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Editorial

### Methodological pluralism in health communication research

#### 1. Introduction

In the last 30 years, the amount and quality of research in the field of health communication has increased extensively [1]. One reason for this significant growth is the accumulating evidence that communication is a crucial and outcome-relevant element within clinical encounters, health promotion programs, and public health policies [2]. Patient Education and Counseling (PEC) has been one of the leading journals contributing to the emerging field of health communication research and its evolution. A key factor in this development has been the support provided by PEC through its publication of studies employing a wide range of research methodologies from a multidisciplinary assortment of investigators. We believe that this methodological pluralism at PEC has contributed to a greater understanding about the complex influences of communication on health care and health promotion. Our primary goals for this special issue were to illustrate this methodological diversity and to examine important methodological developments, innovations, and applications necessary for expanding the evidence in health communication research. Moreover, we hope that this special issue on methodology complements and builds upon a previous special issue of PEC regarding theories in health communication research [3].

## 2. The need for methodological pluralism in health communication

Studies in health communication have always been *empirically* driven (Greek: empeiria; *from experience*) because the individual *experiences* of patients and their providers are indispensable to understanding communication in health care. To appropriately study these experiences, scientific *methods* (Greek: méthodos), "a type of planned investigation or scientific procedure based on a system of rules for gathering scientific knowledge or practical results" (Greek translation, [4, p. 497–498]), have been adopted as crucial research tools for health communication inquiry. Accordingly, *methodology* is the "science and/or theory of applied methods". This special issue on methodology in health communication research is characterized by a

- (1) broad diversity of advanced qualitative and quantitative methods and developments,
- (2) integration of both qualitative and quantitative research methods and
- (3) multidisciplinary and interdisciplinary approaches to research methodology.

These diverse qualitative, quantitative and integrative approaches are applied and reflected upon in each article in this special issue as well as in the research design, hypotheses, data collection tools, data analysis strategies, and interpretation of the research findings of the studies presented.

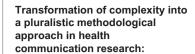
Based on the content of this special issue and PEC's tradition of receptivity to new and innovative methods, we suggest that the best health communication research demonstrates a productive balance of diverse methodological paradigms—that is, a balance of qualitative and quantitative research, a balanced integration of both qualitative and quantitative paradigms and a balance of different scientific disciplines conducting and publishing health communication research together. This balanced "methodological pluralism" is necessary (see Fig. 1, box 2) to effectively capture the complexities of health care processes (see Fig. 1, box 1) and to gather advanced insights into health communication phenomena (see Fig. 1, box 3), which in turn facilitate the dissemination and implementation of research results and foster improvement of health care (see Fig. 1, box 4). In other words, having a bigger toolbox means greater opportunities to find suitable instruments for effectively investigating health communication issues. This is imperative because in every study the research problem being investigated should define the methods used; the methods should not define the problem [5]. The following citation from Bowling [6, p. 3] underlines the advantages of a "methodological pluralism" for health communication research:

"All methods have their problems and limitations, and the overreliance on any one method, at the expense of using multiple research methods, to investigate the phenomenon of interest can lead to 'a very limited toolbox,' sometimes with questionable validity, and consequently to a limited understanding of the phenomena of interest."

In that light, the randomized controlled trial (RCT) is one example for the overreliance on one method, because it can lead to a limited understanding of phenomena, particularly in health communication research. The RCT has initially been developed as a method to reduce context effects (e.g., of the provider) to investigate the specific effect of a treatment (e.g., a pill). But today we know a lot about the positive influences of the "specific effect" of the provider on patients' health [7]. As a result, we need to adapt the design of the classical RCT to this knowledge. Furthermore, it is also reasonable to use multiple research methods in a RCT by integrating e.g., qualitative methods to gain an in-depth understanding of the "specific effect" of the provider [7].

# Health care reality is becoming more complex, e.g.:

- Multifaceted nature of health care and health promotion
- Patient and provider experiences
- Clinical practice
- Multidisciplinary and interdisciplinary provision of healthcare
- Societal environment
- Health care system and policy



- Diversity of qualitative and quantitative methods
- Integration of qualitative and quantitative research methods
- Multidisciplinary and interdisciplinary approaches to research methodology



# Facilitates dissemination and implementation of research results and fosters improvements in health care:

- Patient care
- Patient-provider communication
- Health promotion
- Provider education
- Collaborative provision of health care
- Health policy

Adequate application of a pluralistic methodology leads to advanced research results in health communication:

- Deeper, broader
- Multidimensional
- Patient- and provider-centered
- Realistic
- Practical
- Context-related
- Comprehensive
- Unexpected results

Fig. 1. Methodological pluralism as a central "setscrew" for quality, evidence and practical relevance in health communication research.

Our illustration implies that the kind of methodology (see Fig. 1, box 2) has a direct influence on the kind of research results, i.e., a "methodological pluralism" will probably lead to deeper, broader, etc. research results (Fig. 1, box 3). The quality of these results and the evidence they provide depend, of course, on how methods are applied. A careful and rigorous application of methods, data analysis, interpretation of findings, and consideration of ethical issues is required [6,8] to put research results in the "right light". Finally, our illustration also shows that advanced research results (Fig. 1, box 3) produced by a reasonable "methodological pluralism" (Fig. 1, box 2) are able to facilitate the dissemination and implementation of research results as well as improvements in health care (Fig. 1, box 4), because these results (Fig. 1, box 3) are closer to health care reality (Fig. 1, box 1).

