Clinical Social Work Research: Quantitative Versus Qualitative Methodology

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One of the biggest predilections to plague social science research, has been the debate on the use of quantitative analytical procedures vis-a-vis qualitative methodology. Quantitative analysts claim superiority in terms of 'scientific' validity and greater generalisability of findings, while the advocates of the qualitative perspective assert greater subjective insight, richness and depth of information, which is likely to be lost in a matrix of numbers. Clinical social work research has, in recent years, shown an overwhelming tendency to list towards the former approach often to the absolute exclusion of qualitative procedures as is evidenced by the numerous publications in the field and the instruments developed to quantify various psychosocial parameters. Several related issues from the stand-point of this paradigm debate have been discussed in this paper besides making out a case for using mixed research methodologies, blending both approaches to the optimum extent possible so as to get the best insight into the phenomenon being investigated.

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INTRODUCTION

Social science research has for long been plagued by the issue of whether or not, and to what extent, to depend on qualitative and quantitative methodologies. Oakley (2000) said that the quantitative-qualitative debate started in the early 1960s. Sieber (1973) was writing nearly 30 years ago, but his statement still holds true; and Roberts (2002) argued in his favour that the boundaries between the two 'traditions' have not yet been dissolved. In the field of clinical psychology, Rabinowitz and Weseen (1997), observed that for more than two decades, calls for the integration of quantitative and qualitative methods had gone unheeded. It is also said that this debate
Selwyn Stanley (Creswell, 1994) is so common now that it is simply referred to by the acronym QQD (qualitative-quantitative debate), and that this debate appears in applied areas such as education, public health and programme evaluation. Tashakkori and Teddle (1998) asserted that no discipline in the social and behavioural sciences had avoided manifestations of these 'paradigm wars'. The debate then has certain implications for clinical social work research, too, and is worthy of examination.

Before we move into what methodological stance clinical social work researchers ought to take, let us touch upon some fundamentals pertaining to the debate on the appropriateness of the quantitative versus qualitative research methodology in the clinical social work setting. Our acquaintance with the former approach has been the foundation on which we have been nurtured as researchers first and social workers next and we are all too familiar with the process of collecting data using standardised instruments administered to a population group using scientific and logical measures of analysis in order to draw inferences and arrive at generalisations to the extent possible to substantiate, complement or negate an existing theory / hypothesis or to formulate a new one. Exciting stuff indeed..., the entire process of deduction, though labourious, gives us the end result to defend our hypotheses using a logical, systematic and 'scientific' procedure.

Qualitative research, on the other hand, as my primary conceptual and inspirational source for this article, Roberts (2002) said is mainly concerned with the properties, the state and the character, that is the nature of the phenomena. The word qualitative implies an emphasis on processes and meanings that are rigorously examined, but not measured in terms of quantity, amount or frequency. Typically, qualitative methods produce a wealth of detailed data about a much smaller number of people and cases. They provide depth and detail through direct quotations and careful description of situations, events, interactions and observed behaviours. Qualitative researchers, according to Labuschagne (2003) are concerned with the meaning of the phenomena and the lived experiences, which is not a readily observable process. There is attention to the social context in which events occur and have meaning, and there is an emphasis on understanding the social world from the point of view of the participants in it — which from the social work perspective would refer to an approach of empathy leading to intervention.
Chenail (1995), stated succinctly that qualitative research is the practice of asking simple questions and getting complex answers. The art of managing both the simplicity and the complexity is the real secret to being successful in conducting qualitative inquiries.

This article raises two major issues.

1. Does getting embroiled in the QQD help further the cause of clinical social work research with any convincing decision in favour of either or merely bog us down in technicalities, which may sometimes undermine the 'humane' nature of the social work profession?

2. Whether clinical social work researchers can complement quantitative with qualitative methods within the same research paradigm given the nature of their setting of practice and the issues that they deal with.

The methodological conflict emerges when one tends to be biased against the other by virtue of one's own subjective perceptions, professional grooming or finds it difficult to appreciate the potential and necessity of the other. Brannan (1992) pointed to the fact that there had been a paucity of discussion on the topic of employing both quantitative and qualitative methods in one study design. Nau (1995) opined that a research paradigm that utilised both qualitative and quantitative methodologies could be productive.

