

BACKGROUND

Assessment of performance measures and implementation of various standards in acute care hospitals lead to this study of **interrelationships among innovativeness, IT capability, integration, and standardization.**

PURPOSE/OBJECTIVE:

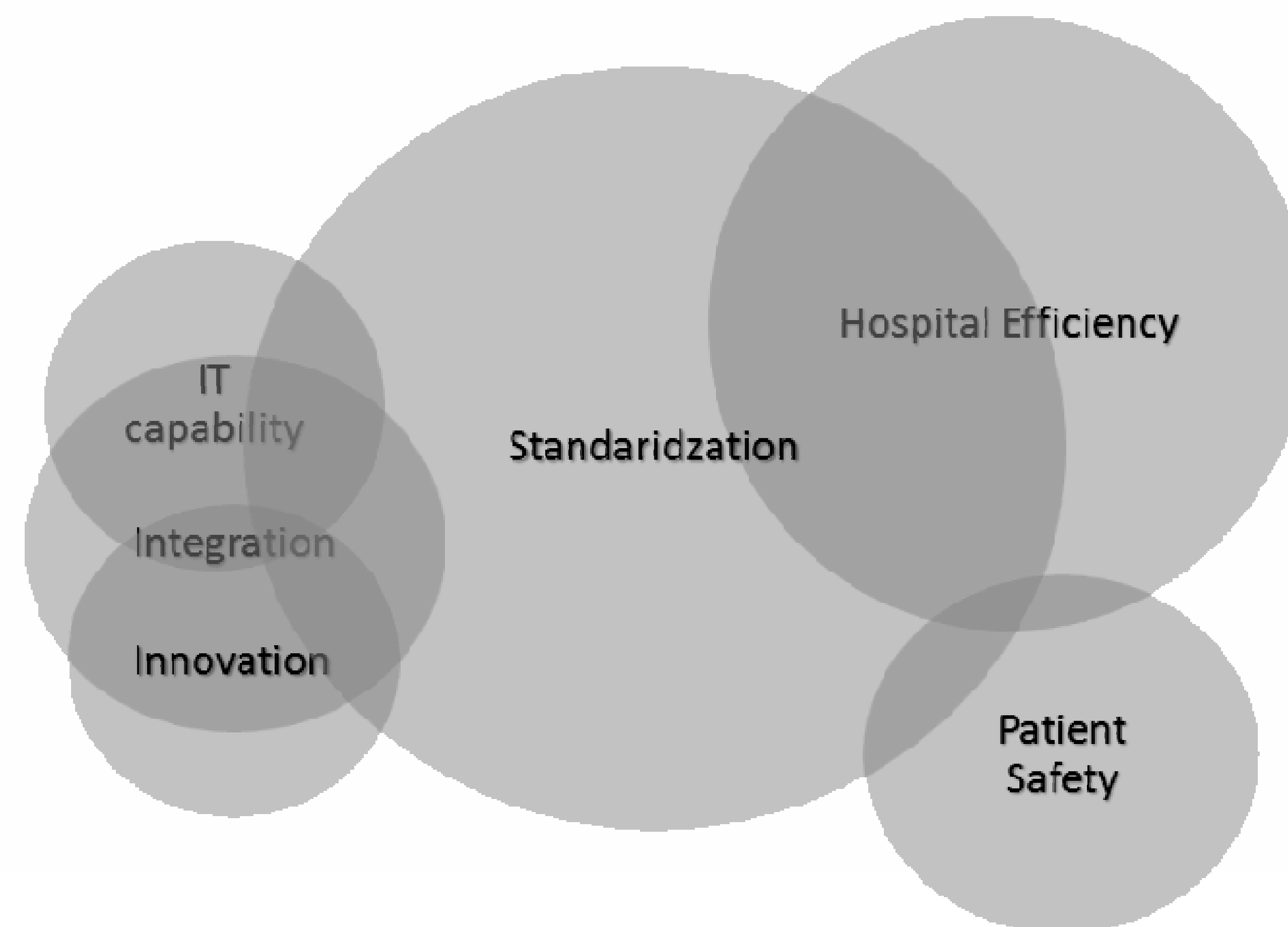
The purpose was to identify and analyze hospital performance factors at the organizational level, including hospital contextual and structural characteristics.

Based on Donabedian's triadic theoretical Structure, Process, Outcome model, this study explored the mediating influence of standardization (process) on performance measures (outcome) by three interdependent macro level factors – IT capability, Integration, and Innovativeness (structure).

Standardization is an organized, recursive, infinite process of developing and implementing specifications based on the consensus of all stakeholders, with the goal of optimizing compatibility, interoperability, safety, interchangeability, repeatability, usability, and quality. **Organizational homogeneity (institutional isomorphism) also brings about standardization through three mechanisms that are not empirically distinct: coercive isomorphism, mimetic processes, and normative pressures.** In the healthcare industry, regulatory and other mechanisms such as certification, accreditation, and licensing for professionals and organizations set and enforce standards.

METHODS

The study involved a cross-sectional analysis of the data merged from the hospital compare data sets of Centers for Medicare & Medicaid Services (CMS), American Hospital Association (AHA) survey, and Healthcare Information, and Management Systems Society (HIMSS) Analytics database. **The study comprised data for 2,352 acute care hospitals** (convenient sampling through data sets crosswalk) in the United States which represented more than half of the hospital population. The study used **original mining federated data framework (MFDF) analytical model and PRECEDE/PROCEED logic model.** The statistical analysis comprised **confirmatory factor analysis (CFA), data envelopment analysis (using MAXDEA), and covariance structural equation modeling (SEM)** using IBM SPSS and AMOS with the hospitals as the unit of analysis. CFA verified the theoretical constructs of the data elements in the latent variables. SEM estimated the covariance, the correlation among the exogenous variables, and their effects (regression weights) on endogenous variables.



Venn diagram showing the relationships among the constructs.

RESULTS/KEY FINDINGS

IT capability, integration, innovativeness, and standardization, the four distinct concepts, showed positive functional relationships among themselves. **IT capability, integration, and innovativeness directly affected the variability in standardization, but they did not directly influence the variation in hospital efficiency and patient safety. This is a very important finding that calls for hospitals to focus on standardization aspects as they invest in IT capability, integration, and innovations.**

RELEVANCE

As acute care hospitals are privy to institutional isomorphism, they implement several sets of standards due to coercive, mimicking, and normative pressures usually without any strategic or tactical considerations, with little collaboration among all the stakeholders. The study revealed that hospitals should focus on standardization as that is the mediating process between structural variables and performance variables. **Being a recursive and infinite process, standardization should optimize compatibility, interoperability, repeatability, and usability over time, positively influencing the hospital performance. Consensus and collaboration among all stakeholders and an ongoing performance evaluation of standardization process is essential for survival and growth.**

REFERENCES

Shettian, M. (2017). Determinants of Hospital Efficiency and Patient Safety in the United States.