Summarizing these methodological reflections, we assume that the judicious use of methodological pluralism can maximize research credibility [9] and increase the validity of health communication inquiry [6].

#### 3. Selection of papers

Invitations to submit papers were sent to all EACH and AACH members in March 2010. Abstracts were submitted by 61 potential authors, 28 from the US and 33 from Europe and Israel. Of these, 37 were invited to submit a manuscript, two of which did not. Thirty manuscripts were ultimately accepted for publication; five were rejected.

The huge response to the call for papers for this special issue indicates not only a high interest in research methods, but also the relevance of research methodology within the health communication community. Furthermore, the very positive feedback we

received from several contributors illustrates the need for scholarly outlets for examining relevant methodological issues.

#### 4. Special issue content

The content of this special issue focuses on a balanced "methodological pluralism" in health communication research as described in Section 2. The 30 articles included in this issue discuss different methodological topics which can best be characterized by diversity, innovation, reflection, integration and practice.

#### 4.1. Diversity in health communication research methods

The issue starts with an in-depth reflection on methodological diversity in health communication research [10] and on innovative applications of these methods [11].

#### 4.2. Advanced statistical and intervention methods

In this section, topics range from the use of advanced statistical methods, such as Rasch analysis [12] and logfile analysis [13], to intervention methods including immersive virtual environments [14] and unannounced standardized patient encounters [15].

#### 4.3. Reflections on the strengths and weaknesses of existing methods

Several articles discuss and reflect on the strengths and weaknesses of study designs using mind-body interventions [16] and information seeking [17], a novel feedback method for communication interventions [18], and the quality of different measures [17,19].

#### 4.4. Development of innovative methods

The contributions on the development of innovative research methods address the challenges posed by psychophysiological methods such as electrodermal activity [20], the development of new instruments to assess the patient–provider relationship [21,22], and one new assessment tool for detecting differences between two intervention groups in cancer care [23].

#### 4.5. Qualitative research methods: uses and innovative development

Four articles discuss and investigate issues concerning the uses and innovative development of qualitative research methods. Whereas the article by Britten [24] offers a general reflection on the use of qualitative research in health communication, the articles by Goldblatt et al. [25], Yosha et al. [26] and Graffigna et al. [27] demonstrate qualitative research innovations as regards sharing research findings with participants [25], examine the process of patient navigation in cancer care [26] and explore the heuristic value of ethnoscience [27].

#### 4.6. Applying different interaction analysis systems

Several authors also investigate important issues concerning the application of interaction analysis systems. Their articles focus on topics ranging from slicing RIAS codes thin [28] to the content analysis method of focus group video recordings [29], the synthesis of qualitative linguistic research [30] and the challenging assessment of eye contact during consultations [31].

#### 4.7. Integrating multiple research methods

Several articles contribute to the integration of multiple research methods [32–36]. These articles clearly show that methodological integration [10] is possible and is being applied very well in different settings.

#### 4.8. Translating data into practice

Finally, three papers in this issue discuss different aspects of translating data into practice, including physicians' reflections on their clinical practice and their methodological implications [37], the challenges of implementing communication training in a big organization [38] and a study of the factors promoting and prohibiting access to study participants in an attempt to improve research practice [39].

We are very pleased with the multidisciplinary and interdisciplinary research included in this special issue, and particularly with the two "Reflective Practice" articles provided by practicing physicians [33,37]. These physicians describe their personal methodological experiences in a very pragmatic and tangible way, which may help "pure researchers" gain more insight into the complex reality of health care (Fig. 1, box 1) and develop new methodological approaches in response to practical needs.

#### 5. Future directions

Increased "methodological pluralism" in future health communication research requires:

- collaboration between researchers using qualitative and quantitative approaches (e.g., in training, education, conferences, clinical practice);
- (2) open-mindedness from researchers about the relative contributions of both quantitative and qualitative research approaches;

(3) education [8] for health communication researchers, students, and health care providers on the use, applications and integration of both qualitative and quantitative methods.

Ideally, we hope to foster the development of new methods combining the advantages of both qualitative and quantitative research methods in order to better assess the complexities of health communication in health care (Fig. 1, box 1). Patton [40, p. 252] described this ambitious desideratum with the following luminous analogy:

"Mixing parts of different approaches is a matter of philosophical and methodological controversy... In practice, it is altogether possible, as we have seen, to combine approaches, and to do so creatively. Just as machines that were originally created for separate functions such as printing, faxing, scanning, and copying have been combined into a single integrated technological unit, so too methods that were originally created as distinct, stand-alone approaches can now be combined into more sophisticated and multifunctional designs."

We hope that the selection of studies in this special issue will give researchers a reasonable picture of the different shades of "methodological pluralism" in health communication research, how this kind of research can function and the many benefits it entails.

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