

Theoretical sensitivity and reflexivity in grounded theory

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Abstract

Background Grounded theory (GT) has become one of the foremost tools in qualitative nursing research. There are different approaches to GT but a feature common to all of them is theoretical sensitivity, which facilitates GT's iterative process. However, differences between the approaches in how to apply theoretical sensitivity and how much influence existing knowledge should play have contributed to tribalism.

Aim To critically evaluate the role of theoretical sensitivity and reflexivity in GT and the involvement they can have, as well as explore what steps researchers can take to improve their insight.

Discussion Theoretical sensitivity enables researchers to steer their studies to answer their research questions, gain insight into their study's findings and develop theory grounded in the data. However, reflection is required for researchers to understand their effect on the theories that emerge, prevent them from applying preconceived ideas and allow for the unfettered emergence of theory.

Conclusion Researchers who do not demonstrate insight into their own philosophical positions and influences risk being accused of bias; this may result in the perceived value of their theoretical outcomes being reduced. Applying a reflexive process may mitigate this, enabling them to understand and refine their methodological processes and produce high-quality GT research.

Implications for practice All researchers should consider using reflexivity when conducting research. Understanding influences and positionality in qualitative methodologies allows for transparency and improves the rigour of their outcomes.

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Introduction and background

Qualitative research is essential in developing delivery and service regulation (Squires and Dorsen 2018). Positivist models of enquiry are usually unable to produce answers as enriched as those achieved through qualitative methods when exploring the experiences of service users and those who provide health care.

However, exploring people's views and thoughts is fraught with issues, not least of which are the beliefs that qualitative researchers can bias participants' responses and quantitative methodologies' scientific rigour is greater than qualitative

methodologies' (Glaser and Holton 2004). These concerns are further heightened when there is little previous knowledge or understanding of any phenomenon being researched.

In a field driven by perspectives rather than numerical data, it is therefore vital to choose a model for a study that ensures there is a balanced approach to identifying core issues or new theories.

Grounded theory (GT) is a research methodology that enables researchers to develop and refine theories based on 'grounded' in the resulting data (Glaser and Strauss 1967, Glaser 1978, Corbin and Strauss 2015). It provides the language necessary to articulate evidence-based, theoretical foundations upon which care can be developed (Corbin and Strauss 2015). It is widely – although not exclusively – applied to qualitative research exploring people's experiences.

GT has become popular in nursing and sociological research (Parahoo 2014, Harvey and Land 2022). This is partly because it is rooted in social interactionism and creates opportunities to analyse practice and explain social interactions; this in turn can result in solutions that can be applied in the real world (Charmaz 2000, Mediani 2017, Singh and Estefan 2018).

It also has a flexible structure that verification methods rarely provide, as their processes are typically separate from those used to generate and test theories. But this flexibility has allowed for the development of several variant methodologies, each based on the philosophical position of its developers.

One feature that remains common to all GT approaches is 'theoretical sensitivity'. This is the process of conceptualising data to identify the theoretical outcome (Glaser and Strauss 1967). How you become theoretically sensitive and apply it to your research has become a matter of significant debate. At the core of the discussion is the need to be sensitive enough for theories to emerge from the data without 'forcing them out' (Glaser 1992). To aid in this, researchers need to be reflexively aware of their role in collecting and analysing data (McGhee et al 2007).

This article critically explores the role of theoretical sensitivity and reflexivity in GT, the steps you can take to improve your skills in these areas and the contribution they can make when using GT. We have based our discussion on literature published between 1967 and 2022 that we obtained through a search of EMBASE, EMCARE, Medline, Pubmed and Cinahl as well as a 'grey' search of Google Scholar and university library databases for the terms 'grounded theory', 'Glaser', 'Strauss', 'Corbin', 'Charmaz', 'theoretical sensitivity' and 'reflexivity' in various orders.

