BOCA
BOLETIM DE CONJUNTURA

PERFORMANCE INDICATORS AND CASH FLOW MANAGEMENT IN SMALL DENTAL PRACTICES

INDICADORES DE DESEMPENHO E GESTÃO DE FLUXO DE CAIXA EM PEQUENAS PRÁTICAS ODONTOLÓGICAS

INDICADORES DE DESEMPEÑO Y GESTIÓN DEL FLUJO DE CAJA EN PEQUEÑOS CONSULTORIOS ODONTOLÓGICOS

https://doi.org/10.56238/bocav25n74-044

Data de submissão: 13/12/2025 **Data de publicação:** 13/01/2026

Larissa Caroline Cayres Pereira

ABSTRACT

Small dental practices must coordinate patient care, treatment capacity, operating expenses, and the timing of receipts. This narrative review examines how operational indicators and cash flow information can support managerial decisions, using a predefined reference set published through 2023. The synthesis covers patient flow, accounts receivable, working capital, financial statements, debt commitments, and demand disruptions. Dental evidence is distinguished from findings in small enterprises and other sectors. Its central argument is that service activity, accounting profitability, and cash availability describe different aspects of practice performance and should be interpreted together. An integrated assessment can connect unused capacity or delayed collections with their financial implications, provided that indicators have consistent definitions and reflect the practice's treatment mix and payment arrangements. The review offers a conceptual approach rather than validated targets or estimates of financial improvement. Its application remains subject to clinical priorities, data quality, and the limited transferability of evidence across settings.

Keywords: Dental Practice Management. Performance Indicators. Cash Flow. Working Capital. Small Dental Practices.

RESUMO

Pequenos consultórios odontológicos devem coordenar o cuidado do paciente, a capacidade de tratamento, as despesas operacionais e o tempo de recebimento. Esta revisão narrativa examina como indicadores operacionais e informações de fluxo de caixa podem apoiar decisões gerenciais, utilizando um conjunto de referência predefinido publicado até 2023. A síntese abrange fluxo de pacientes, contas a receber, capital de giro, demonstrações financeiras, compromissos de dívida e interrupções da demanda. A evidência odontológica é distinguida de achados em pequenas empresas e outros setores. Seu argumento central é que a atividade de serviço, a lucratividade contábil e a disponibilidade de caixa descrevem aspectos diferentes do desempenho do consultório e devem ser interpretados

conjuntamente. Uma avaliação integrada pode conectar a capacidade não utilizada ou cobranças atrasadas com suas implicações financeiras, desde que os indicadores tenham definições consistentes e reflitam o mix de tratamentos e os arranjos de pagamento do consultório. A revisão oferece uma abordagem conceitual em vez de metas validadas ou estimativas de melhoria financeira. Sua aplicação permanece sujeita a prioridades clínicas, qualidade dos dados e transferibilidade limitada de evidências entre ambientes.

Palavras-chave: Gestão de Consultório Odontológico. Indicadores de Desempenho. Fluxo de Caixa. Capital de Giro. Pequenos Consultórios Odontológicos.

RESUMEN

Las pequeñas prácticas dentales deben coordinar la atención al paciente, la capacidad de tratamiento, los gastos operativos y el tiempo de recepción de ingresos. Esta revisión narrativa examina cómo los indicadores operacionales y la información de flujo de caja pueden apoyar las decisiones gerenciales, utilizando un conjunto de referencia predefinido publicado hasta 2023. La síntesis cubre el flujo de pacientes, cuentas por cobrar, capital de trabajo, estados financieros, compromisos de deuda e interrupciones de la demanda. La evidencia dental se distingue de los hallazgos en pequeñas empresas y otros sectores. Su argumento central es que la actividad de servicio, la rentabilidad contable y la disponibilidad de efectivo describen diferentes aspectos del desempeño de la práctica y deben interpretarse conjuntamente. Una evaluación integrada puede conectar la capacidad no utilizada o las cobranzas retrasadas con sus implicaciones financieras, siempre que los indicadores tengan definiciones consistentes y reflejen la combinación de tratamientos y los arreglos de pago de la práctica. La revisión ofrece un enfoque conceptual en lugar de objetivos validados o estimaciones de mejora financiera. Su aplicación sigue siendo dependiente de las prioridades clínicas, la calidad de los datos y la transferibilidad limitada de la evidencia entre contextos.

Palabras clave: Gestión de Práctica Dental. Indicadores de Desempeño. Flujo de Caja. Capital de Trabajo. Pequeñas Prácticas Dentales.

