
BOOK REVIEWS



John Lilja, Sam Larsson, and David Hamilton, *Drug Communication: How Cognitive Science Can Help the Health Professionals* (No. 24 in the Pharmaceutical Science Series). Kuopio, Finland: Kuopio University Publications, 1996. 358 pp. \$35.00 (paperback).

Drug Communication advocates for "a pluralistic theoretical and methodological approach in the analyses of drug communications" (p. 303). In its discussion of drug communications, the text provides 27 chapters divided into four sections discussing theory, methods, empirical illustrations, and conclusions.

This book assists readers in developing a better understanding of the complex processes influencing drug use. It is unique in its emphasis of the differences between patient and provider perspectives, which are particularly important as we pursue pharmaceutical care. *Drug Communication* is comprehensive and thoroughly referenced, yet it could be useful for a variety of audiences ranging from researchers and graduate students to practitioners and students.

The first section (Chapters 1 through 5) provides a theoretical overview. After an introductory chapter and a chapter on concepts used in the book, Chapters 4 and 5 might be considered "heavy" read for pharmacy students, yet these chapters discuss essential components in the communication process and briefly explain 12 models which provide much-needed insight into communication. Coupled with further examples and discussions exploring the material's practice implications, these chapters would provide an excellent foundation for pharmacy practice or communications courses.

The second section (Chapter 6) argues for the use of a combination of research methods in investigating communications processes. The pro-

spective researcher would need to delve into the discussed methods further, but the chapter provides a good overview for practitioners and students.

The third section provides empirical illustrations divided into three themes. The first theme (Chapters 7-13) describes how *patients* identify symptoms, select therapeutics strategies, and use medications. Chapter 7, which demonstrates the complexity of the patient perspective, and Chapters 8 and 9, which discuss prescription and over-the-counter treatment processes, are particularly important for students. Chapters 10-13 provide insightful discussion on patient attitudes, compliance, informed consent, and placebo effects. Material in the entire "patient" theme is particularly important to pharmacy as we seek to provide patient-centered care.

The second theme (Chapters 14-17) discusses *drug prescribing*, including reasons for irrational prescribing, the influence of various media, and prescribing-related decision-making. The third theme (Chapters 18-24) involves *drug communications* and begins with the criteria used when planning to provide information. In addition, patient-physician communications, consumer-pharmacist communications, mass-media drug information, and drug dependency are covered.

The final section of the book summarizes the main arguments (Chapter 25), introduces practical implications (Chapter 26), and suggests areas for future research (Chapter 27).

Each chapter is well organized and well referenced. Chapter summaries provide a good overview of the material covered, but instructors would need to help pharmacy students and pharmacists interpret the text in terms of practice implications. Although *Drug Communication* is a well consolidated text, the reader is left responsible for determining how to use the material and what improvements or changes in practice may be indicated. Graduate students in pharmacy administration and pharmacy practice would surely benefit from the text, particularly if used in their earlier years and in conjunction with a seminar or discussion group. Instructors could use the text as a refresher and reference for undergraduate teaching. Researchers and libraries will benefit from the centralization of drug communications material in one text.

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Zbigniew J. Witczak and Karl A. Nieforth, eds., *Carbohydrates in Drug Design*. New York: Marcel Dekker, Inc., 1997. ix + 703 pp. \$175.00 (hardcover).

Carbohydrates in Drug Design is a compilation of 16 chapters written by researchers involved in the discovery and development of carbohydrates as medicinal agents. Because of its collective nature, it is not appropriate as a thorough overview textbook of this field. However, it would be useful as a reference for a graduate special topics course in medicinal chemistry and as a reference work for researchers in the field.

The editors have assembled an international groups of 26 experts in the area. The authors of each chapter discuss their research endeavors (sometimes almost exclusively) as well as provide a more general overview of all the research being done in their particular area. Indeed, the chapters that were most insightful and interesting were the ones where a significant attempt was made to cover the literature thoroughly. There is a detailed index at the end of the book allowing the reader to search topics covered in several chapters throughout the book.

Due to the rapid reemergence of carbohydrates as interesting drug targets and leads, it is very difficult to truly capture the timeliness of the subject. The editors, however, have collected chapters on many of the exciting areas, most notably sialyl Lewis^x, cell adhesion, azasugars, and some synthetic issues. Most chapters cover developments up to approximately the autumn of 1995. One exciting area which could have benefited from additional contributions is the area of synthetic advances such as chemoenzymatic methods to construct various carbohydrates monomers and oligomers from simple precursors. Another area, aminoglycoside/RNA interaction, was just beginning to emerge at the time this book was being written. While the specifics were not well enough understood at the time to warrant a whole chapter, the exciting potential for development of RNA-sequence and structure-specific binding drugs for the treatment of HIV should at least have been mentioned in the introductory overview chapter. Finally, the identification, structural, and conformational analysis of carbohydrates has played a key role in their rediscovery as important targets and leads, yet there is little discussion of the major advances made in these areas.

