



Research quality considerations for grounded theory research in sport & exercise psychology

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ABSTRACT

Objectives: The aims of this article are: to examine the application of grounded theory in sport and exercise psychology; to locate such applications within broader grounded theory methodological debates and; to support the future use and evolution of the method in the field.

Methods: A search of the four sport and exercise psychology journals with the highest impact factors in 2007 (*Psychology of Sport and Exercise*, *Journal of Sport and Exercise Psychology*, *Journal of Applied Sport Psychology* and *The Sport Psychologist*) using the search term “grounded theory” and the date parameters 2000–2008 was conducted. These articles were discussed in relation to research quality concerns for grounded theory at the micro- and macro-level.

Results: Twelve articles were returned from the search. At the micro-level, eight elements representing collective sufficient conditions for grounded theory were discussed, which only two of the twelve articles returned met. Examples of common mistakes in relation to these elements were provided from the twelve articles. At the macro-level, the ontological and epistemological debates surrounding variants of grounded theory were discussed. Only one of the twelve articles explicitly recognised that there are variants of grounded theory, whilst the potential to generate more generic formal theory, and thus make a wider contribution to bodies of knowledge, was not discussed in any of the articles.

Conclusions: There are research quality concerns regarding the application of grounded theory in sport and exercise psychology at the micro- and macro-level, largely linked to a lack of understanding of the methodology and its implementation. Suggestions to address this for editors, reviewers and authors are offered.

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Introduction

Fifteen years ago, writing in Denzin and Lincoln's *Handbook of Qualitative Research*, Strauss and Corbin (1994) expressed regret that grounded theory methodology “ran the risk of becoming fashionable”. This might seem a strange thing for one of the originators of the grounded theory approach (Strauss) to say. However, Strauss and Corbin were concerned that grounded theory was increasingly being used as a label to confer legitimacy on qualitative

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research by researchers who were simply claiming to be doing “inductive” research. This concern was heightened by their belief that the nature of grounded theory as an inductive approach had been overemphasised in previous texts. As such, Strauss and Corbin (1994) were at pains to point out the importance of the use of the approach by theoretically sensitised and trained researchers.

As part of a collection on research quality in sport and exercise psychology, this paper will investigate the extent to which Strauss and Corbin's (1994) concerns might be relevant in sport and exercise psychology research. As noted in the introduction to the collection, research quality considerations can be addressed at both a micro- and macro-level. At the micro-level, the concern is around the research meeting its own stated goals and the way in which the research has been conducted in terms of its internal consistency and quality as an independent study. At a macro-level, the focus is on the appropriateness of research methodology and method to research questions, the significance of research questions themselves, and the contribution research makes to bodies of knowledge in particular fields. As such, this paper will examine considerations

of research quality for grounded theory research at both the micro- and macro-level, and the extent to which such considerations are being attended to by sport and exercise psychology researchers claiming to use grounded theory. Prior to this, a context is set by a brief review of the growth in research labelled grounded theory in sport and exercise psychology and a short discussion of where grounded theory fits into a generic view of the research process.

“Grounded theory” research in sport and exercise psychology

A search, using the term “grounded theory”, of the electronic archives of the four sport and exercise psychology journals with the highest impact factors in 2007 (*Psychology of Sport & Exercise*, *Journal of Sport & Exercise Psychology*, *Journal of Applied Sport Psychology* and *The Sport Psychologist*) reveals a growing interest in grounded theory. Prior to 2000, three articles were returned, whereas since (and including) 2000, 12 articles were returned (see Table 1 for a list of these articles and some of their features). In addition, articles that might reasonably be located within sport and exercise psychology have appeared in other journals in the broader field (e.g. Cronan & Scott, 2008, “Triathlon and Women’s Narratives of Bodies and Sport” in *Leisure Sciences*; Kihl, Richardson, & Campisi, 2008, “Toward a Grounded Theory of Student-Athlete Suffering and Dealing with Academic Corruption” in *Journal of Sport Management*). Furthermore, if the broader area of “sports-related subjects” is considered, then examples of the use of grounded theory can be found in, for example, sport policy (e.g. Weed, 2005, “A Grounded Theory of the Policy Process for Sport & Tourism” in *Sport in Society*) and physical education (e.g. Keay, 2006, “Collaborative Learning in Physical Education Teachers’ Early-Career

Professional Development”, in *Physical Education & Sport Pedagogy*).

There is a wide variation in the topics addressed in the 12 articles returned from the four sport and exercise psychology journals since 2000 (Table 1), from the impact of music on sportspeople’s emotions (Bishop, Karageorghis, & Loizou, 2007), through parental involvement in youth sport (Holt, Tamminen, Black, Sehn, & Wall, 2008), to the experiences of breast cancer survivors enrolled on a sports programme (Sabiston, McDonough, & Crocker, 2007). Noticeably, the same or similar topics are not addressed more than once, and that 32 of the 34 authors listed only contributed to one paper. Discussions in related fields (sports tourism) have suggested the lack of an identifiable ‘cadre’ of authors working in the area may suggest that authors are ‘dabbling’ (Weed, 2006), and in this case have no real commitment to or interest in the appropriate application of grounded theory in sport and exercise psychology. This suggestion is further reinforced by the absence of evidence across the four sport and exercise psychology journals of a continuing use of grounded theory in any topic area.

Before the substantive discussion commences, there are some important points to be made about the purpose and intention of this paper. Critiques of the application of grounded theory have been made in, *inter alia*, health research (Becker, 1993), nursing research (Cutcliffe, 2005; Wilson & Hutchinson, 1996), library information studies (Selden, 2005) and medical education (Kennedy & Lingard, 2006), and also within the general research methods literature (Dey, 1999; Greckhamer & Koro-Ljungberg, 2005). As such, sport and exercise psychology researchers are not alone in falling into to some of the pitfalls of the use of the method

Table 1

Studies claiming to be using ‘grounded theory’ in *Psychology of Sport & Exercise*, *Journal of Sport & Exercise Psychology*, *Journal of Applied Sport Psychology* and *The Sport Psychologist* since 2000.

