

SERIES IN ANXIETY AND RELATED DISORDERS

ANXIETY AND SUBSTANCE USE DISORDERS

The Vicious Cycle of Comorbidity

Sherry H. Stewart
Patricia J. Conrod
Editors

Anxiety and Substance Use Disorders

SERIES IN ANXIETY AND RELATED DISORDERS

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Springer

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For Laila and Ali

Epigraph

Whose is . . . the anxiety? . . . Those who linger late over their wine, those who are always trying some new spiced liquor.

Proverbs 23: 29–30

Preface

The idea for this book originated with an invitation from Dr. Martin Antony in the fall of 2002 to contribute an authored or edited book on the topic of anxiety disorder co-morbidity with substance use disorder, to his planned series of books on anxiety disorders. This invitation converged nicely with conversations that the two of us (S.H.S. and P.J.C.) had been having around that time of eventually writing a book on different pathways to substance use disorder, one of which our own work indicates involves anxiety-related processes. We decided on an edited book so that each chapter could be written by an expert in the field and so we could feature the exciting work in this field that is taking place around the world. We were thrilled to be able to involve such an outstanding and international set of chapter authors in the process of putting together this volume. We have both worked rather tirelessly in carefully editing the chapters authored by others, and in writing our own sections of the book, over the many months that have passed since first receiving the invitation from Dr. Antony and signing the contract with Springer. We have had the opportunity to work on these tasks together and separately in such diverse and inspiring locations as Paris and Chamonix in France, London in the United Kingdom, Vancouver in British Columbia, Canada, and Halifax and Evangeline Beach in Nova Scotia, Canada. Over the time that this project has developed, we have seen friends, clients, and patients with substance use and anxiety disorders both thrive under currently available treatments models, and fatally deteriorate. The co-morbidity of anxiety and substance use disorders remains a prevalent problem that traditional treatment models fail to address adequately.

The overall purposes of this edited book are to fully (1) review recent literature on anxiety disorder and substance use disorder co-morbidity, (2) present biologic and psychosocial theories that explain their co-occurrence, and (3) cover recent treatment models based on such theories and the literature evaluating their outcomes.

For some time now, research has been accumulating on the prevalence and nature of the co-occurrence between various forms of anxiety disorders and substance use problems. With increased understanding of the nature of these relationships, more recently, new interventions targeting this co-morbidity have been developed and tested. One of the goals of this book is to disseminate

knowledge about the content and efficacy of these newly-developed approaches. Moreover, emerging findings on efficacy of these approaches to co-morbidity and the things we are learning from efficacy trials have led to a further understanding of the inter-relations and the strategies needed to address them clinically. We felt that a critical analysis of this emerging literature is sorely needed to move this field forward, making this volume very timely.

Our intended audience for the volume is quite broad. We have attempted to make the text relevant for researchers, clinicians, academics, and students alike. Those who work in the area at the intersection of substance use and anxiety-related psychopathologies, and those delivering psychosocial or medical interventions for substance use and/or anxiety disorders should find this volume most appealing.

The theoretical basis for this book integrates the biological and psychosocial approaches to understanding anxiety, substance abuse, and their interactions. Various theoretical models within this larger framework are reviewed in relevant chapters, including the tension reduction/self-medication/stress-response dampening models, and models involving substance-induced anxiety intensification. We explore the idea of reciprocal relations between anxiety and substance abuse throughout the course of co-morbidity of these two disorders, with special attention devoted to mechanisms explaining substance-induced anxiety, as well as substance-induced anxiogenesis. This book is unique in its attempt to review theoretical and empirical literature on the reciprocal relations between anxiety and substance misuse across a variety of anxiety disorders. The book also explores the conditions under which pathological anxiety motivates problematic substance use, misuse, and even substance avoidance.

The theoretical orientations of the treatments presented in this book are empirically-supported, and largely cognitive-behavioral. All are presented with consideration of the potential reciprocal relations between anxiety and substance use and the biological and psychosocial mechanisms that mediate these relations.

