

Exploration Factors Behind Low Bed Occupation Rate of Hospital: A Case Study

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INDEXING

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Patient visits

ABSTRACT

Bed Occupancy Rate (BOR) Psychiatric Hospital of DR. Radjiman W regency had a low percentage. In April 2022, it was 59,80%, May 50,55%, also June 48,84%. It may be the governor and BPJS regulations, the development of psychiatric in other health services, the limited facilities and infrastructure for non-psychiatric patients, and the lack of information about non-psychiatric services. This study analyzed the low percentage of BOR (Bed Occupancy Rate). The sample was 4 respondents who were the heads of inpatient, outpatient, emergency room, and public relations. The main priority is to solve this research problem using the 5 WHYs and find an alternative solution by discussion method with all respondents. This study showed that the main factor causing the low percentage of BOR in RSJRW is incomplete facilities and infrastructure. It was suggested that RSJRW should be aware of cleaning up and provide fewer facilities and infrastructure.

Kata kunci:

BOR;
Rumah Sakit;
Rawat Inap;
Alasan kunjungan;
Kunjungan pasien

BOR (Bed Occupancy Rate) RSJ di Dr. Radjiman W masih belum memenuhi target dimana capaian pada bulan April tahun 2022 sebesar 59,80% pada bulan Mei sebesar 50,55%, pada bulan Juni 48,84%. Kondisi tersebut kemungkinan disebabkan oleh regulasi BPJS, berkembangnya layanan psikiatri di fasilitas kesehatan lain, terbatasnya sarana dan prasarana untuk pasien nonjiwa, kurangnya informasi mengenai pelayanan kesehatan non jiwa. Penelitian ini merupakan penelitian kualitatif dengan pendekatan studi kasus menggunakan teknik pengumpulan data laporan tahunan RSJRW, wawancara, dokumentasi yang melibatkan 4 responden. Lokasi penelitian di RSJ Dr. Radjiman W. Penentuan prioritas dilakukan melalui diskusi bersama menggunakan 5 WHY's. Selanjutnya menentukan alternatif solusi melalui diskusi bersama responden. Hasil penelitian menunjukkan bahwa terdapat beberapa faktor yang mempengaruhi capaian target BOR RSJRW meliputi regulasi rujukan BPJS, berkembangnya layanan psikiatri di fasilitas kesehatan lain, terbatasnya sarana dan prasarana untuk pasien non jiwa, kurangnya informasi mengenai pelayanan kesehatan non jiwa. Alternatif solusi untuk mengatasi masalah tersebut yaitu dengan cara penyediaan sarana dan prasarana yang belum lengkap, pengenalan layanan non jiwa sehingga lebih banyak diketahui masyarakat. RSJRW harus segera berbenah dan melengkapi sarana dan prasarana yang belum tersedia, meningkatkan promosi mengenai layanan kesehatan non jiwa agar lebih banyak diketahui masyarakat

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INTRODUCTION

The hospital is a unique and complex organization, both labor-intensive, capital-intensive, knowledge-intensive and human resources intensive. This complexity arises because hospital services in the form of health services consist of various professions. Based on Law No. 44 of 2009, hospitals must provide health services to every individual to improve the degree of public health better (Njoto, 2011). To achieve this goal, promotive, preventive, curative and rehabilitative health services are needed (Widiyanto & Wijayanti, 2020). With the development of technology and the need from the community to get comprehensive health services, the hospital has inpatient services to realize this goal (Herawati, 2015).



The inpatient unit is one of the health services that can indicate the quality of services produced (Tomanyira et al., 2019). The quality of hospital services can be determined through the BOR (Bed Occupancy Rate), BTO (Bed Turn Over), ALOS (Average Long of Stay), and TOI (Turn Over Interval). Indicators to determine the quality of inpatient services can be evaluated through BOR and BTO (Sidiq & Afrina, 2017). Information regarding the calculation of BOR, BTO, ALOS, and TOI every month can assist in determining efficiency targets that must be achieved each period (Rosita & Tanastasya, 2019). It can also evaluate whether the results of BOR achievements met the standard targets of the Health Service (Riyanto, 2020).