Authors (Journal, year)	Topic	Claim to grounded theory	Consideration of epistemology/ontology	Sufficient conditions for grounded theory
Bishop et al. (JSEP, 2007)	Sports players use of music to affect emotion	“Grounded Theory was chosen as the appropriate method for data collection and analysis”	Not mentioned	No
Bringer et al. (TSP, 2006)	Coaches’ Perceptions of sexual exploitation in sport	“Grounded theory method was adopted”	Not mentioned	Yes
Eccles et al. (JSEP, 2002)	Expert Cognition in elite orienteering	“This study used grounded theory to analyze the interview data” (but Grounded Theory also claimed as the product in the article title)	Implicit discussion of epistemological considerations	No (iterative process not possible due to single round of data collection, although this is recognised)
Giacobbi et al. (JSEP, 2003)	Exercise Imagery	“Using the analytic strategies of grounded theory, a research team performed inductive analysis”	Not mentioned	No (used only at the analysis stage)
Holt and Dunn (JASP, 2004)	Psychosocial Competencies and Environmental Conditions associated with success in sport	“Using grounded theory methodology, data analysis followed several coding procedures geared toward theory development”	Not mentioned	Unclear (emphasis is on grounded theory at the analysis stage)
Holt et al. (PSE, 2008)	Parental Involvement in Youth Sport	“We used grounded theory methodology”	Not mentioned	No
Morgan and Giacobbi (TSP, 2006)	Talent Development and Social Support in Elite College Athletes	“...grounded theory analytic procedures served as a framework to collect, analyze and interpret data” (but “two grounded theories” also claimed as the product of the research in the article title)	Not mentioned	No
Pummell et al. (PSE, 2008)	Sport career development/transition in adolescents	“Data analysis procedures drew upon guidelines from Strauss and Corbin (1998)”	Not mentioned	No
Rees and Hardy (TSP, 2000)	Social Support Experiences of Elite Athletes	“Analysis of the transcripts drew upon the principles of the grounded theory approach”	Not mentioned	No
Sabiston et al. (JSEP, 2007)	Psychosocial Experiences of Breast Cancer Survivors in a Sports Programme	“Data Analysis followed guidelines adapted from constructivist grounded theory methods”	Nature of constructivism discussed	Yes
Seve et al. (TSP, 2006)	“Activity” during matches of elite sports people (i.e. how matches are conducted)	“A grounded theory of players’ activity emerged”	Not mentioned	No
Torregosa, Bioxados, and Cruz (PSE, 2004)	Elite Athletes’ Image of Retirement	“...we adopt a grounded theory approach”	Not mentioned	No

that are outlined here. However, like Kennedy and Lingard (2006: p. 104) the intention in this paper “[i]n describing these pitfalls... is to assist new researchers, not to attack those whose work exhibits the following issues”. Unlike Selden’s (2005) explicit intention in the title of his paper “On Grounded Theory – with some malice”, there is no malice intended, rather this paper is offered in the spirit of Layder’s (1982) contribution, “Grounded Theory – A Constructive Critique”. Nevertheless, it is important to offer concrete examples and illustrations of some of the common pitfalls and, as such, direct citations of such examples are provided throughout the paper. This is not to single out individual researchers or research teams, largely because many of the pitfalls are common to a significant proportion of papers (only two of the 12 papers listed in Table 1 fully demonstrate the appropriate use of grounded theory in sport and exercise psychology), but to illustrate substantively what such common pitfalls look like. While I recognise that this may make for uncomfortable reading in some places, I hope the paper will be received in the spirit in which it is offered within the context of this special issue: to contribute to the development and enhancement of research quality in sport and exercise psychology research.

What is grounded theory?

Depending on the paper that is being read, grounded theory in sport and exercise psychology has been presented as a “method” (e.g. Bringer, Brackenridge, & Johnson, 2006), a “methodology” (e.g. Holt & Dunn, 2004), a set of analytic procedures (e.g. Morgan & Giacobbi, 2006), or an outcome or end product (e.g. Eccles, Walsh, & Ingledeew, 2002). Furthermore, looking beyond the use of the term in sport and exercise psychology, research methods authors variously present grounded theory as “a set of principles and practices” (Charmaz, 2006: p. 9), “a set of techniques or procedures” (Greckhamer & Koro-Ljungberg, 2005: p. 729), or “both a method, technique or research design, and the outcome of the research” (Sarantakos, 2005: p. 117). In Glaser and Strauss’s (1967) monograph that originally outlined the approach, they argue that the label of “methodology” should be associated with grounded theory. But what do each of these labels mean and how do they relate to the research process and the assumptions that underpin it? It is perhaps useful to clarify these issues before discussing how grounded theory should be regarded in this context.

Drawing on Blaikie (1993) and Grix (2002), Fig. 1 illustrates the relationship between what they term “the building blocks of social research”. Here, methodology and methods are shown to be underpinned by ontological and epistemological assumptions. Ontology deals with questions of reality and asks, “what is the nature of the social world?” – is there a reality external of individuals’ perceptions of reality? Such ontological questions inform epistemological questions of knowledge such as, “How is

knowledge of the social world possible?” – can knowledge be separated from the process of its production? Having addressed such questions, attention can turn to methodology which asks, “What procedures or logic should be followed in the production of knowledge?” – what is the overall research strategy? Finally, the methodology or strategy developed will guide the methods used, where the consideration is, “What specific techniques should be used to collect data?” – what data collection tools (e.g. questionnaire, interviews, participant observation) will be employed?

Leaving ontological and epistemological questions to one side for the moment (these will be addressed later in the paper), the key question appears to be whether grounded theory should be considered a methodology or a collection of methods. While there is much disagreement about many aspects of grounded theory by research methods authors, one thing that is clear from all of their writings (e.g. Charmaz, 2000; Glaser, 1992; Glaser & Strauss, 1967; Pidgeon & Henwood, 1997; Strauss & Corbin, 1990) is that grounded theory is an integrated research strategy, which assumes that the principles of grounded theory have been followed from start (i.e. the conceptualisation of the research area to be addressed) to finish (i.e. the product or outcome of the research). As such, grounded theory might best be conceptualised not only as a methodology, but as a “total methodology”, one that provides a set of principles for the entire research process. Furthermore, grounded theory methodology is a complete package, not a “pick and mix” box. All too often the micro-level research quality of the grounded theory methodological process is compromised by researchers who believe that their research qualifies for the grounded theory label because they have chosen to employ some of the elements of grounded theory. This is akin to believing that an engine and a steering wheel are sufficient to describe a motor car, regardless of the absence of wheels, seats, bodywork and so on.

Micro-level research quality in grounded theory

Micro-level research quality evaluates the internal consistency and quality of a piece of research as an independent study. This section will examine what contributes to the internal consistency of a grounded theory study, and the way in which the quality (what in positivistic research might be referred to as “validity” and “reliability”) of grounded theory research is assessed.

Because, as Strauss and Corbin (1994) noted, grounded theory has become “fashionable”, many people are aware of some of the words associated with it. This may be because they have attended presentations, read the odd paper, or because it was outlined in undergraduate or postgraduate research methods courses. Such words might include: “theoretical sampling”, “axial coding”, “memo-writing”, “induction”, “theoretical saturation”, “line-by-line coding”, “constant comparison”. However, while each of these words have become associated with grounded theory, some of them are core elements (part of the methodology), others are techniques that may or may not be used (methods), whilst others have come to be associated with grounded theory through mistaken understandings of what the methodology comprises. This is certainly true of the idea that grounded theory is “induction”, something that is mistakenly suggested by, *inter alia*, Rees and Hardy (2000: p. 331) – “Grounded theory primarily involves the generation of theory by induction” – in their study of social support of high level performers. Numerous methodologists have noted that the claim that grounded theory is induction is a common misperception among novice users of the approach (e.g. Goulding, 2002; Strauss & Corbin, 1994; Suddaby, 2006), with Thomas and Jones (2006) offering a particularly useful critique. Strauss and Corbin (1998: p. 137) explicitly note that effective grounded theory requires “an interplay between induction and deduction”, and

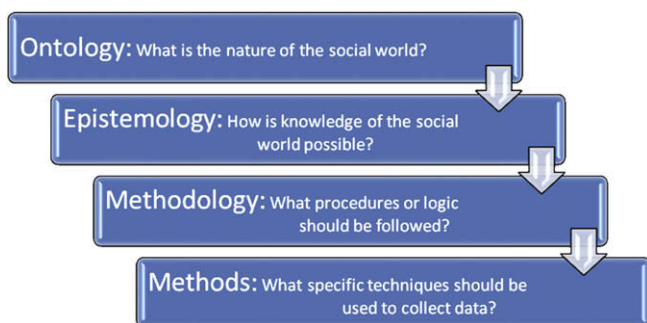


Fig. 1. Relationships between the building blocks of social research (adapted from Blaikie, 1993; Grix, 2002).

many authors now conceptualise this interplay as “abduction” (e.g. Charmaz, 2006; Kelle, 2007a).