Grounded theory

Glaser and Strauss based the original model of GT (Glaser and Strauss 1967) on the premise that it was offering more than a simple description of events (Boychuk-Duchsher and Morgan 2004, Volstedt and Rezat 2019). At the time, numerical data dominated research and qualitative methods were viewed as second rate. But Glaser saw quantitative research as enabling a theory to be tested but offering little to help generate new ideas (Glaser 1992). He and Strauss founded GT on the belief that views and perspectives not only offer huge value in understanding phenomena, they are also central to the development of new theoretical constructs that enable us to understand human behaviour better.

GT does not offer a procedure to which researchers must dogmatically adhere; rather, it gives researchers the freedom to apply the methods most appropriate to their investigations. But interpretation of this methodological freedom has brought about the birth of different approaches based on their creators' epistemological and ontological positions. The three primary variants (Holt et al 2022) are Glaser and Strauss's original post-positivist approach (Glaser and Strauss 1967), Corbin and Strauss's social interpretivist approach (Corbin and Strauss 2015), and Charmaz's constructivism (Charmaz 2000).

However, across all these approaches to GT, there are characteristics common to its application that are fundamental to the construction of a robust theoretical outcome (Charmaz 2000, McCann and Clarke 2003, Mills et al 2006, Noble and Mitchell 2016, Qureshi and Unlu 2020). These comprise:

- » A broad question as a starting point.
- » Simultaneous collection and analysis of data.
- » Drawing of knowledge from the literature.
- » Use of a constant comparative process.
- » Memo keeping.

- » Theoretical sensitivity.
- » Theoretical sampling.
- » Theoretical saturation.

The resulting broad discourse relating to GT approaches and how to apply their core features demonstrates the dangers of inconsistent application and the unease in using it to form a coherent theory (Piantanida et al 2004).

Theoretical sensitivity

Glaser admitted in Glaser (1978) that theoretical sensitivity was important, but Glaser and Strauss (1967) had glossed over both its importance and its mechanics. It is now universally agreed after considerable debate among Glaser, Strauss, Corbin, Charmaz and many other authors and observers of GT that theoretical sensitivity is a core concept that researchers must master – if researchers can identify patterns and codes in data, they can identify theories that emerge from them (Corbin and Strauss 1990, Glaser and Holton 2004). Bryant (2020) highlighted the importance of theoretical sensitivity by referring to it as the ‘Holy Grail’. Lo (2016) even suggested a GT study’s success depends on how theoretically sensitive the researcher is to the relationships between properties in the data and the resulting categories.

But while all agree theoretical sensitivity is central to GT, they differ about how one becomes sensitive, as well as the role experience and understanding of existing work plays (Lo 2016, Thistoll et al 2016).

Glaser and Holton identified two broad characteristics required for researchers to be theoretically sensitive (Glaser and Holton 2004):

1. They must have the temperament to distance themselves from what can be a confusing body of data. They can then remain open to the preconscious processing needed for theory to emerge.
2. They must be able to make conceptual connections between data sets, thinking on multiple levels to ensure they can identify patterns.

They also argued that to be theoretically sensitive, researchers must approach a study with as few preconceived ideas as possible; in particular, they should avoid forming any hypotheses.

However, Corbin and Strauss highlighted that becoming theoretically sensitive is not easy and ‘meaning’ often remains hidden in the data; they also argued that theoretical sensitivity is at the core of moving from ‘description to conceptualisation’ (Corbin and Strauss 2015).

The use of existing literature

A particularly contentious issue lies in how and when to use existing literature (Lo 2016, Thistoll et al 2016). The debate is largely polarised into two beliefs about when researchers should use existing information in their research: only after they have collected data from participants; and in a preliminary review of the subject at least (Giles et al 2013).

