

Supplement

Loss of Linen Stock at Puri Bunda Mother and Child Hospital: What Affects This?

Hilangnya Stok Linen di RSIA Puri Bunda: Apa yang Mempengaruhi?

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ABSTRACT

An insufficient number of linens, lack of linen cleanliness, and untimely linen provision will affect patient satisfaction, service quality, and hospital financing. Data at Puri Bunda Mother and Child Hospital Malang showed 108 linen loss incidents from the initial stock of 792 linens. This study was conducted to identify the factors that influence linen loss at Puri Bunda Mother and Child Hospital Malang. The root of the problems was identified through observations, interviews, and Focus Group Discussion (FGD) with the laundry staff, followed by analysis using a fishbone diagram and creating a Pareto diagram to select the main root of the problems. The study results indicate the absence of hospital policies that regulate the technical management of linen, weak evaluation monitoring, and inadequate linen management planning that contribute to the incidence of linen loss.

Keywords: Hospital, lost linen, surveillance

ABSTRAK

Kurangnya jumlah linen dan kebersihan linen kurang serta ketidaktepatan waktu penyediaan linen akan mempengaruhi kepuasan pasien, mutu pelayanan, dan pembiayaan rumah sakit. Data di RSIA Puri Bunda Malang menunjukkan bahwa masih ada kejadian linen hilang sebanyak 108 linen dari stok awal linen 792. Kajian dilakukan untuk mengidentifikasi faktor-faktor yang mempengaruhi hilangnya linen di RSIA Puri Bunda Malang. Identifikasi akar masalah dilakukan melalui observasi, wawancara dan *Focus Grup Discussion* (FGD) dengan staf *laundry* yang kemudian dianalisis menggunakan diagram *fishbone* yang kemudian dilanjutkan dengan pembuatan diagram Pareto untuk memilih akar masalah utama. Hasil kajian menunjukkan bahwa belum adanya kebijakan rumah sakit yang mengatur teknis tatalaksana linen yang lengkap, monitoring evaluasi yang lemah, dan perencanaan manajemen linen yang kurang adekuat berkontribusi pada kejadian linen hilang.

Kata Kunci: Linen yang hilang, pengawasan, rumah sakit

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INTRODUCTION

The success of medical services can be achieved if it is supported by medical and non-medical support services (1). One of the critical non-medical support services often neglected is the laundry service (2). Most hospitals still considered laundry service a less important unit, non-productive, and wasting (3). In fact, laundry services have an important role, including ensuring the completeness of linen for inpatients and operating rooms (4).

Poor linen service quality can affect the comfort experienced by patients and the quality of health services (5). Poor linen management can potentially transmit diseases to patients, staff, and other linen users (6). Problems, such as bacteria, fungi, or viruses, can be a source of infection that impacts the length of the patient's treatment period, increases patient care costs, and even causes patient mortality (7). Substandard linen services, such as lack of linen, lack of linen cleanliness, and untimeliness in linen services, will affect the quality of hospital services (8). This condition also has an impact on inefficient financing and decreased patient satisfaction due to linen services (9). Therefore, the absence of linen loss is one indicator of the minimum service standard that is important to consider (10).

Puri Bunda hospital Malang is a special type C hospital with 71 beds and has an average annual BOR of 60.80%. The rate of caesarean deliveries at Puri Bunda hospital is also relatively high, which reaches 70%. Therefore, linen availability significantly impacts the services for patients. Based on the results of observations, interviews, and surveys, there were still many missing linens in the inpatient unit of Puri Bunda hospital Malang, as many as 108 linens from the initial stock of 792 linens.

A decreasing number or loss of linen was also found in previous studies. A study at Gondanglegi Islamic Hospital identified the incidence of loss linen as much as 3.4%, thus suggesting the importance of developing a linen supervision and control system (11). A study by Suparno identified several problems in linen management in the wards; some of which are poor linen conditions (stains), poor linen quality (thinning and torn), and recurrent linen loss, so the linen availability was insufficient for the number of beds, thus it delays the delivery of clean linen stock to the room, (10) (12). Those studies illustrate that linen management has not been optimally done by the hospitals and has not met the minimum service standards.

