

ORIGINAL RESEARCH: EMPIRICAL RESEARCH –
QUALITATIVENursing students' understanding and enactment of resilience:
a grounded theory study

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Abstract

Aim. The aim of this study was to explore nursing students' understanding and enactment of resilience.

Background. Stress is considered to be a major factor affecting the health, well-being and academic performance of nursing students. Resilience has been extensively researched as a process that allows individuals to successfully adapt to adversity and develop positive outcomes as a result. However, relatively little is known about the resilience of nursing students.

Design. A constructivist, grounded theory qualitative design was used for this study.

Method. In-depth individual interviews were conducted with 38 nursing students enrolled in a four-year, integrated baccalaureate nursing degree programme at a university in Ontario, Canada. Face-to-face interviews were conducted from January to April 2012 using a semi-structured interview guide.

Findings. The basic social process of 'pushing through' emerged as nursing students' understanding and enactment of resilience. Participants employed this process to withstand challenges in their academic lives. This process was comprised of three main phases: 'stepping into', 'staying the course' and 'acknowledging'. 'Pushing through' also included a transient 'disengaging' process where students were temporarily unable to push through their adversities. The process of 'pushing through' was based on a progressive trajectory, which implied that nursing students enacted the process to make progress in their academic lives and to attain goals.

Conclusion. Study findings provide important evidence for understanding the phenomenon of resilience as a dynamic, contextual process that can be learnt and developed, rather than a static trait or personality characteristic.

Keywords: constructivist grounded theory, nursing education, nursing students, resilience, resiliency, stress, undergraduate students

Why is this research needed?

- Nursing students face unique challenges and stressors in their academic and personal lives that influence their achievement of their academic goals.
- Other studies have shown that resilience contributes to coping with stress and adversities successfully; however, relatively little is known about resilience in the nursing student population.
- There is limited description in nursing education research that explains nursing students' perceptions of resilience and how resilience is enacted in their academic lives.

What are the key findings?

- Resilience for this group of nursing students was understood and enacted as a process of 'pushing through' their challenges, and not simply a personal characteristic.
- Resilience is not an unhindered process of successful adaptation. Rather, it includes periods of disengaging from 'pushing through' adversities and then re-engaging to withstand challenges and achieve goals.
- The grounded theory of 'pushing through' provides a basis for concluding that resilience is a dynamic process that can be learned and enhanced.

How should the findings be used to influence policy/practice/research/education?

- Nurse educators with an awareness that resilience can be developed, learned and enhanced can foster resilience in their students.
- The topic of nursing students and nurses' resilience could be integrated into the nursing education curriculum.
- The explication of the grounded theory of 'pushing through' provides the theoretical groundwork for further research on resilience as a process.

Introduction

Resilience is described as a dynamic process that mitigates the effects of stress through behaviours that facilitate adaptation in the context of adversity, resulting in the ability to function above the norm in spite of significant stress (Masten 2001, Tusaie & Dyer 2004). Resilience is also viewed as a preventive strategy that inhibits the potentially debilitating effects of chronic stress (Kelley 2004). Because stress is a major part of nursing students' academic lives and is experienced throughout their nursing education programmes (Deary *et al.* 2003, Magnussen & Amundson 2003), resilience may be required for them to buffer the negative impact of stress.

Background

Nursing students inevitably deal with stress in their education. Continued stress negatively affects nursing students' academic performance (Al-Kandari & Vidal 2007, Jimenez *et al.* 2010). Serious negative health outcomes have also been associated with continued stress of students such as depression and anxiety (Ross *et al.* 2005), substance-dependence behaviours (Tully 2004, Freeburn & Sinclair 2009), suicidal tendencies (Stecker 2004), psychological distress (Klainin-Yobas *et al.* 2014) and other physical symptoms (Mitchell *et al.* 2009, Lee *et al.* 2011). Studies have also shown that nursing students use less functional coping behaviours (Deary *et al.* 2003, Shikai *et al.* 2009). Consequently, students' ongoing stress causes some to withdraw from the programme (Glossop 2002, Wells 2007).