Glaser was in the first group, vehemently opposed to researchers conducting literature reviews early in the studies, arguing any existing literature should be ignored (Glaser and Strauss 1967). Glaser and Strauss (1967) acknowledged that this brought challenges but argued that researchers must come to GT studies as a blank slate, with extant theories and understanding set aside. Glaser even went as far as suggesting that informative use of the literature would contaminate researchers’ free thinking and could constrain the natural emergence of theories (Glaser and Strauss 1967).

He later elaborated on this in Glaser (1978). The very premise of GT is that theory must not emerge from existing data but organically from new data, without imposing or imprinting previous theory onto them. Glaser asserted that reviewing literature creates a high risk of overlaying previous knowledge and understanding onto both the collection and the analysis of data. Consequently, to ensure existing ideas do not initially block their research, researchers should not review any literature until much later in the process (Glaser 1992, Glaser and Holton 2004, Ramalho et al 2015).

However, Glaser (1978) is confusing and fraught with contradiction as well as changes in direction. For example, it initially vociferously advocated evading existing data, yet almost immediately stated that sensitivity is ‘necessarily steeped in the literature’. This lack of clarity creates considerable confusion about when to explore existing understanding and the extent to which it should influence the investigative process. Heath (2006) also highlighted that Glaser used his

understanding and experiences of sociological process from existing literature to inform his new model, which was somewhat at odds with his ideas of unfettered free thinking.

Strauss's position on the roles of literature and prior knowledge diverged from Glaser's soon after their initial work (Glaser and Strauss 1967). Strauss believed by the time of Corbin and Strauss (2015) that prior knowledge and understanding of the literature can direct theoretical sampling, refine or stimulate research questions, and enhance theoretical sensitivity. Remaining theoretically sensitive enables the researcher to identify the emerging theory within the data rather than verify existing ideas or validate hypotheses (Reay et al 2016). Understanding existing literature can enable researchers to identify gaps in knowledge and stimulate development of new theory – sensitising them in effect (Corbin and Strauss 2015). Furthermore, other people's experiences may differ from a prospective researcher's and offer a resolution to a problem not previously considered (Corbin and Strauss 2015).

Charmaz considered such ideas to be the sensitising concepts that open the path into the study (Charmaz 2020). She went on to add that researchers should explicitly note these concepts and discard those that do not match the emerging outcome.

Researchers can also use literature reviews to confirm GT as the most appropriate method for their research, provide justification for their studies and avoid the pitfalls other researchers have encountered (McGhee et al 2007, Thornberg 2012).

Bryant (2009) argued it is impossible to start a research project without any preconceived ideas or opinions. But Bryant **also stated** that the researcher should embrace this as it can lead to innovative thoughts and developments; however, they will need to find a balance between coming to the research question as a blank slate and having enough knowledge of the area they are studying to be suitably sensitive to any emerging theories.

Corbin and Strauss (2015) went further, arguing that researchers can use literature reviews more actively provided these do not block their creativity. A literature review can help to shape the initial research question and enhance theoretical sensitivity, and the researcher can make comparisons that result in new questions or suggestions to aid theoretical sampling (Corbin and Strauss 2015).

Urquhart and Fernández (2013) said the belief researchers should come to their studies as blank slates is not only a misconception of GT, it is potentially harmful to their studies' integrity. The authors argued that literature plays a key part in enabling researchers to develop a deep understanding of the issues and to explore the theories emerging from their data (Urquhart and Fernández 2013). They consequently suggested a two-phased approach to using the literature:

1. A 'non-committal' or preliminary review. This acts to set the scene, with the researcher scanning the literature to define the problem and confirm GT as the appropriate methodology. It also enables the researcher to become theoretically sensitive before they conduct any fieldwork (Birks et al 2019). Importantly, the researcher does not define the research question at this stage; instead, they identify the scope and specific areas for further study.
2. An 'integrative' process that runs concurrently with data collection and analysis. This enables the researcher to compare emerging theories with existing work and determine whether what they have observed converges with or diverges from the literature. This adds value to the final substantive theory.