The lack of quality of human resources (HR) in hospitals, such as the lack of number and qualifications of staff, and the lack of facilities and infrastructure can be the factors causing the low quality of linen management in hospitals (12)(13). The other cause can be due to the linen management process that is not following the standard operating procedures (SOPs) so that control in linen management activities is not implemented (13)(14). This study was conducted to identify the factors that influence linen loss. The study results are expected to provide a contribution to hospital management to reduce the number of linen loss.

METHOD

This research was conducted using a descriptive approach at Puri Bunda Mother and Child Hospital Malang from August to October 2020. Data were collected through observations and interviews with 11 respondents consisting of the head of the laundry unit, four laundry staff, the head of the inpatient unit, four heads of the



Figure 1. Fishbone diagram

Note: The 13 orange boxes are the root causes of the factors affecting linen loss at the inpatient unit of Puri Bunda Malang.

Table 1. Interviews with the correspondents

NO	QUESTION	STATEMENT
1	Does the hospital have guidelines regarding the management of linen loss?	RL = I don't know if the hospital has linen loss management guidelines, is it because I'm new? RRI = I don't know if the hospital has a linen loss management guideline RM = we only have linen guidelines as we conveyed to the doctor, for linen loss management I don't know
2	Is there a handover record of clean and dirty linen?	RL = back then in 2019, when there was a community service from FK UB, we did record, and it only lasted for a month, then never again RRI = I have never filled out ant record for the handover of clean and dirty linen RM = it is our weakness indeed; we are weak in terms of recording
3	Who do you think is responsible for recording the clean and dirty linen handover document?	RL = laundry staff and inpatient staff RRI = laundry staff RM = both
4	Is recording every linen activity transaction heavy?	RL = no RRI = yes RM = I see that the staff is a bit lazy if they have to take notes
5	Is there any incident of missing linen?	RL = often, some are really missing and some come back after a few months RRI = yes, there are RM = seems like
6	Have you ever had linen training?	RL = never RRI = never RM = some senior staff had attended linen training
7	Have you ever borrowed linen from another unit?	RL = I've seen unit A staff borrow a sheet from unit B RRI = I did but I have returned it
8	In your opinion, should we have a linen management system?	RL = yes, we need RRI = yes, we need RM = yes, we need

Note: RL = Linen staff respondents, RRI = Inpatient Respondents, RM = Management Respondents

inpatient room, and a general manager. The observation approach used was the passive participatory observation, meaning that the researcher was present at the site of the person observed but without being involved in the activity (14)(15). Observations were made in the laundry unit and inpatient units by comparing the checklists in the laundry unit and inpatient units. The purpose of this observation was to see the service flow or linen distribution from the laundry unit to inpatient units and vice versa, how to record, and how to store the linen. In-depth unstructured interviews were conducted to explore the recording process of the distribution of linen and respondents' opinions about the causes of linen loss.

Data were analyzed using the Fishbone diagram, and data triangulation was carried out by reconfirming the results of the observations and interviews with the secondary data in the hospital. The list of root problems from the results of the fishbone analysis was grouped into new themes, and the percentage of items in each theme was calculated using a Pareto diagram to obtain the root of the problem priority.

RESULT

Based on observations, interviews, and data collection at Puri Bunda hospital Malang, there was a gap between the interview results and the linen monthly report data. The report mentioned that no linens were missing, but the interview results revealed cases of linen loss in the inpatient unit. Based on observations, interviews, and observations on the annual report results in the linen and laundry units, 108 types of linen were missing, and the type of linen mostly missing was baby towels. In addition, it was also found that laundry staff who collected dirty linens at the inpatient unit did not record and authorize the handover of dirty linen with the inpatient unit staff. It

was also found that several laundry activities did not have operational service standards, and monitoring was rarely carried out.