The key question, therefore, is what are the core elements of grounded theory methodology, without which a study cannot rightly be claimed to be grounded theory research? As will be noted and discussed later, there are at least three variants of grounded theory in common use: Glaserian (see Glaser, 1992), Straussian (see Strauss & Corbin, 1990) and Constructivist (see Charmaz, 2000), although Dey (1999) suggests there are as many interpretations of grounded theory as there are grounded theorists. This range of interpretations derives, to a certain extent, from the lack of specificity in the methodology in many accounts. However, reading across both the substantive (e.g. Becker, 1993; Buckley & Waring, in press; Cutcliffe, 2005; Goulding, 2002; Kennedy & Lingard, 2006; Selden, 2005; Wilson & Hutchinson, 1996) and the research methodology (Bryant, 2003; Bryant & Charmaz, 2007; Charmaz, 2000, 2006; Dey, 1999; Glaser, 1992; Glaser & Strauss, 1967; Greckhamer & Koro-Ljungberg, 2005; Kelle, 2005; Layder, 1982; Pidgeon & Henwood, 1997; Strauss & Corbin, 1990) literature, it is possible to identify eight core elements common to each approach:

- **An Iterative Process** – Grounded theory is not linear, nor is data collection a separate activity from data analysis. Data is collected, analysed and compared with the literature, following which further data is collected to help refine concepts, which is then analysed and compared with the literature and original concepts, leading to the focused collection of further data, and so the process proceeds until the theoretical coverage of the research area is adequate (see theoretical saturation below). Studies which collect data, and then claim to use grounded theory to analyze the data without allowing for the possibility of further iterations of data collection following analysis and comparison with the literature, are the clearest (and most common) examples of the mis-application of grounded theory methodology (Kennedy & Lingard, 2006). Pummell, Harwood, and Lavallee's (2008) study of within-career transition is one among a number of examples of the mis-application of the methodology in this way in sport and exercise psychology research.
 - **Theoretical Sampling** – Grounded theory samples data according to issues that emerge from the analysis (or, indeed, to identify anomalies). Data is collected to help refine and develop the theoretical concepts that are emerging from the analysis. Unlike most approaches to sampling, “the aim of theoretical sampling is to refine ideas, not to increase the size of the original sample” (Charmaz, 2000: p. 519). Bringer et al.'s (2006) study of coaches perceptions of sexual exploitation in sport is one of the few clear examples of the use of theoretical sampling in grounded theory research in sport and exercise. This paper is part of a longitudinal grounded theory study for which data from an earlier iteration (Bringer, Brackenridge, & Johnson, 2002) highlighted that coaches felt scrutinized by child protection policies, and that this was affecting their practice. Consequently, for this subsequent iteration, Bringer et al. (2006) theoretically sampled three coaches for interview that had experienced high levels of scrutiny due to their actual or perceived relationships with their athletes. A common error in the application of theoretical sampling is the perception that it simply refers to a process whereby the analysis commences as soon as the first data has been collected and proceeds concurrently with data collection. Morgan and Giacobbi (2006: p. 300), for example, in their investigation of talent development and social support, outline how “the analyses began shortly after each interview and overlapped with additional interviews”. However, this describes a linear process whereby
- the analysis of a set of pre-determined interviews proceeds alongside data collection. It does not describe an iterative process, nor does it feature theoretical sampling.
- **Theoretical Sensitivity** – A key question often asked of grounded theory is that if data collection is guided by the emerging analysis (theoretical sampling), what guides initial data collection? This question is particularly common among researchers who mistakenly believe that grounded theory is a “tabula rasa” approach (i.e. that the researcher enters the field with no knowledge of the research area). However, theoretical sensitivity gives lie to this belief. Theoretical sensitivity acknowledges that researchers enter a research site with an awareness of the area but, importantly, without any pre-conceived notions about what they might discover. It is increased by being steeped in the literature and associated general ideas (Glaser, 1978), but is compromised by conducting a detailed review of the literature to develop specific theoretical frameworks about the phenomenon being studied. As such, Holt et al.'s (2008: p. 663) study of parental involvement in youth sport compromises theoretical sensitivity by stating, in the very first line of the abstract, that the study is “[b]ased on ecological systems theory” as does Seve, Poizat, Saury, and Durand's (2006: p. 59) study of elite male table tennis players, which states that “analysis was conducted within the methodological framework of the course-of-action theory”. It is to maintain the integrity of theoretical sensitivity and prevent the development of pre-conceptions that the literature in a grounded theory study is analysed in detail as part of the iterative process, rather than at the outset. Charmaz (1995, 2003) addresses theoretical sensitivity as “sensitising concepts” that act as a “point of departure” to form interview questions, to look at data, to listen to research participants and to think analytically about the data, but that such concepts are a place to start, not a place to end. Consequently, rather than a “tabula rasa”, theoretical sensitivity ensures that researchers enter the field with an open mind, not an empty head (Charmaz, 2006).
 - **Codes, Memos and Concepts** – the most misunderstood aspect of grounded theory research is the process of coding and conceptualising data, partly due to the differences that latterly emerged between Glaser and Strauss in this respect (Kelle, 2005, 2007b). As a result of Strauss and Corbin's (1990) text, which detailed their preferred way of grounded theory analysis, a generation of researchers have come to believe that grounded theory is defined by a detailed analytical process that includes a range of distinctive coding processes, including line-by-line coding, open coding, axial coding, and selective coding.² However, this is but one way (and a very technical way) of coding and conceptualising data, and none of these coding processes define grounded theory, despite the impression given by several studies in sport and exercise psychology (e.g. Holt & Dunn, 2004). The basic process of grounded theory coding is one where initial coding (be it on a word-by-word, line-by-line, or incident-by-incident basis) seeks to describe the phenomena, before moving to a second stage (which may or may not take place via axial, selective or focussed coding) which seeks to conceptualise the phenomena. This development from description to conceptualisation is aided by memo-writing, which allows emergent ideas, notions and linkages to be formally noted and included in the iterative analytical process. Put simply, the methodological strategy for this stage

