
CONFERENCE ABSTRACT

Effects of Continuity of Treatment for Rural Hypertension Population: Evidence from a Case Control Intervention Study

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Background: Continuity of Care (COC) is considered one of the most relevant indicators representing both output and input of the care continuum during organizational integration. Previous studies usually center on the personal continuity of care-giving, and the theoretical and practical evidence on Continuity of Treatment (COT) for chronic patients between primary- and professional-level are insufficient. In this study, we firstly defined the COT as the continuity of inter-professional collaborative behavior on sequential treatment between community and hospital, and then evaluated the COT and explored into the influential factors through an intervention trial designed using different integration strategies.

Methods: A case control study was designed and implemented in a rural pilot place in China from July 2012 to Dec 2014; all doctors in 6 towns randomly sampled and assigned into 3 groups who were intervened either with single intervention of Multi-disciplinary Team (MDT) or double intervention of MDT and integrated prospective payment system, providing them both behavior instructions and motivations. Together 279 medical records mainly concerning hypertension and concurrent diseases were sampled at the baseline and endpoint under certain inclusion/exclusion criteria, and COT was measured and compared using Triple Differences Regression Model. Three control variables included were "pre and post intervention", "single/double treatment group and control group", "continuous or discontinuous referral", and the influential factors were "quality of first-stage treatment" and "continuous information delivery".

Results: 85 records were collected from the control group (38 pre/47 post); 103 from the single treatment group (51 pre/52 post); 91 from double treatment group (39 pre/52 post). After intervention, the total COT was 10.4% higher than before ($P < 0.001$), and COT in double treatment group was 26.9% higher than single treated ($P = 0.032$); however there was no significant difference between single treatment group and control group ($P = 0.069$). Patients using continuous referral system enjoyed a 36.7% higher COT than discontinuous referral ($P < 0.001$). The quality of first-stage treatment had a significant influence on COT ($\beta = 0.753$,

$P < 0.001$) and the information delivery had not ($\beta = 0.043$, $P = 0.415$). There was no significant interaction between three control variables ($P = 0.389$), and the R-square was 0.560 compared to 0.286 after influential variables included.

Discussion: The referral manner plays an essential role in improving the COT for hypertension patients, and the professional collaborative behavior is mainly affected by the quality of the first-stage treatment no matter the patient information is immediately transferred or not.

Conclusion: Integration intervention has been proved to be effective for rural hypertension population. The MDT strategy cannot work without proper incentive provision in successful professional collaboration, and the quality of treatment in community primary care is suggested to give the policy priority across care continuum.

Keywords: continuity of treatment; hypertension; professional collaboration; multi-disciplinary team; prospective payment
