

African Journal for Physical, Health Education, Recreation and Dance (AJPHERD) Supplement 1:2 (October) 2014, pp. 502-512.

Significance of literature when constructing a theory: A selective literature review

NTOMBIZODWA S. LINDA, DELIWE R. PHETLHU AND HESTER C. KLOPPER

School of Nursing, Faculty of Community and Health Sciences, University of the Western Cape, Bellville, South Africa. E-mail: nlinda@uwc.ac.za

Abstract

The issues around use of literature in theory construction are often a source of confusion, especially for novice researchers. The very nature of the process of theory construction remains blurred due to lack of consensus among researchers. Novice researchers are often confronted with questions of whether or not a literature review should be conducted when constructing a theory. These questions seeking to justify what a credible methodology is when constructing a theory not only challenge novice researchers but also experienced researchers. This article explores different perspectives regarding the significance of literature review in theory construction. A selective literature review was used to access and interrogate selected arguments from published peer-reviewed work. Narrative analysis was used to analyse selected text. It is concluded that literature plays a pivotal role in theory construction, whether by active review in the case of novice researchers or being sensitised by virtue of discipline interest and prolonged exposure in experienced researchers. However, it is important not to disregard the view that it is not necessary to incorporate literature review in certain specific designs due to assumed influence on the outcome of the new theory.

Keywords: Literature, theory construction, selective literature review.

How to cite this article:

Linda, N.S., Phetlhu, D.R. & Klopper, H.C. (2014). Significance of literature when constructing a theory: A selective literature review. *African Journal for Physical, Health Education, Recreation and Dance*, October (Supplement 1:2), 502-512.

Introduction

Despite commended advantages on the uses of theory (Wacker, 1998; Chinn & Kramer, 2008; Morse, 2007), further dialogue is needed to render various approaches on theory construction relevant when gathering new knowledge. Theorists often theorise about a phenomenon using empirical data in an attempt to construct a theory. Regardless of different conceptualisation on how a theory is constructed (Wacker, 1998; Chinn & Kramer, 2008) theorists' hypotheses usually serve a similar purpose of upholding the scientific knowledge base referred to by George and Bennet (2004) as scientific consciousness. Despite the concept of theory having different meanings for different people in different contexts, in this article it is acknowledged that in essence a theory should define

its variables, provide a domain for application, indicate the set and direction of relationships of variables, and predict its claim (Wacker, 1998; Dunne, 2011).

Ongoing debates on methodological and credibility issues when constructing a theory (Annells, 1997; Tobin & Begley, 2004; Dunne, 2011) not only challenge novice researchers who normally would lack knowledge and understanding of these inherent methodological concerns when attempting to construct a theory, but also challenge experienced researchers. While every researcher strives to maintain ethical standards and credibility, they may be challenged to decide which designs and methods are appropriate for theory construction, as this area is still blurred. This uncertainty is due to lack of consensus among researchers on what they view as credible empirical methods when constructing a theory. One important debate creating the uncertainty in the methodology of theory construction is about the significance of literature when constructing a theory, because it is perceived differently by different authors (Sutton & Staw, 1995; Dunne, 2011). These confusing and conflicting opinions need to be clarified for novice researchers, including graduates and postgraduate students, because they create limitations in the quest to engage with the theory development process.

This article explores existing arguments from peer-reviewed and accredited journals in an attempt to find out if literature has any significance when constructing a theory. The first part of this provides arguments that support the use of literature, and the latter part addresses arguments against the use of literature when constructing theory. A case is then made by the researchers in line with the findings of the selective literature review.

Methodology

A selective literature review (Bryant, 2008) was used as a research method and design to collect and collate data. The selected design conveniently demonstrates how other authors have implicated the role of literature in theory development. While some arguments are regarded as appropriate and vital to use in an attempt to provide evidence, it is beyond the means of this article to exhaust all documented arguments. Therefore it is acknowledged that issues discussed here only serve to highlight potential confusion in the specific area of inquiry and may not necessarily and comprehensively represent the readers' possible quest and expectations with regard to other methodological issues.

