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Service Utilization & Death among Individuals with Incarceration Histories

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ABSTRACT

Background: Individuals releasing from prison have a higher death rate than the general population. Few studies have explored pre-incarceration service utilization and health among those who die after prison. This paper fills the gap by exploring service usage and health trends among individuals who died and those who survived.

Methods: Baseline data were drawn from individuals enrolled in a reentry intervention trial. Researchers captured service utilization, well-being, and health constructs. Analyses explored frequency distributions and bivariate comparisons of individuals who died to survivors.

Results: Individuals who died had lower emotional well-being and health, and higher rates of mood disorders. Those who died received more mental health services yet reported a lower need for services compared to those who survived. Despite having higher rates of substance misuse, individuals who died identified a lower need for substance use disorder treatment and had lower rates of treatment engagement.

Conclusions: Reentry is a high-risk time for death as individuals leaving incarceration often have poorer overall health. Service utilization patterns may be important in protecting against death during reentry. Improving linkages to services during and after incarceration may reduce death rates among those who have been incarcerated and this association should be researched further.

INTRODUCTION

An unacceptable number of people released from prison are dying during the reentry period, particularly soon after release, and especially compared to the death rates of non-incarcerated populations. The high mortality rate for individuals with incarceration histories is an important public health concern. Individuals with incarceration histories are 12-13 times more likely to die within the first two weeks of release from prison compared to those without incarceration histories.[1] All-cause mortality after release from prison ranges from 720 to 2,054 per 100,000 person-years[1] across studies.[2] This elevated death rate potentially indicates limited access to services throughout incarcerated individuals' lives (i.e., prior to and during incarceration) that may increase the likelihood of death post-release.

In prior research, behavioral health factors and poor physical health (e.g., high rates of chronic health conditions, accidents, overdose, and suicide) significantly impact the rates of early mortality among individuals with incarceration histories.[1,3-7] Research on factors preceding mortality during reentry is necessary to identify who is most at risk for mortality and to begin developing effective policies and practices to reduce the likelihood of mortality during reentry. A relationship between service receipt and mortality has begun to be explored as a confounding variable to the experience of mortality during reentry among those with substance use and violence-related mortality.[5] Yet, to our knowledge, studies have not explored differences among service utilization patterns between formerly incarcerated individuals who died after release compared to those who did not.

Further, literature to date fails to explore the role of perceived need for service utilization among those who died during reentry and those who did not, as well as there is a dearth of information on deceased individuals' histories of physical and behavioral health. This short report fills this gap by comparing service utilization, physical health, and behavioral health prior

1.Person-years is the calculation that accounts for both the number of individuals in a study and the amount of time each individual spends in the study.

to incarceration between participants who died during the reentry period (six months pre-release and within 18 months post-release) and participants that survived. Implications from this work could improve the current model for assessment of those most at risk of mortality during reentry, as well as increase awareness and practical implications for service provision that employs continuity of care for this highly vulnerable population.

