## "Becoming a Person Who Does Self-Care": How Health Care Trainees Naturalistically Develop **Successful Self-Care Practices**

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#### ABSTRACT

OBJECTIVES: Self-care is an ethical imperative for health professionals as it can mitigate the adverse effects of stress on professional functioning and health. Yet, there tends to be a lack of self-care among healthcare trainees and an insufficient focus on self-care in medical education. The objective of this study was to develop a grounded theory of how health trainees become successful self-care users.

METHODS: Semi-structured interviews were conducted with 17 students in a variety of healthcare disciplines. Data were analyzed using grounded theory methodology.

RESULTS: Health trainees underwent 4 iterative phases to become successful at self-care: Having a Wake-Up Call, Building Skills, Gaining Confidence, and Building an Identity. Our model also explained why some trainees were unsuccessful at developing self-care practices.

CONCLUSION: We offer the first theory to explain how health trainees develop effective self-care habits. Understanding how self-care practices naturalistically develop has critical implications for developing interventions and curricula: By basing curricula about self-care on knowledge of what works, we have an opportunity to be more successful as educators. Indeed, other researchers have noted a lack of success in self-care and anti-burnout interventions for healthcare professionals. We conclude by discussing implications and recommendations for medical training and curriculum for health professions, including augmenting naturally occurring processes, linking self-care to personalized values, providing opportunities for deliberate practice, focusing on persistence with self-care, and faculty promotion and acceptance of trainee self-care.

KEYWORDS: Stress, burnout, wellness, self-care, health trainees, professional practice, grounded theory

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#### Introduction

Self-care is a multi-dimensional construct that refers to the selfselection of strategies that are used to maintain and support a balance between personal lives and professional work, while simultaneously supporting and promoting mental/emotional, physical, spiritual, and professional functioning, or any other area(s) identified by a person as being important for their wellness.<sup>1</sup> It is especially important for health professionals across disciplines (ie, medicine, nursing, dentistry, pharmacy, occupational therapy, psychology, counseling, social work), given the responsibility that they have for caring for others. Failure to use self-care effectively is associated with a host of personal health consequences and can interfere with a person's ability to conduct ethical and competent work by increasing their vulnerability to poor ethical judgments and clinical decision-making, such as violating ethical boundaries and/or unprofessional or negligent practice.<sup>2,3</sup> Reflecting this ethical imperative, multiple health disciplines' ethics codes explicitly discuss the importance of selfcare, such as psychology,<sup>4-6</sup> medicine,<sup>7,8</sup> and nursing.<sup>9,10</sup> Beyond ethical requirements, self-care can be conceptualized as a key component of valued living and creating a good life.<sup>11,12</sup>

Developing effective self-care habits during professional training is essential. This is when health professionals are first socialized into their discipline, and when the professional identities of health trainees first emerge and begin to solidify. Unfortunately, professional training programs often do little to teach or model self-care practices and self-care utilization is often low among trainees.<sup>13–15</sup> Lack of modeling from faculty can lead students to feel unsupported in their use of selfcare.<sup>16</sup> This is particularly unfortunate because students in professional health training programs need to monitor and manage numerous stressors, such as the academic and evaluative aspects of training, the intersection of the personal characteristics of the trainee and the training environment, working in an environment where trainees must learn a novel clinical skillset relatively quickly and where they are constantly evaluated,<sup>17</sup> possible interpersonal conflicts with peers and supervisors,<sup>18</sup> and stressful life events that might occur during training (eg, divorce, illness, birth or adoption of a child<sup>19</sup>). Program-related factors such as peer competitiveness, more time spent in training, and high workloads predict more health concerns and risk for burnout among trainees.<sup>18,20</sup>

Often, because of these stressors, health trainees experience high stress levels,<sup>21,22</sup> have a high risk for burnout,<sup>23</sup> and experience health concerns at rates that exceed those found among age- and gender-matched peers.<sup>18,24</sup> The effective use

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of self-care can buffer students from the stress of training, protect against health concerns, and helps professionals to act ethically and to deliver high-quality care.<sup>14,25</sup> Unfortunately, self-care utilization by health care trainees is often subpar.<sup>13</sup> Trainees across disciplines report barriers to self-care utilization, with the most cited barrier being a perceived lack of time.<sup>21,26,27</sup> Other commonly reported barriers include concerns with confidentiality, stigma, and financial constraints.<sup>21,26</sup>