Qualitative peer-reviewed journal articles were accessed using the Google Scholar, Jstor, Science Direct and Emerald electronic data bases. The review was guided by a search conducted for theory development purposes. Search terms used were as follows: definition of theory, theory construction, methodological issues in theory construction, use and or significance of literature in theory construction, and literature review. Articles written in English were selected

firstly based on their abstract and then after a full-text review based on the extent to which they contributed to the issues of interest.

Relevant articles from the initial search were further identified for this article after the reference lists of selected articles were also used to track relevant arguments of interest. Selected arguments were guided but not limited to theoretical sensitivity and timely use of literature in inductive processes. Time frames of publication were not prioritised as the main interest was on methodologically challenging arguments and in particular the significance of literature when constructing a theory. Narrative analysis was used to provide conclusions from existing arguments and perspectives regarding the significance of literature in the theory construction process. Two significant and contrasting categories were provided to depict and explain how different authors argue the phenomenon under discussion.

Scientific rigour was maintained by reviewing only peer-reviewed articles from accredited sources to demonstrate credibility and dependability. The reference list provides an audit trail which affirms presented arguments and thus dependable findings, and confirmation in relation to the phenomena of interest.

Researchers are expected to display high ethical standards when conducting research (Khanyile, Duma, Fakude, Mbombo, Daniels & Sabone, 2006). Although permission was not required to conduct the study as this is a theoretical paper, it is acknowledged that use of published written text is treated with high regard and respect for the authors thereof.

Results

Significance of use of literature in theory construction

Some theorists argue that different knowledge bases are at play in knowledge development, which often guides research on the type of data sources that might be relevant. This assertion is supported by Chinn and Kramer (2008), who affirm that various literature sources can be used to grasp conceptual meaning of the variable under investigation.

Importance of reviewing literature when constructing a theory

Review of literature provides researchers with access to written sources (Burns & Grove, 2001) and opportunities to uncover inventions, innovations and epistemological information from primary and secondary published and non-published texts about the subject matter under inquiry. Written text is accessed primarily to obtain required information. Traditionally the process of reviewing literature is a requirement in academic research studies, the purpose being to establish the direction of the empirical inquiry (Chinn & Kamer, 2008) and avoid

dishonesty (Burns & Grove, 2001). However, this requirement is not applicable to other methodologies, including grounded theory philosophy and principles.

Review of literature plays a pivotal role when developing theory in various ways, as will be presented in this article. While theory provides the foundation for the practice of nursing by distinguishing what should form the basis of practice by explicitly describing nursing, it is acknowledged that such theory needs to be supported by the literature and not vice versa. Theorists including but not limited to Dickoff, James and Wiedenbach (1968), Walker and Avant (2005) and Chinn and Kramer (2008), who have led scientific forums through empirical debates and discussions relating to the need for theory in nursing and other health sciences, argue for the significance of a theoretical foundation when developing a theory.

Mutual relationship of theory and literature

Despite a well-accepted view that theoretical literature precedes empirical literature, theorists appear to be uncertain in establishing how literature impacts the process of theorising. Other writers believe that the researcher's sophisticated guess is that theory existed before literature; however, as a means to validate theory, literature is required. This is a fact, with the exception of a practice theory which may not require validation –practice theory does not necessarily need to be validated, but gets validated when it is in use (Dickoff et al., 1968). Despite other authors, including Dickoff et al. (1968), not proclaiming their stand with regard to the issue of use of literature when generating theory, the fact that these authors make reference to use of information or knowledge for referral purposes indirectly supports this notion.

Aggleton and Chalmers (2000) acknowledge differing views with regard to the extent to which literature is used in theory construction. They argue that for many decades, models and theories preserved in literature continue to provide a pivotal role in guiding professional nursing practice in the ever-changing socio-political-economic and health contexts (Aggleton & Chalmers, 2000). Yet some authors attest that inductive reasoning allows for the possibility that the conclusion may be false, even if all of the premises are true. The fact is that the human mind is capable of drawing uncertain conclusions from relatively limited experiences (Hume, 2004). Therefore the truth value of the conclusion in inductive reasoning is based on the truth of the premise, although sometimes the very premise is uncertain. Consequently it may not be possible to justify inductive reasoning, rendering the use of induction unjustifiable due to its dependence on inductive inferences and the theory of prediction. This leaves no option for the researchers but to rely on the use of literature control to guide the inductive reasoning process when generating theory.