1 INTRODUCTION

Managing a small dental practice involves decisions about both care delivery and financial resources. Treatment consumes staff time, materials, and infrastructure, while receipts may occur after these costs are incurred. Consequently, a busy appointment schedule or positive accounting result may coexist with difficulty meeting current obligations. Dental management publications discuss financial performance and practice administration, while enterprise research examines cash flow and working capital [1,2,5,12]. Read together, these sources provide a basis for examining how operating activity relates to the resources available to sustain it.

For practices with limited administrative capacity, useful indicators should connect observable operating conditions with specific decisions. Patient flow, treatment uptake, chair utilization, receivables, and planned expenditure can help explain why activity does not translate into available cash. However, increasing service volume should not become a substitute for assessing clinical appropriateness, patient needs, or the costs associated with treatment.

The objective of this article is to examine how performance indicators can be interpreted alongside cash flow information in small dental practices, drawing on literature published through 2023. The contribution is a structured conceptual synthesis linking patient flow and capacity use with collection timing, operating commitments, and financial exposure.

2 BACKGROUND

The reference set combines dental practice research, professional guidance, and financial studies from other sectors. Direct dental sources address patient flow, financial performance, treatment-related income and expenses, and economic disruption [9,12,13,15–17]. Other sources concern small enterprises, manufacturing firms, veterinary practices, or an aesthetic clinic [1–3,6–8,10,11,14,18]. Their inclusion broadens the discussion, but their findings should not be treated as direct evidence of effects in small dental practices.

Performance measurement in small firms can incorporate quantitative and qualitative criteria [8]. Applied conceptually to dentistry, this suggests that revenue alone provides an incomplete account of practice performance. Operational indicators describe patient flow and capacity use; financial indicators address income, expenses, assets, and obligations. Cash

forecasts then help assess the timing of resources relative to payments. This distinction prevents measures of activity from being mistaken for measures of liquidity or quality of care.

Cash flow management is related to, but distinct from, profitability. Financial statements can organize information on income, expenses, assets, and obligations, while budgets focus attention on the timing of expected receipts and payments [3,18]. These functions are complementary: a practice may need to review collection arrangements even when its recorded revenues appear satisfactory.

3 METHODOLOGY

This article presents a narrative synthesis of a predefined set of references on dental practice management and enterprise financial performance published through 2023. No original practice records were collected, no patients or businesses were recruited, and no statistical analysis or pooled effect estimate was undertaken.

The material was organized into four themes: operational performance and patient flow; cash budgeting and receivables; working capital and financial structure; and resilience to demand shocks. Dental evidence was distinguished from cross-sector evidence, and descriptive observations were separated from managerial recommendations. Table 1 summarizes the financial monitoring areas discussed in the review.

The reference set was not assembled through a documented systematic search, and no formal study-quality assessment was conducted. Coverage may therefore be incomplete or selective. Differences in research design and setting preclude a pooled estimate of financial effects. Recommendations are presented as interpretations of the literature, with the limits of direct and cross-sector evidence identified where relevant.

4 RESULTS AND DISCUSSION

4.1 OPERATIONAL INDICATORS AND PATIENT FLOW

Monitoring first-time patient flow can help a practice understand how initial consultations lead to subsequent treatment. Majewski *et al.* discuss indicators in a dental office case study, including patient communication and the management of treatment pathways [13]. This provides a practice-level illustration rather than a universal benchmark.

Conversion rates depend on the procedures, population, and definition used and should not be generalized across small practices.

Chair utilization, treatment acceptance, and production per patient address different questions. Chair utilization concerns the proportion of available clinical time used for care; treatment acceptance concerns the uptake of proposed care within a defined patient group; production per patient concerns the value of services recorded for each patient. For managerial comparison, each measure requires an explicit denominator, observation period, and treatment scope. Production must also be distinguished from cash collected. These distinctions are proposed here to clarify interpretation, rather than presented as standardized measures validated by this review.

Changes in these indicators require investigation before action. Lower chair utilization may reflect reduced demand, cancellations, longer appointment requirements, or scheduling constraints. Higher production per patient may reflect a more expensive treatment mix rather than greater efficiency. Reviewing related costs and collection timing helps distinguish these possibilities [12]. Treatment acceptance should be interpreted alongside clinical appropriateness and patient preferences; increasing its value is not, in itself, evidence of better care.

4.2 CASH BUDGETING AND ACCOUNTS RECEIVABLE

A cash budget organizes expected inflows and outflows by period, making payment timing visible [3]. In a small dental practice, this can connect expected collections with recurring expenses and scheduled commitments. A forecast is conditional on its assumptions: it does not prevent liquidity shortfalls by itself, and its usefulness depends on maintaining accurate information and revising expectations when circumstances change.

