Application of Lean Management to Improve Emergency Department Nursing Staff's Satisfaction with the Workflow

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INTRODUCTION

In response to the COVID-19 pandemic, emergency department (ED) nursing staff need to cope with a large volume of patients and additional infection control measures.

These factors can affect the job satisfaction of ED healthcare providers, which indirectly impacts the quality of patient care and may raise concerns regarding patient safety.

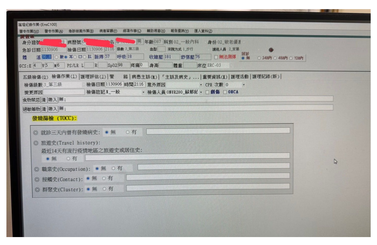
Lean management focuses on reducing unnecessary waste in the production process, reducing production time and costs.

Applying the concept of lean management in healthcare involves improving healthcare quality through process optimization, the 5S method, continuous improvement, just-in-time production, automation, and value stream mapping.

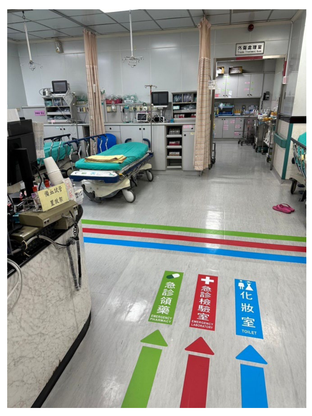
METHOD

- In April 2023, a survey conducted at our regional hospital's ED
- Job satisfaction score of 60.1 (N=28) with a 0% retention rate for new hires.
- A project team was formed to apply the principles of Lean Management.
- The team developed a care process flowchart to systematically identify clinical work issues and subsequently implemented improvement initiatives, including

1. Digitizing medical records (from paper-based assignments to electronic ones)
2. Changing the prescription printing method (change printer from dot matrix printer to laser printer)



3. Implementing an automated vital signs uploading system
4. Increasing nursing staff in the observation unit
5. Adjusting the call system
6. Procuring auxiliary bed-assisting devices
7. Adjusting floor guidance lines



RESULTS

We included participants (n=28) aged 38.46 years, 89.3% of whom were female.

The average working experiences are 12.75 years. At baseline, the job satisfaction was 60.1 and the retention rate of new nursing staffs was 0% (all two new staffs quit job).

By December 2023, the job satisfaction with the workflow increased to 70.4, and the retention rate for new hires improved to 75% (three out of four new staffs remained the job).

CONCLUSIONS

The study found application of Lean management may improve job satisfaction and the retention rate of new nursing staffs.

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