

ROUTLEDGE MONOGRAPHS IN MENTAL HEALTH

# Principles of Cyberbullying Research

*Definitions, Measures, and Methodology*

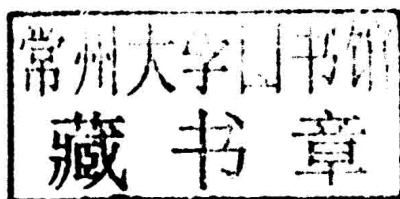
Edited by  
Sheri Bauman, Donna Cross and  
Jenny Walker



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First published 2013  
by Routledge  
711 Third Avenue, New York, NY 10017

Simultaneously published in the UK  
by Routledge  
27 Church Road, Hove, East Sussex BN3 2FA

*Routledge is an imprint of the Taylor & Francis Group, an informa business*

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*Library of Congress Cataloging-in-Publication Data*

Bauman, Sheri.

Principles of cyberbullying research : definitions, measures, and methodology /

Sheri Bauman, Donna Cross, Jenny Walker.

p. cm.

Includes bibliographical references and index.

ISBN 978-0-415-89749-5 (hbk. : alk. paper) 1. Cyberbullying—Research—Methodology. 2. Bullying—Research—Methodology.

I. Cross, Donna, PhD. II. Walker, Jenny L. III. Title.

HV6773.15.C92B38 2013

302.34'302854678—dc23 2012015811

ISBN: 978-0-415-89749-5 (hbk)

ISBN: 978-0-203-08460-1 (ebk)

Typeset in Times by Apex CoVantage, LLC

# Principles of Cyberbullying Research

In 2010, the International Cyberbullying Think Tank was held in order to discuss questions of definition, measurement, and methodologies related to cyberbullying research. The attendees' goal was to develop a set of guidelines that current and future researchers could use to improve the quality of their research and advance our understanding of cyberbullying and related issues. This book is the product of their meetings, and is the first volume to provide researchers with a clear set of principles to inform their work on cyberbullying. The contributing authors, all participants in the Think Tank, review the existing research and theoretical frameworks of cyberbullying before exploring topics such as questions of methodology, sampling issues, methods employed so far, psychometric issues that must be considered, ethical considerations, and implications for prevention and intervention efforts. Researchers as well as practitioners seeking information to inform their prevention and intervention programs will find this to be a timely and essential resource.

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# Preface

Research in the social sciences serves three purposes: acquiring knowledge, translating the findings so they can be applied in practice, and informing policy. Each of these is critical to the field of cyberbullying research. As a new focus of inquiry, the knowledge base on cyberbullying is limited, and the need for solid information is great. Because cyberbullying is a worldwide problem affecting young people, new knowledge has important applications to the development of prevention and intervention programs that are sorely needed. Basing such programs on scientific knowledge increases the possibility that such programs will be effective. Finally, legislation and educational policies are important endeavors that also should be predicated on a dependable empirical knowledge base. As social scientists work toward accumulating knowledge, it is critical that we do so using the most rigorous approaches. This volume is the first to provide guidelines for cyberbullying researchers in order to ensure that high quality practices lead to solid knowledge.

This book is the product of an International Cyberbullying Think Tank held in September 2010 in Tucson, Arizona, and funded by the National Science Foundation. The 20 attendees (who are contributing authors of this volume) came from three continents, eight countries; six states in the United States; and a variety of academic disciplines including psychology, public health, social work, counseling, communications, and education.

The impetus for the meeting was the developing line of inquiry focused on the phenomenon called cyberbullying. As technology became more affordable and available, instances of abuse perpetrated via technology came onto the radar screen of the public, and of researchers. Many scholars, eager to understand this “new” behavior, conducted initial studies using their own definitions of the term, devising measures, and using methods that had been applied to traditional bullying, primarily surveys. Scholars (e.g., Tokunaga, 2010; and Menesini, 2009) recognized that without a standard definition and psychometrically sound measures, the findings of research did not meet the accepted standards of scientific rigor. The goal of the Think Tank was to deliberate upon questions of definition, measurement, and methodologies related to cyberbullying, with the goal of reaching consensus and disseminating the outcomes so that current and future researchers would have guidelines that would improve the quality of research and advance our

understanding of cyberbullying and related issues. In addition, the group generated research questions that they hoped would be addressed going forward. We present these in the hope that researchers planning new studies will consider how they might address these questions.