#### Current project

Self-care practices can assist health care trainees by protecting them from the consequences of a stressful training environment, create career-lasting expectations for professional wellbeing, and promote ethical care. Despite this, self-care is not often a part of health care training programs and self-care is underutilized by both trainees and professionals.21,28,29 Although various interventions have been developed as part of health professions training, no systematic changes have occurred in most health disciplines. We argue that researchers and educators must "go back to the drawing board," and rather than begin to develop educational/training interventions, first understand how health trainees naturalistically (ie, without intervention) develop self-care practices. Considering this, and reflecting on the implications for health professions training, can lead to more fruitful educational programs. Understanding this naturalistic development was the purpose of our study. We examined this process from the perspective of health trainees themselves. We believe this is essential for

the development of user-informed and theory-driven self-care interventions.

#### Methods

#### Design

Ethical approval for this study was granted by the Behavioural Research Ethics Board on January 9, 2017 at the University of Saskatchewan (BEH 16-477). This study utilized constructivist grounded theory (GT) methodology as outlined by Charmaz and consistent with our epistemology viewing knowledge and experience as a socially constructed interaction between persons and the world.<sup>30</sup> The purpose of GT is to inductively generate a theory and it can be most appropriate for research areas with a lack of previous research to draw from; no study to our knowledge has captured health professions students naturalistically developing self-care skills. An iterative process between coding, constant comparison (ie, comparing within and between participants' stories), and theoretical sampling (ie, collecting additional data as needed) was used until we reached theoretical saturation (ie, the point at which no new observations are arising from one's data).<sup>31</sup> For more information about our design, please see Table 1 for our Consolidated Criteria for Reporting Qualitative Research (COREQ) checklist.<sup>32</sup>

#### Participants

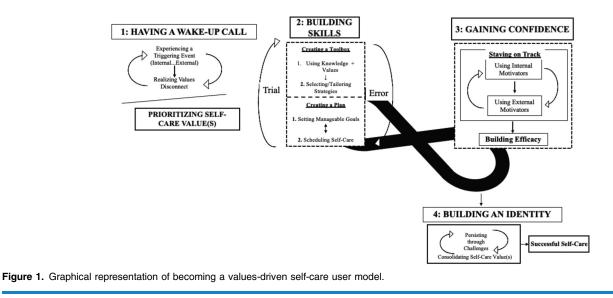
Participants were recruited through advertisements on an internal web environment for students, staff, faculty, alumni,

 Table 1. Consolidated criteria for reporting qualitative research (COREQ) checklist.

NO.		ITEM	DESCRIPTION
	Domain 1: Research Team and Reflexivity		
	Personal Characteristics		
1.		Interviewer/facilitator	First author
2.		Credentials	B.A. Honours (first author) and PhD (second author)
3.		Occupation	Graduate Student (first author) and Associate Professor (second author)
4.		Gender	Female (first author) and nonbinary (second author)
5.		Experience and training	Coursework and mentoring (first author) and previous research experience (second author)
	Relationship with Participants		
6.		Relationship established	Relationship was established via phone screening and scheduling of interview, as well as at beginning of interview (p. 5)
7.		Participant knowledge of the interviewer	Participants were informed of the researchers' training and purpose of the study
8.		Interviewer characteristics	The reason and interest in the research topic were shared with the participants $(p. 5)$
	Domain 2: Study Design		