Our approach in compiling and editing this book has been to focus on basic research on the biologic, social, and cognitive factors mediating anxiety and addictive behaviors and their interaction. Treatment approaches reviewed in this book have at least some preliminary empirical support and have largely been derived from the knowledge gained from basic science research. We also take the field a step forward by attempting to integrate different theoretical perspectives on the nature of the co-morbidity in the concluding section of the book. To our knowledge, this book is the first to examine co-morbidity across different forms of anxiety/substance use disorder co-morbidity. This has allowed us to come to some tentative conclusions regarding commonalities and distinct processes within each pattern of co-morbidity and implications for treatment.

The present volume is divided into four parts. Part I is intended to provide an overview of theoretical issues regarding anxiety and substance use disorders in general. In Chapter 1, Kushner, Krueger, Frye, and Peterson provide an

overview of epidemiological perspectives on co-occurring anxiety disorder and substance use disorders. In Chapter 2, McNaughton provides a thorough review of the neurobiological aspects of anxiety with implications for understanding co-morbid anxiety and substance use disorders.

Part II of this volume is intended to provide a review of research findings on the nature, etiology, and functional relations between anxiety and substance use disorders. Each chapter reviews evidence for theories that explain co-morbidity and may include emphasis on both psychosocial and biologic theories. Each chapter focuses on a specific form of co-morbidity. In Chapter 3, Coffey, Read, and Norberg provide a review of the co-morbidity of post-traumatic stress disorder (PTSD) and substance use disorder with emphasis on neuroimaging, neuroendocrine, and psychophysiological findings on the nature of this form of co-morbidity. In Chapter 4, Tran and Smith provide theoretical insights on the nature of the relationship between social phobia and alcohol use disorders; their chapter provides an up-to-date review of relevant psychopathology research findings. In Chapter 5, Norton, Norton, Cox, and Belik provide a review of the research on the nature and etiology/maintenance of co-occurring panic spectrum disorders and various forms of substance use.

Part III consists of a set of chapters focusing on treatment models and their effectiveness. Once again, each chapter is devoted to a specific form of co-morbidity. The emphasis of each chapter is on a review of empirically-validated treatments. Authors were asked to include case material whenever possible. In each case, authors provide significant detail about the intervention and its implementation. In Chapter 6, Klosterman and Fals-Stewart review the evidence on the treatment of co-morbid obsessive-compulsive disorder (OCD) and substance use disorders. In Chapter 7, Riggs and Foa provide a state-of-the-art review of what is known about effective treatments for co-morbid PTSD and substance use disorders. Chapter 8 consists of a review by Randall, Book, Carrigan, and Thomas of the research evidence on various approaches that have been tested for the treatment of co-occurring social phobia and alcohol use disorders. Toneatto and Rector focus on the treatment of co-morbid panic disorder and substance use disorder in Chapter 9; they first review the treatment outcome literature, and then detail a functional analysis type of approach to treatment of this form of co-morbidity that might usefully be applied to other forms of co-morbid anxiety and substance use disorder. In Chapter 10, Zvolensky, Bernstein, Yartz, McLeish, and Feldner provide a review of the cognitive-behavioral treatment they have developed for patients with co-morbid panic disorder and tobacco dependence. Watt, Stewart, Conrod, and Schmidt provide a review of a novel approach to the treatment and prevention of co-morbid anxiety and substance use disorder in Chapter 11 – i.e., an intervention aimed at the level of personality vulnerability to these disorders. And in the final chapter of this section (Chapter 12), Marshall provides an overview of the medical management of co-morbid anxiety and substance use disorder.

Finally, in Part IV of the current volume, Chapter 13 contains and integration of the material presented in the earlier sections, written by the volume

editors, Stewart and Conrod. In this concluding chapter, we attempt to identify common themes emerging across the chapters and to set an agenda for future research in this area.