This volume represents the expanded and detailed products that emerged from the meeting. We begin with an introduction that chronicles the extant research and articulates the questions we address in the rest of the book. The next section focuses on the thorny question of the definition of “cyberbullying.” Readers will note that there is still some dissent on this issue; researchers need to consider potential alternative conceptualizations and terms, and be clear in their own work about exactly what it is they are studying. We move then to theoretical frameworks, and examine whether theories used to explain traditional bullying are sufficient to explain cyberbullying, or whether a new formulation is called for. One such formulation is presented in this section.

We next address the question of methodology. We open with a discussion of the importance of methodology, and follow with a review of sampling issues as they relate to this field. We present a review of the methods that have been employed so far in cyberbullying research in order to set the stage for our guiding principles, specific recommendations, and then we present a more detailed description of an innovative approach that is particularly suitable for this topic. Finally, given the unique nature of research about technology—and methods that employ that technology, we conclude this section with an overview of ethical issues peculiar to this line of inquiry.

In order to conduct sound research, reliable and valid measures are essential. This section begins with an exposition of the critical importance of measurement. This is followed by a review of psychometric issues that must be considered when conducting cyberbullying research. Then, since researchers around the world are working on this problem, we present the essential processes that are involved in translating measures and determining measurement invariance for different populations. Qualitative studies have much to offer this field, and we include a discussion of those practices next. Finally, we review the content of needed measures, that is, what to measure.

We conclude with two important sections. The Implications section looks at the implications of the topics discussed above for prevention and intervention efforts. How can our principles be translated into practice? What can practitioners take away from this volume? Finally, we consider the way forward. What are the most understudied and needed questions for cyberbullying researchers to address? What areas most need attention?

Michele Ybarra (2011) recently reported the findings from two studies that help us put cyberbullying in context. Although her studies were done in the United States, the findings will be of interest to readers around the globe because they help dispel some conventional wisdom that may not be consistent with the data. In addition, the results also foreshadow many of the issues that will be discussed in this volume. I include her summary of these findings here:



I have recently led two national youth survey efforts: Teen, Health, and Technology, which examines the benefits and risks for lesbian, gay, bisexual, questioning, and transgender youth online (LGBTQ), and how this may be similar or different for non-LGBTQ youth; and Growing up with Media, which is a longitudinal study of youth to better understand how media is affecting youth behavior.

In Growing up with Media, we included measures of both cyberbullying (i.e., bullying online that is repetitive, over time, and between two actors of differential power) and harassment (e.g., rude and mean comments; threatening or aggressive comments). As we would expect, harassment appears to be a more generalized type of youth victimization than bullying. Based upon cohort data from 2007 and 2008, 24% of youth have been harassed, 13% have been bullied and harassed, and only 1% have been bullied but not harassed online in the past year; the remaining 62% report neither experience. Thus, if youth are being bullied, they're likely being harassed, but the converse does not necessarily follow. From a measurement perspective, this finding suggests that it is important that we as researchers are very clear about what we are measuring: Is it more general aggression that may happen once or multiple times, between youth of equal strength or not; or is it specifically bullying that occurs repeatedly, over time, between people of differential strength? Both victimization experience types are associated with elevated odds of psychosocial challenge and so both should continue to be measured, but given our previous findings that frequency of victimization matters, clarity in measurement is critical.

When we look at Internet harassment rates over time and across age, we see a very clear trend for age: Rates increase steadily from age 10 to age 14, and then plateau thereafter and may even decline a bit by age 17. Across time (i.e., between 2006–2008), rates are quite stable, suggesting that youth are no more likely to be harassed online now than they were earlier. Findings are similar for rates of cyberbullying when we look at data from Growing up with Media data from 2007 and 2008, and Teen Health and Technology data from 2010. Trends for text messaging harassment also suggest an increase by age; across time, things are much less clear however. Text messaging-based bullying rates provide a clearer picture, and suggest that there may have been a slight increase in victimization rates from 2008 to 2010.

