ABSTRACT

For more than a decade, crowding in hospital emergency departments (EDs) has been a major concern for healthcare professionals and the general public. Prior studies have largely focused on the effects of crowding-related factors on ED operations and service utilization within the ED. However, ED crowding may also impact the utilization of other channels of care in the healthcare system. Using a data set assembled from more than four years of detailed ED visit-level data and exhaustive billing data in an integrated health system, we investigate whether physician workload during the patient visit in the ED impacts post-ED care use. The analyses show that there is an increasing concave relationship between ED physician workload and post-ED care use. Specifically, when workload increases from one to eight patients (5th to 50th percentile), the probability of hospital admission and the number of post-ED encounters for discharged patients increase by 7% and 5%, respectively. Further, we identify increased care intensity in the ED, measured by the number of radiology and laboratory tests, as a mechanism of these effects. Together, these findings provide evidence for the role of non-clinical factors in healthcare system utilization and suggest that when ED physician workload increases, resource utilization increases in the ED and several other channels of care in the healthcare system.