In a meta-synthesis of qualitative studies of nursing students' stress in the clinical setting, Thomas *et al.* (2012) conclude that development of resilience is integral to the education of nursing students. Resilience allows individuals to adapt and persist in the face of adversities (Wolin & Wolin 1994), while being able to experience personal growth through their challenges (Richardson 2002) and develop a sense of overcoming one situation and possible mastery over other situations (Dyer & McGuinness 1996). Resilience is also a dynamic process that helps mitigate the effects of stress (Tusaie & Dyer 2004).

The benefits of resilience in nursing students' academic lives are documented in several studies. For example, nursing students' resilience has been related, albeit weakly, to their academic success (Taylor & Reyes 2012, Beauvais *et al.* 2014), psychological empowerment (Pines *et al.* 2012, Beauvais *et al.* 2014) and self-esteem and social support (Nishi *et al.* 2010). Students use resilience to cope with faculty bullying (Mott 2013) and to modify their coping to successfully adapt to stress (Peters 2003). Resilience was perceived by nursing students to facilitate their academic success (Carroll 2011, Knight *et al.* 2012, Crombie *et al.* 2013), while students support staff attributed students' resilience to their persistence to remain in the programme (Williamson *et al.* 2013). Students linked their assertiveness in dealing with aggression in their clinical placements to their resilience (Jackson *et al.* 2011). Intervention studies about educational programmes designed to promote resilience revealed partial effects on resilience and conflict management styles of nursing students (Stephens 2012, Pines *et al.* 2014). A more detailed description of the results of an integrative review of studies of nursing students' resilience is discussed elsewhere (Reyes *et al.* 2015).

Similar findings are also evident in resilience studies of university students in social care and other health-related fields. For example, medical students' resilience was found to be a mediator between positive personality traits and anxiety symptoms (Shi *et al.* 2015), negatively related to depression and other mental health problems (Dyrbye *et al.* 2010, Peng *et al.* 2012) and a factor in helping students adjust to the frequent changing of clinical faculty with different expectations (Seltz *et al.* 2014). Social support was found to explain medical students' resilience to repeated exposure to traumatic events in their clinical rotations (Haglund *et al.* 2009) and was also significantly related to social care students' resilience (Wilks 2008, Wilks & Spivey 2010). In a qualitative study, social care students described resilience as a reactive process of positive coping offering protection against negative situations (Grant & Kinman 2013). Additionally, the reflective abilities of physical therapy and social care students was found to be linked to their high levels of resilience (Hilliard *et al.* 2008, Grant & Kinman 2012). Resilience was also associated with dental students' commitment to their studies over time despite burnout (Montero-Marin *et al.* 2014).

Investigations into the resilience of students in nursing, social care and other health-related fields exist, however, there is a lack of description about how resilience is understood and enacted in students' academic lives. There is limited explication of particular processes that explain how nursing students overcome adversities, thrive in difficult academic situations and develop positive adaptation despite challenging circumstances. Exploration of the processes that explain how resilience facilitates successful coping with stress can provide evidence-based understanding of effective strategies to support students. Hence, a study of nursing students' understanding and enactment of resilience is important to gain insights into the processes that contribute to resilience.

The study

Aim

The purpose of this study was to explore nursing students' understanding and enactment of resilience.

Design

A constructivist, grounded theory study design (Charmaz 2006) was used to guide data collection and analysis as there remains limited theoretical explication of nursing students' resilience. Grounded theory is appropriate in substantive areas

where there are not enough theories to explain social processes and human behaviour (Hutchinson & Wilson 2001). Moreover, the constructivist approach was chosen for this particular study based on the complex nature of the grounded theory study design. The constructivist approach includes flexible yet rigorous analytic procedures that promote the reflexivity of the researcher (Charmaz 2006), thereby allowing the exploration of the concept of resilience and the construction of a related theory, a theory which would be as resonant as possible with the realities of the participants.

Participants

Using purposive sampling, 38 students (4 males, 34 females) from a 4-year, integrated baccalaureate nursing programme of a university in Ontario, Canada were recruited for the study. Participants were 18–37 years of age, with a mean age of 21.7 years. Seven participants were in the first year, 13 in each of second and third years and five in the fourth year. Eighteen participants had part-time employment. Five participants were married, two with children. Twenty-five students self-identified their cultural background as Canadian-Caucasian, five as Asian, two as African, two as Portuguese and one student each as Guyanese, Italian, Polish and South Asian.