#### Table 1. Continued.

NO.		ITEM	DESCRIPTION
	Theoretical Framework		
9.		Methodological orientation and theory	Constructivist grounded theory (p. 5)
	Participant Selection		
10.		Sampling	Purposive and snowball sampling (p. 4)
11.		Method of approach	Participants were recruited via online posters. Participants contacted the researchers as first approach (p. 4)
12.		Sample size	17 (p. 5)
13.		Non-participation	Not applicable
	Setting		
14.		Setting of data collection	Clinic
15.		Presence of non- participants	No one was present besides the researchers
16.		Description of sample	Predominantly female (12 females, 5 males), ages ranged from 20 to 46 years old ( $M = 28.1$ , $SD = 7.50$ ), and 13 participants identified as Caucasian, 2 as South-East Asian, 1 as First Nation, and 1 as bi-racial (p. 5)
	Data Collection		
17.		Interview guide	Participants were presented with the prompt "Tell me about your self-care, starting anywhere you are comfortable with" and then completed an unstructured interview. It was not piloted (p. 5)
18.		Repeat interviews	Five participants completed repeat interviews (p. 5)
19.		Audio/visual recording	Interviews were audio recorded (p. 5)
20.		Field notes	Memos were written by the interviewer (first author) after each interview
21.		Duration	Approximately 60 min per interview, on average. Range = $45$ to $95$ min (p. 5)
22.		Data saturation	Saturation was discussed (p. 5)
23.		Transcripts returned	Transcripts were not returned to participants for comment and/or correction
	Domain 3: Analysis and findings		
	Data analysis		
24.		Number of data coders	Two coders coded the data
25.		Description of the coding tree	No coding tree was used
26.		Derivation of themes	Themes (processes) were derived inductively from the data (p. 6+)
27.		Software	Microsoft Word was used to manage the data
28.		Participant checking	Participant feedback on the findings was not used
	Reporting		
29.		Quotations presented	Participant quotations were used to illustrate the themes (processes). They were not identified (pp. 6-12)
30.		Data and findings consistent	There is consistency between the data presented and the findings
31.		Clarity of major themes	Major themes (processes) are clearly presented in the findings (pp. 6-12)
32.		Clarity of minor themes	Not applicable



and other members of the University community (ie, convenience sampling). Participants were also recruited through word of mouth, snowball sampling, distribution emails to prospective participants and training program directors, and social media. Data was collected from 2016 to 2017. The final sample included 17 health professional students recruited from a range of disciplines (ie, nursing, medicine, pharmacy, nutrition, health sciences, physical therapy, counseling psychology, public health). Given our small sample size, we have purposefully not reported the number of students per discipline to protect participant confidentiality. Approximately 35% of the sample were in undergraduate programs (ie, medical training) and about 65% were in graduate programs (eg, counseling psychology; of this total, 82% were at the M.A. level and 18% were at the PhD level). On average, participants had completed 2.6 years of their programs (range = 1 to 4 years). The sample was predominantly female (12 females, 5 males), ages ranged from 20 to 46 years old (M = 28.1, SD = 7.50), and 13 participants identified as Caucasian, 2 as South-East Asian, 1 as First Nation, and 1 as bi-racial.

#### Data generation and analysis

Participants provided written informed consent at the beginning of each interview. All interviews were audio-recorded, and on average lasted 53 min. To begin the initial interviews, participants were provided with an open-ended question: "Tell me about your self-care, starting anywhere you are comfortable with." Participants then completed an unstructured interview regarding their self-care experiences. Following the interview, participants were debriefed and thanked for their time and provided with a \$20 honorarium. All participants consented to be contacted for future interviews. We transcribed the audio recording to be true to the intonation and wording used by participants. Nuances such as "hmm," pauses, crying, laughter, coughing, and nonverbal cues (eg, reaching for a Kleenex) were captured.

In GT, data generation and analysis are conducted simultaneously.<sup>30</sup> Data was generated in 3 phases. First, initial interviews were conducted with 4 participants. Initial (open) coding was conducted on this data. Next, the interview questions were modified (ie, theoretical sampling), and an additional 7 interviews were conducted and then analyzed using focused (selective) coding. To help clarify codes and the boundaries between categories, 5 follow-up interviews were conducted with participants who had already completed one interview. Next, theoretical coding was used for the remaining 6 interviews, and we shared our GT with these participants and discussed their thoughts and reactions. This process of data generation and analysis was carried out until saturation was reached, which was confirmed by conducting a saturation check of each participants' data.