We also have reports of distress across time. Some may wonder whether victimization is becoming more upsetting, even if overall rates are stable. Data from our Growing up with Media cohort suggest that distress rates for Internet harassment did not increase from 2006 to 2008, and this is true among younger youth as well as older youth. Thus, harassment does not seem to be getting nastier, more awful, or in some other way more psychologically intense over time.

When comparing different environments, 38% of youth who were bullied at school said they were very or extremely upset by the most serious time

they were bullied at school, compared to 15% of youth bullied online. Indeed, youth bullied by phone (33%) and on the way to and from school (39%) also were twice as likely to report being very or extremely upset. It is true that we need to pay attention to the 15% of distressed youth who are bullied online; it also is true that we need to be aware that youth bullied in other environments are even more likely to report distress. No matter where it occurs, bullying can be a traumatic experience.

A concern raised by adolescent health professionals is whether the infusion of technology has created a seemingly inescapable experience for victims. Data from our general cohort of the Teen, Health, and Technology survey suggest that 44% of youth are bullied through at least one mode each year: 39% in-person, 10% by phone, 14% via text messaging, 17% online, and 10% some other way. About half of bullied youth say that they are victimized in one mode only, and the other half report being victimized in two or more modes. Specifically: 11% of all youth are bullied in two modes, 6% in three modes, 3% in four modes, and 3% in all five modes. Together, these data suggest that even with the emergence of Internet and text messaging, in-person is still by far the most common way youth experience bullying. Thus, while it is important to understand how youth are experiencing technology, this should not be done at the expense of attention to the in-person experience. Also, the majority of youth are not bullied; and among those who are, half are bullied through only one mode. Thus, the inescapable experience is not a stereotypical one. Nonetheless, a very concerning 6% of youth report being bullied in 4 or all 5 of the modes that we surveyed. We need to do a better job at identifying and supporting these youth, and ensuring that they are referred into mental health services immediately, if warranted.

Other studies have also surveyed nationally representative samples (Cross, et al., 2009; del Barrio, et al., 2012). In the del Barrio study, 3,000 secondary students in Spain were surveyed, and a limited overlap between traditional bullying and cyberbullying was found, with only 5.5% of traditional targets being also targets of cyberbullying and 5.4% of perpetrators of traditional bullying also engaging in cyberbullying. Only 1.1% of students who were not victimized by traditional bullying were targeted electronically. In the total sample, general bullying was reported by 89.5% of participants, whereas cyberbullying was reported by 10.5%.

The differences in findings across studies, and the differences between the public perception of the prevalence of this problem and the findings of careful research is a reminder that researchers need to work together, establish common language, definitions, methods, and measures so studies can be compared in a meaningful way, and accurate data can be reported.

We use this book as a bully pulpit (pun intended) to encourage the production of high-quality research on the phenomenon of cyberbullying. We write for researchers, both current and future, to present a synthesis of principles that will

contribute to more rigorous science. We also address practitioners, who seek guidance from research findings to inform their prevention and intervention programs, and those policy makers who make decisions about policy and legislation. We intend the material contained here to help them select high-quality research that meets the highest standards of the research endeavor.

Sheri Bauman

## References

- Cross, D., Shaw, T., Hearn, L., Epstein, M., Monks, H., Lester, L., & Thomas, L. 2009. Australian Covert Bullying Prevalence Study (ACBPS). Canberra, Australia: Department of Education, Employment and Workplace Relations.
- del Barrio, C., deDios, M.J., Montero, I., Martín, E., Ochaíta, E., Espinosa, . . . Barrios, A. (2011). Cyberbullying among Spanish secondary students: A national survey. *Proceedings of the 15th European Conference on Developmental Psychology* (pp. 369–376). Bologna: Italy: Medimond.

# Acknowledgments

The International Cyberbullying Think Tank, at which the idea for this book was developed, was funded by grant 0956790 from the National Science Foundation. The editors and contributors appreciate the support for this important work. For more information on the think tank, go to <http://icbtt.arizona.edu/>

The editors wish to thank Kurt Marder, M. Ed., senior research associate at the University of Western Sydney in Australia, for his invaluable assistance at the think tank meeting and in the preparation of this book. They also wish to thank the following students for their assistance with preparation of the final document: Sarah Clark, Joanne Cuellar, Connor Eustice, Tessa Hamilton, Mario Kurilo, Carlos Leon, Megan Molina, Macie Myers, and Sarah Seavey.

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