CONFERENCE ABSTRACT

Health and Social Care influences on Long Hospital Length of Stay (LOS): A Critical Realist Study in a large metropolitan hospital

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Introduction: Theory-driven design of integrated care interventions requires that research first be undertaken of the pre-existing system performance and factors that might be amendable to improvement. One indicator of health and social care system performance is hospital length of stay (LOS). LOS is one of the single most important indicators of hospital performance and health care delivery. LOS is an important measure of resource utilization with strong associations between LOS and hospital costs. The cost of long LOS has a significant impact on individual hospital budgets as well as being an overall burden on health systems. Consequently studies of LOS are essential for management and financing of hospitals and health systems.

Patient pre-existing comorbidities, socioeconomic situation and base-line care-demands all have significant impacts on length of stay. Thus LOS not only evaluates bed management and the efficiency of hospital internal systems, but also the performance of pre-admission and post-discharge community-based health and social care systems. The study of long hospital LOS should therefore also examine the impact, and potential for modification, of complex health and social care, service, policy and system factors. The aim of this study is to determine the underlying internal and external health and social care factors that impact on the phenomenon of long length of stay in a major metropolitan hospital.

Theory/Methods: Critical realism will provide the methodological underpinning for this mixed method study. Critical realism seeks to understand the underlying mechanisms and structures that are generating the observed phenomenon. The study will use a concurrent triangulated design that will contribute to explanatory theory building and subsequent design of interventions. The quantitative study will use longitudinal administrative data from the study hospital and supporting health district electronic medical records. Study variables will include: LOS, diagnosis and procedures, patient demographics, and various referral and discharge parameters. Statistical analysis will use exploratory data analysis, regression and time-trend methods. The qualitative study will use critical realist interview methods, purposeful selection of key staff and patients, and realist grounded theory approaches to analysis and development of realist theoretical propositions.
Results: Quantitative data collection has commenced. Quantitative analysis will be used to concurrently to inform the qualitative interview questions. Interviews are expected to commence in early February 2018. Preliminary findings will be presented. We will identify underlying structures and mechanisms contributing to long LOS and develop realist MCO theoretical propositions in the form mechanism (M), context (C), Outcome (O).

Discussions: We will demonstrate the use of critical realist research methods to study health and social care factors impacting on hospital LOS. The findings will be used to develop realist theoretical propositions that can be used to design service, policy and system-wide interventions.

Conclusions: We anticipate that we will demonstrate that system-wide health and social care factors impact on the phenomenon of long hospital LOS. We will be able to propose interventions that will include the development of integrated care approaches in both the health and social care sectors.

Keywords: length of stay; mixed method research; critical realism