Data collection

Face-to-face interviews were conducted from January–April 2012, which was the second semester of the academic year. The second semester was chosen because it was thought that participants would provide richer data through providing more examples and deeper insights about their experiences than would be possible at the beginning of a school year. A researcher-developed, semi-structured interview guide was used and interviews, lasting from 30–60 minutes, were digitally recorded and transcribed. Sample questions from the interview guide included: 'Would you please share some of your experiences of stress, difficulties and/or adversities as a nursing student?' and 'How were you able to resolve the issues around your stress, difficulties and/or adversities as a nursing student?' Data collection and analysis occurred simultaneously; therefore, immediately after each interview, the electronically recorded interview was sent for transcription and transcribed data were analysed by coding and constant comparative methods. Member checking was implemented from December 2012–April 2013 to verify whether the grounded theory resonated with their experiences. Participants reviewed emailed descriptions of conceptual categories, including the core

category of 'pushing through' and the corresponding excerpts from their transcripts. They were offered a second telephone or face-to-face interview to comment on the materials sent. All 27 participants who responded to the member checking processes opted to comment through email and they all confirmed that the conceptual propositions were representative of their experience.

Ethical considerations

Ethics approval was obtained from the university ethics board. Informed consent to participate was obtained from all study participants prior to the start of the interviews. To preserve anonymity, digital recordings and written transcripts of interviews were assigned alpha-numeric codes.

Data analysis

Data were managed using NVivo 9 software and analysed through an iterative process of constant comparison of data from one participant to another and comparison of incidents in and between accounts (Glaser 1978). The researchers used the three coding phases ('initial', 'focused' and 'theoretical') of constructivist grounded theory methodology, as indicated by Charmaz (2006). Initial coding (line-by-line coding) was implemented after each interview. Focused coding, which involved synthesizing initial codes that made the most analytic sense to categorize the data followed thereafter. A few conceptual categories derived from focused coding of the initial interviews were used for theoretical sampling. For example, participants who failed a course, who were caregivers to sick family members or who were dealing with their own physical or mental illness were asked to clarify conceptual categories of 'coping with failure' and 'dealing with multiple commitments'. More conceptual categories emerged in subsequent interviews. Therefore, theoretical sampling continued. Questions in the interview guide were modified and revised in subsequent interviews to clarify the emerging conceptual categories. In time, nine conceptual categories were clarified through theoretical sampling. After 38 interviews, theoretical saturation was achieved as no new properties of these conceptual categories were emerging. Theoretical coding was conducted thereafter. Moving to theoretical coding was not entirely a linear process: there were simultaneous memo-writing and constant comparisons between categories and memos and field notes. Further analysis through memo-writing and constant comparative methods revealed that the concept of 'pushing through' was the core category that both unified the other conceptual categories and exemplified nursing students' understanding and enactment of resilience.

Rigour

Charmaz's (2006) criteria of credibility, originality, resonance and usefulness were used to evaluate the quality of the emerging substantive grounded theory. Credibility was achieved mainly by obtaining rich data through interviews, compiling detailed written transcripts of interviews and making extensive field notes. Extensive and constant comparison procedures between observations and categories were also conducted to establish credibility. Originality was attained through reflexivity processes such as writing memos and reflective journals and by referring to the literature to explore whether the analysis provided a new conceptual rendering of the data. Resonance was realized through member checking to review how well participants agreed with emerging categories. Explication of the contribution of the emerging theory to the state of knowledge of resilience in nursing education accomplished the criterion of usefulness.

Findings

'Pushing through' was the basic social process that emerged from the data analysis. 'Pushing through' is based on the competing demands of the nursing programme and the student's extracurricular demands, including family commitments, social pressures and outlets, leisure pursuits, self-care and well-being and so on. Students are faced with obstacles and challenges to achieving their academic goals. These obstacles include students' problems and risk factors, such as having a disease, caring for an ill family member or being in a chaotic home environment.

'Pushing through' was a phrase used by some participants to describe their experiences of resilience. They use the process of 'pushing through' to withstand the challenges in their academic lives. One participant described:

Resilience is like pushing through or fighting your way, not letting things knock you down, kind of ploughing your way through.

