

Key performance indicators for hospitals

A bibliographic review



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Περίληψη

Measuring performance with Key Performance Indicators (KPIs) is used extensively in modern businesses and organisations. This measurement is also used in the healthcare sector with a focus on hospitals. Among its applications is the measurement related to Occupational Health and Safety (OHS) in health services. We attempt to review the literature on studies that examine this issue. We conducted a literature review in authoritative databases of scientific journals. The results show that a proportion of KPIs studies only refer to institutional representation for OHS in hospitals. The findings indicate a literature gap that needs to be filled.

Introduction

Nowadays, one of the most important tools for the performance and management of Occupational Health and Safety in various companies and organizations, but especially in health sector organizations, is the application of Key Performance Indicators (Setiawan, & Purba, 2020 ; LaFata, Giallanza, Micale, & LaScalia, 2021 ; Silvestri, Falcone, DiBona, Forcina, & Gemmiti, 2021 ; Silvestri, Falcone, DiBona, Forcina, & Gemmiti, 2021 ; Aslan, 2022). According to Walters, Johnstone, Bluff, Limborg, & Gensby, (2022) there are some relevant institutional elements that support the work of administrations to ensure safe conditions and avoid accidents and occupational diseases. Such elements are:

- Protective and preventive services (PPS)
- Safety Technicians (ST)
- Occupational Physicians (OP) (Khapre, Agarwal, Dhingra, Singh et al. 2022),
- Occupational Health and Safety Management Systems (OHSMS) and
- Risk Assessments (RA) in OHS (McLinton, Afsharian, Dollard, & Tuckey, 2019)

Research hypothesis: KPIs studies in OHS in hospitals provide evidence on institutional representation (ST, OP, RA, OHSMS).

Methodology

In our study we conducted a preliminary search to review information on the topic under study. We applied a JBI Evidence Synthesis search strategy and built a specific tool for inclusion and deindexing of the studies used in our study. We then ranked the characteristics we identified for the use of KPIs in OHS in hospitals in order to draw results.

Results

Figure 1 illustrates a combination of the relationship between KPI's with OP, ST or preventive services and RA studies.

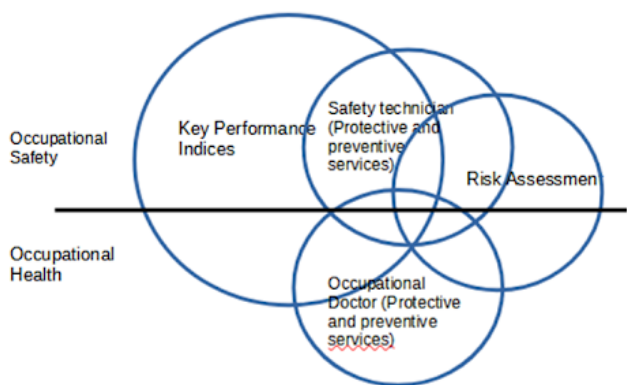


Figure 1 : The combinatorial factors for occupational safety and health (Authors, 2023)

In the health sector, as far as workers in health units [Health Care Workers-HCWs in hospitals and health units] are concerned, exposure refers to specific occupational hazards such as burn-out, mobbing, needle-sticks (Faller, Bin Miskam, & Pereira, 2018). Avoidance of these hazards is gradually enhanced by the use of KPIs.

The reference to the provision of preventive services by STs in OHS in hospitals is cited by Korkusuz et al. (2021) and Devasahay et al. (2021) as examples. We observed that this reference occurs in 14.2% among the included studies. Due to this fact, we consider that this reference needs to be enriched in the literature.

The services of OPs in OHS in hospitals, were reported by authors such as Korkusuz et al. (2021) and Khapre et al. (2022). The reporting of these services in the included studies also occurs in 14.2%. The frequency of such reporting indicates that the included studies have not adequately examined this effect.

The role of RA in OHS in hospitals is most reported by Wagner et al. (2019), Almost et al. (2018), Aslan, I. (2022). Liu & Itoh, (2013), Schultz et al. (2016), Mousavi et al. (2021), Moda, et al. (2021), Korkusuz et al. (2021), are less referred to this topic. Overall, consideration of the role of RA in OHS in hospitals is found in the included literature at 64.2%, the highest percentage among the institutional representations in our survey.

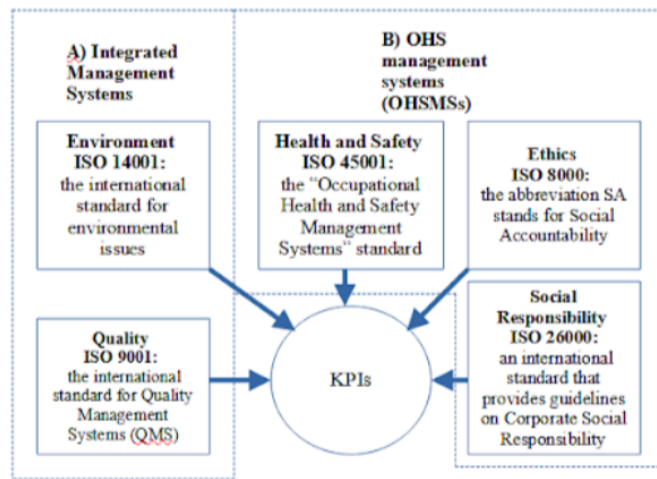


Figure 2: effects of OHSMS on KPIs in organisations and businesses

In terms of examining the role of OHSMS in hospitals, authors such as Korkusuz et al. (2021), Almost et al. (2018), make extensive reference to their use. Other authors such as Wong et al. (2018), Wagner et al. (2019), Mousavi et al. (2021), Moda, et al. (2021), Riascos et al. (2021) deal less extensively with this topic. However, the overall percentage of consideration of this topic in the included studies is 57.1%, making the consideration of the role of OHSMS in hospitals the second most frequently cited topic in KPI studies in hospitals. Rocha, (2010) also analyses the institutional effects on occupational health and safety management systems.

OHSMS systems that have been implemented since 1985 in companies are involved in minimizing accidents and occupational diseases while using KPI's at work (Podgórski, 2015). To ensure OHS in organizations, OHSMS standards have been developed which in combination with general Integrated Management Systems standards affect KPIs in different organizations (based on Silvestri, Falcone, DiBona, Forcina, & Gemmiti, 2021).

Discussion

In the literature review, it appears that the use of PPS occurs frequently in OHS in hospitals. The use of PPS is more specialized in the provision of OHS services by OPs and less by STs. There is therefore a backlog of research on ST service provision in hospitals.

Regarding the use of RAs, several literature reports appear, while fewer reports appear when using OHSMS.

We identified that, although the use of KPIs in OHS and the use of KPIs to measure hospital performance are quite extensive, there are not enough literature reports on the combined use of these items. Our research hypothesis should be rejected. The use of KPIs for OHS in hospitals is an area that requires more research in the future.

Conclusions

The use of KPIs to ensure OHS in organisations is now being extended to hospitals. To ensure OHS in hospitals, actions are required from the institutional representatives the PPS, ST, OP, RA and OHSMS. All the elements involved require a new integrated framework for their

interpretation. Additional research on this topic is required in the future.

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