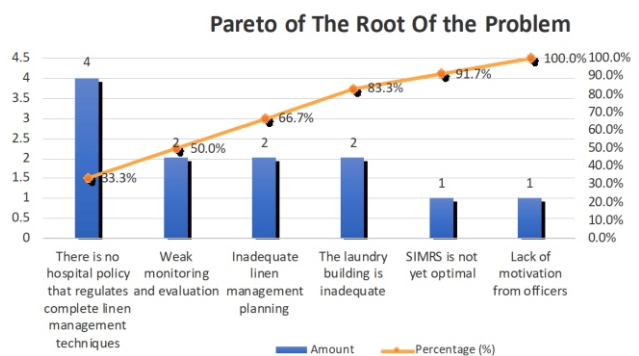


Figure 3. The Pareto diagram

Fishbone analysis identifies 13 potential root causes that can be grouped into six themes on the Pareto diagram. Based on the cumulative percentage of the number of items in each theme, three problems with significant leverage were found, namely the absence of hospital policies that regulate the technical management of linen, weak monitoring and evaluation, and inadequate linen management planning. From the FGD, the priority of the root of the problem was the absence of hospital policy that regulates complete linen technical management. This factor was chosen because all participants agreed that the hospital policy governing the technical management of linen was incomplete, such as the absence of missing linen supervision and control system documents (linen inventory cards, linen stock cards, linen distribution forms,

dirty linen checklists, outbound linen checklists, and damaged linen replacement form).

DISCUSSION

Based on the research, the three main factors that affect linen loss in the inpatient unit are the absence of hospital policies that regulate technical procedures for complete linen management, weak monitoring and evaluation, and inadequate linen planning. Quality assurance in hospital linen management is a must so that patients can feel satisfied with the services provided (15)(16). A policy is a series of actions proposed by a person, group, or government in a particular environment with the threats and opportunities to exploit the potential and overcome the existing obstacles (16,17)(17,18). In the management of linen, it is necessary to have a policy made by the hospital to regulate the supervision and control of linen to prevent lost linen (18)(19).

The second cause identified in this study is a weak monitoring and control system. One of the quality indicators in linen management following the Decree of the Minister of Health No. 129/Menkes/SK/II/2008 concerning Minimum Hospital Service Standards is the absence of lost linen incidents which indicate the efficiency and effectiveness of quality control of laundry services (19)(20). Higher cases of missing linen in a hospital show a low level of supervision and quality control of the hospital's linen management (11)(21). Furthermore, low quality of linen management will also affect the hospital's quality of services, consequently impacting patient satisfaction.

The implementation of linen supervision and control requires procedures and documents to record all transactions so that the circulation of linen can be monitored and its safety is guaranteed (20)(22). The monitoring and control system is inseparable from the recording activity of each transaction (21)(23). In order to provide clarity of duties and authority for the staff related to the use, it is necessary to develop a Standard Operating Procedure (SOP) in accordance with their primary duties (22)(24). The role of a manager in the control process is vast because a manager in the organizational structure

must be able to direct the people in the organization according to their respective roles so that the organization's goals are achieved (23)(25). The supervisory function on implementing an activity must be carried out to carry out all tasks according to the plan (24)(26). The absence of good monitoring and evaluation from a manager in the laundry unit can cause the laundry unit activities to run differently from the SOPs (25)(27). The supervisory function needs support through transparent management in data reporting to reduce errors that can occur in carrying out the activities (26)(28).

The third causal factor identified in this study is inadequate planning. Setiadi states that excellent and adequate work planning is planned systematically, logically, mature, efficient, and effectively towards the goals, policies, procedures, and programs of existing alternatives to achieve predetermined goals (27)(29). Adequate and effective planning will encourage the management of existing resources in which the head of the room must identify long-term goals and short-term goals and make changes (28)(30). Therefore, excellent and

adequate planning in linen management can avoid and reduce the occurrence of lost linen (29)(31). Forming an excellent and adequate plan must meet three principles: participatory, sustainable, and holistic (30)(32). The participatory principle can be applied by involving employees who directly manage linen so that the plans made can be carried out optimally. On the sustainability principle, the planning carried out must be monitored and immediately corrected if problems are found. Lastly, in the holistic principle, the planning principle must pay attention to many broad aspects such as the linen transportation process, the washing process, and the linen storage process. The application of policies that regulate the technical management of linen management, the need for procedures and documents for the supervision and control of linen, adequate work planning are the key issues to reduce linen loss. The hospital needs to improve and complete the existing linen management system or guidelines with the linen loss management supervision and control system and strengthen the monitoring and evaluation function under the coordination of the general manager (23)(33).

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