

The **BEHAVIORAL MEASUREMENT** *Letter*

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Introduction to This Issue

Nurses periodically have contributed to *The Behavioral Measurement Letter* (BML) since its inception in 1993. However, this is the first issue that focuses solely on behavioral measurement topics related to nursing research. In this issue, we'll share with you opportunities that are available for nurses interested in conducting behavioral measurement research and specific issues faced by nurse scientists when using behavioral measures in their research.

First, some facts about The BML: The BML is produced by Behavioral Measurement Database Services, Inc., creator of the Health and Psychological Instruments (HaPI) database, the most comprehensive international database of behavioral measurement instruments covering medicine, nursing, public health, allied health, dentistry, psychology, sociology, communication, and social work. The newsletter provides a service to a large cadre of health, social, and behavioral scientists who use behavioral measurement instruments in their research, teaching or practice. The newsletter is a helpful resource for you to learn more about how to take advantage of the HaPI database. One objective of HaPI is to provide different disciplines with access to instruments that measure the same concepts. The newsletter currently has a circulation of about 6,000 copies. Libraries of most US schools of nursing in colleges and universities, as well as those in many Canadian colleges and universities, receive the semiannual newsletter.

HaPI was sponsored initially by the Division of Nursing and then by the National Institute of Nursing Research (NINR). How appropriate it is, therefore, that we begin this issue with Patricia Grady describing the opportunities for biobehavioral research at the NINR. In her article, "Improving Measurement in Nursing Research: One Focus of the New NINR Strategic Plan," Grady ties together biological and behavioral science and illustrates how this has led to improvement of nursing science methods. She also elaborates on the NIH Roadmap and trans-NIH initiatives, highlighting some of the NINR's current activities as they pertain to behavioral measurement.

In a second piece, entitled "Methodological Issues in Employing Evidence-Based Practice (EBP) Across Cultures," Carolyn Waltz and Sue Song remind us that EBP is the 'gold standard' for providing quality care and improving patient outcomes. Waltz and Song address the issue of using evidence across cultures and the need to assess transferability from one culture to another. Taking into account their personal experiences in assessing transferability of US mental health research findings to South Korea, the authors discuss the specific problems of concept relevance, research and measurement methods, translation strategies, and cultural practices that can affect patient preferences and outcomes.

Finally, in "Behavioral Measurement with Adolescents and Their Parents in Family Studies," Carol Dashiff describes the challenges of using behavioral measurement instruments with Type

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I diabetic adolescents and their parents in the home setting. Drawing from her research, Dashiff highlights issues with administering self-report questionnaires to multiple respondents in the same family and with stimulation of valid interactional data during family discussions. Next, she offers solutions for addressing these issues.

Join us for our next issue when Molly Dougherty, Editor for *Nursing Research*, offers some insight on common problems she has observed with submitted manuscripts dealing with behavioral instruments, tips for overcoming these problems, and some trends she has noticed in the publication of behavioral instruments. In addition, nurse physiologist Maureen Groer will compare and contrast measurement issues facing both behavioral and biological scientists. Finally, Louise Jenkins, a nurse educator, will share with us the complexity of clinical trials

and how measurement of behavioral variables may not get the attention that it needs because of the focus on other key aspects, such as sample size, randomization, etc.

Please address comments and suggestions to The Editor, *The Behavioral Measurement Letter*, Behavioral Measurement Database Services, PO Box 110287, Pittsburgh, PA 15232-0787.

We also accept short manuscripts for The BML. Submit, at any time, a brief article, opinion piece, or book review on a BML-relevant topic to The Editor at the above address. Each submission will be given careful consideration for possible publication.

HaPI reading...

Deidre M. Blank, RN, DSN, FAAN
Guest Editor



SPECIAL RECOGNITION

We at Behavioral Measurement Database Services (BMDS) appreciate:

- ◆ all who use the Health and Psychosocial Instruments (HaPI) database,
- ◆ authors who permit distribution of their instruments to the many who request them, and
- ◆ the many authors who have contributed articles to our semiannual newsletter, *The Behavioral Measurement Letter*.