Yu and Smith (2021) advocated this approach, too; they also suggested that researchers should consider existing literature in the same way as the data they have collected.

Reflexivity

McGhee et al (2007) noted that researchers need to be aware of their own roles in both collecting and analysing data. Without this insight, there is a risk their prior understanding and knowledge will adversely affect their perception of the data and ultimately the emerging theory. Researchers can obtain this understanding by being 'reflexive' – something Neill (2006) described as a phenomenon newer than GT that has become a growing part of the researcher's skill set.

There appears to be little consensus in the literature about what 'reflexivity' means, with numerous definitions offered. Generally, it appears to be thought of as a process more complex than reflection. Common attributes centre on understanding one's own biases and the limitations of the processes being used, applying critical appraisal throughout the study and acknowledging its context (Finlay 2002, Engward and Davies 2015).

Hammond and Wellington (2013) argued that reflexivity is deeper than examining the researcher's conduct, as it considers the positionality of both the researcher and the research. Neill (2006) noted that if reflection is a way of looking back to gain insight and development and it sits at one end of a spectrum, reflexivity sits at the other as it is a dynamic process during which the researcher actively scrutinises their own perspectives' role and how these can impact their research's outcomes (Engward and Davies 2015). Using a strong, reflexive approach in GT provides the researcher with insight into their positionality and enables them to explore and understand their own subjectivity (Charmaz 2020).

Alvesson and Skoldberg (2018) asserted that reflexivity is not about the researcher's self-absorbed reflections and their journey; rather, it is a structured way for them to understand their motivations for the research and therefore its underlying theoretical predispositions and possible biases.

Their approach involves a stepped pathway enabling researchers to explore key aspects of their own processes. This pathway requires researchers to consider their own approaches, as well as how they manage external influences, and has four main elements:

1. How the data were collected and the influence the researcher may have had on this.
2. How the researcher engaged with the interpretive process and what impact their preexisting perspectives might have had on the outcomes.
3. The political and ideological influences on the collection, analysis, use and reporting of the data.
4. Consideration of language or selection of points to support data outcomes are used to represent authority.

Engward and Davies (2015) argued that using a structured, considerations-based approach enables researchers to explore their own position within their research. This can highlight any aspects that may have influenced the applied research process and the researcher can find ways to lessen the influence of the existing knowledge required for theoretical sensitivity.

The sensitivity-reflexivity balance

The large amount of discourse about reflexivity means it can be difficult to comprehend how to apply it in practice. Subramani (2019) concluded that although there are various approaches to reflexivity, all acknowledge researchers' agendas and factors they see as crucial to their research outcomes. Engward and Davies (2015) discussed reflexivity in terms of giving transparency to the decision-making process.

On various levels, reflexivity enables researchers to explore their own positions and acknowledge how these can influence their epistemological views and the emergence of new theories. Finlay (2002) described this as being 'explicitly self-aware' during analysis. Within the context of theoretical sensitivity, this enables researchers to understand the impact of existing knowledge, preconceptions and ontological positions on their studies.

Alvesson and Skoldberg (2018) described reflexive research as a combination of careful interpretation and multi-layered reflection. **As the first part**, careful interpretation requires understanding of context, the existing knowledge of the subject being investigated and the language used in participants' narratives. **The second part**, the reflective (Q: reflexive?) element, shifts the process onto the researcher and challenges them to critique themselves when they are interpreting the data. Alvesson and Skoldberg (2018) defined this as 'interpretation of the interpretation' and the lynchpin of reflexivity in research. The shift towards a more reflexive approach **has resulted in reflexivity becoming an accepted aspect of modern rigorous GT (Hall and Callery, 2001; Gentles et al, 2014).**

Neill (2006) and others have argued that reflexivity must be intrinsic to qualitative research, duly made part of the record and explored through Glaser's process of constant comparison. Acknowledgment of the role of the researcher in interpretation of the data sits at the centre of reflexivity.