*Researcher reflexivity, reliability & validity.* Both researchers are health and helping professionals who strongly value self-care for our personal and professional well-being, as well as training others in successful self-care. Our background and values likely influenced data generation and analysis. There were several strategies built into our project to maintain its rigor and help to reduce confirmatory bias.<sup>33</sup> The following strategies were used: (1) methodological coherence and sample appropriateness for the research question, (2) concurrent data generation and analysis, (3) thinking theoretically by reconfirming ideas with new data, and (4) developing the theory by reviewing it with existing knowledge about the topic.<sup>33</sup>

We ensured methodological rigor was maintained by selecting an inductive methodology given the lack of previous research on the *process* of developing self-care (ie, methodological coherence) and by interviewing health students to learn about self-care from their perspectives, including sampling negative cases to delineate the boundaries of categories. Concurrent data generation and analysis allowed us to refine our theory by comparing it to new data. Third, constant comparison allowed us to remain theoretically grounded by reconfirming and verifying the emerging theory in the data. This built-in verification strategy allowed us to stay grounded in the data (ie, thinking theoretically), which resulted in a rigorous process and a saturated theory built from the ground up. Last, after developing this saturated theory, we compared our findings with previous theories about health behavior change.

#### Results

Our analysis resulted in a theory, labeled *Becoming a Values-Driven Self-Care User*, showing that the process of developing self-care skills is idiosyncratic, iterative, and infinite. The model (Figure 1) is made up of 4 phases: (1) Having a Wake-Up Call, (2) Building Skills, (3) Gaining Confidence, and (4) Building an Identity, each with specific subprocesses.

#### Phase 1: having a wake-up call

All but 2 participants described purposefully beginning their self-care journey in response to a Triggering Event that led them to realize that they were disconnected from their value(s). Participants used the terms "values" and "priorities" interchangeably and generally referred to both as "things that matter," "what you couldn't live without," and what is "important." That is, participants experienced a psychosocial trigger that made them realize their current self-care was inconsistent with their personal values. For example, one participant described "I fell downwards spiraling. And the only way to, to not have that continue was to completely change the way I did things." Triggering Events were adverse events ranging on a continuum from being experienced internally (eg, poor mental health) to external events (eg, death of a loved one) to the student. When participants noticed "enough" of a disconnect between self-care values and behaviors, participants vowed to prioritize their self-care value(s). What is "enough" was idiosyncratic; the person needs to realize enough of a disconnect between their values and current living that, to them, warrants the need for a change. There was also individual variation in the number of triggers required to reach the threshold of "enough." Examples of triggers from our participants included stress exacerbating a pre-existing medical condition, receiving feedback from family members that participants were too busy, observing the health problems of others, and substance abuse that led to a number of relational problems. Upon reaching this threshold of "enough" participants decided to prioritize their self-care values, which marked the end of Phase 1 of the model and movement into Phase 2.

#### Phase 2: building skills

In Phase 2, participants began to take action-oriented steps to move closer to the value(s) identified as personally important in Phase 1. Building Skills was focused on the trainees selecting and tailoring specific self-care activities (Creating a Toolbox), and then Creating a Plan to implement those strategies. In Creating a Toolbox, participants first used their factual knowledge of self-care (eg, strategies learned as lay persons or as part of their professional training, such as the importance of quality sleep or impact of exercise on stress) and their personal values (step 1) to select self-care strategies they thought would be specifically helpful for them (step 2). For example, one participant described "...part of it's based on experience. I think what I've done before has worked for me." Another participant described using cultural knowledge to inform their selection of self-care strategies (eg, connecting with the land). Another participant noted "it's continually, like, collecting this basket of resources. And then whatever I need, I pull out of the basket."

This combination of knowledge plus values was necessary for moving forward: Participants who used knowledge alone, without couching their choices within their personal values, were not successful (ie, choosing to engage in an activity that was not aligned with their own values led participants to discontinue that activity, or never actually try it to begin with). Participants selected a diversity of self-care strategies, which broadly fell into the domains of balance (eg, taking breaks, extra-curricular activities), emotional health (eg, meditation, personal therapy), physical health (eg, physical activity, medication, eating right), spirituality (eg, praying), and social connection (eg, time with friends).

Once participants generated a toolbox of strategies that they could "pull from," they then moved onto the second subprocess of Creating a Plan. This again involved 2 steps: (1) setting manageable goals; and (2) scheduling self-care. The former involved setting goals that were sustainable, feasible, and realistic considering other life demands (ie, amount of free time) whereas the latter involved planning the logistics of when self-care would be used and ensured it was more likely to happen (ie, scheduling it on a calendar). Participants who did not take the time to schedule self-care via step 2 reported that it was "forgotten" and did not occur.