Evelyn Perloff
Evelyn Perloff, PhD
Director

Behavioral Measurement with Adolescents (continued from Page 10)

and appropriate directions are given. The greater power of parents and parental authority in the home environment can introduce subtle coercion to the researcher as well as the adolescent.

In pilot work for the above study, data was collected with families in which parents and adolescents were physically separated but in the same room. Even with instructions not to communicate with one another and to keep their responses private, parental communication occurred. Respondents blurted out responses, asked one another if they had gotten to a particular question, watched one another or queried each other about responses to a particular item. One parent asked during data collection to have copies of the forms used in the study to discuss later with the adolescent. In the larger study, we developed a protocol to eliminate these interactions and enhance validity of responses, particularly for the adolescent. The adolescent was always separated from the parent(s) during data collection. One research assistant met with adolescents in a separate location in the home or outside, while the other met with parents, thus allowing questions to be responded to without conveying information across family members. Assistants were trained to be assertive in limiting parental interaction with one another and the adolescent regarding research questionnaires, emphasizing privacy and confidentiality. Assertiveness with parents can be a particular problem because data collectors are guests in the home where parents usually have ultimate authority. Training in assertiveness to protect confidentiality and enhance adolescent comfort strengthens the validity of their responses.

Family Interaction

Stimulation of Valid Interaction. A problem in all interactional research is stimulating an interaction that is valid, one that represents interactions that

take place in ordinary life. The self-consciousness of young adolescents, and the temperamental differences among them in the rapidity of adjustment to new situations and people (Dashiff, 2001), pose special problems for collection of valid interactional data. We examined disagreements between adolescents and parents about developmental and diabetes management issues. We planned to analyze interactions around these issues using a valid and reliable coding scheme. To address these issues we developed the following strategies. Adolescents completed paper and pencil instruments and a semi-structured interview before the interaction was introduced. This allowed them to "warm up" to the data collectors and the interaction task. Completion of the questionnaires on parent-adolescent conflicts helped normalize these issues, and assisted adolescents in thinking about them and identifying the significant issues that they were willing to discuss with their parents. We then selected from these an issue which had also been identified by parents as an area of disagreement. Interactions were further facilitated with a procedure developed by Allen, Hauser, Bell, McElhaney, Tate, Insabella, and Schlatter (1994). The adolescent rehearsed the issue privately with the research assistant, explaining both their position and the position of their parents on the issue. This interaction was repeated and audiotaped. The adolescent's discussion of this issue with the parent(s) was then begun by playing the audiotape to set up the interaction. This focused the family members on the disagreement, employed a disagreement of the adolescent's choosing which made the discussion relevant and increased the adolescent's sense of control, and provided a relevant springboard. As a result, we obtained rich and valid interactions for coding.

In summary, previous evidence of good psychometric properties does not guarantee that a behavioral measure will be valid in a particular study. The sample and context must be taken into account to insure formatting, procedures, and protocols that further strengthen validity.

Behavioral Measurement with Adolescents

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Carol Dashiff, PhD, RN, is Professor of Nursing at the University of Alabama in Birmingham where she teaches family research methods. Dr. Dashiff recently completed an NIH/NINR funded longitudinal study of adolescents with diabetes and their parents. Her program of research centers around parenting and family processes, and their impact on self-care and disease control of adolescents with chronic illness. E-mail: dashiffc@uab.edu

Mistakes are the portals of discovery.