BOR is the percentage of bed usage in a certain period. BOR can also evaluate hospital efficiency (Mahmud et al., 2021). A low BOR achievement indicates a lack of efficiency in using hospital beds, and a high BOR achievement indicates that efficiency in a hospital is running well. The low achievement of BOR that has not met this target significantly affects hospital revenue. The low BOR achievement means that not many patients get inpatient health services at the hospital. This issue causes hospital revenue to decrease along with the number of hospitalized patients (Ambarwati, 2021) (Rahma et al., 2014). In addition, the achievement of BOR indicates the quality of hospital services. If the achievement of BOR is low, it is closely related to the quality of the hospital's services (Persadha et al., 2019). Factors that influence the achievement of BOR include patient satisfaction, high ALOS scores, and the completeness of hospital facilities and infrastructure. Several patient satisfaction studies are directly proportional to the number of patient visits.

According to 4 studies, 83% of the marketing mix significantly influences patient satisfaction from hospital visits (Safi, 2021). High ALOS can also affect BOR performance. Long ALOS influences economic value. Patients require high treatment costs because the hospitalization period is long (Lubis & Astuti, 2018). A low ALOS score can be caused by poor planning in providing services to patients or because policies in the medical field and ALOS numbers are strongly influenced by the type of disease patients suffer (Meliala, 2018).

Health service infrastructure can be interpreted as a collaborative process of utilizing all health facilities and infrastructure effectively and efficiently to provide professional services in the field of facilities and infrastructure in an effective and efficient health service process. The completeness of good infrastructure influences customer satisfaction (Ristiani, 2017).

Dr. Radjiman Wediodiningrat Psychiatric Hospital (RSJRW) Lawang is a type A psychiatric hospital and a type B hospital for the general public. RSJRW has been established since 1926. As a health facility, it requires all parties working at RSJRW to be optimal in providing health services with the hope that BOR's achievements will meet the target every year. According to the annual report, the performance achievements of RSJRW are shown in Table 1.

Table1. RSJRW Performance Achievements

NO	INDICATOR	2021	Sem 1 2022	STANDARD (DEPKES)
1.	BED OCCUPANCY RATE (BOR) (%)	44.99%	55.89%	60-85
2.	TURN OVER INTERVAL (TOI) (days)	20.31	14.79	1 - 3
3.	AVERAGE LENGTH OF STAY (ALOS) (days)	25.87	20.09	6 - 9
4.	BED TURN OVER (BTO) (kali)	8.26	5.26	40-50
5.	NETT DEATH RATE (NDR) (‰)	12.41	2.85	<0.025
6.	GROSS DEATH RATE (GDR) (‰)	19.98	4.75	<0.045

Source: Dr. Radjiman psychiatric hospital annual report

According to the data, the RSJRW BOR in 2021 reached 44.99%, and in the 2022 semester, I reached 55.89%. This number is not following the achievement of the BOR according to the Ministry of Health standards, namely 60-85%. From Table 1, the ALOS achievement in 2021 was 20.31, and in 2022 it reached 14.79. According to the Ministry of Health, the ALOS standard is 1 to 3. BOR achievements that have not met this target have encouraged researchers to explore the low BOR achievements in RSJRW.

RESEARCH METHOD

The type of research used in this research is qualitative research with a case study approach. The case study in this study is a detailed study of exploring low BOR outcomes in RSJRW. The case study approach used in this research is to obtain an overview of the causes of the overall low BOR achievement of the RSJRW. The informants for this study were determined using a purposive sampling technique. That is, informants were selected based on personal abilities and were responsible for the work unit to provide the right answers so that the data obtained was more accurate, totaling 4 (four) people, namely the head of the inpatient unit, public relations, head of the emergency unit, head of the outpatient unit (Campbell et al., 2020). The head of the first inpatient unit was chosen because he knew about the procedures of patients hospitalized at RSJRW. The head of the outpatient unit was chosen because of his position and responsibility in managing outpatient care. The head of the ER unit was chosen because the ER is the entry point for patients who wish to be hospitalized at RSJRW. Public relations staff were chosen because of their role as executors of marketing and public relations.