The process of 'pushing through' is also adopted to accomplish students' goals despite the setbacks and obstacles in their academic lives. Therefore, 'pushing through' not only pertained to persevering and enduring hardships but also to taking action to achieve goals. One participant explained:

I just knew I had to keep going because I've never really given up on things. Resilience is like people who stick up for what they want and they don't give up in any situation. They just keep pushing until they get what they want.

The theory of 'pushing through' has three main phases (see Figure 1): 'stepping into', 'staying the course' and 'ac-

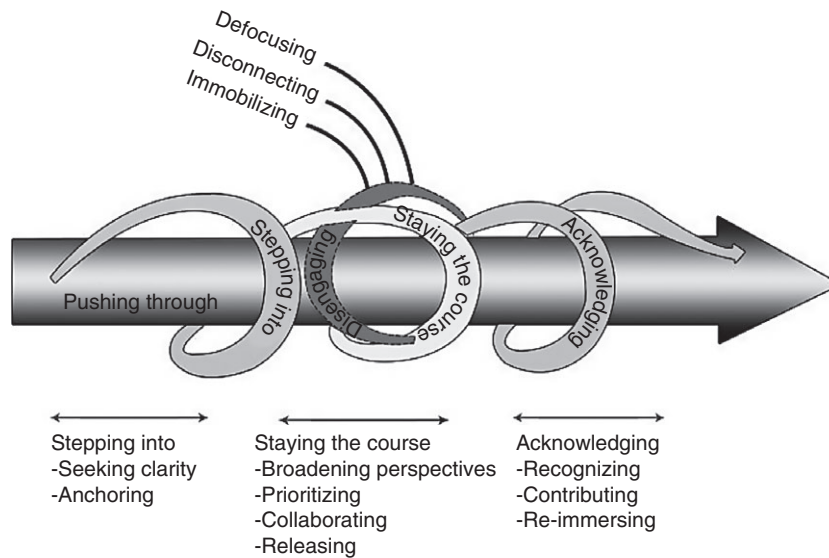


Figure 1 The grounded theory of 'pushing through'.

knowledging'. In Figure 1, these three phases are depicted as spirals that are connected with each other. These spirals illustrate that the phases of 'pushing through' are iterative wherein the person may go back and forth through these phases. Hence, the process of 'pushing through' is not a linear one, but rather a dynamic and iterative process. The cylindrical bar inside these spirals includes an arrow at the right end of the bar to represent a progressive trajectory of 'pushing through'. This means that the process of 'pushing through' is not only enacted to deal with the here-and-now but to achieve a perceived goal, to move towards a resolution of a problem or to realize a projected or envisioned future. There are sub-processes in each of the phases of 'pushing through' which suggest as actions (responses, strategies and approaches) of 'pushing through'. The actions in each of the phases represent nursing students' enactment of resilience. The phases and the actions in each phase of the process of 'pushing through' indicate that the students' experience of adversities in their academic life is a developmental process and that there are actions (responses, strategies and approaches) that are to be enacted to progress to subsequent phases of 'pushing through'.

First phase of pushing through: stepping into

The initial phase of 'pushing through' is 'stepping into' a difficult situation (Figure 1). As students step into an adversity or challenging situation, they perceive that the challenging circumstance is a different or new experience, requiring a different set of skills or way of thinking, acting and being to cope successfully. There is anxiety and an overall sense

of unfamiliarity in dealing with the situation and hence, certain responses are adopted to get through this stage of experiencing the adversity. There are two main responses that students employ when they step into a challenging life experience: 'seeking clarity' and 'anchoring' (Figure 1).

Students seek clarity by obtaining information that would assist them to effectively address their difficult situations. For example, students clarify expectations, ask questions of others and explore causes and conditions of their adversities. An exemplar of 'seeking clarity' in Table 1 illustrates how this particular participant was surprised to learn that she had failed a course and was afraid to tell her parents. She began to speak to different people (other than her parents) to explore why she had failed and to figure out how to tell her parents and respond to their concerns. The second response to 'stepping into' is 'anchoring' which refers to holding on to certain belief systems and thought processes to feel safe and minimize anxiety. Students anchor to beliefs and values that are easily accessible to them to cope in the early phase of encountering adversity. An exemplar in Table 1 portrays an 'anchoring' response by a student's emphasizing her parents' values about the importance of hard work and education. Other anchoring responses include using positive self-talk and considering the temporariness of one's situation.

