CONFERENCE ABSTRACT

Mapping case management: a realist evaluation of characteristics and patterns

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Introduction: Case management is a special case of care coordination making an important contribution to person-centred integrated and coordinated cross sector health and social care. Case management is highly variable and therefore complex, which impedes practice, quality analysis, policy and planning. Case management for people with a disability is a high cost in social insurance schemes such as icareNSW and NDIS. Yet the characteristics of best practice person-centred case management models is not clear, whether change occurs over time and the person's outcomes. The research aim is to better understand the patterns of characteristics including the person, context, mechanisms and outcomes for people with brain injury and spinal cord injury living in the community.

Methods: We developed an a priori theoretical model of temporal change to case management using realistic evaluation methods and an expert group. Characteristics related to the mechanisms, context and people related outcomes. Retrospective real world, real time data extracted from files of people severely injured in motor vehicle crashes in 2008 participants of Lifetime Care and Support (NSW). Frameworks to map characteristics include: the case management taxonomy; WHO International Classification of Functioning, Disability and Health. A multi-disciplinary data science approach used for analysis involved statistical analysis, pattern analysis and text mining combined with expert practice knowledge, interpretation for pre-processing and extracting meaningful information.

Results: There were 107 participant's files reviewed and over 500 characteristics from each file extracted. The two file reviewers adopted a data extraction protocol, discussed and resolved issues as they arose to ensure consistency. Results include analysis of demographic characteristics, case management characteristics of intensity, interventions and duration and participant outcomes at 2 years, 5 years and 9 years post injury. Correlations, patterns and typologies emerged related to context, case management and outcomes.

Discussions: The range of data extracted provided extensive and rich descriptors of the population, participant progress, goals and outcomes. Patterns partially confirmed the theory of case management for intensity and duration, less the recovery phase and person-centred planning evident in the person's goals. The patterns across time confirm inconsistencies and suggest differences in care coordination roles.

Conclusions: The new knowledge derived from analysis has emerging uses and planned uses in case management policy, quality analysis and practice in icareNSW. The results highlight factors and patterns that inform future research, quality analysis, policy and practice.

Lessons learned: The realist evaluation method provided an essential foundation for analysis aligned to context-mechanism-outcome theory. The frameworks were critical to manage the substantial number of characteristics and categories. Using a data science approach consisting of intensive data-driven methods combined with practice knowledge perspectives enabled new knowledge relevant to practice and service policy and planning.

Limitations: The sample size limited more definitive analysis of correlations. Pattern recognition limited the selection of variables for analysis and determined by the mechanism-context-outcome theory.

Suggestions for future research: Further research will involve a similar approach and comparisons for people with other health conditions, potentially other countries and to build real world knowledge on case management practice.