Investigating Impact of Mental Health Bias in Emergency Medical Services on Patients

Kingsley C. Czermerys, M.S.

Warner School of Education, University of Rochester

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Correspondence should be addressed to Kingsley Czermerys, Warner School of Education, University of Rochester, 500 Wilson Blvd, Rochester, NY 14627 United States. Email: kczermer@u.Rochester.edu.

Abstract

Emergency Medical Services (EMS) play a critical role in providing care to individuals, and have increasingly become more involved in providing pre-hospital care in psychiatric crises (Prener & Lincoln, 2015). However, recent research has indicated the presence of negative attitudes and biases among EMS personnel toward individuals with mental health conditions (Prener & Lincoln, 2015; Haugen et al, 2017) . By examining the literature, there is suitable evidence that EMS mental health bias may impact care of their psychiatric patients, and that there are several factors, such as education, that can help decrease the experience of stigma. Through providing education, social connections, and addressing EMS culture around mental health bias may be effective in decreasing the effects on patient treatment outcome.

Keywords: Emergency Medical Services, Mental Health Bias, Improvement to Treatment Outcomes, Psychiatric crises.

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Emergency Medical Services (EMS) play a critical role in providing care to individuals, and have increasingly become more involved in providing pre-hospital care in psychiatric crises (Prener & Lincoln, 2015). However, recent research has indicated the presence of negative attitudes and biases among EMS personnel toward individuals with mental health conditions (Prener & Lincoln, 2015; Haugen et al, 2017) . Research in this area has largely focused on the impact this has for EMS personnel's help-seeking behaviors (Haugen et al, 2017; Krakauer et al, 2020). The research in these areas has corroborated the idea that mental health bias is not only prevalent within the general population, but the EMS and other healthcare personnel populations as well. However, there has been little research into how this may also have profound consequences for psychiatric patients' treatment outcomes during crises. Previous studies have examined mental health bias among EMS personnel and its effects on their access to care (Haugen et al, 2017; Krakauer et al, 2020), and found that the level of stigma possessed by these populations is associated with a decrease in mental health service use by the population. Additionally, research in other medical professions has demonstrated that negative attitudes toward mental health can lead to adverse outcomes for psychiatric patients (Clarke et al, 2014; FitzGerald et al, 2022; Hallyburton, & Allison-Jones, 2023; Schauman et al, 2019).

While much of these findings seem bleak, there has also been a substantial contribution around other factors that help to mitigate the impact of stigma on mental health. There is evidence that the employer environment or attitudes, unbiased education on mental health, and caring behaviors all help to mitigate the effect of mental health bias in other health professions (Maranzan, 2016; McIntosh, 2023a; McIntosh, 2023b; Smith et al, 2023; Thornicroft et al, 2023)

Despite having a decent understanding of mental health stigma, its consequences, and ways to decrease these experiences, there continues to be a gap in understanding how EMS mental health bias specifically impacts patient care and outcomes. With increasing rates of utilization of EMS for psychiatric emergencies (Prener and Lincoln, 2015), this could be a major oversight when it comes to attempting to improve patient care and treatment outcomes for psychiatric crises. By highlighting the impact of EMS bias on psychiatric patient outcomes, there is a hope to provide an understanding of the patient care aspects that mental health stigma impacts, as well as contribute to policies aimed at improving EMS personnel's education on psychiatric emergencies and reducing overall bias in mental health care.

The Impact of Mental Health Stigma

Implicit bias and stigma related to mental health have been areas of research for a while, though there has been more of a cross-over into clinical spaces in recent years when investigating its impact on treatment, engagement with treatment, and barriers to services. Schlier & Lincoln (2019) found there was a moderate to large effect size when it came to implicit bias related to mental illness, providing information suggesting a relatively consistent experience of mental illness-related bias in the population. A study conducted by Schauman et al (2019) also looked to explore mental illness stigma, though wanted a clearer picture on how this impacts wellbeing. Through this research, Shauman et al (2019) found there was a correlation between higher levels of discrimination and lowered wellbeing, and found the correlation was present also with anticipated discrimination. This is an important factor to consider- not only does experienced discrimination contribute to lowered wellbeing, but the anticipation of discrimination can as well. Each of these factors were independently associated with lowered wellbeing and internalized stigma. This suggests that patients seeking psychiatric services more

than likely have experienced some level of discrimination in their life due to mental health stigma, and may also be more likely to anticipate discrimination due to past experiences of it. Additionally, this may factor into experiences of lowered wellbeing, continuing to complicate the experience of the psychiatric illness they have. While largely these studies specifically have been around the general experience of mental health stigma, this does still imply that there would be stigma experience in emergency-related professions.