Second phase of pushing through: staying the course

Students progress to the second phase of 'pushing through' when they develop an awareness that sustained or continuous actions are required to achieve their goals. Hence, this phase pertains to the actions that nursing students take to

Table 1 Examples of exemplars supporting sub-processes of 'pushing through'.

Phase	Sub-Process	Exemplar
Stepping Into	Seeking Clarity	I was trying to get it sorted before I had to tell my parents so that they won't have to say like 'Oh well, what about this, this and this'? I could respond and say, 'Well I've already dealt with this. This is what's going on'.
	Anchoring	The demand was really hard and I was also dealing with being away from my family. I was ready to quit. But my parents told me to be strong and they would give me examples of what they went through because they had a hard life growing up.
Staying the Course	Broadening Perspectives	All I have to think is two years and I'll be with him (referring to her boyfriend in another city). I'll be in a little apartment with a little weird dog. I'll have a job. I'll be happy.
	Prioritizing	When I have a day off, if work calls and I plan to do schoolwork, I just say 'No, I can't take that shift'. I only have to get eight shifts a month there and they're fine with that and then I prioritize. When I have days off, that's when I do my schoolwork.
	Collaborating	There have been days where he (her husband) just has to call in late in going to work because we wouldn't be able to find somebody (to take care of the children). My husband finds it important that I don't miss out on anything. We had a long discussion, weighing the pros and cons of me going back to school.
	Releasing	I'll go out with friends and that's huge for me because it sort of reinvigorates me and I will have more energy. It's sort of an escape, another release of energy.
Disengaging	Defocusing	In two years, I lost three grandparents and two really good friends. I was distracted. It would be so hard to try and focus and do all these readings. I'll start thinking about that (referring to the death of her loved ones) but then it's affecting my schoolwork because by then... my head's all wrapped around thinking about that. I'm not paying attention and focusing as much as I should.
	Disconnecting	I was really angry at myself for letting it happen again. I mean, being depressed. I had guilt, anger, self-blame. I wallowed in it for a few days. You push everybody away.
	Immobilizing	Last year, my boyfriend and I, we broke up and I was so upset. I spent the majority of my day just in bed. School was – it didn't mean anything to me. I was just going through the motions of everything. I didn't do a single reading that entire year. I was just in bed all day.
Acknowledging	Recognizing	I have become confident in my ability to navigate the pitfalls and crap and everything else that have shown up as I progressed. My time management skills have improved.
	Contributing	He (her boyfriend) was a big help, too. He's really good at coaching me, like, 'You can do this. Don't worry about it'. He was really good at calming me down when I'm stressing. He's actually doing his exams right now so we're in reversal mode. And it's me saying, 'You can do this'.
	Re-Immersing	I've always been someone who pushes myself. I just want to quit but my parents won't let me quit. And now looking back, I'm so thankful that they pushed me to get those types of things (referring to her extra-curricular activities). And now that I realized that I'm thankful for those things, I'm starting to push myself to do more.

continue pursuing their goals despite obstacles. Students use the process of 'staying the course' to prevent themselves from veering away from their plans or perceived path of achieving their academic aspirations. They implement strategies to withstand setbacks and to get through the challenges. There are four main strategies comprising the process of 'staying the course': 'broadening perspectives', 'prioritizing', 'collaborating' and 'releasing' (Figure 1).