James Joyce

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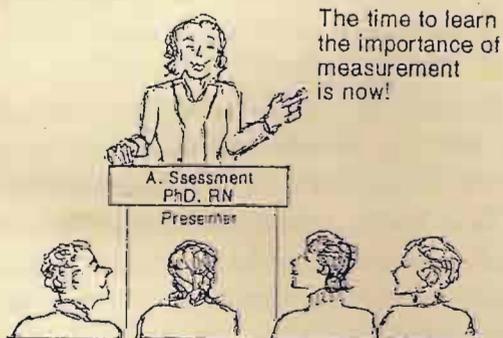
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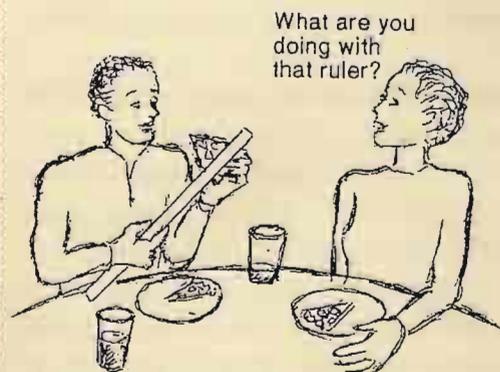
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HaPI Thoughts

NURSING SEMINAR



After the seminar, some of the nurses go to the pizzeria...



J. Bennehan

Special Issue
on Nursing - Part I

The BEHAVIORAL MEASUREMENT Letter

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Improving Measurement in Nursing Research: One Focus of the New NINR Strategic Plan

Patricia A. Grady

The National Institute of Nursing Research (NINR), one of the 27 Institutes and Centers of the National Institutes of Health (NIH), has as its mission to support research “to promote and improve the health of individuals, families, communities, and populations.” While health depends on the myriad physiologic processes such as respiration, circulation, nutrition, sleep, and immune function, it also encompasses the effects of gender, genetics, age, and life experience, as well as the full range of psychological, cultural, and social influences. Because nursing science recognizes the multidimensionality of the individual, nurse researchers address areas of health and well-being that other investigators and disciplines often overlook. Nurses seek ways to better promote physiologic well-being, assess risk and vulnerability to adverse health conditions, address quality of life, and manage patient symptoms that may arise both from the processes of disease and from its treatment. Exploring the many dimensions that affect health requires increasingly sophisticated measurement tools.

Years of progress

In the inaugural issue of *The Behavioral Measurement Letter*, then-NINR director Dr. Ada Sue Hinshaw (1993) stated, “Nursing science is at an exciting and challenging stage of development. Its emphasis on the generation of knowledge for practice and the development of instruments for accurate measurement will help to guarantee high standards of nursing care and nursing research.”

In the years since, NINR has worked to refine and improve the tools used in health care research. We have expanded our initiatives in many areas of

research important to patients—self-management, treatment of chronic health conditions, symptom response, health disparities, end-of-life issues, and the value of nursing care.

Through NINR, the American public has invested considerable resources into nursing research, and expects to see results. I am happy to report that this investment has been very fruitful. Let me cite a few recent findings from the use of various measurement techniques to illustrate this point:

- An educational intervention targeted toward Latino adolescents incorporated behavioral skills development and attention to cultural issues. Follow-up surveys for up to one year after this program showed that it was effective in promoting behaviors that reduced the risk of exposure to HIV (Villaruel, Jemmott, & Jemmott, 2006).
- From interviews of women heart disease patients, one researcher developed a questionnaire to help women identify and describe their heart attack symptoms. Using this questionnaire, she found that the signs of coronary heart disease or an impending heart attack tend to be more diffuse and subtle in women than in men. This result may spur women to seek attention for their symptoms earlier, and help health care providers recognize the potential seriousness of these symptoms (McSweeney, Cody, O'Sullivan, Elberson, Moser, & Garvin, 2003).

A series of classes for rural-dwelling African-Americans with diabetes focused on preparing healthy, low-fat foods, and included practical and culturally compatible strategies for reducing the use of fats. Results of a food habits questionnaire showed that most participants changed from high-fat to moderate-fat dietary behaviors, while they improved their glucose control and

Improving Measurement in Nursing Research (continued from Page 3)

blood lipid levels (Anderson-Loftin, Barnett, Bunn, Sullivan, Hussey, & Tavakoli, 2005).