METHODS

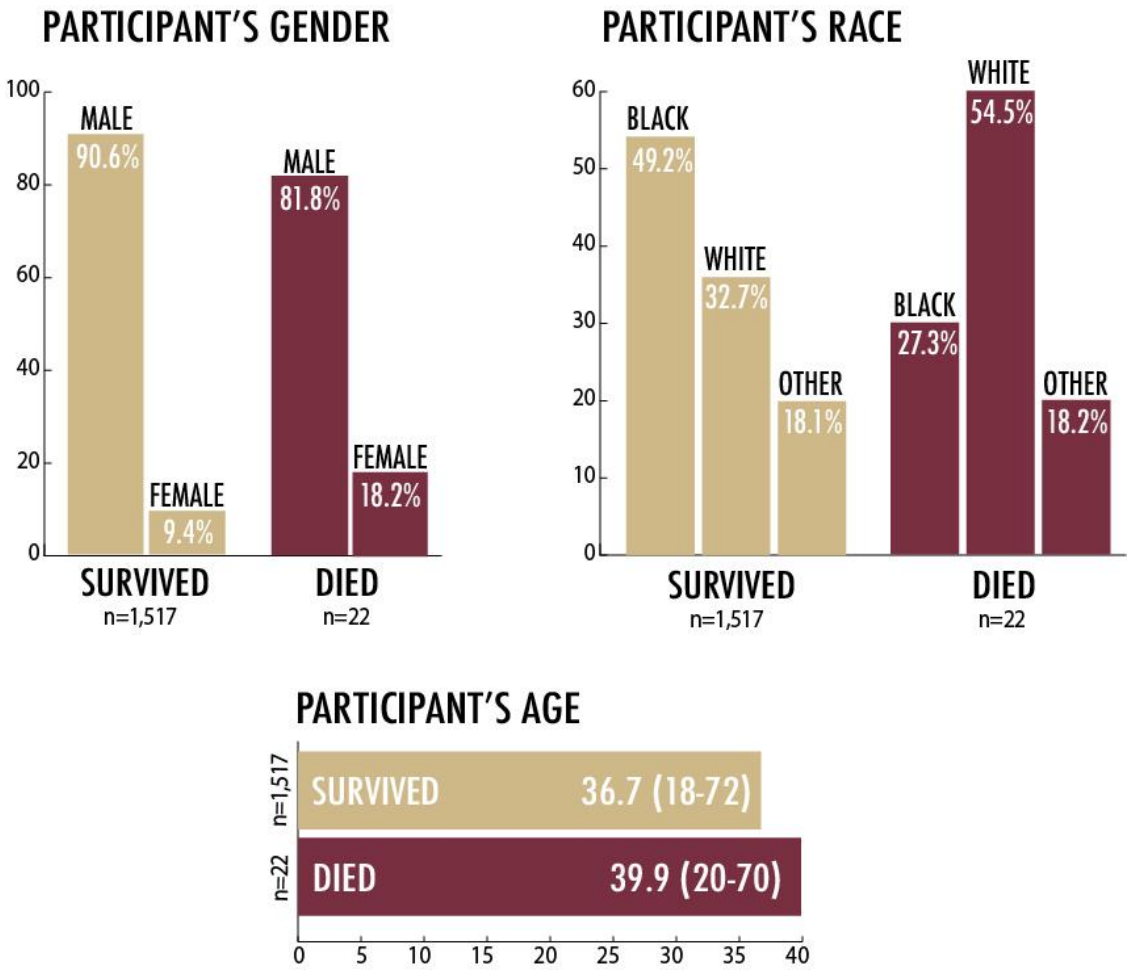
Data were drawn from 1,539 men and women enrolled in a randomized controlled trial of a behavioral health reentry intervention in four states. All individuals were at least 18 years old, scheduled to be released within six months, cognitively able to understand what study participation entailed, and anticipated releasing to participating counties. Potential participants were not excluded based on criminal charges. Human subjects research approval was granted from [University] Institutional Review Board.

Baseline data (collected six months pre-release) assessed all participants' perceived service needs and service utilization, emotional well-being, overall health, mental health, and lifetime traumatic experiences. Death data were collected after consent into the study and up to 18 months post-release. Perceived mental health and substance use service needs and service utilization were assessed using an adapted version of the *Service Assessment for Children/Adults* (SACA).[8] Emotional well-being and health-related quality of life were captured using the *RAND 36-Item Health Survey*.[9] Mental health constructs (e.g., major depressive disorder, generalized anxiety disorders, and substance use disorder) were measured using the *MINI Neuropsychiatric Interview* (k=.69-.84).[10] Lifetime traumatic experiences were assessed using the *Trauma History Questionnaire*.[11] Death data were collected from family, media, and official records. Analyses explored frequency distributions to examine characteristics of those who died using STATA 15.

RESULTS

Twenty-two individuals in the sample (1.4%) died by 18 months post-release – three of which occurred while they were still incarcerated. Of the 19 participants who died post-release, the average number of days to death was 267 (Range: 1-547 days).