² See, *inter alia*, Strauss and Corbin (1990 or 1998) for detailed explanations of these coding techniques.

of grounded theory is to move from codes (description) to concepts, aided by memos. The techniques which may be used to do this may include some or all of word-by-word, line-by-line, incident-by-incident, axial, selective and/or focussed coding.³

- **Constant Comparison** – The constant comparative method is what holds together the iterative analytical process in grounded theory. Initially, the comparison is between data and data, then between codes, then between codes and concepts, then between concepts and literature. Once the analysis has developed beyond the initial stages, the constant comparison is between data, codes, concepts, and literature as a way of continually checking that the emerging insights are grounded in all parts of the analysis (Glaser, 1992; Strauss & Corbin, 1990). Furthermore, as further data is theoretically sampled in second, third and fourth iterations, the comparison extends to become between codes in later iterations and concepts from earlier iterations to check that such concepts remain relevant given insights developed from subsequent data collection. Essentially, it is the constant comparative method that ensures grounded theory remains grounded. However, sport and exercise psychology studies often conduct only a partial version of constant comparison, largely because an iterative approach to data collection is not taken. Giacobbi, Hausenblas, Fallon, and Hall (2003: pp. 163–164), for example, describe what, on the surface, appears to be an extensive process of constant comparison in their study of exercise imagery. However, there is no constant comparison between iterations of analysis and data collection, because such an iterative process did not take place. It should also be noted that triangulation between different data collection methods (as discussed by Bishop et al., 2007, in their study of sports players use of music) is not the same as constant comparison. The former is a realist approach (see later discussions) to “validity”, the latter is an approach for the development of theory.
- **Theoretical Saturation** – As grounded theory is an iterative process, some indication is needed as to when further iterations are no longer necessary, and this is provided by the point of theoretical saturation. Charmaz (2006) succinctly argues that saturation has been reached when gathering fresh data no longer sparks new theoretical insights, nor extends the properties of theoretical concepts. As such, theoretical saturation ensures that “the generated grounded theory...[has] conceptual density...[and] theoretical completeness” (Glaser, 2001: p. 191). Given its important role in this respect, it is astonishing that seven of the 12 studies claiming to use grounded theory in sport and exercise psychology listed in Table 1 do not even mention theoretical saturation! Furthermore, one of the studies that does – Morgan and Giacobbi’s (2006) study of talent development and social support – notes in a limitations section that: “Because all of the athletes in this study had experienced success, it is possible that the accounts provided by the athletes, coaches and parents were overly positive” (p. 331). This suggests a study that is not “theoretically complete” (Glaser, 2001) and thus has not reached theoretical saturation, with further iterations in which less successful athletes are theoretically sampled being required to develop a fully grounded theory.

- **Fit, Work, Relevance & Modifiability** – “Validity” and “reliability” are inappropriate measures of quality for grounded theory research, less because of their linguistic meaning, but because as concepts they have become loaded, and associated with the imposition of criteria derived from ontological realism and epistemological positivism upon research that is not underpinned by such ontological and epistemological assumptions (Smith & Sparkes, 2009). As such, grounded theory research had already followed the path later advocated by Sparkes (2002) in developing quality measures appropriate to the research approach, namely: fit, work, relevance and modifiability (Glaser & Strauss, 1967). “Fit” is ensured by constant comparison and theoretical saturation, it relates to how closely the concepts and theory generated fit the incidents and phenomena they represent. A theory “works” if it is able to offer analytical explanations for problems and processes in the context to which it seeks to refer. The “relevance” of a theory relates to the extent to which it deals with the real concerns of those involved in the processes to which it applies. Finally, grounded theory should be “modifiable”, in that it should be open to extension or further development to accommodate new insights provided by further empirical research in the future. While the majority of the sport and exercise psychology studies in Table 1 discuss research quality, most apply some variant of the concept of “validity” – Pummell et al. (2008), for example, refer throughout to the “validity of the analysis” – and none discuss fit, work, relevance or modifiability.
- **Substantive Theory** – the theory generated from a grounded theory research project does not seek to be generically applicable. It is a theory grounded in a substantive area (Strauss & Corbin, 1998), although only two of the studies listed in Table 1 mention “substantive theory” (Holt & Dunn, 2004; Holt et al., 2008). As later discussions of macro-level research quality will highlight, it is possible for grounded theories to move to a more generic level of applicability through the linking of substantive grounded theories to create a formal grounded theory (Glaser & Strauss, 1967), although none of the studies in Table 1 mention this possibility.

The way in which the above eight core common elements of grounded theory methodology fit together in the grounded theory process is highlighted in Fig. 2. These eight common elements are individually necessary conditions for grounded theory research,

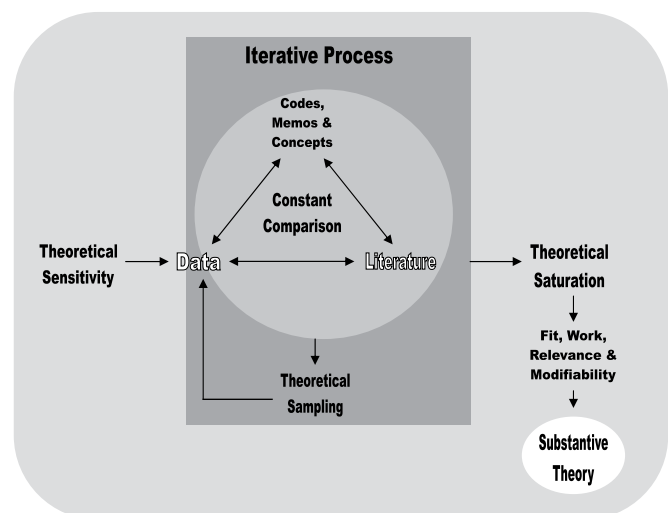


Fig. 2. The grounded theory process.

³ Other techniques that may be used in this process, particularly by those following the Straussian interpretation of grounded theory, include diagramming and conditional or consequential matrices. See Strauss and Corbin (1990 or 1998) for details of these techniques.

they are the core parts of grounded theory methodology (as opposed to various methods or techniques that may or may not be used in grounded theory – e.g. interviews, axial coding). As such, collectively these eight elements represent the sufficient conditions for grounded theory research, and without any one of them, a research project should not use the grounded theory label. Returning to the motor car analogy mentioned earlier, an engine, a steering wheel and a chassis are all necessary parts of a motor car, but without all of the constituent parts (four of which would be the wheels), sufficient parts to enable a motor car to operate are not present.

Consequently, for grounded theory research to meet the micro-level research quality standard of internal consistency, all eight elements (the collective sufficient conditions) must be present. As noted earlier, Table 1 shows that only two of the listed studies demonstrate that they meet the sufficient conditions for grounded theory. The others either explicitly do not, or do not demonstrate sufficient conditions due to the lack of a transparent description of the methodology.