Today, the research supported by NINR covers an ever-broadening scope—from studies of neural cell biology that have provided insight into neurodegenerative disorders, to multisite clinical projects such as the Study of Women's Health Across the Nation, which has employed a variety of measures to enhance our understanding of women's health around the time of menopause.

2004 NINR Working Group: Increasing Opportunities for Biobehavioral Research

Biobehavioral research, the interaction of biology and behavior, combines approaches from biomedical, behavioral, and social science disciplines. This area of science is important in promoting healthy lifestyles and preventing the development of many diseases. In 2004, NINR sponsored a two-day working group, "Increasing Opportunities for Biobehavioral Research," which brought together experts in behavioral, biological, and immunological research. Some of the barriers the group identified in biobehavioral research included: studying diseases with small patient populations; difficulty in locating biobehavioral instruments that are valid and reliable across multiple populations; difficulty in standardizing self-report measures; and systematic errors in measurement.

Suggestions for improving biobehavioral research included:

- Cross-training researchers in physiology, immunology, genetics, microbiology, biochemistry, and other related science areas;
- Increasing the familiarity of researchers with behavioral measures such as treatment

adherence, quality of life, and functional status;

- Being aware of developmental and ethnicity factors in measurement;
- Forming collaborative, interdisciplinary research partnerships.

The group noted the need for more communication between scientists in the biologic and behavioral fields, increased training opportunities in biobehavioral research, and methodological studies to improve the robustness of biobehavioral measures.

The New NINR Strategic Plan

In October 2006, NINR released its new Strategic Plan for 2006-2010. Developed with the input of scientists, clinicians, experts in health care and public policy and other stakeholders, and members of the public, the Plan provides a blueprint for continuing to elevate the contributions of nursing research within the health care sciences.

Two key objectives of the Strategic Plan relate to issues in behavioral measurement:

- Integrating biological and behavioral science for better health,
- Improving nursing science methods.

Integrating biological and behavioral science

An important segment of NINR research focuses on methods to evaluate the effectiveness of integrated biological and behavioral interventions, as well as the incorporation of biobehavioral measures to provide new insights and explore new designs. As stated in the Strategic Plan, "behavioral measures and biological markers together serve as important tools in diagnosis, assessment of disease progression, and evaluation of treatment outcomes."

Improving Measurement in Nursing Research

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For example, NINR has devoted much attention to studying the broad-ranging effects of exercise. We know that exercise affects biology by maintaining or increasing muscle strength and endurance, promoting circulation, and helping with weight control. As a behavior, exercise also appears to boost self-confidence, self-efficacy, and functional ability, promote a positive attitude, and decrease stress and anxiety. Exercise interventions have proven useful not only for general health promotion, but for helping patients cope with diseases such as cancer, AIDS, and COPD, and recover from the after-effects of a heart attack. While we have measures for muscle strength, blood pressure, and body weight, we need better measures to relate the gains of exercise to the many psychological benefits that address quality of life.

Genetics provides another fertile area for biobehavioral research. Genetics will help identify disease risk, and improved patient outcomes will depend on the genetics-environmental interactions, including diet, activity, and lifestyle. Nurse scientists, with their expertise in symptom management, are well positioned to develop and test interventions to help at-risk persons modify their behavior and improve their lifestyles, contributing knowledge in situations without treatments or cures. Advanced technology to measure the many variables involved in promoting health and preventing disease is vital to advancing science in the area of genetic diseases.

Improving methods for future scientific discoveries

Nurse scientists must continue to improve and refine the methods used in conducting research that will enhance the interpretation and translation of findings into clinical practice. Due to the advancing expertise required in all areas of health

care research, improving research methods increasingly requires the collaboration of interdisciplinary teams.

As stated in our Strategic Plan: "The development of biological and behavioral measures—for applications ranging from diagnosis to assessment of disease progression to evaluation of adherence, self-management, and treatment effects—will further advance our research." To accomplish this objective, NINR plans to support more work to develop common measures for observational and intervention studies, collaborate on methods used with diverse populations, increase the use of pooled and standardized data sets from multiple research sites, promote the use of meta-analysis, and encourage community involvement in research design and implementation. At NINR, we encourage our researchers to publish articles on their research methods, and to share measurement tools that they develop to allow for testing and use with more diverse populations.