Mental Health Stigma in Healthcare

Since the enactment of the Affordable Care Act, the percentage of psychiatric-related emergencies that presented to the ED rose from 6.6% in 2007 to 10.9% in 2016 (Theriault et al, 2020). This is a significant increase over the past decade, and provides an understanding that there are increasing psychiatric emergencies being treated within an emergency medicine context. To explore the impact of stigma within this context, a study by Clarke et al (2014) aimed to identify the attitudes exhibited by ED staff towards patients with mental health concerns through a thematic analysis. There were four themes that were found throughout the literature, which specifically discussed consumer perspectives, staff-reported attitudes, environmental experience of the ED, and interventions that had been used to evaluate changes to attitude. Within these themes, there was evidence towards negative experiences of those with mental health disorders in the ED due to attitudes the staff had presented with, and stigma-related concerns with mental illness. Additionally, a study by Hallyburton & Allison-Jones (2023) explored the misattribution of physical symptoms to psychiatric disorders in physical healthcare settings, and found themes of stigmatization, diagnostic overshadowing, incomplete examination, inadequate training, and fears experienced by both providers and patients. These findings suggest that without careful education or understanding about mental health stigma,

providers could be missing valuable information towards physical health issues and sending patients more appropriate for physical health treatment to psychiatric service providers. In and of itself, the response of physical health providers could be increasing unnecessary strain on the mental health professions by referring patients who have unresolved physical health issues. This also shows a consistent experience of mental health stigma within emergent and non-emergent contexts, as well as a connection to decreased efficacy in patient care due to the experience of mental health stigma.

FitzGerald et al (2022) explored a similar phenomenon, though through the lens of how experience and knowledge moderate the experience of stigma. The findings of this study showed that psychiatrists showed substantially less bias towards mental illness versus physical illness than internists, and held warmer explicit feelings towards those with mental illness. There was also supporting data that those with more experience held warmer explicit feelings towards those with mental illness than those with less experience. This research helps to provide a glimpse into the idea that education can help to mitigate the experience of stigma, or at the very least decrease the explicit negative feelings towards those with mental illnesses, which would support positive patient care. Along a similar line, Mårtensson, Jacobsson, & Engström (2014) explored factors that contributed to nurses' attitudes towards mental illness, aiming to understand how to combat some of these attitudes and the effects they may cause. In this study, it was found that stigma-related knowledge and the attitude of the employer had a significant correlation with the attitudes nurses held towards those with mental illness. Following a linear generalized estimating equation, personal contact with a person with mental illness was another contributing aspect towards the attitudes nurses possessed. Based on the findings of both FitzGerald et al (2022) and Mårtensson et al (2014), there is both reason to believe that negative attitudes, biases, and stigma

do have a substantial effect and presence in healthcare settings, and provides more insight into some areas that can affect the experience of stigma for better or worse- employer subculture and increased unbiased knowledge on mental illness.

Mental Health Stigma in Frontline Professions

In exploring how mental health stigma is experienced within the EMS population, Haugen et al (2017) conducted a study aimed to determine barriers to treatment and stigma associated with mental health and its impacts on the first responder population. The researchers utilized 12 different studies for the meta-analysis, and found that 33% of first responders endorsed stigma-related beliefs of mental health, and 9.3% endorsed barriers to treatment. Based on these findings, Haugen et al (2017) made the conclusion that a significant portion of the first responder community holds stigmatizing beliefs on mental health, which in turn impacts their engagement with mental healthcare. Krakauer et al (2020) conducted a study with similar aims, though targeted multiple facets of the public safety personnel label. Krakauer et al (2020) found that there were significant differences between the different public safety personnel, though that there was a correlation between higher stigma experience, lowered willingness to seek support, and less knowledge on mental health. This study provided helpful information around stigma experience within the first responder community, as well as discussing the mediating factors that education has on mental health stigma.

The only study that was able to be found for this literature review that directly addresses attitudes of EMS around psychiatric calls was conducted by Prener et al (2015). This study was conducted by observational data collection as well as with an interview in a private EMS service in a busy metropolitan area, aiming to explore the feelings in EMS around the increasing psychiatric-related emergency calls within recent years. Providers described their understanding