A major flaw in the book is poor proofreading and text editing throughout. In several chapters there are instances where the citations in the text are not correctly correlated with the numbered references at the end of the chapter. In a few cases, page numbers cited in the index are off by a few pages. In addition, there were several instances where the text made no sense whatsoever or was missing information, such as the following sen-

tence: "In fact the DNA binding of the β -anomer [*sic*] of DOX is less favorable than the binding of the aglycon itself" (p. 552).

In summary, *Carbohydrates in Drug Design* is a useful reference book for both researchers and graduate students. It should not be relied upon as a comprehensive text, but rather as a compilation of some of the exciting areas currently under investigation in carbohydrate drug design and targeting.

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Norman V. Carroll, *Financial Management for Pharmacists: A Decision-Making Approach*. Second edition. Baltimore: Williams and Wilkins, 1998. ix + 273 pp. \$39.00 (hardcover).

This book provides a comprehensive description of various managerial control and analysis techniques that are useful for pharmacy students and pharmacy practitioners. Chapters 1 and 2 provide an introduction to the goals, use and limitations of financial management, and the financial statements commonly developed for pharmacies and used by pharmacists and financial decision-makers. Chapters 3 and 4 are an overview of preparing financial statements. The topics include accounting basics and accounting for inventory and cost of goods sold. Chapter 5 focuses on analyzing financial statements for the purpose of improving decision-making. Chapters 6 and 7 describe the use of information contained in financial statements to better plan and control the operations of a business. These chapters focus on budgeting overall operations and budgeting the lifeblood of a business, cash. Chapters 8 and 10 discuss break-even and differential analysis, two techniques to help pharmacists better evaluate changes that occur in everyday business operations. Chapter 9 focuses on the key to generating revenue in a pharmacy, pricing of pharmaceutical goods and services.

Chapters 11 through 14 concentrate on the efficient use of cash in a business. Chapter 11 discusses the investment of capital in noncurrent assets such as a car, computer equipment, or renovating a building. Chapters 12 and 13 focus on the analysis of the sources and uses of cash and methods to improve cash flow. Chapter 14 reviews control of the largest asset of a pharmacy, inventory. This chapter discusses the importance of

inventory in meeting patient needs and how proper control of inventory can influence the profitability of a pharmacy. The book concludes with Chapter 15, a broad overview of pharmacoeconomics, discussing the characteristics of costs and reviewing analysis techniques that pharmacists can use to evaluate programs they may implement.

The main improvement in the second edition of this book is the addition of examples and problems from areas of pharmacy other than community pharmacy. These new problems expand the scope of applications of the techniques discussed to other segments of pharmacy or other segments of the health-care system. Further, the problems and examples used appear to be actual examples. This is a great advantage for professors, students, and practitioners. For professors, the results of the examples and problems can help students integrate concepts from financial management, the practice of pharmacy, and the health-care system. I teach a strategic pharmacy management class at The Ohio State University, and I use the results of the financial analysis problems in this text as a starting point for discussing the effects of service-benefit prescription drug programs. I find the real world examples help students better understand the effects of the health-care system on pharmacy practice. For example, the results of real-world examples may help both students and practitioners develop and then evaluate the effects of strategies designed to counteract the effects of insurance effects on pharmacy performance financial performance.

One strength of this book is how the chapters are structured. A majority of the topics covered in the book are control techniques (*e.g.*, budgeting) or analysis techniques (*e.g.*, break-even analysis). Carroll does a very good job of initially describing the topic to be covered in each chapter followed by a brief example of when the control procedure or analysis technique is used. He then provides a description of how to implement or perform the procedure followed by additional examples. Some chapters also contain a section describing considerations for each technique or factors influencing decisions necessary when performing the techniques. Users of this text will find this structure very useful and that it contributes to a better understanding of the material.

Another strength of this book is the pricing chapter (Chapter 9) since it focuses on both physical goods and services. Carroll uses dispensing a prescription to illustrate conceptually the process of costing a service and then provides actual examples. The extension of the process of costing a service follows logically to nondispensing pharmacy services, a very timely topic for pharmacy practice. This chapter concludes with discussions of special considerations regarding the pricing of pharmaceuticals and services in general.

Overall, Carroll has done a good job of integrating difficult financial and managerial concepts and the practice of pharmacy. This book is very useful for students and practitioners interested in the financial performance of various pharmacy practices or the financial performance of any business entity.

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