

Editorial

Clinical allergy has much to gain from engagement with qualitative research

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There is currently a proliferation of qualitative work being commissioned and regularly published in leading international medical journals (1, 2). This increasing recognition being afforded to the qualitative tradition and what it offers nevertheless appears not to have penetrated through to the allergy community.

Qualitative research in health care aims to enhance understanding of the context in which patients, families and professionals live and work, giving insight into their experiences, views and behaviour (3, 4). Qualitative research generally favours depth over breadth of knowledge and produces data that are not reducible to numbers. Unlike quantitative research, qualitative studies do not aim to be representative of populations. Instead they produce highly detailed data from a small sample. Focussing in depth on a small number of cases enables the investigation of people's everyday experiences and activities, their views and feelings, their relationships and life narratives. Importantly, it also enables an appreciation of the subtlety, variety and complexity of these phenomena. Traditionally, qualitative data are textual, produced through the researcher's observations or interactions, or from transcripts of structured discussions, as with interviews and focus groups. However, it is increasingly common for qualitative researchers to use more participative or creative methods, such as drama (5), photography (6) and video recording (7).

Qualitative research can be driven by diverse theoretical perspectives (4, 8, 9). Uniting these approaches,

however, is the belief that important insights can be gleaned from interacting with people and paying close attention to, and carefully reflecting on, what they say and do. Qualitative researchers tend to view knowledge as constructed through interaction, negotiation and interpretation, which take place in particular social contexts, rather than as a set of neutral facts about the world which are 'out there' awaiting discovery (4).

Qualitative research has enormous potential to make a distinctive contribution to knowledge about allergy management and to provide insights that quantitative studies cannot. In particular, qualitative research can afford understanding of patients' perspectives and illuminate the often-neglected personal and social contexts of illness and care (3, 10). Such insights are essential, if healthcare professionals are successfully to adopt a model of partnership with patients, rather than didactic service delivery. This is especially important in the case of people experiencing allergic problems, where management generally involves long-term strategies carried out by the patients themselves. Yet qualitative research is rarely reported in allergy journals.

We undertook a search for qualitative research articles published from 2005 to 2007 in the five highest ranking allergy journals that publish original work, according to impact factor in the 2007 Thomson Journal Citation Reports (11): *The Journal of Allergy and Clinical Immunology*; *Allergy*; *Clinical and Experimental Allergy*; *Contact Dermatitis*; and *Pediatric Allergy and Immunology* (*Current Opinion in Allergy and Clinical Immunology*

was excluded as it publishes only review articles). These journals were electronically searched, via the search engine on each journal's own website, for original research articles with any of the following terms in the full text: 'qualitative'; 'interview'; 'focus group'; 'ethnography' and 'ethnographic'. Articles identified by our searches were then examined to determine whether they were qualitative research articles. We defined a qualitative research article as one in which the majority of the data reported were qualitative. We used data from Thomson's Journal Citation Reports (11) to calculate the total number of original research articles for each journal over the same period.

Our searches identified only four qualitative original research articles (12–15) out of a total of 2408 original papers. Two of these were published in *Clinical and Experimental Allergy*, representing 0.36% of this journal's original research articles over our chosen timeframe; one article was published in *Pediatric Allergy and Immunology*, representing 0.33% of the journal's output over this period; the remaining article was published in *Allergy*, representing 0.20% of its original research output during this period. Overall, these four qualitative research articles made up just 0.17% of the total original research articles published in the top five allergy journals from 2005 to 2007.

Clearly, allergy research is dominated by a broadly positivist paradigm and consequently, is almost exclusively quantitative. This situation is lamentable. In most other long-term conditions, qualitative research is now accepted as making a significant contribution to knowledge of effective management (16, 17). Clinicians have a wealth of anecdotal evidence about patient experiences upon which to draw in their practice, but this is no substitute for systematic, in-depth qualitative enquiry. Without such an evidence base, opportunities abound for unhelpful assumptions, generalizations and stereotypes. For example, in the absence of any systematic investigation, it is easy for healthcare professionals to view instances of 'non-compliance' with medication as the result of ignorance, apathy or recalcitrance. In-depth qualitative research on this issue could produce a much more insightful, nuanced picture of patient experiences of self-management, and the barriers faced by people with allergy in managing their condition. Such knowledge might stimulate more empathetic encounters with patients. It could also help to shape interventions around patients' needs as is, for example, increasingly happening in cancer and palliative care (18–21).