of the ways people with mental health or substance use disorders engage with the system, largely describing their engagement as "abuse" of the system. This study found that the vast majority of EMS believe that "psych calls", as they are referred to commonly, were not real emergencies, were not part of their job, and experience frustration as they believe these patients are not utilizing EMS services appropriately. This frustration was also found to increase the stigma against mental health issues. The biggest issue found is that EMS have very little knowledge when it comes to psychiatric emergencies, and often are left to fill in the gaps that the current health system is not capable of dealing with. Additionally, it was found that training for EMS often does not coincide with what everyday life as EMS will bring. For example, there is minimal time spent on how to help people with psychiatric emergencies and a large amount of time on how to handle massive crises such as a mass casualty incident (MCI). That being said, EMS personnel are far more likely to experience a psychiatric emergency than an MCI. While undoubtedly not every EMS personnel is prejudiced towards every patient with a psychiatric chief complaint, this does not fully exonerate the total impact of perpetuation of the bias.The attitudes and language described in this study continues to support the notion that EMS experiences a strong level of mental health stigma, backed by the studies of Haugen et al (2017) and Krakauer et al (2020). There is also an implication that can be made that their attitudes could have an effect on patient care, when exploring how this has been seen in other medical professions (Clarke et al, 2014; FitzGerald et al, 2022; Hallyburton & Allison-Jones, 2023). When considering all of this information in conjunction with the understanding that mental health stigma, both perceived and experienced, can contribute to decreased wellbeing (Schauman et al, 2019; Schlier & Lincoln, 2019), it logically follows that the mental health stigma experienced within the EMS population would have a negative impact on patient care, patient

outcomes, and overall wellbeing both within the patient population and the EMS population itself.

Ameliorating Mental Health Stigma

While it is important to address the issues and presence of mental health stigma in EMS, there is still the question of what comes next in terms of how this gets addressed. Smith et al (2023) explored this idea through assessing whether pre-clinical education in psychiatry mitigates mental health bias in medical students. To assess this, Smith et al (2023) utilized surveys on mental health bias both pre-clinical education in psychiatry and post education. Post intervention results of the bias measures were significant and lower than the pre-intervention bias reports, which supported the original hypothesis that more education does decrease the experience of mental illness bias. This also supports the theory that increasing education in mental health, specifically unbiased education, is an intervention that is helpful in decreasing the experience of mental health bias. Smith et al (2023) discussed this implication as supporting the need for education in psychiatry in medical school. What is important to note in this study is that, despite the lowered bias following the intervention, there was still a high level of bias in the medical student population. This ties in with the previously explored literature from Clarke et al (2014), Fitzgerald et al (2022), and Hallyburton & Jones (2023), supporting the notion that there is a significantly high level of mental health bias experienced in healthcare professions.

Smith et al (2023) provides helpful information on how education moderates stigma, though it is important to note that most EMS personnel only require a high school degree and typically have less than 500 hours of training- substantially less than psychiatrists or internists. Within this training, New York State requirements and competencies for EMT-Bs, AEMTs, AEMT-Critical Care, and Paramedics do not require any education on psychiatric emergencies

(Bureau of Emergency Medical Services and Trauma Systems, 2023). There is reference to providing psychological support and communication skills, however this does not get extended upon to include suicide intervention skills, crisis intervention skills, or trauma-informed support. Additionally, there is no formal training provided in the standard curriculum to teach EMS personnel how to provide verbal psychological support. What training there is in EMS for psychological emergencies are largely based on behavioral crises that escalate to violence, which limits EMS exposure to more neutral views of patients with psychiatric crises. As an example of this, as referenced in the Collaborative Advanced Life Support Adult and Pediatric Care Protocol (Bureau of Emergency Services and Trauma Systems, 2023), the level of care recommended for a behavioral emergency is advanced, due to the interventions largely requiring intravenous or intramuscular injections of a sedative, which is only able to be done by a paramedic. The sedation recommendations are midazolam, haloperidol, and Ketamine, the latter of which has an addendum that states "consider initial dose of 250mg IM for the appropriate patient". This is not expanded upon, thus it is unclear based on the protocols themselves what would constitute the "appropriate" patient, outside of the specification of a behavioral emergency as a patient who is most likely not able to be de-escalated verbally and may become dangerous..

This would suggest minimal knowledge of how to engage in psychiatric emergencies, especially in which the patient is non-combative, which would leave EMS personnel at particular risk for developing harmful prejudices against those with mental illnesses. On a competency level, this places EMS in a vulnerable situation when attempting to properly handle a psychiatric emergency due to lack of training in supportive techniques. Maranzan (2016) continued to explore the effect of education on decreasing mental health stigma through the interprofessional education (IPE) model. Through exploring the framework of IPE, there was evidence towards

opportunities within the model of how it could be used to address mental health stigma. The IPE model supports various areas supported in research towards mitigating mental health stigma, such as social contact and knowledge basis. This helps to provide a potential framework in how to educate on mental health stigma, and may be more applicable because of the interprofessional aspect, which allows for existing professionals to help educate, rather than requiring a specific training in an intervention.

