not be included in our final report.
If you have additional questions please contact Monideepa B. Becerra, DrPH, MPH, CHES mbecerra@csusb.edu or 909-537-5969 (faculty researcher).

I have carefully read and/or I have had the terms used in this consent form and their significance explained to me. By checking below, I agree that I am at least 18 years of age and agree to participate in this project.

[ ] I agree to participate and am at least 18 years of age.
APPENDIX C

COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE TRAINING CERTIFICATE
CITI

Collaborative Institutional Training Initiative

California State University, San Bernardino

Record ID: 22113469
Expiration Date: 29-Jan-2021
Completion Date: 29-Jan-2017

Under requirements set by:

1. Basic Course
   Biomedical Research Investigators and Key Personnel
   Human Research

Has completed the following CITI Program course:

Ethel Bonilla

This is to certify that:
APPENDIX D

INSTITUTIONAL REVIEW BOARD APPROVAL FORM

mgillesp@csusb.edu

Thu 1/24/2019 11:37 AM

To: Monideepa Becerra <mbecerra@csusb.edu>

January 24, 2019

CSUSB INSTITUTIONAL REVIEW BOARD
Expedited Review
IRB-FY2019-120
Status: Approved

Prof. Monideepa Becerra
CNS - Health Science
California State University, San Bernardino
5500 University Parkway
San Bernardino, California 92407

Dear Prof. Monideepa Becerra:

Your application to use human subjects, titled “EMS support assessment” has been reviewed and approved by the Institutional Review Board (IRB). The informed consent document you submitted is the official version for your study and cannot be changed without prior IRB approval. A change in your informed consent (no matter how minor the change) requires resubmission of your protocol as amended using the IRB Cayuse system protocol change form.

Your application is approved for one year from January 24, 2019 through January 24, 2020.

Please note the Cayuse IRB system will notify you when your protocol is up for renewal and ensure you file it before your protocol study end date.

Your responsibilities as the researcher/investigator reporting to the IRB Committee include the following four requirements as mandated by the Code of Federal Regulations 45 CFR 46 listed below. Please note that the protocol change form and renewal form are located on the IRB website under the forms menu. Failure to notify the IRB of the above may result in disciplinary action. You are required to keep copies of the informed consent forms and data for at least three years.

https://outlook.office.com/owa/itemid=AAKADMxU3FkNTA3L2ZmM...enmodal=ReadMessageItem&isPrintView=1&sid=36&isooout=1&path=
You are required to notify the IRB of the following by submitting the appropriate form (modification, unanticipated/adverse event, renewal, study closure) through the online Cayuse IRB Submission System.

1. If you need to make any changes/modifications to your protocol submit a modification form as the IRB must review all changes before implementing in your study to ensure the degree of risk has not changed.
2. If any unanticipated adverse events are experienced by subjects during your research study or project.
3. If your study has not been completed submit a renewal to the IRB.
4. If you are no longer conducting the study or project submit a study closure.

Please ensure your CITI Human Subjects Training is kept up-to-date and current throughout the study.

The CSUSB IRB has not evaluated your proposal for scientific merit, except to weigh the risk to the human participants and the aspects of the proposal related to potential risk and benefit. This approval notice does not replace any departmental or additional approvals which may be required. If you have any questions regarding the IRB decision, please contact Michael Gillespie, the IRB Compliance Officer. Mr. Michael Gillespie can be reached by phone at (909) 537-7588, by fax at (909) 537-7028, or by email at mgillesp@csusb.edu. Please include your application approval identification number (listed at the top) in all correspondence.

Best of luck with your research.

Sincerely,

Donna Garcia

Donna Garcia, Ph.D., IRB Chair
CSUSB Institutional Review Board

DG/MG
REFERENCES