However, despite this, there are limitations to the use of reflexivity. Glaser (2001) warned of '**reflexivity paralysis**' the over-analysis associated with reflexivity being a destructive influence on free thinking. Glaser did not fully reject the requirement to understand the role of the researcher but argued that the introspective drive to justify the outcome should not stifle the creative processes necessary to identify the emerging theory.

Cutcliffe (2003) went further, arguing that it is impossible to be fully reflexive as you can never fully understand yourself. He added that empathy or emotional transference from participants can further influence the investigation, endangering the researcher's independent position by compromising theoretical sensitivity and the subsequent theoretical sampling. He asserts that as a result, reflexivity can only be regarded as a partial or incomplete process at best.

Conclusion

GT's aim is to produce a theory by systematically developing and aligning categories into a theoretical framework based on their properties and relationships (Corbin and Strauss 2015). A pillar of GT is theoretical sensitivity, which enables researchers to elicit information from participants, direct the sampling strategy and take a coherent approach to analysing data. The last of these differs from description and is heavily influenced by the skills of the researcher, who is rooted in their theoretical sensitivity to the data collected. However, what the researcher hears, sees and experiences can influence description, often subconsciously. Consequently, many descriptions can unknowingly convey views that reflect a researcher's prejudice or bias.

Additional debate surrounds the literature review and its influence on theoretical sensitivity as well as the unfettered generation of new theory truly grounded in the data. Researchers customarily review the literature to inform their studies using existing research, as well as to meet many institutional processes. But reviewing the literature risks the researcher imprinting previous theory on new thinking.

Glaser and Strauss (1967)'s ideological assertion that the researcher should come to a study as a truly blank slate is incredibly difficult, if not impossible to achieve. Glaser (1978)'s later contradictory arguments, together with discussions by other leading authors, demonstrate how difficult it is for a researcher to be theoretically sensitive while not unduly influencing any theories that emerge from the data. It is consequently an enduring challenge to reduce external influences on the generation of new theory.

McGhee et al (2007) supported the idea of GT researchers using existing knowledge and experience to inform the direction of the study, but not necessarily its outcome, arguing that they need to be 'open-minded' rather than 'empty-headed'. Reflexivity allows researchers to explore their approaches to research, to mitigate their own influence and justify the decisions they make. Despite its limitations, it offers a more in-depth process than being reflective, facilitating clarity in decision-making and adding rigour to the GT process. By acknowledging the researcher's role, reflexivity helps to bridge the divide between theoretical sensitivity and the impact of existing understanding. Indeed, the challenge is not so much in whether to include it in any analysis, more in how to carry it out.

Key points

- *GT offers both the structure and flexibility to investigate human experiences in development theoretical outcomes firmly grounded in the data.*
- *Theoretical sensitivity enables researchers to identify emerging themes and codes from within the data but risks influence from pre-existing knowledge, experiences, and perspectives.*
- *By allowing researchers to understand their own position and role in the research, reflexivity provides a means to mitigate this influence and brings rigor to the GT process.*

References

- Alvesson M, Skoldberg K (2018) Reflexive Methodology: New Vistas for Qualitative Research. Third edition. Sage Publications, Thousand Oaks CA.
- Birks M, Hoare K, Mills J (2019) Grounded theory: the FAQs. International Journal of Qualitative Methods. 18, 1-7. doi: 10.1177/1609406919882535.
- Boychuk-Duchsher JE, Morgan D (2004) Grounded theory: reflections on the emergence vs forcing debate. Methodological Issues in Nursing Research. 48, 6, 605-612. doi: 10.1111/j.1365-2648.2004.03249.x.
- Bryant A (2020) The grounded theory method. In Leavy P (Ed) The Oxford Handbook of Qualitative Research. Oxford University Press, Oxford
- Bryant A (2009) Grounded theory and pragmatism: the curious case of Anselm Strauss. Forum Qualitative Research. 10, 3, 2. doi: 10.17169/fqs-10.3.1358.