Data collection was carried out from August-October 2022. The data used in this study were obtained from Focus Group Discussions (FGD) and secondary data. The secondary data used in this research are the 2021 and 2022 RSJRW annual reports. This qualitative data analysis activity is carried out continuously until completion. To analyze the data in this study using data reduction, data display, and conclusion drawing/verification. The main category was determined as the final step in this study. The main category in this study is according to the research objective, namely the exploration of low BOR achievements in RSJRW.

RESULT AND DISCUSSION

RSJRW has a capacity of 400 TT (Beds), which is much reduced due to the conditions of the COVID-19 pandemic, which initially reached 800 TT. With the vision of the RSJRW, it is possible to improve the quality of life through comprehensive mental health services. The achievements of BOR at RSJRW, according to the 2021 report and the 2022 semester I report, still have not met the target. According to the data, the RSJRW BOR in 2021 reached 44.99%, and in 2022, semester I reached 55.89%. According to the 2022 report in the semester I, inpatient visit data reached an average of 337 patients. This number is not following the achievement of the BOR according to the Ministry of Health standards by 60-85%. For this reason, research was carried out on the causes of low BOR achievements to help RSJRW improve. Based on the results of interviews with informants, several causes influenced the achievements of the RSJRW BOR.

BPJS Regulation Regarding Referrals

According to Law No. 40 of 2004 concerning the National Social Security System (SJSN) in the health sector, UHC (Universal Health Coverage). The National Health Insurance is the government's effort to provide health services at affordable prices but with good quality. According to BPJS Regulation No. 1 of 2014 concerning a tiered referral policy for BPJS participants. A tiered referral system for people seeking treatment using BPJS must first go through a level I health facility (Ambarwati, 2021). It is felt that the patient referral system is still ineffective and efficient, and many people cannot reach health services. As a result, there is an extraordinary accumulation of patients in certain large hospitals. The community's understanding of the referral flow is very low, so they do not get the services they should. The following reads BPJS regulation No. 1 of 2014 regarding the referral system: First-level health services, referred to in paragraph (1), include medical cases requiring initial treatment before referral and medical case referral. Health facilities can make horizontal and vertical referrals. 29 (4) Horizontal referrals are made between health services at one level if the referrer cannot provide health services according to the patient's needs due to limited facilities, equipment and/or personnel which are temporary or permanent. (5) Vertical referrals are made between different levels of health services. It can be done from a lower level of service to a higher level or vice versa.

“Since there is a BPJS regulation with tiered referrals... the patient has to go to a hospital that is below the RSJRW first... so the patient can't go straight to RSJRW” (Informant 1)(02:10-Oct:22).

“.. So that makes the patient feel complicated because they have to ask for repeated referrals to the FKTP and then referrals to other hospitals and then to the RSJ doc....” (Informant 2)(02.18-Oct:22).

Incomplete Non-Psychiatric Facilities and Infrastructure

The RSJRW facilities and infrastructure for non-mental patients are still incomplete. RSJRW still does not have an ICU or child inpatient room. With the lack of these facilities, it has an impact on the less-than-optimal health services provided. Based on data from RSJRW profile documents, RSJRW has 5 non-psychiatric specialist doctors, limited specialist doctors

who treat non-psychiatric patients, and non-psychiatric inpatient rooms with 10 TT, and COVID-19 isolation inpatient rooms with a total of 40 TT. RSJRW also has a 24-hour emergency room, laboratory, and radiology facilities with CT Scans, XRay examinations, Panoramic, and 3D Ultrasound.