Tripp-Reimer (1985) suggested that both research methods had strengths that could be used effectively. Qualitative research methods often provided 'rich descriptive and documentary information about a topic or a phenomenon'. She believed that it was best to use qualitative research first to generate 'important questions' to ask research participants. She contended that qualitative research, when used first in a bimodal research design, could help to 'facilitate serendipitous findings, raise unexpected questions, and identify topics which one may not have otherwise considered'. Quantitative research methods, on the other hand, are most appropriately used to 'test hypotheses with the goal of predicting or explaining'. These methods tend to be more number-driven when the researcher wishes to know how often or how much of a phenomenon is present. They serve as a base for explaining or predicting what has occurred or what will occur in the future.

Qualitative research, the critics claim, tends to be unscientific and based on slipshod methodologies. It's proponents say that it offers a post-modern and post-positivist view more in keeping with prevailing
social attitudes. They also claim that such a research method is able to capture the voices of many and provide what Geertz (1973) called a 'thick description' of everyday life. In fact, Sells, Smith and Sprenkle (1995) have argued convincingly for what they termed a multi-method, bi-directional research model. They suggest that ethnographic content analysis, for example,

lends itself to both qualitative and quantitative research goals and combines what are usually considered antithetical modes of analysis... Qualitative and quantitative methods build upon each other and offer information that neither alone could provide.

Bavelas (1995), on the other hand, suggests that we should challenge this dichotomous way of viewing the two approaches, and instead, replace it with a continuum way of discussing and using qualitative and quantitative research methods. While the continuum proposition put forth by Bavelas does not appear to be appropriate owing to the distinct nature, process and techniques of research adopted by each approach, I have no arguments with Sells and others (1995), whose perspective I endorse.

A broad approach then, would be to be accommodative, and to critically explore both methodologies in appropriate situational contexts before condemning the other. The question put in the correct perspective is not which of these is superior, but one which calls for an open-hearted acceptance of which of these and to what extent when used can give us a better view of the larger picture. For instance, if making need-based interventions to enhance coping strategies constitutes the core philosophy of the overall social work profession, then clinical social work practice should also share a similar concern and clinical social work research then be a pointer towards these ends.

THE CLINICAL SETTING: UNIQUE FEATURES

The issues here are related to health — both physical as well as mental. Clinical social workers may see a wide range of persons dealing with problems of mood, behaviour, personality deficits or deviations and with problems of sexual expression, interpersonal difficulties and people grappling with developmental crises, terminal or stigmatising illnesses, substance abuse, existential issues and a host of such clinical concerns. Working with the families of these persons and sustaining their involvement in the entire treatment programme is a primary function of the clinical social worker. These issues, hence, become the natural choice of enquiry and research within the profession for
social workers working in clinical settings. In all likelihood, one's sphere of interest is likely to revolve around the clientele and issues that one interacts with, almost on a daily basis. The purpose of research done in these settings would then be governed by its primary function — be it in the area of education, research, intervention or all of these or none in varying combinations.

If the primary focus of clinical social work is intervention and we are governed by the core values of individualisation and empathy advocated by the social work profession, then individualised intervention would call for an exhaustive in-depth study of the individual client and/or his/her family, which I guess would best be done using qualitative procedures. However, if we were to attempt to show the impact of psychosocial intervention then there is ample scope for the same in the form of quasi-experimental studies. An example that can be cited here would be to study the benefits of a therapeutic programme for the selected target group, which could be best substantiated with quantitative evidence.

Let me illustrate this point with two examples, both from the perspective of intervention. Suppose we were trying to establish the efficacy of psychosocial therapeutic intervention in de-addiction management, then perhaps the best methodology to follow would be an investigation with an experimental and a control group both matched on key socio-demographic parameters. The former would be recipients of a psychosocial package comprising individual counselling, and group, family and marital therapies and the latter not receiving this package except for being de-toxified and put on anti-abuse treatment like the former. Following discharge, if respondents of both groups are monitored for, let's say, a period of two years with regard to their abstinence and relapse, and it is observed that more respondents of the first group maintained their sobriety for a longer duration than the controls, then one could positively conclude in favour of including the package of psychosocial intervention as an integral component in all de-addiction programmes for similar population groups.

If, on the other hand, the social worker is interested in finding out why a particular client X was able to abstain from alcohol far longer than another client Y, then the methodology to follow would be more on the lines of compiling exhaustive case studies to collect descriptive data from both clients and their significant others pertaining to issues such as precipitating factors, current life stressors, peer group influence, anti-abuse compliance, coping strategies, leisure time
management, family support and a host of such issues which would provide insight into the reasons for the maintenance of sobriety in client X and identify factors leading to relapse in client Y. These insights would facilitate individualised intervention for both clients by enabling the sustenance of sobriety in X and reducing factors to minimise the possibility of future relapse in Y.