The development of biological and behavioral measures for applications ranging from diagnosis, to assessment of disease progression, to evaluation of adherence, self-management, and treatment effects will propel nursing research to the next level.

The NIH Roadmap and Trans-NIH Initiatives

In May 2002, NIH Director Dr. Elias A. Zerhouni initiated the "NIH Roadmap for Medical Research." The purpose of the Roadmap is to identify major opportunities and gaps in biomedical research that no single Institute or Center at NIH could tackle alone but that the agency as a whole must address, to make the biggest impact on the progress of medical research. It lays out a vision for a more efficient and productive system of medical research, and provides a framework of the priorities NIH as a whole must address in order to optimize its entire research portfolio.

Improving Measurement in Nursing Research (continued from Page 5)

The Roadmap initiative has increased opportunities for collaboration and leadership. Historically, NINR has maintained a focus on interdisciplinary research, but increased collaborations made possible by the Roadmap have fully introduced nursing science to the rest of the scientific community, while enabling nurse scientists to expand the breadth of their own work. In addition, investigators outside of NINR have become more exposed to, and appreciative of, the important research conducted by nurse scientists in areas such as symptom management and disease prevention. The Roadmap's clinical research initiatives are ideally suited to the strongly clinical emphasis of NINR.

NINR is actively involved in three prominent, trans-NIH initiatives that are contributing to advances in behavioral assessment and measurement:

- The NIH Pain Consortium, which was established to promote collaboration among researchers across the many NIH Institutes and Centers that have programs and activities addressing pain. (<http://painconsortium.nih.gov/>)
- The Patient-Reported Outcomes Measurement Information System (PROMIS), which aims to develop a set of publicly available tools to measure patient-reported symptoms, such as pain and fatigue, along with aspects of health-related quality of life across the spectrum of acute and chronic diseases and conditions. (<http://www.nihpromis.org>)
- The NIH Neuroscience Blueprint, which has as one of its aims, to develop an integrated set of neurological and behavioral tools, the NIH Toolbox, to measure cognitive, emotional, motor, and sensory function. (<http://neuroscienceblueprint.nih.gov/>)

Conclusion

In 2006, NINR celebrated the 20th anniversary of its founding on the NIH campus. During this brief history, NINR has developed a strong infrastructure for nursing research and built a dynamic, vital, and productive community of investigators dedicated to conducting the research that establishes the scientific basis for patient care. Our new Strategic Plan helps to emphasize the need to improve our research methods and develop new, more accurate, and more reliable tools to measure the range of health factors related to behavior, lifestyle, and quality of life. It is my sincere hope that we can demonstrate our ability to take full advantage of the opportunities we have today and in the future to advance science and improve the health and quality of life of our citizens. I am confident that nursing research will ascend to new heights in the coming years. For NINR and all of health care science, the possibilities are endless.

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If we knew what we were doing, it wouldn't be called research, would it?

Albert Einstein

Improving Measurement in Nursing Research (continued from Page 6)

Note—NINR is the leading organization in the US that funds nursing research, playing a critical role in advancing the scientific growth of the nursing profession. The NINR Strategic Plan is available for download from our website, <http://www.ninr.nih.gov/>, or on CD-ROM upon request.

Patricia A. Grady, PhD, RN, FAAN, an internationally recognized stroke researcher, has served as Director of the National Institute of Nursing Research (NINR) since 1995. She joined the National Institutes of Health (NIH) in 1988 as an extramural research program administrator for the National Institute of Neurological Disorders and Stroke (NINDS), and later served as the Deputy Director and Acting Director of NINDS. She was elected to the Institute of Medicine in 1999 and is a member of several scientific organizations, including the Society for Neuroscience, the American Academy of Nursing, and the American Neurological Association. She is also a fellow of the American Heart Association Stroke Council.