“The RSJRW has incomplete facilities for non-mental patients... we still don’t have an ICU for non-mental patients... nor do we have a cardiologist... so if there is a heart patient... yes, we will refer them to another hospital...” {informant 3 }(02:22-Oct:22).

“Yes, doc... the patient is disappointed, for example, when he comes here but we have to refer him... so he wants to be treated here but because the facilities are incomplete... finally he is referred” (informant 2)(02.16-Oct:22).

Development of Psychiatric Services in Other Health Facilities

Based on search results from the websites of hospitals around Lawang district, one hospital had opened psychiatric services, namely Lawang Medika Hospital, which had mental health specialists. Psychiatric health services at Lawang Medika Hospital since 2018. Where competing hospitals have also opened psychiatric services, this has become another option for the community to decide which hospital to get their health services from.

“Nowadays, many psychiatric services have been opened, both in hospitals around Lawang or foundations... so if in the past they were sent to the RSJ... now it’s no longer... this also reduces hospital visits.

CONCLUSION

Achievement of the 2022 BOR value at RSJRW was 55.89%. For now, an overview of the health service facilities at RSJRW, such as the number of ready-to-use beds (TT) available and the number of beds in all inpatient rooms, is 400 TT. Non-psychiatric patient facilities are under room standards and requirements. RSJRW already has a radiology unit, laboratory unit, and operating room, but RSJRW does not yet have a special inpatient room for children, an ICU, and a delivery room. Citra RSJRW is known to the public as a hospital that only serves people with mental health conditions. This issue is an obstacle for non-psychiatric patients seeking health services at RSJRW. Based on the description of the reasons for the low achievement of the RSJRW BOR, the RSJRW needs to make improvements in equipping facilities and infrastructure for non-psychiatric patients, increasing promotions related to non-mental health services so that they are better known by the public and making innovations that differentiate from competing hospitals. Based on the research, this research has limitations. These limitations include:

1. This research requires further research regarding consumer decisions in determining health services based on the marketing mix.
2. There are obstacles in finding patient visit data before the existence of BPJS and after the existence of BPJS.

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REFERENCES

- Ambarwati, W. (2021). Pembiayaan Pasien COVID-19 dan Dampak Keuangan terhadap Rumah Sakit yang Melayani Pasien COVID-19 di Indonesia Analisis Periode Maret 2020 – Desember 2020. *Jurnal Ekonomi Kesehatan Indonesia*, 6(1), 23–37. <https://doi.org/10.7454/eki.v6i1.4881>
- Azizah, N., & Raharjo, B. B. (2020). Pengaruh Bauran Pemasaran terhadap Proses Keputusan Pasien Memilih Layanan Kesehatan. *Higeia Journal of Public Health Research and Development*, 4(2), 189–200. <https://journal.unnes.ac.id/sju/index.php/higeia/article/view/33140>
- Campbell, S., Greenwood, M., Prior, S., Shearer, T., Walkem, K., Young, S., Bywaters, D., & Walker, K. (2020). Purposive sampling: complex or simple? Research case examples. *Journal of Research in Nursing*, 25(8), 652–661. <https://doi.org/10.1177/1744987120927206>
- Ginting, T., Chairul, M., Pane, P. Y., Sudarsono, S., Renaldi, M. R., & Lubis, F. H. (2021). Mutu pelayanan dan minat kunjungan ulang pasien rawat jalan di Rumah Sakit X. *Jurnal Prima Medika Sains*, 3(2), 60–67. <https://doi.org/10.34012/jpms.v3i2.2031>
- Habibi, A. H., Hakim, F. H., & Azizi, F. S. (2020). Hubungan Mutu Pelayanan Keperawatan dengan Minat Kunjungan Ulang Rawat Jalan di RSIA PKU Muhammadiyah Cipondoh. *Jurnal JKFT*, 4(2), 11–21.
- Heningnurani, A. Y. (2019). Strategi Pemasaran RSUD H Abdul Manap Kota Jambi. *Jurnal Administrasi Rumah Sakit Indonesia*, 5(3), 153–164. <https://doi.org/10.7454/arsi.v5i3.2897>
- Herawati, Y. T. (2015). Budaya Keselamatan Pasien di Ruang Rawat Inap Rumah Sakit X Kabupaten Jember. *Jurnal IKESMA*, 11(1), 52–60.
- Ida Yunari Ristiani. (2017). Pengaruh Sarana Prasarana Dan Kualitas Pelayanan terhadap Kepuasan Pasien (Studi Pada Pasien Rawat Jalan Unit Poliklinik Ipdn Jatinangor). *Coopetition*, 8(2), 155–166.
- Lingkungan, D. A. N., & Kepuasan, T. (2019). <https://jurnal.unitri.ac.id/index.php/care>. 7, 39–53.
- Loyalitas, T., & Aplikasi, P. (2018). *JURNAL VALUE : Jurnal Manajemen dan Akuntansi*. 17(2), 118–131.
- Lubis, S. P. S., & Astuti, C. (2018). Analisis Efisiensi Penggunaan Tempat Tidur di RSJ Berdasarkan Indikator Rawat Inap di Triwulan 1 Tahun 2018. *Jurnal Ilmiah Perkam Dan Informasi Kesehatan Imelda*, 3(2), 466–472.
- Mahmud, Z., Timur, A., Muna, H., & Kunci, K. (2021). Gambaran Faktor-Faktor Yang Mempengaruhi Pencapaian Bed Occupancy Ratio (Bor) Di Rumah Sakit Umum