Obviously, in the first illustration, the quantitative approach ought to be the preferred modality while the qualitative approach stands justified in the second. The purpose of investigation then would determine the methodology to be adopted and belief in the superiority of either approach is a subjective fallacy of one’s theoretical orientation. It may be appropriate at this juncture to observe that clinical social workers, during the course of their work every day, are mostly confronted with issues of the second kind requiring pointers in better case management. This then underscores the need to sharpen one's skills in qualitative methodology and to recognise it to be an important component of the professional repertoire of skills of all clinical social workers.

**Issues in Qualitative Methodology**

From being treated like a poor country cousin, over the last few years the situation is changing and qualitative research is gradually acquiring a new respectability, with even the *British Medical Journal*, prepared to recognise its worth (Mays and Pope, 1995). This newfound acceptance has, however, been achieved at a cost. Most notably it has entailed an attitude of being condescending if not being a complete capitulation to the quantitative criteria of validity and reliability or at least a tendency to meet them half-way. A relationship that needs to be perceived as a healthy collaborative venture rather than as one involving partners in paradox.

Generally, qualitative research can be characterised as the attempt to obtain an in-depth understanding of the meanings and 'definitions of the situation' presented by informants, rather than the production of a quantitative 'measurement' of their characteristics or behaviour (Wainwright, 1997). This concern to reveal the subjective beliefs of those being studied is common to ethnography, participant observation, and the various other strands of qualitative research. For many qualitative researchers the subjective beliefs of the people being studied have explanatory primacy over the theoretical knowledge of the researcher. Thus critical inquiry is diverse and flexible and only takes on a specific form when applied to the study of a particular phenomenon.
The Nature of Qualitative Data

Huberman (1984), says that qualitative data consists of words rather than numbers. This is not a comprehensive distinction and certainly does not recognise the degree of each that may be used. Most quantitative data is ultimately accounted for in words. Qualitative researchers often code their data, and use terms such as 'regularly', 'frequent', 'sometimes' and 'often', and the fact that they use words does not alter the nature of their claims. Bavelas (1995) asserts that to maintain the qualitative-quantitative dichotomy would require all words such as 'many', 'often', 'several' and 'usually' to be expunged from the word processors of qualitative researchers.

Relationship: The Quintessential Variable

The relationship between the researcher and participant and the establishment of rapport are key issues in qualitative research. How that relationship is conducted, the boundaries constructed around it, and the ethical natures of agreements made are all critical factors in ensuring valid and reliable data (Maniacal, Aroni, Timewell and Alexander, 1990). Managing the relationship with informants, or 'front end management', is an important aspect of the validity of any qualitative study, but it cannot be prescribed as a specific procedure, and its adequacy or effectiveness is unlikely to be immediately transparent to a third party (Wainwright, 1997). Again, the character of this relationship varies, from the relatively brief contact of a single in-depth interview to participant observation, which might entail a close relationship between researcher and informants lasting several weeks or months. Qualitative researchers have a number of techniques at their disposal for data collection, including non-participant and participant observation, focus groups, and in-depth interviewing.

Procedural Economics

The economics of time, human resource and labour would certainly appear to be in favour of using quantitative techniques but this could well turn out to be a case of missing the trees for the hill tops and we may lose those small apparently trivial yet enriching and personal insights into the phenomenon being dealt with.
Validity

According to Wainwright (1997), the mistake lies in applying quantitative criteria of validity to qualitative data. While two statisticians applying the same test of statistical significance to the same quantitative data-set might stand a good chance of arriving at the same result, it is extremely unlikely that two ethnographers would produce the same reading of a case study, for the same reasons that a group of children given a paper and pencil do not all do the same thing. Quantitative procedures in this instance would at best help in counting the number of children or pencils and will not further our understanding beyond that. It is when we are expected to study such intricate details and often very intimate issues that qualitative procedures have the cutting edge.

The reliability criterion for qualitative research (Labuschagne, 2003) focuses on identifying and documenting recurrent accurate and consistent (homogenous) or inconsistent (heterogeneous) features as patterns, themes, world views, and any other phenomena under study in similar or different human contexts.

In order to validate data collected by qualitative researchers, Mays and Pope (1995) have advocated that the same data be re-analysed by other equally competent researchers and establish the validity of the methodology used by assessing the concurrence of their individual interpretations. This could open the floodgates to a host of issues as to how are we to identify who and how many reviewers would be required to validate our procedure.

