



## Realizing Quality Health Services through Ergonomic Re-Design of the Medical Records Room at the Kedungkandang Community Health Center

Farah Adiba<sup>1</sup>, Ali Hanafiah<sup>2</sup>, Ervita Nindy Oktoriani<sup>3</sup>

<sup>1</sup> Department of Business Administration, Sekolah Tinggi Ilmu Administrasi Malang, East Java, Indonesia

<sup>2</sup> Department of Administration, Sekolah Tinggi Ilmu Administrasi Malang, East Java, Indonesia

<sup>3</sup> Department of Medical Record, Sekolah Tinggi Ilmu Administrasi Malang, East Java, Indonesia

### ABSTRACT

Published Online: January 14, 2025

This community service activity aims to redesign the medical records room at the Kedungkandang Community Health Center by applying ergonomic principles. The main goal of this redesign is to improve the quality of health services by creating a more comfortable and efficient work environment for medical records staff, as well as improving service flow to reduce patient waiting times. The methods used include in-depth interviews with staff, direct observation in the medical records room, and needs analysis based on ergonomic principles. Based on the data collected, various problems were found, such as non-optimal layout and inefficient equipment placement. The result of this activity was a new, more ergonomic design, which included reorganizing the registration counter, improving lighting, and improving ventilation. Although this design has not yet been implemented, the results of the service are expected to increase staff work efficiency and patient satisfaction after implementation. It is also hoped that this design can become a model for other health centers to improve the quality of health services.

### KEYWORDS:

Re-design, Ergonomics, Medical Records Room, Community Health Center

### 1. INTRODUCTION

Medical record services are an important component in the health service system. Well-managed medical records enable accurate, efficient and timely management of patient data, which greatly influences the overall quality of health services (Sutanto, 2020). However, at the Kedungkandang Community Health Center, medical record services still face a number of obstacles. Unergonomic room layouts, inefficient work flows, and less than optimal equipment placement cause various operational problems, such as physical fatigue for staff and longer patient waiting times (Rahardjo, 2021).

These problems indicate that the efficiency and quality of health services at this health center needs to be improved through more appropriate design interventions. The ergonomics approach applied in workspace design can be an effective solution to overcome this problem.

*Corresponding Author: Farah Adiba*

*\*Cite this Article: Farah Adiba, Ali Hanafiah, Ervita Nindy Oktoriani (2025). Realizing Quality Health Services through Ergonomic Re-Design of the Medical Records Room at the Kedungkandang Community Health Center. International Journal of Social Science and Education Research Studies, 5(1), 48-50*

Ergonomics, which aims to adapt the work environment to human needs, can help reduce the physical burden on staff and improve workflow, thereby increasing productivity and job satisfaction (Mulyani, 2022).

Several previous studies have shown that the application of ergonomic principles in health care spaces can reduce staff physical fatigue by up to 40% and increase patient satisfaction by more than 20% (Kosko, 1999). Based on these results, the redesign of the medical records room at the Kedungkandang Community Health Center was designed by applying relevant ergonomic principles. This design aims to increase staff work comfort, improve service flow, and reduce patient waiting time.

The aim of this service activity is to create a more ergonomic medical records room at the Kedungkandang Community Health Center, which is expected to increase staff work efficiency and the quality of health services received by patients. It is also hoped that the resulting design can become a model for other community health centers that want to improve service quality through an ergonomics approach. Target and Outcome (Optional)

Contains the target audience of service partners and the expected results of the service activities carried out.

## II. RESULTS

This service activity aims to redesign the medical records room at the Kedungkandang Community Health Center to make it more ergonomic and support more efficient health services. However, this service activity has not yet reached the implementation stage of the design that has been created. The following are the results achieved in the design process:

### A. Design of the Medical Records Room

Based on the results of the situation analysis and interviews with Kedungkandang Community Health Center staff, the redesign of the medical records room was formulated by considering ergonomic principles. This design includes:

- Rearrangement of Registration Counters: Registration counters are designed to be more accessible to patients, reduce crowding in waiting areas, and speed up registration flow.
- Increased Staff Comfort: The placement of work desks, chairs and medical equipment is designed to comply with ergonomic principles to reduce the risk of physical fatigue in staff.
- The following is a floor plan of medical records at the Community Health Center.

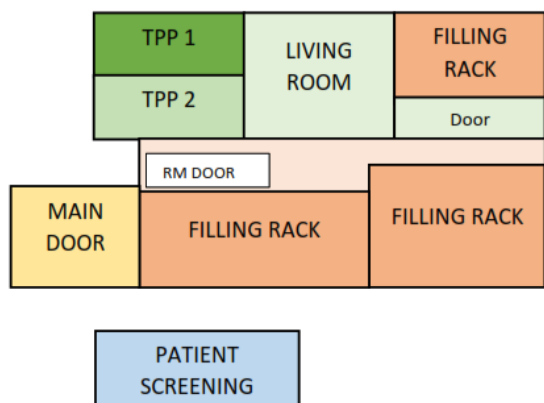


Figure 1: Floor plan of medical records at Kedungkandang Community Health Center

### B. Preparation of Layout Plan

The resulting design focuses on a more efficient service flow, with strategic placement of medical record storage space to facilitate access for staff. The new layout also accounts for a more comfortable patient waiting area and allows for smoother movement within the service area.

### C. Documentation and Design Recommendations

Documentation of the designs that have been designed is prepared in the form of sketches and layout diagrams. Recommendations for improvements and rearrangement of space are submitted to the Community Health Center for consideration in the next

implementation stage. This design is expected to be implemented after further evaluation and budget adjustments.