Some of the authors listed in Table 1 (Giacobbi et al., 2003; Pummell et al., 2008; Rees & Hardy, 2000) might suggest that they were not claiming to be conducting grounded theory research, only that they were utilising analytical procedures drawn from grounded theory. However, this remains a methodological mistake, because those analysis procedures assume (among other things) that additional data can and will be sampled in further iterations to extend and develop the analysis. In short, the analysis stage of grounded theory has been specifically developed for use within the context of grounded theory methodology, not as a stand alone analysis method. The car analogy is again perhaps useful here. A motor car is directed by a steering wheel which has been designed for use with a four-wheeled vehicle. If that steering wheel is removed and used on a two-wheeled motor cycle, the motor cycle will become unstable. Consequently, taking parts of grounded theory methodology and applying them outwith the grounded theory research context will result in an analysis that is unstable, and in the failure of the study concerned to meet the micro-level research quality criteria of internal consistency.

Macro-level research quality in grounded theory

Both the introduction to this collection and the introduction to this paper note that macro-level research quality is concerned with the significance of the research area, the appropriateness of methodologies and methods in exploring the area, and the contribution research makes to the body of knowledge. This section will explore the factors that should be considered to ensure grounded theory is an appropriate approach to employ, and considerations for sport and exercise psychologists in ensuring grounded theory studies make an effective contribution to the body of sport and exercise knowledge.

Earlier in the paper it was suggested that grounded theory should be considered a “total methodology”, but also that methodologies are underpinned by ontological and epistemological assumptions. In many cases, problems with the macro-level research quality consideration of appropriateness of methodologies and methods to the research area can be traced to inconsistencies between such methodologies and methods and the ontological and epistemological assumptions that underpin them. Debates about ontology and epistemology were not prominent when Glaser and Strauss (1967) published their original monograph on grounded theory and it is therefore not surprising that no mention was made of the assumptions that underpinned this original exposition of the approach. However, in more recent years, as grounded theory has become “fashionable” (Strauss & Corbin, 1994), a number of authors

have addressed such assumptions and three ‘variants’ of grounded theory have emerged, each underpinned by different assumptions. However, before these assumptions are discussed, it is useful to outline a basic framework for the analysis of ontology and epistemology.

The literature on ontology and epistemology is often unclear about terminology, with the same words being used to describe different phenomena, and ontological and epistemological terms often being interchanged or conflated. As such, the framework in Fig. 3 is presented not as a definitive statement, but to be clear about how the terms are being used in this paper. Fig. 3 illustrates a continuum of assumptions for both ontology and epistemology. On the left of the ontological continuum, which deals with questions of reality, are assumptions that there is a singular objective reality that exists independently of individuals’ perceptions of it. Such assumptions are referred to as realism. On the right of the ontological continuum are assumptions that reality is neither objective nor singular, but that multiple realities are constructed by individuals. These assumptions are labelled constructivism. The epistemological continuum, which deals with questions of knowledge, contains assumptions on the left that it is possible to achieve direct knowledge of the world through direct objective observation or measurement of the phenomena being investigated. These assumptions are referred to as positivism. On the right of the epistemological continuum are assumptions that direct knowledge of phenomena is not possible, and that observations and accounts of the world provide indirect indications of phenomena, and thus knowledge is developed through a process of interpretation. Such assumptions are labelled interpretivism. Positivist epistemological assumptions are almost inextricably linked to a realist ontology, because the direct objective measurement of phenomena is validated by repeated measurements over time, and such repeated measurement assumes that the phenomena are constant and thus that there is a single objective reality. However, as the discussions of the development of grounded theory that follow will show, interpretivist approaches have not necessarily been linked to any particular ontology.

As noted earlier, ontology and epistemology were not considered by Glaser and Strauss (1967) in their original monograph but, as later authors have pointed out (Madill, Jordan, & Shirley, 2000; Rennie, 1996; Thomas & James, 2006), the title, “The Discovery of Grounded Theory” suggests realist assumptions. If something is ‘discoverable’ the suggestion is that there is a single reality to discover, and this is certainly a view that Glaser (1992, 2002) takes in later texts. However, Glaser was prompted to write his 1992 text as a response and riposte to Strauss’s publication with Corbin in 1990 of “Basics of Qualitative Research: Grounded Theory Procedures and Techniques”. Strauss and Corbin (1994) later wrote that their 1990 publication was intended as a move away from the

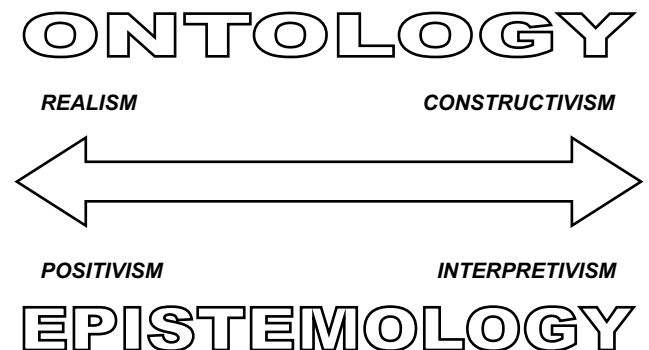


Fig. 3. Ontology and epistemology.

original text's (Glaser & Strauss, 1967) "positivist position that...we reject" (Strauss & Corbin, 1994: p. 279) and that their perspective is "interpretive work and...interpretations *must* include the perspectives and voice of the people who we study". However, although Strauss and Corbin (1994) claimed not to be seeking a pre-existing reality, the tone of their approach – they refer to "recognising bias" and "maintaining objectivity" – is, as other authors have pointed out (Anells, 1996, 1997; Charmaz, 2000), undoubtedly ontologically realist. Strauss and Corbin, it seems, fall into the same trap of many researchers before and since in conflating ontological and epistemological assumptions. Strauss and Corbin's (1990) text, and the 1998 second edition, whilst striving to be epistemologically interpretivist, remains ontologically realist and, as such, occupies a position that has come to be known as "post-positivism". Post-positivists recognise that some aspects of the social world cannot be directly measured (and thus embrace some interpretivist assumptions), although they still believe in retaining an objective approach that is free from bias (thus contradicting some interpretivist assumptions). This somewhat contradictory epistemology has emerged due to the continuing link of post-positivism with a realist ontology. It is this position that "Straussian" grounded theory is widely acknowledged to occupy (see Fig. 4).

Glaser's position, as re-iterated in 1992 and 2002, is ontologically realist and epistemologically positivist. Glaser believes that phenomena emerge directly from the data collected, and thus "Glaserian" grounded theory occupies a position on the left of the continuum illustrated in Fig. 4.

More recently a number of authors (Bryant, 2002, 2003; Layder, 1993; Mills, Bonner, & Francis, 2006) led by Charmaz (1995, 2000, 2006) have suggested that grounded theory methodology might most usefully be underpinned by a constructivist ontology which leads, almost inevitably, to an interpretivist epistemology (see Fig. 4). Constructivist grounded theory rejects notions of emergence and objectivity (Anells, 1997) and focuses on the construction of meaning through the interaction of the researcher and the researched (Charmaz, 2006).