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What is important is not what happens to us, but how we respond to what happens to us.

Jean-Paul Sartre

Methodological Issues in Employing Evidence-Based Practice (EBP) Across Cultures

*Carolyn F. Waltz
Sue Song*

In the health professions, evidence-based practice (EBP) has become the gold standard for providing quality care and improving patient outcomes. EBP as defined by Cook and Levy (1998) is when clinical practice is based on research findings and other nonresearch sources of information, such as pathophysiologic reasoning, health care provider experiences, and patient preferences, to determine most clinically effective solutions to health care problems. Essential steps usually include: a search for studies that address the problem of interest; evaluation and integration of findings across studies; integration of empirical evidence resulting from these studies with clinical experiences, patient preferences, and existing resources; and selection of the best evidence to serve as a basis for practice.

Several factors need to be taken into account in selecting the best evidence, including rigor of the research studies, quality, clinical significance, applicability of findings to practice, and reliability and validity of available information within the practice setting in which it is employed. Before employing evidence across cultures, it is essential to assess transferability from one culture to another taking into consideration: concept relevance, research and measurement methods, translation strategies, and cultural practices that may differentially affect patient preferences and outcomes (Waltz, Strickland, & Lenz, 2005). The authors' experiences in assessing transferability of US mental health research findings to South Korea serve to illustrate the considerations to be made in assessing transferability and the often overlooked threats to reliability and validity that can be detected in doing so.

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Questions to be addressed in regard to concept relevance are: Does the concept of mental health have the same meaning in both the US and Korean cultures? Do attributes of subjects within the US and Korean cultures differ in ways that may affect the phenomenon being studied? At first glance it would appear that the meaning is the same. In the US mental health is viewed as an interpersonal process to assist clients in growth and recovery, and practitioners focus on evaluating outcomes resulting from biological and psychotherapeutic approaches. In Korea the focus is on psychopharmacological intervention for psychobiological disorders with support for clients and is almost synchronous with psychiatry. However, differences in subject attributes that affect the meaning of mental health become more apparent when considering practice preferences. In Korea mental health knowledge and practice is influenced by cultural practices such as social desirability and the importance of accepting views of those in authority. Because mental health practitioners are viewed as authority figures, clinical decision making is strongly affected by a practitioner's own experiences rather than practice protocols or research findings. Patients' preferences in Korea result from the desire to maintain harmony rather than to focus on individual outcomes.

Regarding research and evaluation methods, questions of concern are: Do Koreans respond in the same manner as US subjects to specific methods used in research studies? Is there any suggestion that Koreans may respond differently because of tendency toward social desirability, acquiescence, and/or other response style differences? Are there differences in familiarity with study procedures, such as interviewer-respondent effects or communication problems present? In addition to concerns raised regarding Koreans' tendency toward social desirability and acquiescence to authority figures, there are differences between US and Korean subjects in the effectiveness of research methods employed. For example, Koreans do not take questionnaires

seriously and tend not to provide accurate answers. Considering age, gender, and tendency to acquiescence, an interactive interview is a preferred method for Koreans. A directive, confrontational approach is not effective with Koreans. Rather an indirect approach to mental health research is desired because having a mental health issue is viewed as placing shame and guilt on one's family.

In terms of translation strategies, questions include: Were appropriate translation strategies employed? Were translators ethically and culturally representative of the Korean population among whom the evidence will be employed? Were translators fluent in both the original or source language and the target language to which the research was translated? Were they familiar with both cultures? Were they knowledgeable about the concepts studied and how results will be used? Translation, as is the case in this example, should be done by a bilingual who is culturally competent for both countries, who has a good understanding of the concept, research methodology and procedures, and who is familiar with the source language and target language by training.