- Charmaz K (2000) Grounded theory: objectivist and constructivist models. In Denzin NK, Lincoln YS (Eds) Handbook of Qualitative Research. Sage Publications, Thousand Oaks CA, 509-535.
- Charmaz K (2020) "With constructivist grounded theory you can't hide": social justice research and critical inquiry in the public sphere. *Qualitative Inquiry*. 26, 2, 165–176. doi: 10.1177/1077800419879081.
- Corbin J, Strauss A (1990) Grounded theory research: procedures, canons, and evaluative criteria. In *Qualitative Sociology*. 13, 3-21. doi: 10.1007/BF00988593.
- Corbin J, Strauss A (2015) Basics of qualitative research. Techniques and procedures for developing grounded theory. Fourth edition. Sage, Thousand Oaks CA.
- Cutcliffe JR (2003) Reconsidering reflexivity: introducing the case for intellectual entrepreneurship. *Qualitative Health Research*. 13, 1, 136-148. doi: 10.1177/1049732302239416.
- Engward H, Davies G (2015) Being reflexive in qualitative grounded theory: discussion and adaptation of a model of reflexivity. *Journal of Advanced Nursing*. 71, 7, 1530-1538. doi: 10.1111/jan.12653.
- Finlay L (2002) Negotiating the swamp: the opportunity and challenge of reflexivity in research practice. *Qualitative Research*. 2, 2, 209-230. doi: 10.1177/146879410200200205.
- Gentles, S. J., Jack, S. M., Nicholas, D. B., & McKibbin, K. A. (2014). A critical approach to reflexivity in grounded theory. *Qualitative Report*, 19(44). <https://doi.org/10.46743/2160-3715/2014.1109>**
- Giles T, King L, de Lacey S (2013) The timing of the literature review in grounded theory research. An open mind versus an empty head. *Advances in Nursing Science*. 36, 2, E29-E40. doi: 10.1097/ANS.0b013e3182902035.
- Glaser B (1978) Advances on the Methodology of Grounded Theory. Theoretical Sensitivity. Sociology Press, Mill Valley CA.
- Glaser B (1992) Basics of Grounded Theory Analysis. Sociology Press, Mill Valley CA.
- Glaser B (2001) The Grounded Theory Perspective: Conceptualization Contrasted With Description. Sociology Press, Mill Valley CA.
- Glaser B, Holton J (2004) Remodelling grounded theory. *Forum: Qualitative Social Research*. 5, 2, 4. doi: 10.17169/fqs-5.2.607.
- Glaser BG, Strauss AL (1967) The Discovery of Grounded Theory. Strategies for Qualitative Research. Aldine, Chicago IL.
- Hall, W. A., & Callery, P. (2001). Enhancing the Rigor of Grounded Theory: Incorporating Reflexivity and Relationality. *Qualitative Health Research*, 11(2), 257–272. <https://doi.org/https://doi.org/10.1177/104973201129119082>**
- Hammond M, Wellington JJ (2013) Research Methods: The Key Concepts. Routledge, New York NY.
- Harvey M, Land L (2022) Research Methods for Nurses and Midwives: Theory and Practice. Second edition. Sage Publications, London.
- Heath H (2006) Exploring the influences and use of the literature during a grounded theory study. *Journal of Research in Nursing*. 11, 6, 519-528. doi: 10.1177/1744987106069338.
- Holt NL, Pankow K, Ormond I et al (2022) Grounded theory. *International Review of Sport and Exercise Psychology*. 15, 1, 199–225. doi: 10.1080/1750984X.2022.2028305.
- Lo CO (2016) Literature integration: an illustration of theoretical sensitivity in grounded theory studies. *The Humanistic Psychologist*. 44, 2, 177-189. doi: 10.1037/hum0000029.
- McCann TV, Clarke E (2003) Grounded theory in nursing research: part 1 – methodology. *Nurse Researcher*. 11, 2, 7-18. doi: 10.7748/nr2004.01.11.2.7.c5918.
- McGhee G, Marland GR, Atkinson J (2007) Grounded theory research: literature reviewing and reflexivity. *Journal of Advanced Nursing*. 60, 3, 334-342. doi: 10.1111/j.1365-2648.2007.04436.x.
- Mediani HS (2017) An introduction to grounded theory. *SOJ Nursing and Healthcare*. 3, 3, 1-5. doi: 10.15226/2471-6529/3/3/00135.
- Mills J, Boomer A, Francis K (2006) The development of Constructivist grounded theory. *International Journal of Qualitative Methods*. 5, 1, 25-35. doi: 10.1177/160940690600500103.
- Neill SJ (2006) Grounded theory sampling: the contribution of reflexivity. *Journal of Research in Nursing*. 11, 3, 253-260. doi: 10.1177/1744987106051850.
- Noble H, Mitchell G (2016) What is grounded theory? *Evidence-Based Nursing*. 19, 2, 34–35. doi: 10.1136/eb-2016-102306.

