064: MEASURING CONTINUOUS QUALITY IMPROVEMENT IMPLEMENTATION IN HOSPITALS

Meurer S.J., Counte M.A

Objective:
The aim of this study is to test whether a recently developed measure of Continuous Quality Improvement implementation (CQI) in hospitals can provide researchers and administrators with a tool to assist in the development of an appropriate structure for quality improvement efforts in hospitals.
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Methods:
Five respondents at forty acute care Missouri hospitals (N=200) completed the survey. Subsequent analysis placed each hospital in one of five levels that described their degree of CQI Implementation. Analysis included reliability using Cronbach's alpha, validity using the known groups method, and differentiation among hospitals, respondents and regions. A roadmap was developed that provides hospital leadership with areas of focus to move from one level to the next.

Known groups validity was established by comparing the hospital's total score to the results of a recent subjective quality improvement assessment at nine of the hospitals. Additionally, the total scores of hospitals that have won or been finalists for state and national quality awards were examined to determine if they showed an appropriate level of CQI implementation. Another approach to examining known groups validity was conducted by asking respondents a global question that asked them to characterize their hospital'squality improvement efforts. As for reliability, Cronbach's alpha was computed for each domain, and the overall measure to assess internal consistency.

One-way ANOVA was used to determine if differences occurred between the following groups: by size, region and ownership model. A repeated measures ANOVA was used to examine the within hospital differences between senior executives, quality professionals, physicians and managers.

The researchers used a five level scale of CQI implementation developed in a previous study. Initially, the data were fit to the scale using the distribution of hospital scores. To ensure that this aposteriori fit was appropriate, item and domain analyses was conducted. Specifically, ANOVA and post-hoc Bonferroni tests were conducted to determine which items and domains discriminate between different levels in the scale. Additionally, these tests were used to determine which domains hospital leaders should focus on if they are interested in moving higher on the implementation scale.

Results:
Of the 83 Missouri private, acute care hospitals with over 40 beds, 40 agreed to participate for a 48% return rate. Of the 12 hospitals that have either won a quality award or were a finalist, ten scored as hypothesized. Of the nine hospitals in which a subjective assessment of their quality improvement structure was completed, four were similar to the scores reported on the surveys.

Of the seven domains with at least three items, Cronbach's alpha ranged from a high of .84 for innovation to a low of .54 for HR/Training. Cronbach's alpha ranged from .92 for physicians to .88 for directors/managers. The measure's Cronbach's alpha for all groups was .94. Results indicated that one region's hospitals had a significantly lower CQI implementation score than those in the other two regions. A repeated measures ANOVA indicated differences in senior executive perception of CQI implementation from that of quality director; quality director perception from that of clinical manager/director; and physician perception from that of clinical manager/director. Of the domains, Leadership showed significant differentiation between all levels. Planning showed significant differentiation between two levels.

Conclusions:
Because of its ease of administration and analysis, and because reliability, validity and differentiation results were acceptable, the researchers support the widespread use of this tool to understand and build a hospital's organizational structure towards quality improvement activities. The study achieved its objectives and is the first known survey instrument that easily provides leadership with a roadmap for improvement.