Brent C. Miller

FAMILY RESEARCH METHODS

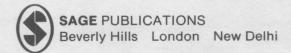
FAMILY STUDIES 4

FAMILY RESEARCH METHODS

Brent C. Miller

TEXT SERIES 4

C 913.11



Dedicated to Reuben Hill (1912-1985) Family Scholar, Mentor, and Friend

Copyright @ 1986 by Sage Publications, Inc.

All rights reserved. No part of this book may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without permission in writing from the publisher.

For information address:

SAGE Publications, Inc. 275 South Beverly Drive Beverly Hills, California 90212

SAGE Publications India Pvt. Ltd. M-32 Market Greater Kailash I New Delhi 110 048 India



Printed in the United States of America

Library of Congress Cataloging-in-Publication Data

Miller, Brent C. Family research methods. (Family studies text series; v. 4) Includes index.

Includes index.

1. Family—Research.

2. Family—Research—

Methodology. I. Title. II. Series.

HQ728.M488 1986 306.8'5'072 86-964

ISBN 0-8039-2143-8

ISBN 0-8039-2144-6 (pbk.)

FIRST PRINTING

Contents

Preface	9
1. Introduction to Studying Families	11
Science and Family Research	13
Kinds of Science	14
Hard Science	14
Social-Behavioral Sciences	15
Family Science	15
Goals of Science	16
Description	16
Explanation	17
Prediction	17
Control	17
Basic Principles of Science	18
The Elements of Scientific Thought	19
Concepts	19
Variables	19
Relationships	20
Theories	21
Stages in the Research Process	22
Formulating the Problem	22
Specifying Hypotheses or Objectives	23
Choosing a Research Design	24
Devising or Refining Measurement	24
Selecting Subjects	25
Collecting Data	25
Reducing and Analyzing Data	25
Interpreting Findings and Drawing Conclusions	26
Summary	26
Key Concepts	27

2. Research Design	29
Kinds of Research Designs	30
Exploratory Studies	31
Descriptive Research	32
Designs for Studying Developmental Changes	33
Experimental Designs for Studying Induced Changes	36
Correlational Designs	42
Design-Strengthening Techniques	43
Key Principles in Research Design	45
Summary	47
Key Concepts	48
3. Measurement	49
Definitions	50
Levels of Measurement	52
Nominal	53
Ordinal	53
Interval	54
Ratio	54
Reliability	54
Stability of Measurement	55
Equivalence of Measures	57
Validity	58
Content Validity	59
Criterion-Related Validity	60
Construct Validity	63
Using Existing Measures	64
Sources of Instruments	64 65
Summary	66
Key Concepts	
4. Sampling	68
Definitions	69
Approaches to Sampling	70
Nonprobability Samples	70
Probability Samples	72
Summary	74
Key Concepts	74
5. Data Collection	76
Gaining Cooperation	77
Protecting Human Subjects	79

Pilot Studies and Pretests	81
Modes of Data Collection	82
Survey Data Collection	83
Collecting Data by Observation	87
Summary	89
Key Concepts	90
6. Data Analysis	92
Data Preparation and Entry	93
Data Manipulation and Transformation	95
Missing Data	95
Recoding Variables	95
Constructing Variables	96
Statistical Analyses Univariate Analyses	97 98
Bivariate Analyses	100
Multivariate Analyses	101
Statistical Significance	102
Summary	103
Key Concepts	103
7. Conclusions and Implications	105
Interpreting What the Findings Mean	105
Limitations of the Study	107
Generalizability of Results	108
Implications of the Research	108
Implications for Theory	108
Implications for Research	109
Implications for Practice	110
A Final Note About Marriage and Family Research Summary	110 112
Key Concepts	112
References	113
Subject Index	123
Name Index	125
About the Author	128

FAMILY RESEARCH METHODS

FAMILY STUDIES TEXT SERIES

Series Editor: RICHARD J. GELLES, University of Rhode Island Series Associate Editor: ALEXA A. ALBERT, University of Rhode Island

This series of textbooks is designed to examine topics relevant to a broad view of family studies. The series is aimed primarily at undergraduate students of family sociology and family relations, among others. Individual volumes will be useful to students in psychology, home economics, counseling, human services, social work, and other related fields. Core texts in the series cover such subjects as theory and conceptual design, research methods, family history, cross-cultural perspectives, and life course analysis. Other texts will cover traditional topics, such as dating and mate selection, parenthood, divorce and remarriage, and family power. Topics that have been receiving more recent public attention will also be dealt with, including family violence, later life families, and fatherhood.