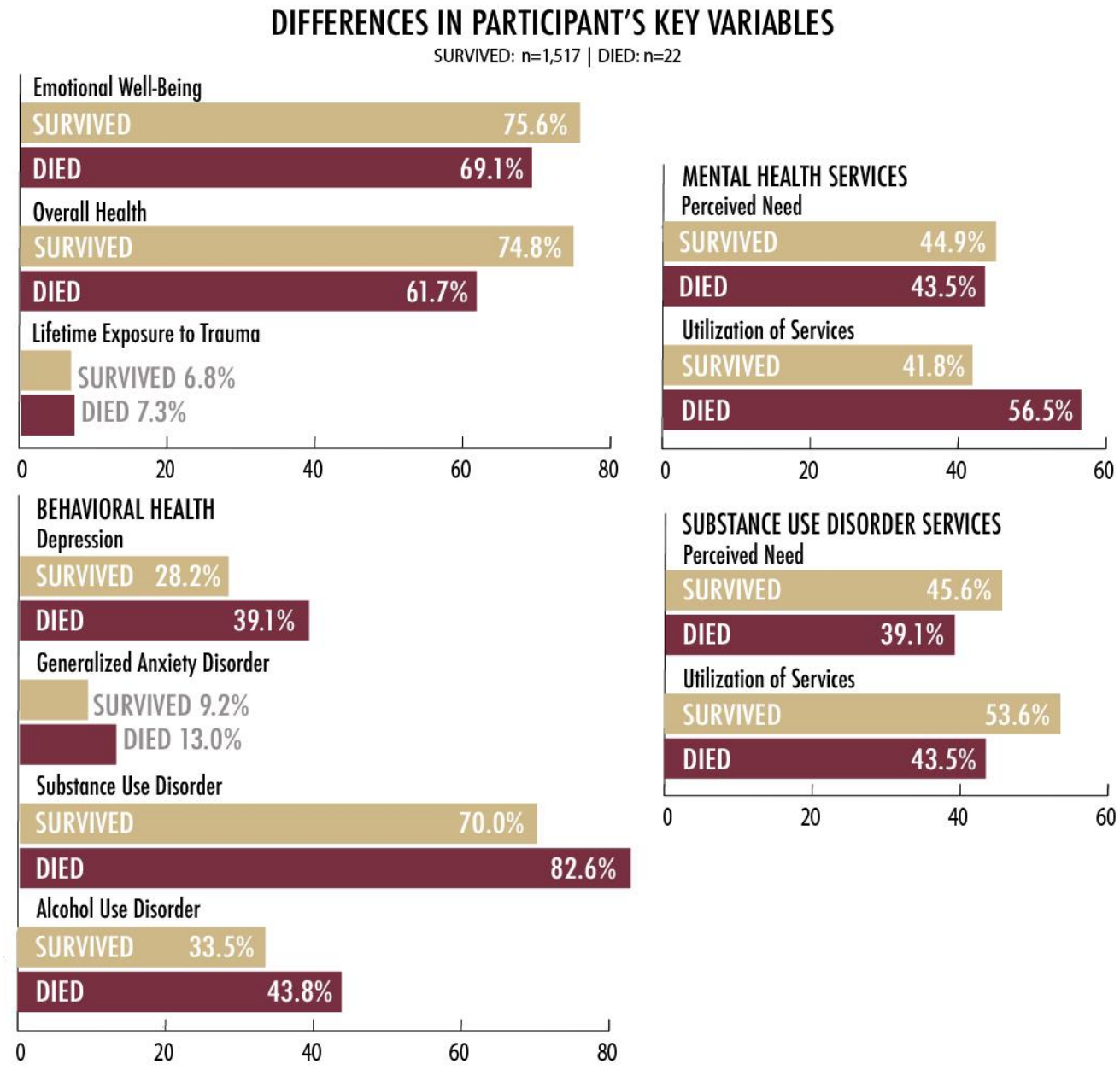
Table I. *Study sample descriptive statistics*



Using baseline data which represents experiences prior to and during incarceration, analyses compared study participants who died to those who survived. A higher percentage of individuals who died met the criteria for depression (39.13% vs. 28.23%) and generalized anxiety disorder (13.04% vs. 9.23%), demonstrated higher rates of drug use disorder (82.61% vs. 70.00%) and alcohol use disorder (43.84% vs 33.51%), compared to those who survived.

Moreover, those who died reported worse emotional well-being and overall health at time of baseline data collection. Slightly fewer individuals who died identified a perceived need for mental health services (43.48% vs. 44.99%), yet they reported higher mental health service utilization than their counterparts (56.52% vs. 41.79%). Despite having higher rates of substance use disorders, individuals who died had lower rates of substance use treatment engagement (43.47% vs. 53.57%).

Table II. *Differences in key variables of interest by those who survived and those who died*



DISCUSSION

Little is known about how an individual's past service utilization pattern impacts the likelihood of mortality. The current study suggests serious consideration be given to prevention practices that target individuals near reentry based one patterns of previous service utilization and behavioral health needs. For example, lower rates of substance use treatment utilization prior to incarceration may suggest targeted intervention during incarceration. The incarceration period could serve as an opportunity to educate and prepare individuals for behavioral health treatment participation despite their reluctance at admission. Further, effective transition to community-based care may be an important practice for reducing mortality during reentry. This would require shifting incarceration to focus on well-being and public health and activating correctional facilities as partners in a continuum of care designed to facilitate post-release linkage to community-based services. This knowledge can generate the creation of targeted assessments and interventions designed to decrease mortality. Lastly, research that increases the understanding of the connection between emotional well-being, physical health, behavioral health, and service utilization is warranted to increase knowledge to support intervention development to further support individuals throughout the reentry period.

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