- Daerah Description Of Factors That Influence The Achievement Of Bed Occupancy Ratio (Bor) At Dr . Zubir Mahmud East Aceh. 2(2), 192–201.
- Megatsari, H., Dwi Laksono, A., Akhsanu Ridlo, I., Yoto, M., & Nur Azizah, A. (2018). PERSPEKTIF MASYARAKAT TENTANG AKSES PELAYANAN KESEHATAN Community Perspective about Health Services Access. *Buletin Penelitian Sistem Kesehatan*, 21(4), 247–253. <http://dx.doi.org/10.22435/hsr.v2i4.231>
- Meliala, S. A. (2018). Analisis Pengaruh Mutu Pelayanan Terhadap Kepuasan Pasien Rawat Inap di RSUD Mitra Sejati Medan. *Jurnal Rekam Medic*, 1(1), 23. <https://doi.org/10.33085/jrm.v1i1.3976>
- Njoto, H. (2011). PERTANGGUNGJAWABAN DOKTER DAN RUMAH SAKIT AKIBAT TINDAKAN MEDIS YANG MERUGIKAN DALAM PERSPEKTIF UU No 44 Th 2009 TENTANG RUMAH SAKIT. *DiH: Jurnal Ilmu Hukum*, 7(14). <https://doi.org/10.30996/dih.v7i14.263>
- Nurhayani, R. &. (2019). Kesehatan Di Puskesmas Mamasa , Puskesmas Malabo. 7(2), 15–22.
- Persadha, G., Anhar, A. Al, & Anshari, F. (2019). ANALISIS EFISIENSI PELAYANAN RAWAT INAP DI TINJAU DARI INDIKATOR PELAYANAN RAWAT INAP PADA BLUD RSUD dr. H. SOEMARNO SOSROATMODJO KAPUAS TAHUN 2017. *Jurnal Kajian Ilmiah Kesehatan Dan Teknologi*, 1(1), 1–10. <https://doi.org/10.52674/jkikt.v1i1.1>
- Primasari, E., Arieayani, A., Utami, F. A., & Zakir, M. (2021). Pengaruh Bauran Pemasaran Sumber Daya Manusia (SDM) terhadap Loyalitas Pasien Rumah Sakit: Systematic Review. *Jurnal Administrasi Rumah Sakit Indonesia*, 7(3), 109–119. <https://doi.org/10.7454/arsi.v7i3.3650>
- Rahma, N., Budi, I. S., & Najmah. (2014). Hubungan Bauran Pemasaran Terhadap Pemanfaatan Instalasi Rawat Inap Rumah Sakit Pelabuhan Palembang. *Jurnal Ilmu Kesehatan Masyarakat Volume*, 5(1), 43–48. <https://media.neliti.com/media/publications/57944-ID-correlation-between-marketing-mix-and-th.pdf>
- Riyanto, J. (2020). Analisa Sistem Aplikasi Marketplace Facebook Dalam Pengembangan Dunia Bisnis. *Media Informatika Budidarma*, 4, 940–946. <https://doi.org/10.30865/mib.v4i4.2346>
- Rosita, R., & Tanastasya, A. R. (2019). Penetapan Mutu Rumah Sakit Berdasarkan Indikator Rawat Inap. *Jurnal Kesehatan Kusuma Husada*, 166–178. <https://doi.org/10.34035/jk.v10i2.392>
- Safi, A., & Sulistiadi, W. (n.d.). Pengaruh Bauran Pemasaran terhadap Kepuasan Pasien yang diperoleh dari Tingkat Kunjungan Pasien ke Rumah Sakit : Literature Review Effect of Marketing Mix on Patient Satisfaction obtained from the Rate of Patient Visits to the Hospital : Literature Review. 7, 1–9.
- Sidiq, R., & Afrina, R. (2017). Kajian Efisiensi Pelayanan Rumah Sakit Umum Daerah Aceh Besar. *Jurnal Nursing*, 8(1), 29–34. <http://www.jurnal.unsyiah.ac.id/INJ/article/view/8700>
- Suryalena. (2017). Pengaruh Strategi Deferensiasi Terhadap Keunggulan Bersaing. *Jurnal Aplikasi Bisnis*, 7, 157–164.