'Broadening perspectives' is a strategy that pertains to expanding and enriching students' understanding of the adversities they are experiencing. The purpose of 'broadening perspectives' is to motivate oneself to continue 'pushing through'. Many participants broaden perspectives by clarifying their goals and values to obtain unwavering reasons for continuing to push through. This strategy can also come in the form of making generalizations that their experience is

not unique and that everybody goes through a generally similar encounter. By normalizing the experience, they feel validated and comforted. This strategy can also involve envisioning a bright picture of oneself in the future (Table 1). 'Prioritizing' is a strategy which involves exploring and selecting options that are useful in getting through a difficult or challenging situation. A 'prioritizing' strategy is based on the perception that there are limited resources and time. Hence, students go through a decision-making process to consider which options are relevant, necessary and that will enable them to get through a challenging situation (Table 1). 'Collaborating' is another strategy which refers to connecting with another person or a group to vent feelings, to solve a problem, to get through the next stage of their academic lives or to achieve a goal. The 'collaborating' strategy is based on the premise that one has to take advantage of social resources

(i.e. other individuals) to cope with a challenging situation (Table 1). Finally, 'releasing' is about engaging in different activities to create relief or a break from continued feelings of being burdened, overwhelmed or isolated. The nature of 'releasing' is to involve oneself in different, yet temporary activities. Some participants describe 'releasing' as an 'escape'. The outcome of 'releasing' is a return to previous activities with a renewed sense of motivation or energy (Table 1).

Disengaging: an intersecting process in the second phase of pushing through

The second phase of 'pushing through', which is 'staying the course', includes three reactions that deter students from 'pushing through': these are 'defocusing', 'disconnecting' and 'immobilizing' (Figure 1). These reactions are collectively represented as the 'disengaging' process of 'pushing through'. These reactions are transient. Students re-engage in 'pushing through' their challenges by employing the strategies of 'staying the course'. Hence, in Figure 1, the spiral that depicts the 'disengaging' process intersects with the process of 'staying the course'. The intersecting of these two spirals depict that some participants experienced going back and forth between the 'disengaging' process and 'staying the course'.

'Defocusing' is a disengaging process which pertains to students' reactions to adversities that cause them to deviate from concentrating attention or energy on effectively managing adversities or achieving goals. Students are involved in extraneous activities that deter them from coping with their difficult situations or employing strategies that are critical to achieving their academic goals. They resort to activities that distract them from applying approaches that would workably address their challenges or even solve their problems. Examples of these activities are engaging in unhealthy recreational activities, working excessive hours in their part-time jobs and brooding, all of which diffuses their attention from solving their problems (Table 1). 'Disconnecting' refers to reactions to adverse situations that keep students from seeking help and connecting with others. Students may create distance from people and resources that could potentially help them deal more effectively and realistically with their situations. They avoid sharing their concerns or asking for help, which creates more distance from others who could potentially offer assistance or support (Table 1). Lastly, 'immobilizing' is related to reactions that prevent students from taking the next steps in 'pushing through'. 'Immobilizing' is usually caused by exhaustion from the continued experience of adversities. As

a result, students feel stuck and lose their sense of a forward trajectory in their academic lives (Table 1). They temporarily lose a sense of hope and optimism; however, 'immobilizing' is transient as with the other two disengaging processes.

Third phase of pushing through: acknowledging

The final phase of 'pushing through', which is 'acknowledging', begins when there is an awareness of one's self-transformation as a result of experiencing adversity. This phase refers to the students' reflections on their transformation from 'pushing through' the challenges in their academic lives (Figure 1). Students evaluate the changes they have gone through, particularly changes in how they view themselves. There are three approaches to 'acknowledging': 'recognizing', 'contributing' and 're-immersing'.

'Recognizing' is an approach to 'acknowledging' which mainly involves identifying, reflecting and evaluating the sources and outcomes of students' transformations from 'pushing through' (Table 1). 'Contributing' pertains to sharing the student's transformation with others. As students recognize the changes they experience, they in turn extend their transformations to others (Table 1). Finally, 're-immersing' is an approach to 'acknowledging' that mainly involves being prepared and ready to step into new challenges and being willing to continue to push through (Table 1). There is an acknowledgement that adversity is part of life and that one must be willing to continue 'pushing through'. The process of 're-immersing' is based on the premise that 'pushing through' is an ongoing process. It includes a commitment to continue 'pushing through' and a willingness to engage, rather than avoid 'pushing through' new or different challenges in life.

The third phase of 'pushing through', 'acknowledging', is a stage during which nursing students perceive themselves as ready for new challenges. They have a realistic perception that challenges are part of their academic lives and one continues to push through life challenges. Therefore, in Figure 1, there is an arrow at the right end of the 'acknowledging' spiral, which symbolizes an anticipation of another opportunity to push through.