Ascertaining factors between theoretical sensitivity and preconceived ideas which are responsible for induced effects

Recent developments attest to the issue of theoretical sensitivity as an innocent utopian connotation, simply because to date there are no fields that have not been discovered (Hall & Callery, 2001; De Vos, Strydom & Delport, 2011). This implies that the notion of preconceived ideas about phenomena that a researcher seeks to understand more often than not will be influenced by existing truths to some extent. This is in line with Charmaz and Mitchell (2001), cited by Elliott and Jordan (2010), who argue that by virtue of being active scholars, individuals are usually well informed in certain areas of expertise beyond a specific research project, and therefore they are rich sources of *a priori* knowledge regardless of engaging with literature. These arguments suggest that the use of literature when developing a theory does not exclusively influence and shape the empirical findings.

However, on the contrary literature provides comprehensive information on various aspects not limited to uncovering existing knowledge, i.e. what is already known, including unanswered questions, unsolved problems, achievements/discoveries like inventions and innovations, but it also presents unfinished work and new territories to be researched. In this view literature depicts a significant role in empirical studies as well as when developing a theory. Charmaz and Mitchell (2001) put this differently, arguing for demarcating the extent to which literature may influence the process of theory construction as complex, in the sense that while to the novice researcher it may imply a detrimental gap, it may be different for an experienced researcher as their preconceived connotations become part of their reasoning.

Despite Fawcett and Downs' (1986) argument about a dialectical, inseparable relationship between research and theory, they acknowledge the need to consult data; however, they do not overtly speak about role of literature in preservation of the relationship between theory and research. It is argued in this article that the very inseparable nature of the relationship between theory and research is best preserved through literature. Researchers who subscribe to the view that supports the use of literature when generating a theory argue that review of the literature has no negative effect on the theory that is being constructed.

Non-significance of use of literature in theory construction

While certain methodological prescriptions accept usefulness of literature, others denounce it (Glazer & Strauss, 1978) on the basis of assumed bias associated with detrimental effects to the empirical process when constructing a theory. Regardless of existing views on significant and relevant uses of literature when constructing theory (Dunne, 2011), Elliott and Jordan (2010) argue that substantial literature review may jeopardise the credibility of the findings regarding the issue under inquiry. This view is well supported by Glazer and Strauss (1967) who espoused minimal literature review in grounded theory methodology. As argued by Glazer

and Strauss (1967), grounded theorists indicate that there is less room for literature usage when constructing a theory.

Dunne (2011) indicated that authors who are against the use of literature review believe that intense or in-depth review of literature to attain knowledge on the subject of inquiry erodes the empirical process of the study and increases validity and credibility fallacies. Glazer and Strauss (1967), supporting this notion with different reasoning, says that at the early stages of any research relevant literature cannot be well identified in advance, because the empirical nature of the problem is usually not as clear as when the study is advanced and near completion. This may account for a reason why the researchers run another review of literature towards the end of the enquiry, which provides better alignment with the problem and findings.

Theoretical sensitivity

Initially grounded theory proponents strongly believed that literature review had a limited role if it is not taken to the extreme (Glazer & Strauss, 1967). However, Charmaz (2012) argues that if delayed literature review is assumed to import preconceived ideas, what about if researchers embark on the research journey with a *tabular rasa*? He points to the notion that advanced research will always result in a sensitised concept without necessarily conducting a review of literature. A consequence of this reality of preconceived ideas and expert knowledge is an uncontrollable state of affairs where unavoidable use of prior knowledge is not completely excluded, even through bracketing during the theorising process remains a challenge. Fawcett and Downs (1986) argued that selected research designs provide sufficient guidance for the theory generation process to be followed; therefore such designs may not necessarily require external data or information but correlational studies to affirm them.