Because of their wide range and coverage, Family Studies Texts can be used singly or collectively to supplement a standard text or to replace one. These books will be of interest to both students and professionals in a variety of disciplines.

Volumes in this series:

- 1. LATER LIFE FAMILIES Timothy H. Brubaker
- 2. INTIMATE VIOLENCE IN FAMILIES Richard J. Gelles & Claire Pedrick Cornell
- 3. BECOMING A PARENT Ralph LaRossa
- 4. FAMILY RESEARCH METHODS Brent C. Miller
- 5. PATHS TO MARRIAGE Bernard I. Murstein

Volumes planned for this series:

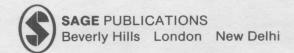
THEORIES OF FAMILY LIFE, David M. Klein
WORK AND FAMILY LIFE, Patricia Voydanoff
FAMILY POWER, Maximiliane Szinovacz
FAMILY STRESS, Pauline Boss
DIVORCE, Sharon J. Price & Patrick C. McHenry
REMARRIAGE, Marilyn Ihinger-Tallman & Kay Pasley
CONCEPTUAL FRAMEWORKS FOR FAMILY STUDIES,
Keith Farrington

FAMILY RESEARCH METHODS

Brenn C. Miller

FAMILY STAIDLES 4

C 913.11



Dedicated to Reuben Hill (1912-1985) Family Scholar, Mentor, and Friend

Copyright @ 1986 by Sage Publications, Inc.

All rights reserved. No part of this book may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without permission in writing from the publisher.

For information address:

SAGE Publications, Inc. 275 South Beverly Drive Beverly Hills, California 90212

SAGE Publications India Pvt. Ltd. M-32 Market Greater Kailash I New Delhi 110 048 India



Printed in the United States of America

Library of Congress Cataloging-in-Publication Data

Miller, Brent C.

Family research methods. (Family studies text series; v. 4)

Includes index.

1. Family—Research. 2. Family—Research—

Methodology. I. Title. II. Series.

HQ728.M488 1986 306.8'5'072 86-964

ISBN 0-8039-2143-8

ISBN 0-8039-2144-6 (pbk.)

FIRST PRINTING

Contents

Preface	9
1. Introduction to Studying Families	11
Science and Family Research	13
Kinds of Science	14
Hard Science	14
Social-Behavioral Sciences	15
Family Science	15
Goals of Science	16
Description	16
Explanation	17
Prediction	17
Control	17
Basic Principles of Science	18
The Elements of Scientific Thought	19
Concepts	19
Variables	19
Relationships	20
Theories	21
Stages in the Research Process	22
Formulating the Problem	22
Specifying Hypotheses or Objectives	23
Choosing a Research Design	24
Devising or Refining Measurement	24
Selecting Subjects	25
Collecting Data	25
Reducing and Analyzing Data	25
Interpreting Findings and Drawing Conclusions	26
Summary	26
Key Concepts	27

2. Research Design	29
Kinds of Research Designs	30
Exploratory Studies	31
Descriptive Research	32
Designs for Studying Developmental Changes	33
Experimental Designs for Studying Induced Changes	36
Correlational Designs	42
Design-Strengthening Techniques	43
Key Principles in Research Design	45
Summary	47
Key Concepts	48
3. Measurement	49
Definitions	50
Levels of Measurement	52
Nominal	53
Ordinal	53
Interval	54
Ratio	54
Reliability	54
Stability of Measurement	55
Equivalence of Measures	57
Validity	58
Content Validity	59
Criterion-Related Validity	60
Construct Validity	63
Using Existing Measures	64
Sources of Instruments	64
Summary	66
Key Concepts	
4. Sampling	68
Definitions	69
Approaches to Sampling	70
Nonprobability Samples	70
Probability Samples	72
Summary	74
Key Concepts	74
5. Data Collection	76
Gaining Cooperation	77
Protecting Human Subjects	79