## III. DISCUSSION

### A. Ergonomic Principles in Redesign

The importance of applying ergonomic principles in workspace design has been widely recognized as an effective method for increasing staff productivity and comfort. In redesigning the medical records room at the Kedungkandang Community Health Center, various ergonomic factors were considered, such as equipment layout, sufficient space for movement, and improved lighting and ventilation.

Prior to the redesign, the layout of the medical records room resulted in inefficient movement and accumulation of patients in the registration area, which slowed down work processes and increased staff physical fatigue. With the new layout, it is hoped that staff movements will be more efficient and work flow will be smoother, which will ultimately reduce patient waiting times

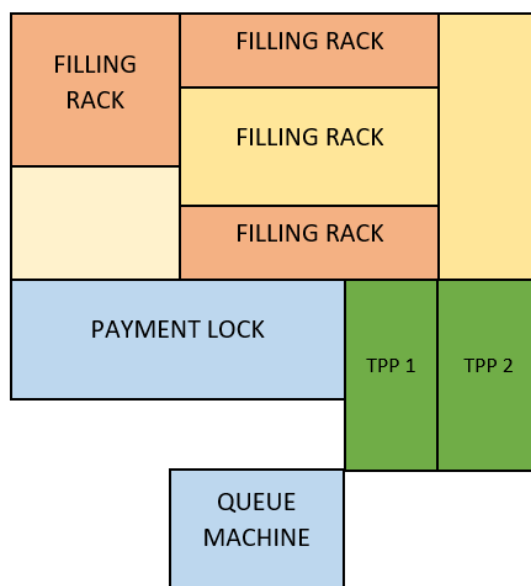


Figure 2: Plan of the Medical Records Room

### B. Influence on Service Quality

The medical records room redesign not only focused on improving staff comfort, but also sought to improve the patient experience in receiving services. By reorganizing the registration counter, the screening and registration process has become faster and more organized. In addition, the patient waiting area is designed to be more spacious and comfortable, which is expected to increase patient satisfaction

The importance of reducing patient waiting time has become one of the main indicators in improving the quality of health services. From this design, it is hoped that patient waiting time will be reduced significantly after the design is

## Farah Adiba et al, Realizing Quality Health Services through Ergonomic Re-Design of the Medical Records Room at the Kedungkandang Community Health Center

implemented. Other benefits include increased job satisfaction for staff, who are more comfortable carrying out daily tasks.

### C. Challenges and Limitations

Even though the redesign has been completed, there are several challenges faced in this service process. One of the main obstacles is the limited budget for comprehensive design implementation. The resulting design requires further adjustments regarding funding allocation, especially for the procurement of new equipment that complies with ergonomic principles.

In addition, the process of implementing the new design requires support from puskesmas management as well as training for staff to use the redesigned space optimally. Without adequate support and understanding, the benefits of the new design may not be maximized.

### D. Comparison with other research

Based on similar research in other health facilities, the implementation of ergonomic principles in workspace design has been proven to increase staff work efficiency and improve the flow of patient care. In several studies, the implementation of ergonomic design succeeded in reducing staff physical complaints by up to 40%, as well as increasing patient satisfaction by more than 20%. This provides strong evidence that the redesign designed at the Kedungkandang Community Health Center also has the potential to provide a similar impact if implemented correctly

### E. Long Term Benefits

If this design is implemented, the expected long-term benefits will not only be limited to increasing efficiency and comfort, but also improving the quality of health services at the Kedungkandang Community Health Center as a whole. The implementation of this ergonomic design can also become a model for other community health centers in improving the quality of health services in various regions

## IV. CONCLUSION

This community service activity has succeeded in designing a redesign of the medical records room at the Kedungkandang Community Health Center by applying ergonomic principles. This design is designed to increase staff work efficiency and patient comfort, which in turn is expected to improve the quality of health services at the health center.

The results of this activity show that ergonomic design can provide a variety of potential benefits, including increased service efficiency, staff health and productivity,

Even though the design has been completed, the main challenge faced is the limited budget and resources to implement the design. Support from health center management as well as training for staff in using the new

space effectively is essential to ensure the proposed design can be implemented well and provide optimal results.

Overall, it is hoped that this redesign can become a model that can be applied in other health centers, thus improving the quality of health services more broadly. It is an answer to the research objectives and a summary of the research results. Conclusions are presented briefly and clearly (with supporting data) based on the results and discussion. Can be written in paragraph or list form.

## REFERENCES

1. Kementerian Kesehatan Republik Indonesia. (2019). *Peraturan Menteri Kesehatan Republik Indonesia Nomor 21 Tahun 2019 tentang Sistem Informasi Puskesmas*. Jakarta: Kemenkes RI.
2. Sutanto, B. (2020). Pengelolaan Rekam Medis Elektronik di Fasilitas Kesehatan. *Jurnal Kesehatan Masyarakat*, 15(2), 123-130.
3. Rahardjo, S. (2021). *Digitalisasi Pelayanan Kesehatan: Implementasi Rekam Medis Elektronik*. Malang: Penerbit Universitas Malang.
4. Tan, C., & Junaidi, M. (2018). *Manajemen Informasi Kesehatan: Prinsip dan Praktik*. Jakarta: EGC.
5. Mulyani, N. (2022). Peran Rekam Medis Elektronik dalam Meningkatkan Kualitas Pelayanan Kesehatan di Indonesia. *Jurnal Manajemen Kesehatan*, 10(1), 45-52.
6. Pratiwi, D., & Lestari, A. (2019). Studi Kasus: *Implementasi Sistem Rekam Medis Elektronik di Puskesmas Bareng*, Kota Malang. Malang: Universitas Brawijaya