Absence of the traditional research process/steps for qualitative studies

During the post-positivist era introduction of iterative, cyclical and inductive processes were not well understood in contrast to primarily positivist assumptions. This exposed the naturalistic inquiry to tricky questioning. This was due to lack of complete resemblance of the inert nature of the variables under study in the qualitative studies, which are dynamic and fluid in nature owing to the complexities of humans as living beings with higher-order faculties and affective emotions. Notwithstanding the misconceptions, the qualitative researchers proposed acknowledgement of the social-natural environment by committing to textual data, extensive interaction with people and a flexible plan of inquiry (Avis, 2005). This was not the only challenge – so was the question of extent of the use of theory in the theory generation process, which brought with it new questioning on the new area of inquiry versus the existing area of inquiry.

New non-existent area of inquiry versus old existing area of inquiry

An argument against a need for theoretical orientation when conducting research on a new area of inquiry (Glazer, 1998; Dunne, 2011) is true for other philosophical paradigms. Such paradigms are often concerned with an issue of detachment from data to interpret findings, especially in the case of novice researchers. They also point to possible bias, contamination of data and findings that may result to theoretical orientation. On the other hand, regarding the existing area of inquiry a need for theoretical orientation may be a requirement. However, these two opposing views bring uncertainty and blurring regarding their implications, especially in terms of authenticity of bracketing – which may be questionable owing to the fact that it may vary from individual to individual.

The assumption that grounded theory as a post-positivist inquiry paradigm and a constructivist inquiry paradigm was intended to create knowledge from observation of events, social process as a socially constructed meaning is acknowledged. Consequent to this assumption, some people view a researcher as a social being who is part of the social processes of the research process (Backman & Kyngas, 1999; Charmaz 2012). However, the very concept of bracketing is not universally conceived and understood, and thus its application may differ depending on individual intuition in terms of the extent to which it is exercised.

Despite this assumption exerting restrictions on flexible, uncontrolled use of literature for research studies, it is not clear how those methodologies including grounded theory purely derive empirical data inductively without tapping into preconceived ideas for formal or substantive theories. Methodologically speaking, despite numerous claims regarding use of literature when developing a theory as formally documented, there are numerous other accounts that attest to lack of collective and mutual understanding and consensus regarding use of literature in theory construction.

Whether or not a research question can be used

Avoiding preconceived ideas on the part of the researcher, i.e. where the researcher is viewed as research instrument (Avis, 2005), and the extent to which the risk of bias in interpretation of data is controlled remains unanswered. In line with this argument, Van Dijk (1995) views theory formation as socio-politically disposed and situated, presenting serious challenges where a researcher moves from using tools for collecting data but becomes a tool for collecting data. Some authors argue that theory development on substantial areas with significant knowledge that delineates its theoretical base (Charmaz & Mitchel, 2001; Elliot & Jordan, 2010) imposes potential for bias.

The issue of use of research designs in theory generation and selection of the appropriate design is of optimal importance. This includes the need to ascertain the

extent to which consultation is done, familiarising oneself with the research problem before data are collected and analysed as well as selection of the research problem (i.e. study focus) and sampling methods. This is often answered by review of the literature.

Guba and Lincoln (2001) and Avis (2005) argue about the mutual effect of the theory and evidence in qualitative research, presenting the unquestionable position that theory plays especially in qualitative research. According to Avis (2005) both social theory and empirical theory provide explanations about people's experiences, thus helping in understanding their experiences. He argues that credibility of 'a theory' depends on its ability to explain evidence of the five senses, and hence is used to make sense of the world. Further, Avis (2005) points out that evidence of the five senses would tell very little about the world if no theory is used to help us interpret those sensory stimuli. This means there is a need for critical reflexivity to address the question of detachment (Avis, 2005). Although this notion of use of the five senses is not directly arguing against the issue of use of literature when developing theory, it posits an extreme opposite view where literature may not even be a question to consider. In this view it may be assumed that literature does not play a role when developing a theory.

Discussion

The idea that theory development falls squarely within the parameters of research practitioners poses confusion regarding use of literature in the research process. According to Dickhoff et al. (1968) theory construction may not limit responsibility for theory construction to researchers only but also extend it to clinicians. Such an argument provides opposing opinions, where practice-driven theory construction may not necessarily require a review of literature in contrast to theorised theory construction which relies on literature. Other views vary from 'ideal timing' of use of literature in the research process to other speculations which report intensity versus sparing use of literature (which can be depicted on an intensity–sparing use continuum) when developing a theory. Such variations often present confusion, especially in the inductive reasoning process of theory construction (Elliot & Jordan, 2010).