- Parahoo K (2014) *Nursing research: principles, process, and issues*. Macmillan Higher Education, London.
- Piantanida M, Tanzania CA, Grubs RE (2004) Generating grounded theory off/for educational practice: the journey of three epistemorphs. *International Journal in Qualitative Studies in Education*. 17, 3, 325-346. doi: 10.1080/0951839042000204661.
- Qureshi HA, Unlu Z (2020) Beyond the paradigm conflicts: a four-step coding instrument for grounded theory. *International Journal of Qualitative Methods*. 19, 1-10. doi: 10.1177/1609406920928188.
- Reay G, Bouchal SR, Rankin JA (2016) Staying theoretically sensitive when conducting grounded theory research. *Nurse Researcher*. 24, 1, 26-30. doi: 10.7748/nr.2016.e1445.
- Ramalho R, Adams P, Huggard P et al (2015) Literature review and constructivist grounded theory methodology. *Forum Qualitative Social Research*. 16, 3, 19. doi: 10.17169/fqs-16.3.2313.
- Singh S, Estefan A (2018) Selecting a grounded theory approach for nursing research. *Global Qualitative Nursing Research*. 5, 1-9. doi: 10.1177/2333393618799571.
- Squires A, Dorsen C (2018) Qualitative research in nursing and health professions regulation. *Journal of Nursing Regulation*. 9, 3, 15-26. doi: 10.1016/S2155-8256(18)30150-9.
- Subramani S (2019) Practicing reflexivity: ethics, methodology and theory construction. *Methodological Innovations*. 12, 2. doi: 10.1177/2059799119863276.
- Thistoll T, Hooper V, Pauleen DJ (2016) Acquiring and developing theoretical sensitivity through undertaking a grounded premium in art literature review. *Quality and Quantity*. 50, 619-636. doi: 10.1007/s11135-015-0167-3.
- Thornberg R (2012) Informed grounded theory. *Scandinavian Journal of Educational Research*. 56, 3, 243-259. doi: 10.1080/00313831.2011.581686.
- Urquhart C, Fernández W (2013) Using grounded theory method in information systems: the researcher as blank slate and other myths. *Journal of Information Technology*. 28, 3, 224-236. doi: 10.1057/jit.2012.34.
- Volstedt M, Rezat S (2019) An introduction to Grounded Theory with a special focus on axial coding and the coding paradigm. In Kaiser G, Presmeg N (Eds) *Compendium for Early Career Researchers in Mathematics Education*. Springer, Cham, Switzerland, 81-100.
- Yu M, Smith SM (2021) Grounded theory: a guide for a new generation of researchers. *International Journal of Doctoral Studies*. 16, 553-568. doi: 10.28945/4836.