We have a number of people, agencies, and institutions to acknowledge and thank for their roles in the shaping of this text. First and foremost, we would like to thank the authors and their colleagues who contributed chapters to this exciting volume. And we wish to extend our sincere thanks to Dr. Martin Antony for providing us with the opportunity to contribute to his series on anxiety disorders. We also owe a great deal to our editor at Springer, Sharon Panulla, and her editorial assistant, Jennifer Hadley, for their assistance, support, and patience throughout the contract, production, and publication process. Both of us would like to acknowledge the contributions of our own present and former students, research assistants, and colleagues who have contributed to the body of research reviewed herein that has increased the understanding of anxiety – substance use disorder co-morbidity to the point that we are now developing effective interventions for treatment and prevention of this devastating dual affliction. We are indebted to our families for their patience and support while we undertook this challenging project. And of course, we need to thank the various funding agencies that have made our own work in this important area possible. One of us (S.H.S.) has been funded for her work in this area by the Medical Research Council of Canada, the Social Sciences and Humanities Research Foundation of Canada, the Canadian Institutes of Health Research, the Nova Scotia Health Research Foundation, and the Mounted Police Foundation. The other of us (P.J.C.) has been funded for her work in this area by agencies including the NHS Research and Development Trust and the Canadian Institutes of Health Research. And the two of us have jointly held grants in this area of research from the National Health Research Development Program, Health Canada and the Alcoholic Beverage Medical Research Foundation. We hope that you will enjoy the volume as much as we have enjoyed the process of pulling it all together.

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About the Editors

Sherry H. Stewart has an international reputation for her work in the areas of addictions, anxiety disorders, and the co-morbidity of mental health and substance use disorders. She is a professor of psychiatry and psychology at Dalhousie University. She served as the coordinator of the Dalhousie doctoral training program in clinical psychology from 2004 to 2006. Dr. Stewart has a cross-appointment as a professor in community health and epidemiology at Dalhousie; she also holds research appointments at local teaching hospitals in the Halifax metropolitan area. She just completed a year as visiting faculty at the University of British Columbia in Vancouver where she spent her second sabbatical. She received her B.Sc. (honors) in psychology from Dalhousie University in 1987 and her Ph.D. in clinical psychology from McGill University in 1993. She completed her clinical internship at the Toronto Hospital in 1992–1993. Dr. Stewart has been registered as a clinical psychologist in Nova Scotia since 1995. She ran a part-time private practice in the metropolitan Halifax area until 2003, when she left her practice to become a mother. Dr. Stewart is currently the associate editor of the international journals *Cognitive Behaviour Therapy* and *Current Drug Abuse Reviews* and serves on the editorial boards of *Cognitive and Behavioral Practice* and the *Canadian Journal of Behavioural Science*. She has provided reviews for numerous scientific journals and granting agencies. The quality of her research has been recognized through numerous awards including the Young Investigator Award from the Anxiety Disorders Association of America in 1998, the New Investigator Award from the Association for Advancement of Behavior Therapy Women's Special Interest Group in 1998, the President's New Researcher Award from the Canadian Psychological Association in 1998, and the Killam Prize in Science in 1997. This past year she was elected to the Canadian Academy of Health Sciences and she received a governor-in-council appointment to the Board of Directors of the Canadian Centre on Substance Abuse.

Patricia J. Conrod is a BPS Chartered Clinical Psychologist and Clinical Lecturer in the Department of Psychological Medicine and Psychiatry, Institute of Psychiatry, King's College London. Her research focuses on cognitive, personality, and biological risk factors for the development and maintenance of drug abuse and the factors that mediate the co-occurrence of addictive

behaviors with other mental disorders. Her experimental research focuses on factors that make people more susceptible to seek out behavioral reinforcement from drugs of abuse. She has published several studies demonstrating that personality factors determine the type of reinforcement experienced from substances of abuse. More recently, her research findings have led to the development of new approaches to substance abuse treatment and prevention that target personality risk factors and the underlying motivational determinants of drug use in subtypes of substance misusers. Dr. Conrod is a member of the King's College London Research Ethics Committee. She is an Action on Addiction Research Fellow, and a National Institute of Health Research, Biomedical Research Centre Faculty Member. Dr. Conrod is currently the associate editor of the international journal *Current Drug Abuse Reviews* and has guest edited special issues in the *Journal of Mental Health* and the *Journal of Cognitive Psychotherapy*. Her research findings have been featured in the media, including articles in *The Financial Times*, and *The Guardian*, as well as in radio and television interviews for the BBC and Channel 4, UK.

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"You should relax less."

Part I
Theoretical Issues