Discussion

The grounded theory of 'pushing through' represents nursing students' understanding and enactment of resilience. This grounded theory adds evidence to the current state of knowledge about resilience. The explication of the process of 'pushing through' suggests that resilience is a process,

thereby contributing to the current literature of resilience as a process (Fletcher & Sarkar 2013, Ungar 2013). More particularly, the iterative nature of the three phases of 'pushing through' and the periods of disengagement and re-engagement in the second phase of 'pushing through' demonstrate that resilience is not a linear, unhindered process. Additionally, participants' experiences of 'defocusing', 'disconnecting' and 'immobilizing' were not necessarily indicative of lack of resilience but part of their resilience experience. Therefore, the process of 'pushing through' supports the perspective that resilience is a dynamic process (Tusaie & Dyer 2004) because of the iterative interactions of the phases and the disengaging processes of 'pushing through'.

Ungar (2003) asserts that one of the results of conducting qualitative research about resilience is the discovery of unnamed protective processes of resilience. In this study, another process of resilience is discovered, the process of 'pushing through'. More specifically, participants in this study used the process of 'pushing through' to withstand their challenges and achieve their academic goals. This is consistent with current conceptualizations of resilience, which denote competence to withstand or recover from adversities (Masten & Powell 2003) and actions to achieve positive outcomes despite adverse situations (Wyman *et al.* 2000, Masten 2001). Therefore, the process of 'pushing through' is yet another discovered process to describe the complex phenomenon of resilience.

The findings of the study also provide a further description of resilience as a process (Luthar & Cicchetti 2000). Results of this grounded theory study highlight that resilience is a process with temporally sequenced phases. Specifically, the process of 'pushing through' is comprised of three main iterative phases where a nursing student steps into a challenging situation ('stepping into'), implements strategies for remaining in the nursing programme or persisting through a challenge ('staying the course') and acknowledges a personal transformation from the experience of challenging situations ('acknowledging'). This depiction of resilience as a phenomenon comprised of temporally sequenced phases is different from many conceptualizations of resilience. For example, this is different from Wagnild and Young's (1990) description of resilience as a phenomenon encompassing five essential characteristics, namely meaningful life, perseverance, self-reliance, equanimity and existential aloneness and Benard's (1995) typology of resilience which includes capacities such as social competence, problem-solving, autonomy and a sense of purpose and belief in a bright future. Wagnild and Young's and Benard's conceptualizations of resilience present more as structural dimensions than as temporal phases of resilience. Further-

more, conceptualizing resilience as a process with temporal phases suggests that resilience is an action-oriented process. This is also consistent with the description of resilience as a strategy to persevere and access valuable support systems (Kornhaber & Wilson 2011, Trusty-Smith 2013). Additionally, this implies that resilience can be learnt, developed and enhanced (Edward *et al.* 2009).

This study extends Stephens' (2013) concept of nursing student resilience, which is defined as 'an individualized process of development that occurs through the use of personal protective factors to successfully navigate perceived stress and adversities. Cumulative successes lead to enhanced coping/adaptive abilities and well-being' (p. 130). The explication of 'pushing through' as an action-oriented process and as a process comprised of temporally sequenced phases with actions indicating students' enactment of resilience highlights nuanced descriptions of resilience as a process. Therefore, the study findings provide an expanded view of Stephens' concept of resilience as a developmental process.

Moreover, the results indicating resilience as more than a trait or characteristic but also a dynamic process are particularly relevant for nursing students. This view of resilience provides an alternative perspective for nursing students that resilience is not a static phenomenon nor it is only present in certain individuals. Instead, the explication of resilience as an action-oriented process provides a vantage point for students to recognize that resilience can be developed and further enhanced. For example, the processes and strategies in the theory of 'pushing through' can be a resource for students in effectively addressing their adversities. The narratives and concepts in the theory also provide the validation that disengaging from and re-engaging with the process of 'pushing through' are part of their experience of resilience. Therefore, the processes in the theory of 'pushing through' are learning opportunities for students to enhance their resilience.