Accounts receivable monitoring complements the cash budget by identifying amounts that remain unpaid and the timing of anticipated collections. Duda's professional article specifically addresses receivables in dentistry [4]. Studies of cash flow in manufacturing and non-financial firms provide broader context [10,11], but their results do not establish the same magnitude of benefit or the same collection strategy for dental practices.

SME studies examine cash management and business performance [6,14]. Their relevance here lies in the questions they raise about financial control, not in transferring their

effect estimates to dentistry. Comparing projected collections with scheduled obligations helps identify potential timing gaps. Decisions then depend on the underlying cause, such as delayed payment, unexpected expenditure, or reduced treatment activity.

4.3 WORKING CAPITAL AND FINANCIAL STRUCTURE

Working capital decisions involve a balance between resources committed to day-to-day operations and the cash needed to meet obligations. SME studies examine the relationship between working capital, cash flow, and performance [1,2]. For dental practices, the corresponding questions include whether materials are being held beyond operational needs, whether collections are delayed, and whether payment commitments are compatible with available funds. Cross-sector findings should guide questions rather than prescribe a fixed level of working capital.

Working capital should be interpreted through both resources and obligations, rather than equated with inventory alone. Reducing surplus materials may release funds, but reducing essential supplies can interrupt care. Likewise, collecting outstanding balances can improve cash availability without changing the value of treatment already recorded. The managerial issue is whether the timing and composition of current resources are compatible with operating needs and payment commitments.

The dental-sector financial analysis by Pasupuleti and Pasupuleti addresses assets, debt, and financial performance [16]. It provides context for examining financial structure, but does not establish that smaller practices are necessarily more profitable or that a particular debt composition ensures continuity. Debt should be considered in relation to payment timing and repayment capacity; accounting classifications alone do not demonstrate sufficient liquidity.

Financial statements can help organize the relationship between treatment activity, expenses, and financial performance. Kakudate *et al.* discuss dental income and expenses under the Japanese insurance system [9], while Wijaya examines an Indonesian aesthetic clinic [18]. These settings differ from a small dental practice operating under other payment arrangements. Gripper's veterinary article similarly offers an analogy for budgeting and monitoring rather than direct dental evidence [7].

Table 1

Financial monitoring areas relevant to small dental practices

Monitoring area	Managerial interpretation	Evidence and applicability
Cash budget	Compare expected receipts with operating payments and scheduled commitments.	Budgeting guidance and SME evidence [3,14]; forecasts depend on assumptions.
Accounts receivable	Identify unpaid balances and expected collection timing.	Dental guidance [4] and evidence from other sectors [10,11].
Working capital	Review resources tied up in receivables and materials alongside cash needs.	SME studies [1,2]; no universal dental target is established.
Assets and debt	Consider asset use and debt payments in relation to available funds.	Dental-sector analysis [16]; descriptive findings are not guarantees.
Income and expenses	Interpret operating results in the context of treatment mix and payment arrangements.	Dental insurance evidence [9] and an aesthetic-clinic case [18].

The table summarizes monitoring purposes and evidence scope; it does not report empirical results.
Source: Author's conceptual synthesis of references [1–4,9–11,14,16,18].

4.4 FINANCIAL RESILIENCE AND DEMAND SHOCKS

Pandemic-related studies illustrate the financial exposure created when dental activity declines while commitments continue [15,17]. Øzhayat *et al.* examine dental practices in Denmark, and Schwendicke *et al.* analyze economic disruption. Their relevance is the connection between demand, costs, and financial outcomes; the magnitude and timing of any loss remain dependent on the population, setting, and analytical assumptions.

For a small practice, scenario analysis can examine the consequences of reduced treatment activity and slower collections separately. The assessment should state which receipts are delayed, which revenues are lost, and which commitments remain payable. This distinction makes the forecast more informative than applying a single reduction to all cash inflows. The review does not establish a minimum reserve, a survival period, or a validated stress-testing procedure.

4.5 INTEGRATION AND LIMITATIONS

Integrated monitoring can be organized around three questions: how much clinical capacity is being used, when payment for recorded services is expected, and whether those receipts cover scheduled commitments. Underused capacity directs attention to patient flow and scheduling; delayed collections direct attention to receivables; a forecast shortfall despite satisfactory activity directs attention to payment timing, costs, or financing commitments.

These are interpretive pathways, not evidence that a particular management intervention will succeed.