In Phase 2 participants moved back and forth between Creating a Toolbox and Creating a Plan, using trial and error to further individualize and fine-tune both (ie, to find "what works" for them). One participant described "and then there's always the risk that it's not going to work... then it's a process of trial and error until I find...[what] works with me and my schedule." For example, participants went through several iterations of revising their goals (eg, to make them more manageable or rescheduling) given new demands or routines (eg, changes in work schedules, life events such as moving or having a child). For example, one participant described how being an actor was an important part of their self-care plans. However, they declined to be involved in a play production as it was not feasible given their program practical demands. As a result, they found a middle ground by staying connected with the value by reading and watching plays. As participants continued to practice selecting, trying, and finetuning self-care activities, they moved into Phase 3 of the model.

#### Phase 3: gaining confidence

In Phase 3, participants found themselves Gaining Confidence in their ability to implement self-care practices. More specifically, participants began to Build Efficacy, or believe that they could implement self-care. Prior to reaching this stage, participants were more likely to doubt their abilities to do so (eg, "If I spend time on self-care, my performance in my program will suffer"). As part of Gaining Confidence, participants also began to develop skills aimed at Staying on Track with their new skills and plans (eg, "I think that you need to want [selfcare] and then from there, you just need to either be encouraged... or be given some tools"). They developed both internal (ie, drawing on one's own personal resources, such as selfawareness of self-care moving them toward the "way they want to live life") and external (eg, enlisting the motivating support of others, such as texting friends to play sports on a weekly basis) motivators to Stay on Track. One participant's description of using internal motivators was "I start getting a headache when I'm at the computer too long or my eyes start going fuzzy, so then... maybe work out for an hour... go back to work." One description of an external motivator was "[Social support] motivates me back on track...they're kind of your cheering section. And then want to help you..."

As part of using external motivators, participants who successfully engaged in self-care purposefully surrounded themselves with "positive self-care influencers," a support network of other people who also valued and promoted the participants' own self-care. Self-care influencers helped keep them accountable to others and it helped to remove the "fear aspect of selfcare," or the perception that engaging in self-care is difficult or could compromise their academic performance. While both types of motivators were important and served a unique purpose, using internal motivators was a prerequisite that was necessary for external motivators to have any utility. That is, external motivators reinforced participants' already existing awareness about the importance of self-care; however, the reverse was not true (external motivation without internal motivation was unsuccessful).

#### Cyclical iterations between Phase 2 and Phase 3

Participants moved back and forth between Phase 2 and Phase 3 to build self-care efficacy. That is, as participants created a self-care plan that was relatively workable via the trial and error in Phase 2, they became more successful at staying on track with these plans and Gained Confidence in their self-care (Phase 3). Simultaneously, participants had to go back to Phase 2 to build new skills to further refine their self-care plan then

move back to Phase 3 to work on implementation of this plan in a way that they could stay on track with. Thus, even if participants temporarily reached Phase 3, they often went back to Phase 2 so that they could find the "missing piece" in their plan (eg, revise the logistics of their plan).

As participants cycled through several iterations of Building Skills (Phase 2) and Gaining Confidence (Phase 3), they continued to build a stronger sense of self-care efficacy (eg, "...if she can do it, I can do it. If I can do it, then maybe somebody else can see that they can do it... it's kind of that snowball effect"). This Building Efficacy was the tipping point that marked the end of Phase 3 and moved participants into Phase 4. Like the "enough threshold" in Phase 1, reaching this tipping point was an individualized process, with a range in required iterations between Phase 2 and Phase 3 that differed by participant. This sense of efficacy was imperative for participants and when they solidified it they were able to move forward to Phase 4.

#### Phase 4: building an identity

In Phase 4, Building an Identity participants began to use techniques to *maintain* self-care and to deeply incorporate (ie, consolidate) self-care values into their identity. First, participants began to use the skills and confidence developed in Phases 2 and 3 to Persist Through Challenges, implementing strategies to follow through with their self-care plan when inevitable challenges arose (eg, increases in workload, competing demands, life changes, interpersonal conflicts, illness). In contrast, when such challenges arose in Phases 2 or 3, participants struggled to maintain their plans and engage in self-care.

