The power of words: Is qualitative research as important as quantitative research in the study of autism?

Honesty, who among us was properly academically trained to conduct qualitative research? Who can spontaneously cite a qualitative study of autism, or would say his or her favorite study of autism is a qualitative one? Who thinks qualitative research is as valuable as quantitative research? Without either qualitative or quantitative evidence for it, only an $n = 1$ personal experience, I would assume with good confidence: not many of you, correct? The number of original studies that use qualitative methods in respected peer-reviewed journals is negligible compared to quantitative ones. Why is that so?

In this editorial, I will first explain why I think there still is an implicit attitude among many of my esteemed peers that the results of qualitative research cannot be taken seriously, and then argue that disrespect for qualitative research is a well-cultivated myth, and that rigorous qualitative research is as necessary as quantitative research. A note of caution for readers: I feel somewhat appointed to write about these issues, as I have gone through a recent transition from rather hostile to rather enthusiastic about qualitative research, which I will describe later.

So, why is there relatively little qualitative research in autism, and why are related methods not well accepted by the scientific community? First, I assume, few are well trained in qualitative research. For most, it is something that others do, and is viewed as bad (or at best, incomplete) science. Second, there is perhaps a perceived lack of need; the main objective of qualitative research is to gain deeper understanding of human behavior and experiences based on (a series of) cases. Data from qualitative studies can be used to generate good hypotheses, for which quantitative support can be sought, as well to illuminate quantitative findings. However, many autism researchers are clinicians, too. Therefore, they may encounter enough informative cases in naturalistic settings and gain sufficient insight into their behavior (“clinical experience”) from which to derive concrete hypotheses, and to interpret quantitative data in an insightful fashion. Third, the scientific quality of many qualitative studies in the autism field is indeed often low, which further discredits qualitative research as a legitimate form of empirical research. Much published qualitative research is too exploratory, with weaknesses in rationale, clarity, documentation, replicability, and soundness of conclusions. I also have observed that in some qualitative studies, quantitative methods in general or results from quantitative studies are disparaged, which demonstrates that inadequate arrogance exists on both sides of the debate.

Quantitative and qualitative approaches each serve certain aspects of research; they have specific strengths and weaknesses, and in the best cases are complementary (Brown and Lloyd, 2001; Razafsha et al., 2012). Knowledge is derived from both sources, and mixed models are becoming more accepted. Qualitative research helps to ask the right questions, derive hypotheses, and can enable a deeper understanding of certain processes in humans. Quantitative research should test hypotheses, and enable the generalizability of findings to larger populations. For both, standards must be high for reliability and validity. In qualitative research, rigor is achieved by the concepts of triangulation, trustworthiness, saturation, flexibility, and applicability (Kisely and Kendall, 2011).

We at Autism receive an increasing number of submissions using qualitative methods, although the percentage that we publish is still below the proportion of what we publish of quantitative submissions. Autism is as open to publishing qualitative research as quantitative research if it applies the same high standard of rigor that we expect from quantitative studies. During 2014, Autism will publish a special issue on autism and society, covering topics from dissemination, knowledge translation, and responsible communication, via public engagement and awareness as well as stigmatization and societal integration to empowerment, autism culture, and advocacy organizations. We have received some promising submissions using qualitative designs, and look forward to publishing some of them.

Even though the present issue does not include a qualitative study, Autism has published some fine examples of qualitative research that have improved our understanding of autism. For instance, Fleischmann (2005) investigating how parents of children use the Internet. Calder et al. (2013) examined the nature of children with autism’s
perspective on friendships using a mixed qualitative/quantitative model. Additional favorites published in other journals are Smith and Sharp (2013) on the impact of sensory experiences on adults with high-functioning autism spectrum disorder, and Chen et al. (2013) and Gray (2006) on parents’ attitudes and experiences regarding genetic testing, and coping with autism over time, respectively. Such studies give important information to teachers and service providers, new leads for quantitative studies, new perspectives on ethical implications, and perhaps enhanced societal awareness.

Before I conclude, I still owe you my little personal aha! experience concerning the value of qualitative research, which caused me to reorient and reorganize some of my clinical research toward favoring more mixed models of designs. I have been working quite a bit with manualized group-based social skills training for children and adolescents with high-functioning autism spectrum disorder (Bölte and Choque-Olsson, 2011; Herbrecht et al., 2009). Particularly, when we piloted a training program in a Swedish clinical setting for a now ongoing large randomized clinical trial (RCT) multicenter study (NCT01854346), unstructured post-training interviews with children, parents, and teachers revealed a multitude of positive consequences participating individuals associated with the intervention, which were obviously not captured sufficiently by our quantitative measures. These included a diversity of prosocial incidents such as joining activities at school, approaching peers and relatives, increased family communication and decreased family conflicts, better handling of conflicts and crises but also reduced feelings of loneliness and hopelessness, and changed attitudes toward clinical services. These qualitative results changed the choice of outcome measures for the full trial, and focused interviews were added to the final design.

To sum up, I hope to convince you that qualitative research is important, and, provided that scientific rigor is applied, as important as quantitative research. There are some good examples of studies that have significantly improved our understanding of autism, and I am sure there is a lot more to come, not least of all in this journal.

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References

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