In summary, caution must be used in employing research evidence from a study conducted in one culture as a basis for practice in another culture. Attention might be given to transferability by addressing salient questions regarding concept relevance, research and measurement methods, and translation strategies to avoid pitfalls that may adversely affect the reliability and validity of empirical evidence when used in another culture as a basis for practice. By example, we have demonstrated the importance of looking beyond the apparent sameness or similarity in how a concept of interest is defined within each culture. We have demonstrated the importance of giving consideration, as well, to how that definition, when viewed within the context of cultural preferences in each of the cultures, may in fact not be the same or similar in meaning. Inconsistencies in preferences and/or in response tendencies as well as variations in translators

Methodological Issues (continued from Page 8)

and translation strategies employed must be considered as well. Thus, prior to employing evidence from studies in one culture as a basis for practice in another culture, it is imperative that each study be systematically evaluated using the criteria presented here and decisions to employ data across cultures be made on the basis of carefully evaluated evidence from a group of studies relative to the criteria presented. When evidence is employed across cultures, outcomes of its use must be systematically evaluated to monitor reliability and validity within each culture on an ongoing basis.

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Sue Song, PhD, APRN-PMH, is an advanced psychiatric mental health practitioner and mental health care management consultant. Dr. Song is currently an Adjunct faculty member for the University of Maryland, Assistant Professor of Chung Nam University, and Visiting Professor of Seoul National University in South Korea.

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Behavioral Measurement With Adolescents and Their Parents in Family Studies

Carol Dashiff

The unique characteristics of adolescents and parents are challenging for the researchers who use behavioral measures. Even when "good" measures are used, they must be placed in the broader research context, which will affect measurement (DeVellis, 1991). I will demonstrate the unique influence of a particular context on behavioral measurement, i.e., adolescents and parents studied in their home setting. Examples will be provided from a longitudinal family study of adolescents with Type 1 diabetes (Dashiff, Bartolucci, Wallander, & Abdullatif, 2005). This study serves as a useful example because the measures included questionnaires, a semi-structured interview, and a coding scheme applied to interaction tasks. The same or similar measures were administered to both the adolescent and parent, which is often the case in family studies. All data was collected in the home setting.

Self-Report Questionnaires

Instrument Complexity. The cognitive skill set of adolescents is quite variable based on their development, but is generally not at the level of parents. Although there is variance in their ability, adolescents are less able to think abstractly and to focus attention than parents (Dashiff, 2001). We found a psychometrically sound instrument developed specifically for adolescents and their parents, the Issues Checklist (Prinz, Foster, Kent, & O'Leary, 1979), which posed particular problems for adolescents due to a complicated response format. For each item, the respondent noted whether or not the issue had been discussed, how often, and how emotional the discussions had been. Early in the first wave of data collection, questionnaires were checked for missing data. This was tedious, requiring a ruler to focus

across the line of responses in order to avoid overlooking missing responses. Missing data was frequent for adolescents. The adolescent would indicate that the issue had been discussed but did not complete the remaining questions for the item, or they omitted responses in one of the columns. Our follow-up with the respondents revealed they had not intended to omit the item.

We implemented three strategies to address the problem. We reformatted the instrument with lines to demarcate items and response categories. We orally explained the response format more carefully immediately prior to completion of the instrument. Two research assistants separately reviewed the form for missing responses and verified with respondents whether missing responses were intended before they left the family's home. This significantly improved the rate of missing data on this questionnaire, but we continued to have missing responses that were not picked up by research assistants. We then put into place an immediate evaluative feedback mechanism to the research assistants about the quality of their review within three days of data collection. Following this, missing data for adolescents was rare. The problem we experienced with this instrument has not been previously reported. Such problems suggest limitations of its usefulness. Usefulness or utility is a criterion that is as important as precision (Silva, 1993).

The Family Context of Multiple Respondents. Simultaneous administration of behavioral measures to more than one individual when the persons have prior relationships requires special protections to safeguard against social desirability influences and subtle coercions. Adolescents' self-consciousness and need for autonomy may make them uncomfortable about responding in the presence of their parents even when responses are private (Dashiff, 2001). Furthermore, in families where individuals have enduring relationships, family interactions can spontaneously take place when subjects complete instruments in the same location even when the investigator is present