Generalisability

In a quantitative study, random sampling and statistical inference largely determine generalisability. Obviously such techniques are not usually relevant to qualitative research, making generalisation more of a problem. In many respects, the way in which generalisation is conceptualised in quantitative studies is alien to both ethnography and critical social research. Wainwright (1997) said that for an ethnographer what mattered the most was gaining an in-depth understanding of the attitudes, beliefs and behaviour of the people he/she studied; the assumption is that this world view will be context specific, and that generalisation to others will, therefore, be extremely limited. Similarly, critical social research starts from the assumption that society is in a constant state of flux, that the social world and our understanding
of it are constantly changing, again limiting the value of generalisation.

The aim of the qualitative researcher is not to produce a representative and unbiased measurement of the views of a population, but to deepen his or her understanding of a social phenomenon by conducting an in-depth and sensitive analysis of the articulated consciousness of actors involved in that phenomenon.

As Ward-Schofield (1993) suggested, there was a need for re-conceptualisation of generalisability in terms appropriate to qualitative research. She preferred the terms 'fittingness', 'comparability', or 'translatability', reflecting the process of detailed description of the content and context of a study, so that it could be generalised to similar phenomena.

The validity and reliability of qualitative data depended, to a great extent, on the methodological skill, sensitivity and training of the evaluator. Systematic and rigorous observation involves far more than just being present and looking around. Skilful interviewing involves much more than just asking questions. Content analysis requires considerably more than just reading to see what's there. Generating useful and credible qualitative evaluation data through observation, interviewing and content analysis requires discipline, knowledge, training, practice and hard work (Labuschagne, 2003).

**SUMMARY AND CONCLUSIONS**

To sum up, I would like to reiterate the observations of Labuschagne (2003) that traditional quantitative methods such as randomised controlled trials are the appropriate means of testing the effect of an intervention or treatment, but a qualitative exploration of beliefs and understanding is likely to be needed to find out for instance as to why some patients choose not to adhere to prescribed treatment. The two approaches should be regarded as complementary, rather than being competitive. As Bavelas (1995), Oakley (2000), Oppermann (2000) and Roberts (2002) observed, this dichotomous frame of reference has exaggerated whatever differences that exist between the qualitative and quantitative perspectives.

One tends to concur with the observations of Bavelas (1995), Roberts (2000), and Sell and others (1995), who said that antagonism between proponents of qualitative and quantitative methods was preventing recognition of the benefits to be gained by employing both methods in a single research design. This, in the long run, became
self-defeating, not in tune with the spirit of enquiry, and impeded an objective presentation of varied methodological perspectives to our students.

The question of techniques of investigation should not be whether X is 'better' than Y, but which would be the most appropriate technique in terms of dealing with situation Z, which is a step beyond mere investigation moving on to intervention, which after all is the primary concern of clinical social work.

King, Keohane and Verba (1994) pointed out that the design of social enquiry ought to be guided by disciplined thought and not dogma. If this can be achieved, then Sieber's (1973) observation that in the interest of improving our strategies in social research, the boundaries between the two traditions should be dissolved and attention turned to their intellectual integration stands justified. This may, in the long run, permeate all social sciences in general and social work research in particular. Time then to end the QQD and to broaden our perspective by being accommodative towards both methodological stances. This would undoubtedly abet the enrichment of clinical social work research and the profession of social work at large.

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Quantitative research is a research method that is used to generate numerical data and hard facts, by employing statistical, logical and mathematical technique. Nature. Qualitative research is a method of inquiry that develops understanding on human and social sciences, to find the way people think and feel. A scientific and empirical research method that is used to generate numerical data, by employing statistical, logical and mathematical technique is called quantitative research. Qualitative research is holistic in nature while quantitative research is particularistic. Qualitative research is a behavioral research method that relies on non-numerical data derived from observations and recordings that approximate and characterize phenomena. In other words, it's concerned with understanding human behavior from the perspective of the subject. To do this, qualitative researchers acquire data by studying subjects in their natural environment focusing on understanding the why and how of human behavior in the given situation. Both methods can be helpful on their own, but together, qualitative and quantitative research methods give you an intimate understanding of your customers' needs, expectations, and pain points. Which qualitative method is right for you? Research methods are split broadly into quantitative and qualitative methods. Which you choose will depend on your research questions, your underlying philosophy of research, and your preferences and skills. Our pages Introduction to Research Methods and Designing Research set out some of the issues about the underlying philosophy. This page provides an introduction to the broad principles of qualitative and quantitative research methods, and the advantages and disadvantages of each in particular situations. Some definitions. Quantitative research is explaining phenomena by collecting numeric