The findings that respond to the over-arching research question point to a lack of open-mindedness among researchers; instead each has an absolute consideration of their own beliefs, philosophy and research paradigms. Researchers as creators of knowledge must be open-minded about other philosophical truths. Consequently, while each paradigm or philosophy is regarded as an own absolute truth, there is a need for room for mutual respect to accept others' truth as equally valid given their contexts pertaining to differences and similarities or different purposes, contexts and settings for which the theory is developed.

Deductive reasoning (Chinn & Kramer, 2008), on the other hand, provides arguments that are based on premises intended to provide strong support for the conclusion. In principle a deductive argument is either valid or invalid. Contrary to inductive reasoning, deductive processes have more bearing on the issue of use of literature because of the probability for bias; therefore it is concluded that if the premises are true, then it would be impossible for the conclusion to be false (Hume, 2004).

The authors conclude that lack of common understanding and consensus about different methodological requirements regarding use of literature in theory construction propagates the question of what constitutes a credible methodology when constructing theory. This challenge not only predicts lack of mutual understanding from the researchers, but also points to a situation where researchers may deliberately assume an absolute view about a phenomenon. This obscured view based on a particular researcher's assumption and/or presumption method for developing a theory depicts an inseparable rule to learn the world and projects a monotonous process journey that would take away the most fulfilling experiences in learning our world.

The challenge is not only whether or not literature should be used when constructing theory, but also when in the process literature should be used. This gap in understanding provides an impetus for this inquiry to establish the extent to which literature could or should be used when constructing theory.

Recommendations

Qualitative research should solidify and strengthen their philosophical underpinnings and beliefs regarding how humans are researched. This collective solidarity on qualitative research methods can call on the work of prior philosophers, including but not limited to symbolic actionism (Blumer, 1969), interpretive and existentialist phenomenology and ethnographic approaches. The author's inquisitiveness to inquire about the use of literature in theory generation by depicting and describing the role that literature plays when constructing a theory should continue until the matter is solidified. The researchers believe that the discussion will clarify the unanswered parallels that are often confusing to those who attempt to involve themselves in theory generation.

Conclusion

This article explains how different authors have argued for or against use of literature review when constructing a theory. It is believed that the findings and discussion herein will assist novice researchers, particularly postgraduate students, who often lack confidence in employing these methodology pathways when conducting theory development studies due to methodological uncertainty. The finding uncovered the fallacy of novice researchers who assume purist connotations

about different philosophical assumptions. While the proponents of certain philosophical beliefs or paradigms assume an absolute stance (McCallin, 2003), both the proponent and novice researcher should find the middle ground. This will provide space for understanding the confusing issues within the theory development process.