How, then, have an understanding of these three 'variants' of grounded theory (Glaserian, Straussian and Constructivist) informed the appropriate use of the approach in sport and exercise psychology? The simple answer is that it appears that they haven't! Despite being widely debated in the research methods literature, only two of the 12 sport and exercise psychology studies (Eccles et al., 2002; Sabiston et al., 2007) discuss the ontological and/or epistemological assumptions that underpin their use of grounded theory and, more astoundingly, only one of the 12 (Sabiston et al., 2007) explicitly acknowledges that there are several variants of the grounded theory approach, although a further two hint at this (Eccles et al., 2002; Holt & Dunn, 2004). This suggests that many

studies laying claim to the label "grounded theory" in sport and exercise psychology fail the macro-level research quality assessment of the appropriate application of methods, as they fail even to consider which variant of the approach is being used. Such studies are making what Greckhamer and Koro-Ljungberg (2005: p. 734) term an "intuitive use of method", which they contrast with an epistemological use and a strategic use of method. Greckhamer and Koro-Ljungberg (2005: p. 734) describe the intuitive use of method as:

"...the uses of methods by researchers who appear to be unclear or uncertain about the epistemology and the theoretical stance related to the method and its analytical procedures.... The intuitive use of method could be partly caused by limited communication, partial naivety or by effects of power that lead researchers to neglect or impair themselves to see the importance of communicating their underlying theoretical connections and assumptions."

Therefore, a charitable view of many researchers claiming to have conducted grounded theory studies in sport and exercise psychology is that they haven't understood the importance of being fully transparent about the methodologies and methods they have used, or that they have failed to articulate them due to limitations of space (very charitable view). However, a less charitable view is that they simply haven't understood the methodologies and methods! In either case, macro-level research quality is compromised as it is impossible to judge whether grounded theory has been used appropriately.

The second aspect of macro-level research quality to be considered in this section is the contribution to knowledge that a study makes. As Fig. 2 showed earlier, grounded theory studies lead to the development of substantive theory grounded in a particular area, rather than a theory that is generically applicable. However, the central protagonists in debates about grounded theory (Charmaz, 2006; Glaser, 1992; Glaser & Strauss, 1967; Strauss & Corbin, 1990) all agree that it is possible for substantive grounded theories to be linked across substantive areas to develop more generic formal theory. Glaser and Strauss (1971), for example, developed their earlier substantive theory about status passage and dying into a formal theory of status passage that cut across varied substantive areas such as age-related and occupational-related status passages.

The move (or the potential to move) from substantive theory to formal theory appears to be central to an assessment of the contribution to knowledge that grounded theory can make. However, returning to the assumptions that underpin grounded theory, it would appear that such a move requires some acknowledgement of an underlying reality across substantive areas, thus suggesting that the "constructivist" variant of grounded theory may be limited to producing only substantive theories. In defence against such suggestions, perhaps Charmaz would cite her comments in 2000 that constructivist grounded theory should "distinguish between the real and the true", and that a constructivist position "remains realist because it addresses human realities and assumes the existence of real worlds" (Charmaz, 2000: p. 523). Where, though, do these pseudo-realist assumptions leave 'constructivist' grounded theory? The answer may lie in the stratified ontology of critical realism.

Downward (2006) suggests that, when paired with critical realist assumptions, grounded theory is a coherent methodological approach. Critical realism adopts a stratified ontology across three domains: the real, the actual and the empirical. It assumes that actual events have real causes, but that empirical understandings of such real causes are only possible through observations of actual events (see Fig. 5). Furthermore, while actual events and their real

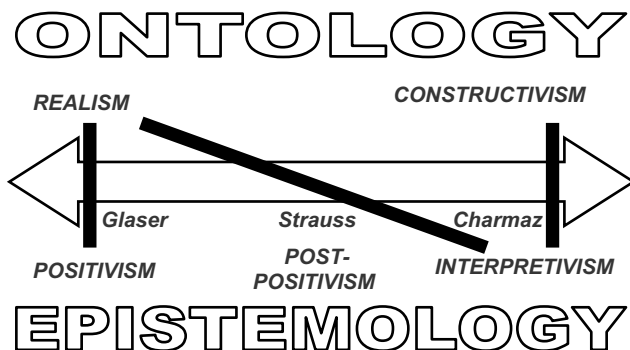


Fig. 4. Assumptions underpinning grounded theory variants.

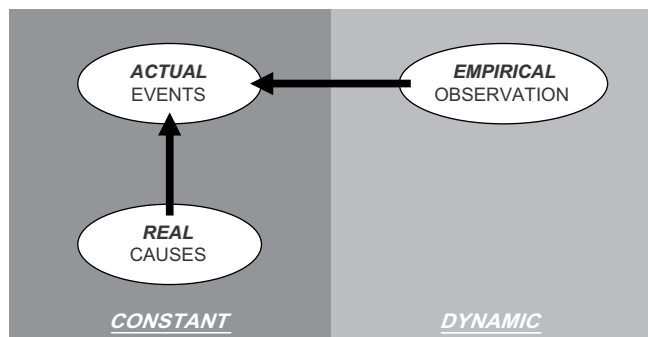


Fig. 5. The stratified ontology of critical realism.

causes are constant over time, empirical understandings are dynamic and change as methodologies and methods become more sophisticated, or as bodies of knowledge develop to provide more complete insights. For example, prior to the fourth century BC, the accepted reality was that the earth was flat. However over time accepted reality has come to be that the earth is spherical. Across this period, the reality of the shape of the earth has not changed, nor have the actual events that were empirically observed that led to the established historic reality of a flat earth changed. However, the understanding of the meaning of those observations has changed which, along with a wider range of empirical observations of subsequent events has led to a revision of the reality of the shape of the earth. As such, actual events, and the realities that cause them have not changed, but the empirical understandings of such events and causes have. In the 'constructivist' grounded theory context, Charmaz (2000) acknowledges this:

"Data do not provide a window on reality. Rather, the "discovered" reality arises from the interactive process and its temporal, cultural, and structural contexts."

Assuming a critical realist ontology linked to an interpretivist epistemology for grounded theory allows for both a recognition that phenomena cannot be directly measured (and thus that some level of interpretation of meaning constructed through the interaction of the researcher and the researched is involved) and a recognition that there can be an underlying reality, albeit a reality about which knowledge will always be partial and thus the nature of such reality will always be subject to revision. Thus a critical realist approach allows grounded theory to respond to the constructivist challenge, but also to retain the important macro-level research quality feature of being able to make a generic formal contribution to knowledge across substantive fields.

Unfortunately, these debates are not discussed in any of the 12 articles laying claim to the label "grounded theory" in sport and exercise psychology. In fact, the possibilities of developing more generic "formal" theory from the research in the substantive areas these articles cover do not receive a single mention. As highlighted earlier, this is most likely because across the 12 studies, the same or similar topics are not addressed more than once, and that 32 of the 34 authors listed only contributed to one paper (although aspects of Bringer et al.'s, 2006, longitudinal study has been published in outlets outside sport and exercise psychology). Consequently, it would appear that the potential of grounded theory to meet the macro-level research quality criteria of a meaningful contribution to knowledge in sport and exercise psychology is being compromised by researchers who do not employ the approach across substantive areas over time. The consequence of this is that grounded theory in sport and exercise psychology only produces isolated and disconnected pockets of awareness rather than contributing to the construction of coherent bodies of knowledge.