As a result of practicing persistence through such challenges, participants began to consolidate their self-care values; specifically, this reinforced the importance of using self-care in service of their values. One participant noted "well, it um, it means just being stubbornly persistent in knowing what I need to do. And, regardless of what backlash... I need to, it's for me." By consolidating their self-care values, this in turn strengthened participants' ability to follow through with living close to their self-care values in the face of obstacles and challenges. Therefore, the stages of these subprocesses interacted in a reciprocal fashion, with the experience of each strengthening the other with each cycle between them. As a result, participants built an identity of a person who does self-care.

#### Becoming a person who engages in self-care

Participants who were able to successfully navigate this model to consolidate their self-care values were able to develop an identity of a person who engaged in self-care. There were 3 indicators of this outcome. First, participants moved closer to their values, in general, via self-care. By using self-care to move closer to who they wanted to be and how they wanted to live, self-care became a way to express values (eg, engaging in exercise because one values physical activity) rather than as an activity that is a means to an end (eg, engaging in exercise to reduce stress or because they "should"). Second, by maintaining self-care on a regular basis-even when difficult to do so-it became ingrained into participants' lifestyle and thus it became an "automatic" and "natural" part of their routine. That is, participants either no longer needed to "think" about implementing self-care or utilize as much effort to plan for it, rather it "just happened." Since self-care was used consistently, it also became preventative. That is, self-care was no longer only used in reaction to stressors and difficulties but was rather used to prevent them. Third, rather than viewing self-care as static, participants who successfully navigated the entire model viewed self-care as a dynamic process and therefore repeatedly modified their plans as needed, often by considering how their self-care needs changed and interacted with internal and external factors. Therefore, being consolidated in one self-care value did not mean that participants were "finished" with selfcare plans; they continued to re-prioritize self-care values or realize new values as new Wake-Up Calls occurred.

# Model "disengagement points" or inability to consolidate self-care value(s)/build an identity

Unfortunately, not all participants reached the final phase or outcome of this model; several participants disengaged (often temporarily) from the model (pausing their self-care journeys) at various points. These disengagement points lend support and validate the importance of these phases, begin to identify the boundaries of our GT, and help to explain why some people can develop self-care practices whereas others still struggle.

In Phase 1, participants who did not use their values to inform their decision to use self-care did not build effective skills, reaffirming that values are an important prerequisite for building an individualized self-care plan. Participants in these cases did not realize a values disconnect and required additional Wake-Up Calls in order to reach the "enough threshold" and prioritize self-care values. By extension, participants who lacked this connection with their values did not create a toolbox that was tailored to their values, needs, or preferences. In addition, they often did not use trial-and-error to find what worked, given that they were not creating an individualistic selfcare plan. Participants who did not create a plan that was values-informed did not have 'enough' internal motivation to follow-through in maintaining a self-care plan (Phase 3). Since self-care was not applied individually, it was ineffective because it did not hold personal significance and was not tailored based on the person's needs, preferences, and life context (eg, being told by others to 'try' an activity without it having personal meaning).

A distinct, yet related, point of disengagement in Phase 2 was failing to create manageable goals and/or schedule self-care,

which resulted in self-care being neglected. Participants stated that when they did not set goals that were attainable, they felt defeated by not meeting their self-care goals and instead engaged in soothing behaviors to mitigate negative affect (eg, substance use, emotional eating, sleeping). Although these behaviors served the purpose of reducing negative affect in the short term, they were not effective self-care strategies in the long term (ie, they moved participants away from their values). Similarly, participants who did not schedule self-care reported forgetting about it when they became busy and thus "pushed it aside." An additional disengagement point, which applies to both Phases 2 and 3, relates to the use of supports to learn about self-care or to maintain a self-care plan, respectively. Connecting with others helped participants to find, revise, and improve upon their self-care plans, while building confidence in using self-care flexibly. With support, participants were unable to maintain their self-care plans.

In Phase 4, a final disengagement point relates to being rigid in the application and use of self-care strategies and values, respectively. Given the temporality of values, developing, and maintaining a values-driven self-care plan entails that people reprioritize, remove, and shift values as they move through life and experience new demands, enter new phases in life, and experience additional Wake-Up Calls. Therefore, participants had to revise their plans (eg, create more feasible goals given new demands, revise or replace strategies) continuously.