References

- Aggleton, P. & Chalmers, H. (2000). *Nursing Models and Nursing Practice* (2nd ed.). New York: Palgrave.
- Annells, M. (1997). Grounded theory method, Part 1: Within the five moments of qualitative research. *Nursing Inquiry*, 4, 120-129.
- Avis, M. (2005). Is there an epistemology for qualitative research? In I. Halloway (Ed.), *Qualitative Research in Health Care* (pp 3-16). New York: Open University Press: ISBN - 13:03335 21293 4
- Backman, K. & Kyngas, A. (1999). Challenges of the grounded theory approach to a novice researcher. *Nursing and Health Sciences*, 1(3), 147-153
- Blumer, H. (1969). *Symbolic Interactionism: Perspective and Method*. Eaglewood Cliffs, NJ: Prentice-Hall
- Bryant, S.L. (2008). The information needs and information behaviors of family doctors: Selective review. *Health Libraries Reviews*, 17, 83-90.
- Burns, N. & Grove, S. (2001). *The Practice of Nursing Research: Conduct, Critique and Utilization* (4th ed.). Philadelphia: W.B. Saunders.
- Charmaz, K. & Mitchell, R. G. (2001). 'Grounded Theory in Ethnography', in Atkinson, P., Coffey, A., Delamont, S., Lofland, J., and Lofland, L. (eds). *Handbook of Ethnography*, London, Sage.
- Charmaz, K. (2012). The power and potential of Grounded Theory. *Medical Sociology Online*, 6(3) (Online), at: www.medicalsociologyonline.org Retrieved 13 June 2014.
- Chinn, P.L. & Kramer, M.K. (2008). *Integrated Theory and Knowledge Development in Nursing* (7th ed.). St. Louis, Missouri; Mosby Elsevier.
- Dickoff, J., James, P. & Weidenbach, E. (1968). Theory in a practice discipline. *Nursing Research*, 17(5), 415-435.
- De Vos, A.S., Strydom, H. & Delport, C.S.L. (2011). *Research at Grassroots: For the Social Sciences and Human Service Professions* (4th ed.). Pretoria: Van Schaik.
- Dunne, C. (2011). The place of literature reviews in grounded theory research. *International Journal of Social Research Methodology*, 14(2), 111-124.
- Elliott, N. & Jordan, J. (2010). Practical Strategies to avoid the pitfalls in grounded theor research: Naomi Elliotte and Joanne Jordan on ways to develop integrated concepts and practice theory. *Nurse Researcher*, 174, 29-39.

- Fawcett, J. & Downs, F. (1986). *The Relationship Between Theory and Research*. Norwalk, CT: Appleton Crofts.
- George, L. & Bennet, A. (2004). *The method of structure focused comparison: Case Studies and Theory Development in the Social Sciences*. Cambridge, Massachusetts: MIT Press.
- Guba, E. & Lincoln, Y. (2001). *Effective Evaluation: Improving the Usefulness Evaluation Results Through Responses and Naturalistic Approaches*. San Francisco: Jossey-Bass.
- Glaser, B. & Strauss, A. (1967). *The discovery of grounded theory: Strategies for Qualitative Research*. Chicago: Aldine
- Glazer, B. G. (1978). *Theoretical Sensitivity*. Mill, Valley. CA.: The Sociology Press.
- Glazer, B. G. (1998). *Doing Grounded Theory: Issues and Discussions*. Mill, Valley. CA. The Sociology Press.
- Hall, R. Callery, P. (2001). Enhancing the rigor of Grounded Theory: Incorporating reflexivity and relationality; pearls, pith and provocation. *Qualitative Health Research*, 11(2), 257-272.
- Hume, D. (2004). Hume's Moral Philosophy (Stanford Encyclopedia of Philosophy) <https://plato.stanford.edu/entries/hume-moral/htm>.
- Khanyile, T.D., Duma, S., Fakude, L.P., Mbombo, N., Daniels, F. & Sabone, M.S. (2006). Research Integrity and misconduct: A clarification of the concept. *Curationis*, 29(1), 40-45.
- McCallin, A.M. (2003). Grappling with the literature in a grounded theory study. *Contemporary Nurse*, 15(12), 61-69.
- Morse, J.M. (2007). *Reasons for rejecting/reasons for accepting quality health research* (online), at <http://qrs.sagepub.com> DOI: 10.1177/1049732307306923; retrieved 18 Dec 2008
- Sutton, R.L. & Staw, B.M. (1995). What theory is not. *Administrative Science Quarterly*, 3, 371-384. (Online), at <http://www.jstor.org/stable/2393788>; retrieved 9 June 2014
- Tobin, G.A. & Begley, C.M. (2004). Methodological rigour within qualitative framework. Methodological issues in nursing research. *Journal of Advanced Nursing*, 48 (4), 388-396.
- Van Dijk, T.A. (1995). *A Multidisciplinary Approach*. Thousand Oaks: Sage Publications.
- Wacker, J.G. (1998). A definition of theory: research guidelines for differernt theory-building research method in operational Management. *Journal of Opertational Management*, 16, 361-385.
- Walker, L.O. & Avant, K.C. (2005). *Strategies for Theory Construction in Nursing* (4th ed.). Appleton, New Jersey: Pearson Prentice Hall.