Conclusion

In August and September 2008, the British Medical Journal (BMJ) published a series of six articles "that aim to help readers to critically appraise the increasing number of qualitative research articles in clinical journals" (Kuper, Reeves, & Levinson, 2008: p. 404). One of these articles (Lingard, Albert, & Levinson, 2008) discussed grounded theory, and sought to highlight the defining elements of the approach. In summary, this paper produced three key elements to look for in grounded theory research papers, two of which related to macro-level concerns about the need for the development of a theory and the relationship between the theory and the research questions. However, the key element for research quality at what has been characterised in this paper as the micro-level was: "Is the study designed to support iterative data collection and analysis in a context of theoretical sampling?" (Lingard et al., 2008: p. 460). The discussions in this paper suggest that for many papers laying claim to the label grounded theory in sport and exercise psychology research, the answer to this question would be "no!". As such, there are clearly papers published in sport and exercise psychology that fail to meet even the most basic quality criteria for grounded theory. Furthermore, if the standard of the eight elements discussed in this paper as collectively sufficient conditions for grounded theory is applied, then only two of the 12 studies published since 2000 in the four sport and exercise psychology journals with the highest impact factors clearly demonstrate that they can legitimately lay claim to the grounded theory label. Given that such papers have been peer-reviewed, how has this situation come about?

Kuper et al. (2008), in introducing the BMJ series of papers, note that there is often a "knowledge gap" among practitioners in relation to qualitative research generally, leading to "a widespread lack of understanding about the nature and uses of such research" (p. 404). Furthermore, they suggest that "this same knowledge deficit among reviewers can also result in the acceptance and publication of qualitative articles that are methodologically poor" (p. 404). A related point is made by Thomas and James (2006: p. 767) who note that grounded theory "continues to enjoy great kudos amongst educators, to the extent that its use can still seemingly validate the publication of a study's findings". It would seem that this may have played a part in the publication in sport and exercise psychology of papers under the name of grounded theory that fall some way short of a legitimate claim to this label. Consequently, a key conclusion and recommendation of this paper is that journal editors should ensure that manuscripts laying claim to be grounded theory are reviewed not only by experts in the substantive field, but also by at least one recognised grounded theory expert. Furthermore, reviewers receiving such manuscripts, even if they address their substantive area of expertise, should be honest and open about their expertise (or lack thereof) to assess the methodology.

However, quality issues surrounding grounded theory in sport and exercise psychology should not be laid at the door of editors and reviewers. Authors must accept responsibility for ensuring they fully understand the methods and methodologies that they employ, as well as the ontological and epistemological assumptions that underpin them. At the micro-level of research quality, authors must understand that grounded theory is a "total methodology" not a pick and mix box, and that the label of grounded theory should only be applied to studies that meet the sufficient conditions (the eight elements) outlined in this paper. Furthermore, quality criteria should be those intended for grounded theory, namely fit, work, relevance and modifiability, or similar appropriate concepts derived from these criteria. They should not be variants of the concepts of "validity" or "reliability" aped from other research

approaches. At the macro-level of research quality, authors must explicitly recognise the variants of grounded theory that exist, and the ontological and epistemological differences between them. Furthermore, the way in which such ontological and epistemological assumptions allow for grounded theory to make a contribution to knowledge in the field must also be recognised. Not one of the 12 sport and exercise psychology studies considered in this paper does this. Instead many rely on the “intuitive” use of the method(ology) critiqued by Greckhamer and Koro-Ljungberg (2005). As such, there appears to be little evidence to contradict the suggestion that the grounded theory label is being adopted by sport and exercise psychology researchers because it is “fashionable” (Strauss & Corbin, 1994) and confers legitimacy on qualitative approaches, about the “nature and uses” of which there is “a widespread lack of understanding” (Kuper et al., 2008: p. 404).