Continuing with the exploration of the role of education, Thornicroft et al (2016) investigated data on interventions on mental health-related stigma and their effectiveness within the population. The interventions explored were not only education related, but group level interventions and social contact-related interventions, which helps open the focus to not only education-related interventions, but others that may be more applicable in the EMS population. Thornicroft et al (2016) found that there were consistent findings in the literature that there is short-term improvement on stigma with intervention. There were some group-level anti-stigma interventions that were shown to be effective, warranting future exploration into the effects, as well as longer term effects on stigma. Lastly, there was some evidence towards social contact-based interventions showing improvement on stigma, though there was less of an increase of knowledge with this intervention when compared to the former two. Beyond this, social contact seemed to be one of the most supported interventions in decreasing stigma in the short term. While these findings are supportive of several ways of addressing stigma at least in the short term, there continues to be a lack of research into what can help a more lasting effect on decreasing stigma. Additionally, it is unclear on the effects on the user by the stigma experience, which does pose some limitations to exploring these interventions in the context of improving patient care through mitigating stigma.

When looking at ways of mitigating bias and effect on patient care, McIntosh (2023) explored in two different studies the effect of mental health stigma on caring behaviors in emergency nurses. In the primary study, McIntosh (2023a) explored nurse attitudes towards patients with mental illness, and the effect of bias on their caring behaviors. This study found that caring behaviors and stigma held a significant weak inverse relationship, showing that stigma did have a negative impact on caring behaviors. Education and age had a significant inverse relationship to caring behaviors as well, continuing to support the findings of FitzGerald et al (2022) and Smith et al (2023) mentioned earlier. Based on the findings, there was a connection to lessening bias in emergency nurses to support positive patient care. Continuing to explore the situations leading to the weak inverse relationship between stigma and caring behaviors, McIntosh (2023b) sought to understand this effect better, as it was not correlated in the way originally expected, and generally did not fully align with previous research into stigma's effect on patient care. The second study, utilizing the data collected from the first, explored the relationships between emergency nurses' perceptions of stigma, attribution bias, caring behaviors, and individualized care towards people with mental illness. Stigma and attribution bias had significant inverse relationships with individualized care, which was expected based on previous research. However, caring behaviors had a significant relationship with individualized care, and held a more significant impact on individualized care than stigma or attribution bias. This helped to explain the weakened correlation between stigma and caring behaviors in the primary study, as the effect that caring behaviors had on individualized care was stronger than the effect that stigma had. With this finding, there begins to be a path towards mitigating stigma through something other than education, social contact, or other intervention,

and instead focuses on cultural aspects of different professions that can be supported in mitigating bias.

Conclusion

Based on the research, there is a good logical basis to assert that EMS mental health bias does impact patient care and that this would have great implications for both the psychiatric patient population, as well as EMS populations and legislature surrounding practice. Around 33% percent of behavioral health-related visits to the emergency department were transported by EMS, which is higher than physical or other medical-related utilization of EMS (Prener et al, 2015). This implies that a significant portion of EMS calls are psychiatric in nature, and therefore at least 33% of patients reporting to the emergency room would have had contact with EMS during their crisis. Currently, there is a push towards decreasing emergent psychiatric crises, and if there is an impact of bias on those treatment outcomes, decreasing bias in EMS could be an effective method for supporting psychiatric treatment overall. Additionally, first responders are often the first contact of those in a psychiatric crisis, and improving treatment at this level may improve treatment prognosis for psychiatric patients, and decrease readmission rates due to psychiatric emergencies. This would decrease the strain on the emergency department, and in turn emergency services, as they would be less likely to have to respond to the same patient multiple times in crisis. There is evidence towards education mitigating stigma in mental health settings (Krakauer et al, 2020; Maranzan, 2016), which provides a clear pathway towards improving patient care and wellbeing in this context. As explored by studies by Smith et al, 2023 and Thornicroft et al, 2016, improving unbiased education on mental health, agency attitudes on mental health, and creating community between EMS and people affected by mental illness will likely improve these disparity, and support the increase of positive patient

outcomes. Additionally, by improving on psychiatric education of EMS personnel, providing training in suicide and other psychiatric emergencies, and giving clear parameters of how to respond in one of these situations, emergent psychiatric patients may experience a decrease in severity of their symptoms, and may recover faster. A coincidental, but equally important shift may be that EMS personnel themselves may experience a decrease in stigma towards selves, which would allow them to be more likely to engage in their own psychiatric treatment; something that has been a topic of research and concern (Haugen et al, 2017; Krakauer et al, 2020). Overall, by connecting the impact of mental health stigma, stigma within the healthcare and frontline professions, and the ways of mitigating stigma, there is a clearer understanding of how to help improve patient outcomes in the emergent psychiatric population.

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