There are numerous clinical and health services research questions that are in need of detailed systematic qualitative enquiry; for example, why do so few people experiencing anaphylaxis use their self-injectors, despite having these available and being trained in their use? And why are emergency room physicians internationally so reluctant to use adrenaline as a first-line treatment in anaphylaxis? What can be done to help overcome their concerns? Other important issues include better

understanding of how the allergy community might be able to capture the attention and imagination of policy makers, and the barriers to and facilitators of effective inter-boundary working in the management of those with potentially serious allergic conditions. These are pressing issues that bear directly upon allergy management. Such questions cannot meaningfully be answered by quantitative research.

Qualitative research is useful in its own right, but it also has much to offer as a complement to quantitative studies. Embedding a qualitative component within trials can, as is now explicitly recognized by the Medical Research Council's framework for the evaluation of complex interventions, help answer important questions about their acceptability and feasibility for patients and healthcare professionals (19, 22, 23). Immunotherapy trials, for example, could be designed to include in-depth interviews with participants to find out how they experience these treatments. Research designed in this way would be able to investigate the psycho-social impacts of immunotherapy programmes on patients, in addition to their medical benefits. Similarly, quantitative studies of allergy management plans could be enriched by a qualitative component looking at how such plans are received by patients, their families and healthcare professionals. After all, no matter how effective an intervention is at alleviating symptoms, if it is not acceptable to patients or the professionals involved in its administration, then it is likely to fail in the long-term. Well-conducted qualitative research offers the opportunity to both illuminate potential problems of acceptability and suggest effective solutions to these problems, informed directly by health service users' perspectives. Without qualitative work to complement quantitative studies of allergy, important questions will remain unanswered (24, 25). It is encouraging in this respect that the Cochrane Collaboration is now also seeking to incorporate qualitative work into their reviews (26). Also encouraging is that the UK's respiratory research community has recently used a qualitative approach to guide their national research prioritization exercise (27).

The barriers to qualitative research within the allergy community are considerable. Most allergists work within a medical culture, founded upon a conception of knowledge as emerging from the verification or falsification of hypotheses through measurement (28, 29). This is clearly appropriate in many contexts, but not always so. There is, it seems, little understanding within the allergy community of the very different epistemological and methodological basis of qualitative research. Consequently, there is little sense of how its validity and reliability are to be judged, leading to a widespread suspicion of qualitative studies, despite the availability of recent articles addressing this issue (30, 31). Our experiences suggest that the low numbers of participants typically needed in qualitative studies to achieve data saturation often inspire mistrust within a culture which is more accustomed to

deliberations on power, sample size and seeking generalizable findings. Qualitative research may therefore be perceived as unable to make a significant contribution to clinical knowledge, particularly compared to the randomized controlled trial. The randomized controlled trial is entirely appropriate with respect to assessing questions of clinical efficacy and effectiveness. It is inappropriate, however, if this is regarded as the gold standard of research irrespective of the research question being posed. Such an attitude risks eclipsing both the everyday social reality of allergic disease, and the prospect of in-depth investigation into that reality.

Under these conditions, it is unsurprising that allergy journals are largely unreceptive to qualitative studies. The current publication climate is a catch-22 situation: the lack of allergy experts with an understanding of qualitative research means that journal editors are likely to struggle to find appropriate reviewers; the quantitative bias of reviewers means that qualitative papers are likely to be rejected, regardless of their merits when judged on their own terms. The resulting lack of published qualitative articles in turn contributes to the widespread ignorance and mistrust of qualitative research within the allergy community, with the net effect that these papers are less likely to be cited than quantitative papers.

We would argue that the following measures could help to improve the stand of qualitative research in the allergy community:

- Education and training for allergy researchers should incorporate basic coverage of qualitative methods, addressing their epistemological bases as distinct from those of quantitative research.

- Funding bodies active in the field of allergy should cultivate a greater awareness of qualitative research and its potential benefits.
- Editors of leading allergy journals should ensure that submissions of high quality qualitative research articles have the same chance of publication as quantitative articles of equivalent quality. This is likely to involve cultivating a wider pool of reviewers with qualitative experience, perhaps including some who have extensive experience of qualitative health research, but limited experience of allergy.
- It is important that those developing national and international allergy guidelines begin incorporating, where appropriate, qualitative data into their guidelines, and/or highlighting where this is absent.

With raised awareness of the value of qualitative research and concerted effort, the current rather blinkered picture can and will change, as it has in many other specialities in recent years. Allergy, although not in the vanguard of synergizing quantitative and qualitative research, must not be a complete laggard in this respect.

Potential conflict of interests

Members of our team have published two of the four qualitative reports identified through the journal searches described above.

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