#### Discussion

We used GT to create an inductive theoretical model of how health professions trainees naturalistically (ie, without intervention) develop successful and sustainable self-care practices. Analyzing interviews with trainees allowed us to stay true to their lived experience, and our resulting model shows how participants moved from realizing their need to prioritize self-care to consolidating self-care practices with their identity in a way that made future self-care easier. Our GT consisted of 4 phases, with participants developing through those phases cyclically, iteratively, and at an idiosyncratic pace. These 4 phases were: (1) Having a Wake-Up Call, (2) Building Skills, (3) Gaining Confidence, and (4) Building an Identity. Our model also indicated several places where participants were prone to struggling with self-care, some of them unable to move forward through these 4 phases.

Living in greater alignment with personal values has been shown to improve health and engagement in health sustaining behaviours.<sup>34,35</sup> Moreover, the finding that growth can result from difficult life experiences (ie, wake up calls) is reflected in the posttraumatic growth (PTG)<sup>a</sup> and stress-related growth literature.<sup>36,37</sup> Our findings provide the first evidence that part of stress-related growth might be increased self-care.

Our findings show that the process of developing self-care practices is discontinuous and non-linear. Research on health behavior change is increasingly recognizing that behavior change is non-linear as it often involves "quantum leaps," epiphanies, and tipping points.<sup>38–40</sup> Chaos theory is a useful theoretical framework for understanding health behaviors as it recognizes the complexity of changing such habits.<sup>39</sup> Chaotic systems can be modeled, usually in non-linear terms, but they are difficult to predict. It was difficult if not impossible to predict how many iterations were required before participants moved onto the next Step/Phase of this model. In addition, even if a particular Phase was successfully completed, this did not mean that a participant would not return to that point again. New factors (eg, additional Wake-Up Calls, changes in training demands) that challenged participants' self-care value(s) and/or plan required that they move back to a previous Step/Phase.

#### Implications for health professions education & curriculum

Understanding how health professions trainees naturally develop successful self-care practices is an essential base for developing education and interventions aimed at promoting self-care for these students. As previously discussed, developing effective self-care practices is essential for managing the demands we experience as health professionals and engaging in ethical practice. While training programs are increasingly valuing self-care, we argue that developing curricula and training around self-care in the absence of understanding how selfcare develops naturalistically is "putting the cart before the horse." Understanding how to *augment* naturally occurring processes can be a path to more successful curricula related to selfcare. In this section, we discuss specific recommendations arising from our model and existing research literature in this area.

Augmenting naturally occurring processes is important. A plethora of self-care recommendations and interventions for self-care and burnout have been developed for health professionals and health trainees. However, the results of these interventions are disappointing. For example, a recent meta-analysis on interventions for burnout has shown only small reductions in burnout.<sup>41</sup> As discussed in our introduction, health professional trainees have concerningly high levels of stress, burnout, and mental and physical health concerns.<sup>18,21,24,42</sup> Self-care can mitigate stress.<sup>43</sup> Arguably, then, current approaches have not worked. We argue that studying basic processes underlying the development of self-care practices-as we have done here -can lead to more promising interventions, aimed at working with and *augmenting* these naturalistic processes. This is similar to the methodological approach of appreciative inquiry, which generally focuses on what works and how to further develop what works.<sup>44</sup> Thus, the first implication for education and training is that curricula and training related to wellness and self-care should be designed with a consideration of what already works. Educators can further tailor our theory to their own trainees by taking the time to survey them regarding their own successes with self-care and encouraging them to continue. We recommend that faculty survey trainees anonymously, given the dual relationship and power differential between faculty and health professions trainee that can impact trainees' abilities to be forthcoming, as well as the possible cultural stigma surrounding self-care experienced by trainees.

Linking self-care to idiosyncratic values sets trainees up for success. Traditional approaches to self-care often provide recommendations of activities that trainees can engage in (ie "checklist approaches").<sup>25</sup> However, these types of interventions do little to individualize self-care options for trainees' specific values and lifestyles, and overall have not led to a widespread uptake in self-care behaviors among health professions students.<sup>13–15</sup> Connecting with their own, idiosyncratic values was what influenced our participants to build and maintain a self-care plan, and to follow through with this plan when challenges arose. Existing self-care interventions, by emphasizing specific activities without linking those to trainees' own values, negate the importance of tailoring strategies. Broadly, our results converge with the recommendations in the literature for individualized and assertive self-care solutions.<sup>17,45</sup> Moreover, our findings are consistent with self-determination theory,<sup>46</sup> which has been shown to positively impact health behaviors.47

Thus, when providing basic education about self-care, programs should emphasize the importance of determining if and how the strategies are workable for students as people.<sup>46</sup> Trainees should be encouraged to be critical consumers of selfcare knowledge by evaluating and applying strategies in the context of their values, needs, and preferences. Rather than providing information about self-care strategies in a top-down fashion, programs should incorporate formal education that allow for a bi-directional flow of information, wherein trainees can select and use this information according to their own needs.