References

- Anells, M. (1996). Grounded theory method: philosophical perspectives, paradigm of inquiry, and postmodernism. *Qualitative Health Research*, 6(3), 379–393.
- Anells, M. (1997). Grounded theory method, part I: within the five moments of qualitative research. *Nursing Inquiry*, 4(2), 120–129.
- Becker, P. (1993). Common pitfalls of published grounded theory research. *Qualitative Health Research*, 3(2), 254–260.
- Bishop, D. T., Karageorghis, C., & Loizou, G. (2007). A grounded theory of young tennis players' use of music to manipulate emotional state. *Journal of Sport & Exercise Psychology*, 29, 584–607.
- Blaikie, N. (1993). *Approaches to social enquiry*. Cambridge: Polity.
- Bringer, J. D., Brackenridge, C. H., & Johnston, L. H. (2002). Defining appropriateness in coach-athlete sexual relationships: The voice of coaches. *Journal of Sexual Aggression*, 8(2), 83–98.
- Bringer, J., Brackenridge, C., & Johnson, L. (2006). Swimming coaches' perceptions of sexual exploitation in sport: a preliminary model of role conflict and role ambiguity. *The Sport Psychologist*, 20, 465–479.
- Bryant, A. (2002). Re-grounding grounded theory. *The Journal of Information Technology Theory and Application*, 4(1), 25–42.
- Bryant, A. (2003). A constructive/list response to Glaser. *Forum: Social Qualitative Research*, 4(1), Art 15.
- Bryant, A., & Charmaz, K. (Eds.). (2007). *Sage handbook of grounded theory*. London: Sage.
- Buckley, C., & Waring, M. The evolving nature of grounded theory: experiential reflections on the potential of the method for analysing children's attitudes towards physical activity. *International Journal of Social Research Methodology*, in press. doi:10.1080/13645570802221198.
- Charmaz, K. (1995). Grounded theory. In J. A. Smith, R. Harre, & L. Van Langenhove (Eds.), *Rethinking methods in psychology*. London: Sage.
- Charmaz, K. (2000). Grounded theory: objectivist and constructivist methods. In N. K. Denzin, & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (2nd ed.). London: Sage.
- Charmaz, K. (2003). Grounded theory. In J. A. Smith (Ed.), *Qualitative psychology: A practical guide to research methods*. London: Sage.
- Charmaz, K. (2006). *Constructing grounded theory*. London: Sage.
- Cronan, M. K., & Scott, D. (2008). Triathlon and women's narratives of bodies and sport. *Leisure Sciences*, 30(1), 17–34.
- Cutcliffe, J. (2005). Adapt or adopt: developing and transgressing the methodological boundaries of grounded theory. *Journal of Advanced Nursing*, 51(4), 421–428.
- Dey, I. (1999). *Grounding grounded theory: Guidelines for qualitative inquiry*. New York: Academic Press.
- Downward, P. D. (2006). Transforming economics through critical realism: themes and issues. *The Journal of Critical Realism*, 5(1), 139–182.
- Eccles, D., Walsh, S., & Ingledew, D. (2002). A grounded theory of expert cognition in orienteering. *Journal of Sport & Exercise Psychology*, 24, 68–88.
- Giacobbi, P., Hausenblas, H., Fallon, E., & Hall, C. (2003). Even more about exercise imagery: a grounded theory of exercise imagery. *Journal of Applied Sport Psychology*, 15, 160–175.
- Glaser, B. (1978). *Theoretical sensitivity*. Mill Valley: Sociology Press.
- Glaser, B. (1992). *Basics of grounded theory analysis: Emergence v forcing*. Mill Valley: Sociology Press.
- Glaser, B. G. (2001). *The grounded theory perspective: Conceptualisation contrasted with description*. Mill Valley, CA: The Sociology Press.
- Glaser, B. (2002). Constructivist grounded theory? *Forum: Qualitative Social Research*, 3(3), Art 12.
- Glaser, B., & Strauss, A. (1967). *The discovery of grounded theory*. Chicago: Aldine.
- Glaser, B., & Strauss, A. (1971). *Status passage: A formal theory*. Chicago: Aldine.
- Goulding, C. (2002). *Grounded theory: A practical guide for management, business and market researchers*. London: Sage.
- Greckhamer, T., & Koro-Ljungberg, M. (2005). The erosion of a method: examples from grounded theory. *International Journal of Qualitative Studies in Education*, 18(6), 729–750.
- Grix, J. (2002). Introducing students to the generic terminology of social research. *Politics*, 22(3), 175–186.
- Holt, N., & Dunn, J. (2004). Toward a grounded theory of the psychosocial competencies and environmental conditions associated with soccer success. *Journal of Applied Sport Psychology*, 16, 199–219.
- Holt, N., Tamminen, K., Black, D. E., Sehn, Z. L., & Wall, M. P. (2008). Parental involvement in competitive youth sport settings. *Psychology of Sport & Exercise*, 9, 663–685.
- Keay, J. (2006). Collaborative learning in physical education teachers' early-career professional development. *Physical Education and Sport Pedagogy*, 11(3), 285–305.
- Kelle, U. (2005). “Emergence” vs. “Forcing” of empirical data? A crucial problem of “Grounded Theory” reconsidered. *Forum: Qualitative Social Research*, 6(2), Art. 27.
- Kelle, U. (2007a). Abduction in grounded theory. In A. Bryant, & K. Charmaz (Eds.), *Sage handbook of grounded theory*. London: Sage.
- Kelle, U. (2007b). The development of categories: different approaches in grounded theory. In A. Bryant, K. Charmaz, & Kathy. (Eds.), *The Sage handbook of grounded theory*. London: Sage.
- Kennedy, T., & Lingard, L. (2006). Making sense of grounded theory in medical education. *Medical Education*, 40, 101–108.
- Kihl, L., Richardson, T., & Campisi, C. (2008). Toward a grounded theory of student athlete suffering and dealing with academic corruption. *Journal of Sport Management*, 22(3), 273–302.
- Kuper, A., Reeves, S., & Levinson, W. (2008). An introduction to reading and appraising qualitative research. *British Medical Journal*, 337, 404–407.
- Layder, D. (1982). Grounded theory – a constructive critique. *Journal for the Theory of Social Behaviour*, 12(1), 103–122.
- Layder, D. (1993). *New strategies in social research*. Cambridge: Polity Press.
- Lingard, L., Albert, M., & Levinson, W. (2008). Grounded theory, mixed methods and action research. *British Medical Journal*, 337, 459–461.
- Madill, A., Jordan, A., & Shirley, C. (2000). Objectivity and reliability in qualitative analysis: realist, contextualist and radical constructionist epistemologies. *British Journal of Psychology*, 91, 1–20.
- Mills, J., Bonner, A., & Francis, K. (2006). Adopting a constructivist approach to grounded theory: implications for research design. *International Journal of Nursing Practice*, 12(1), 8–13.
- Morgan, T. K., & Giacobbi, P. (2006). Toward two grounded theories of the talent development and social support process of highly successful collegiate athletes. *The Sport Psychologist*, 20, 295–313.
- Pidgeon, N., & Henwood, K. (1997). Using grounded theory in psychological research. In N. Hayes (Ed.), *Doing qualitative analysis in psychology*. Hove: Psychology Press.
- Pummell, B., Harwood, C., & Lavallee, D. (2008). Jumping to the next level: a qualitative examination of within-career transition in adolescent event riders. *Psychology of Sport & Exercise*, 9, 427–447.
- Rees, T., & Hardy, L. (2000). An investigation of the social support experiences of high level sports performers. *The Sport Psychologist*, 14, 327–347.
- Rennie, D. (1996). Fifteen years of doing qualitative research on psychotherapy. *British Journal of Guidance and Counselling*, 24, 317–327.
- Sabiston, C., McDonough, M., & Crocker, P. (2007). Psychosocial experiences of breast cancer survivors involved in a dragon boat program: exploring links to positive psychological growth. *Journal of Sport & Exercise Psychology*, 29, 419–438.
- Sarantakos, S. (2005). *Social research* (3rd ed.). London: Palgrave.
- Selden, L. (2005). On grounded theory – with some malice. *Journal of Documentation*, 61(1), 114–129.
- Seve, C., Poizat, G., Saury, J., & Durand, M. (2006). A grounded theory of elite male table tennis players' activity during matches. *The Sport Psychologist*, 20, 58–73.
- Smith, B. M., & Sparkes, A. (2009). Judging the quality of qualitative inquiry: criteriology and relativism in action. *Psychology of Sport and Exercise*, 10(5), 491–497.
- Sparkes, A. (2002). *Telling tales in sport and physical activity: A qualitative journey*. Champaign: Human Kinetics.
- Strauss, A., & Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. London: Sage.
- Strauss, A., & Corbin, J. (1994). Grounded theory methodology: an overview. In N. Denzin, & Y. Lincoln (Eds.), *Handbook of qualitative research*. London: Sage.
- Strauss, A., & Corbin, J. (1998). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (2nd ed.). London: Sage.
- Suddaby, R. (2006). From the editors: what grounded theory is not. *Academy of Management Journal*, 49(4), 633–642.
- Thomas, G., & James, D. (2006). Reinventing grounded theory: some questions about theory, ground and discovery. *British Educational Research Journal*, 32(6), 767–795.
- Torregosa, M., Boixados, M., Valiente, L., & Cruz, J. (2004). Elite athletes' image of retirement: the way to relocation in sport. *Psychology of Sport & Exercise*, 5, 35–43.
- Weed, M. E. (2005). A grounded theory of the policy process for sport and tourism. *Sport and Society*, 8(2), 356–377.
- Weed, M. E. (2006). Sports tourism research 2000–2004: a systematic review of knowledge and a meta-evaluation of method. *Journal of Sport & Tourism*, 11(1), 5–20.
- Wilson, H., & Hutchinson, S. (1996). Methodological mistakes in grounded theory. *Nursing Research*, 45(2), 122–124.