The main limitation is the heterogeneous evidence base. Dental studies, professional guidance, SME research, and studies of manufacturing, veterinary, and aesthetic services differ in design and applicability. In particular, evidence from the dental sector as a whole or a single practice cannot establish the same relationships in every small practice. Cross-sector findings are therefore used to inform financial reasoning rather than to substantiate dental-specific effect sizes. Without original records or longitudinal evaluation, the proposed integration cannot demonstrate improvements in profitability, care quality, or continuity.

5 CONCLUSION

Operational indicators and cash flow information answer complementary management questions in small dental practices. Patient flow and chair utilization describe activity, while receivables and cash forecasts describe the timing of resources available to meet commitments. Interpreting them together can clarify why a practice's workload, recorded revenue, and cash position do not necessarily move in parallel.

The practical contribution is a conceptual approach to connecting capacity use, collection timing, and financial obligations. Its implementation requires consistent indicator definitions and adaptation to treatment mix, payment arrangements, and operating costs. Empirical research in small dental practices is needed to evaluate whether this approach improves decisions and financial outcomes. The present review does not establish universal benchmarks or causal effects.

REFERENCES

1. Afrifa G. Net working capital, cash flow and performance of UK SMEs. Review of Accounting and Finance. 2016;15:21–44. doi:10.1108/raf-02-2015-0031.

2. Afrifa G, Tingbani I. Working capital management, cash flow and SMEs' performance. International Journal of Banking, Accounting and Finance. 2018;9:19–43. doi:10.1504/ijbaaf.2018.10010466.

3. Bright M, Li SK. Cash flow statements and budgets. 2017. p. 66–73. doi:10.1201/9781315377339-10.

4. Duda M. Financial advantages. Preventative measures ensure the health of your accounts receivable. Texas Dental Journal. 2009;126(11):1128–1130.

5. Dunphy L. Practice doctor: dental practice manual. BDJ. 2014;216:384. doi:10.1038/sj.bdj.2014.296.

6. Egwu E, Orugun FI, Adelakun AR. Exploration of cash flow management for enterprise's business performance. Asian Journal of Economics, Business and Accounting. 2021. doi:10.9734/ajeba/2021/v21i1030435.

7. Gripper J. Building a practice. Budget forecasts and performance monitoring. Veterinary Record. 1989;124:29–30. doi:10.1136/vr.124.2.29.

8. Jarvis R, Curran J, Kitching J, Lightfoot G. The use of quantitative and qualitative criteria in the measurement of performance in small firms. Journal of Small Business and Enterprise Development. 2000;7:123–134. doi:10.1108/eum0000000006834.

9. Kakudate N, Morita M, Sugai M, Nagayama M, Fukuhara S, Kawanami M, Chiba I. Comparison of dental practice income and expenses according to treatment types in the Japanese insurance system. Japanese Dental Science Review. 2010;46:4–10. doi:10.1016/j.jdsr.2009.08.001.

10. Kroes JR, Manikas A. Cash flow management and manufacturing firm financial performance: a longitudinal perspective. International Journal of Production Economics. 2014;148:37–50. doi:10.1016/j.ijpe.2013.11.008.

11. Laghari F, Ahmed F. Cash flow management and its effect on firm performance: empirical evidence on non-financial firms of China. PLOS ONE. 2023;18. doi:10.1371/journal.pone.0287135.

12. Levin R. Improving your practice's financial performance. Dentistry Today. 2004;23(6):102.

13. Majewski A, Merkisz-Guranowska A, Czarnota K. Flow management of first-time orders: a dental office case study. Journal of Engineering Sciences. 2022;9(2):B7–B16. doi:10.21272/jes.2022.9(2).b2.

14. Onyango G. Cash management practices and financial performance of small and medium sized enterprises in Nairobi City County, Kenya. Strategic Journal of Business & Change Management. 2023. doi:10.61426/sjbcm.v10i1.2578.

15. Øzhayat E, Bahrami G, Rosing K. Impact of the Covid-19 pandemic on dental practices in Denmark. Acta Odontologica Scandinavica. 2022;81:131–136. doi:10.1080/00016357.2022.2096923.

16. Pasupuleti VRK, Pasupuleti VVK. Study on performance of offices of dentists. International Journal of Dentistry and Oral Science. 2020;7(12):1197–1203. doi:10.19070/2377-8075-20000237.

17. Schwendicke F, Krois J, Gómez J. Impact of SARS-CoV2 (Covid-19) on dental practices: economic analysis. Journal of Dentistry. 2020;99:103387. doi:10.1016/j.jdent.2020.103387.

18. Wijaya CP. Financial statements and financial performance analysis: implementation in an Indonesian MSME-based aesthetic beauty clinic. Contemporary Research on Business and Management. 2021. doi:10.1201/9781003196013-25.