Furthermore, the representation of resilience through the process of 'pushing through' provides nurse educators a strength-based perspective in supporting students with their challenges. The phases of 'pushing through' allow teachers to identify their students' location on the trajectory of the process of 'pushing through' and educate students to apply the appropriate strategies that will assist them to adapt to their adversities. Without this theory, teachers' support to students may be limited to problem-based or deficit-focused strategies applied in a haphazard fashion.

The findings also have implications for administrators of nursing programmes. As previously explicated in the literature review, the continued stress of nursing students can lead to increased attrition, whereas resilience can contribute

to achievement of positive academic outcomes. Nursing programmes can take advantage of integrating the concepts and processes in the theory of 'pushing through' to new and existing programmes in their schools to facilitate the development of resilience of nursing students.

The study findings can also be applied to the nursing practice context because of the conceptual rendering of the process of 'pushing through'. Nurses around the world need to be resilient in their challenging practice environments while concurrently being compassionate, knowledgeable, competent and ethical in their provision of care. The grounded theory can serve as a reflective practice tool to make sense of nurses' situations and realities (Boros 2009, Oelofsen 2012). The theory can be used as a tool for clinical supervision and ongoing professional support to nurses. For example, nurses can locate their experience in the trajectory of 'pushing through' and identify the actions of 'pushing through' which can help them move through their adversities and achieve transformation. Moreover, discussion and reflection of resilience is particularly useful in forging advanced nursing practice. This is because specialized and extensive clinical, research and leadership competencies of advanced practice nurses evolve from complex health care needs of clients and rapidly changing health care delivery systems (Furlong & Smith 2005).

Limitations

A limitation of the study was that participants came from only one university. Most participants were second and third year students, females in their 20s and identified themselves as Canadian-Caucasian (83%). Therefore, application and transferability of findings to larger populations of nursing students may be limited. Another limitation was the one-time data collection. A longitudinal, qualitative design (i.e. interviewing participants at multiple time points) could expand the substantive theory of 'pushing through'.

Conclusion

The grounded theory of 'pushing through' is the first theory that addresses nursing students' resilience. The concepts depicted in this theory offer foundational knowledge and preliminary evidence of nursing students' resilience as a dynamic process. The findings of the study provide a theoretical groundwork for future research of nursing students' resilience. Recommendations for further theory development include considering participants from differ-

ent types of nursing education programmes and from different cultural backgrounds, applying a critical social perspective such as exploring the impact of race, class and gender on resilience and using other data sources such as students' reflective journals written over an extended period of time.

The use of the constructivist grounded theory in this study allowed the exploration of resilience as the substantive area in nursing students' context, promoted reflexivity in constructing a theory grounded in the data and facilitated the use of flexible yet rigorous emergent processes to code and synthesize large amounts of data. The result was a theoretical rendering of the participants' realities. Furthermore, this grounded theory is interpretive in nature, which means that this theory assumes 'emergent, multiple realities; indeterminacy; facts and values as linked; truth as provisional; and social life as processual' (Charmaz 2006, p. 126). This theory provides 'interpretive frames' (Charmaz 2006, p. 128), rather than deterministic explanations, from which to view resilience in a nuanced way.

The results of the study underscore the responsibility of nurse educators to develop and maintain an environment conducive to academic success. It is imperative for nurse educators to support students' coping with their challenges. Therefore, it is fitting for nurse educators to be committed to fostering resilience in their students. Finally, the findings highlight the significance of formally integrating the topic of student resilience into the nursing curriculum to create formal forums for students to learn how to thrive in their academic and practice environments.

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Conflict of interest

No conflict of interest has been declared by the authors.

Author contributions

AR, MA, CI and CF were responsible for the study conception and design. AR performed the data collection. AR, MA, CI, CF and YB collaboratively performed the data analysis. AR was responsible for the drafting of the manuscript. AR, MA, CI, CF and YB made critical revisions to the paper for important intellectual content.

All authors have agreed on the final version and meet at least one of the following criteria [recommended by the ICMJE (<http://www.icmje.org/recommendations/>)]:

- substantial contributions to conception and design, acquisition of data or analysis and interpretation of data;
- drafting the article or revising it critically for important intellectual content.

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