Pilot Studies and Pretests	81
Modes of Data Collection	82
Survey Data Collection	83
Collecting Data by Observation	87
Summary	89
Key Concepts	90
6. Data Analysis	92
Data Preparation and Entry	93
Data Manipulation and Transformation	95
Missing Data	95
Recoding Variables	95
Constructing Variables	96
Statistical Analyses Univariate Analyses	97 98
Bivariate Analyses	100
Multivariate Analyses	101
Statistical Significance	102
Summary	103
Key Concepts	103
7. Conclusions and Implications	105
Interpreting What the Findings Mean	105
Limitations of the Study	107
Generalizability of Results	108
Implications of the Research	108
Implications for Theory	108
Implications for Research	109
Implications for Practice	110
A Final Note About Marriage and Family Research Summary	110 112
Key Concepts	112
References	113
Subject Index	123
Name Index	125
About the Author	128

Preface

RESEARCH METHODS TEXTS are "how to" books. They tell how studies should be conducted to answer research questions. There are many social or behavioral research methods books, but few of them feature marriage and family examples (Adams and Schvaneveldt, 1985, is an exception). The relatively few sources in family studies that emphasize research methodology tend to be written for professionals rather than students. There are, for example, several chapters in the classic Handbook of Marriage and the Family (Christensen, 1964) devoted to family measurement (Straus, 1964), prediction studies (Bowerman, 1964), field studies (Nye, 1964) and demographic analyses (Glick, 1964). Monographs about family measurement (Straus and Brown, 1978) and methods (Winter and Ferreira, 1969) have occasionally appeared. In 1982 the Journal of Marriage and the Family devoted an entire issue to family research methodology as did the Journal of Family Issues in 1984. Advanced methodology summary statements are continuing to be written for professionals (Larzelere and Klein, in press), but most methodological writing in family studies has appeared in hundreds of widely scattered journal articles.

Unlike this professional literature to which I have referred, the present text has been written as a simple "primer." It is an elementary research methods text that uses marriage and family examples. I have tried to write informally and to keep the text brief and basic so that both upper division undergraduates and beginning graduate students could understand and benefit from it.

I am indebted to many mentors and colleagues who have helped me learn about marriage and the family and how it can be studied. Jay Schvaneveldt was an excellent first methods teacher at Utah State, and when I was at Minnesota, Joan Aldous, David Olson, and Ira Reiss all helped me gain a better understanding of marriage and family research

methods. David Klein and Steven Jorgensen, two of my graduate student buddies, have been especially helpful over the years in integrating my understanding of research methodology (Klein et al., 1978). Although he was not best known as a methodologist, Reuben Hill was probably more influential than anyone else in shaping my thinking about marriages and families as objects of scientific study. After leaving Minnesota I had the delightful learning experience of team teaching a graduate research methods course with Jo Lynn Cunningham at the University of Tennessee. More recently, I had the good fortune to collaborate with Boyd Rollins and Darwin Thomas in writing an overview about marriage and family research methods (Miller et al., 1982). To all of these friends and teachers I am greatly indebted for what they have helped me to learn.

I must also thank Richard Gelles and Alexa Albert, the series editor and associate editor, for pushing me to get this text onto paper and for not giving up when I had fallen behind. I likewise appreciate anonymous reviewers of the manuscript, especially the most critical reviewer from whom I benefited the most. I also thank Sally Carles for patiently revising the manuscript, and the editors at Sage who have continued to be interested in this book long after it was to have been completed.

Brent C. Miller Logan, Utah December 1985

CHAPTER

1

Introduction to Studying Families

Whatever else it may be, science is a way of generating and testing the truth of statements about events in the world of human experience.

Walter E. Wallace

ALL OF US KNOW about marriages and families. Parents, siblings, spouses, children—these are not remote academic subjects but virtually everyone's first-hand experiences. In addition to direct experiences we learn much about marriage and family life through observations of those around us, from the mass media, and from literature and drama. Many of our views about marriage and family life are shaped by religious and political traditions. Religious doctrines and state laws have institutionalized expected marriage and family behavior in human societies everywhere. Doctrine and laws, for example, frequently regulate the choice of marriage partners by age and relatedness, confine sexual relations to marriage, limit the number of children permitted (as in contemporary China), and specify the rights and obligations of spouses. In sum, our own experiences, family traditions, religion, and