- Tampubolon, E., Sari, N. M., & Hariati, H. (2021). Analisis Dampak Kebijakan Program Rujukan Online Berjenjang BPJS terhadap Pelayanan Rawat Jalan di Poli Penyakit Dalam RSUD Deli Serdang Tahun 2019. *Jurnal Inovasi Kesehatan Masyarakat*, 2(2), 172–180. <http://ejournal.delihusada.ac.id/index.php/JIKM%0A>
- Tomanyira, R. M., A. R. . D., & Rahardjo, D. D. T. (2019). Analisa Hubungan antara Kunjungan Rawat Jalan Pasien Kebidanan dan Kunjungan Ponek dengan Penurunan Angka BOR di Tahun 2017 pada Rumah Sakit Anna Medika Bekasi. *Jurnal Bidang Ilmu Kesehatan*, 9(1), 82–91. <http://ejournal.urindo.ac.id/index.php/kesehatan/article/view/347>
- Warni, W., Rahadjo, T. B. W., & ... (2020). Analisis Ketidaksesuaian Jumlah Kunjungan Pasien Jaminan BPJS Dengan Jumlah Yang Diterima Verifikator Internal Di Rawat Jalan RSUD Koja. *Jurnal Manajemen Dan ...*, 4(1). <http://ejournal.urindo.ac.id/index.php/MARSI/article/view/789>
- Widiyanto, W., & Wijayanti, R. A. (2020). Analisis Faktor Penyebab Rendahnya Bed Occupancy Rate (BOR) di Rumah Sakit Mitra Medika Kabupaten Bondowoso. *J-REMI: Jurnal Rekam Medik Dan Informasi Kesehatan*, 1(4), 529–536. <https://doi.org/10.25047/j-remi.v1i4.2060>
- Yuliyati, M. T., & Zagoto, Y. (2022). Pengaruh Lokasi, Harga dan Kualitas Sumber Daya Manusia terhadap Daya Saing pada Rumah Sakit Muhammad Husni Thamrin Cileungsi. ... (*Humanities, Management and ...*, 2(2), 504–511. <http://openjournal.unpam.ac.id/index.php/SNH/article/view/21129%0Ahttp://openjournal.unpam.ac.id/index.php/SNH/article/viewFile/21129/10568>