Knowledge needs to be accompanied by training and practice. Another characteristic of traditional, "check list" approaches to self-care is the purely didactic nature of this training. That is, not only do existing training curriculums lack education about how health professions students can individualize selfcare and create workable plans, but they also provide no training or opportunities to actually practice developing self-care strategies or implementing, evaluating, and adjusting them as needed. While we would never expect health professions trainees to perform a medical procedure without supervised practice, health professions curriculum does not extend this expectation to our training in self-care. Thus, programs should not expect that self-care plans be effective merely by providing basic education; trainees must personally apply this knowledge, develop a workable plan, and receive support in implementing and modifying their plan. Programs must provide practical opportunities for them to set goals that are realistic and sustainable given training and other life demands/ commitments. Trainees should be supported in discerning if the type, duration, and amount of self-care is feasible given the balance that must occur between personal and training demands. Once goals have been set, students should be encouraged to use reminder aids (eg, phone planners, agendas) to avoid self-care being pushed to the side when they are busy. These recommendations are consistent with previous research showing that ingraining wellness into the daily work and lives of trainees is helpful.<sup>48</sup>

Training Must Focus on Persistence. Additionally, the distinction that arose in the data between the need for trainees to not only maintain their plans, but also to persist in the face of challenges, speaks to the importance of training students how to be assertive advocates of their self-care needs. Facilitate and encourage students to be active users of self-care by modifying their plans. Programs should offer self-care maintenance opportunities to help students to stay on track. For example, bi-weekly or monthly self-care check in groups can help students navigate how to maintain their self-care plans, and this should be done in the context of a supportive, non-judgmental environment. In doing so, programs acknowledge that self-care is not static but requires ongoing engagement and fine-tuning.

Faculty and instructors must promote & accept assertive selfcare. Given the utility of using external motivators, faculty and supervisors should model, welcome, and provide opportunities for open conversations about self-care. As mentioned, strategies to persist in using self-care when challenges arise is entirely absent in existing self-care approaches. Furthermore, research shows a lack of program support for self-care,<sup>14</sup> making this particularly difficult. That is, to adequately support self-care, those who train health professionals must in turn be willing to accept the consequences of students' boundaries.

Consider each students' journey phase. Phase- or stage-specific interventions can be developed that are tailored to where students "fall" in the model. For example, if students haven't had any Wake-Up Calls, it would be beneficial for them to receive training that focus on identifying and clarifying values. On the contrary, students who are well grounded in their selfcare values might benefit more-not from values work-but on how to persist when challenges arise. Being developmentally sensitive to students ensures that programs are offering programs that are maximally beneficial and tailored to students' needs. If programs offer self-care training during the first year of training, it is possible that 2 levels of self-care training be offered. Level 1 training might assist students to identify their self-care values and developing and implementing a selfcare plan (Phases 1 to 3). Level 2 training might involve assisting students to continue to stay on track with self-care and ways to persist when challenges arise (Phases 3 to 4). Since it would be unfair to assume that year of study is indicative of where a 9

student is at in terms of their self-care development, programs can use an evaluation tool to identify students' needs so that they can respond appropriately (eg, Values Bulls-Eye).<sup>49</sup> Another potential tool to screen students would be open-ended interview as part of the formal orientation process to determine the student's (a) current engagement with self-care and (b) area(s) they require support.

#### Limitations and strengths

Our sample was restricted on several characteristics, which warrants us to generalize the findings with caution. First, participants were predominantly female, making our theory under representative of the perspective of male health trainees. Other comparable self-care research has similarly included a small percentage of male participants.<sup>50</sup> However, the percentage of females comprising our sample (71%) was lower than previous research (range = 85% to 89%), making our results at least comparable to previous research.<sup>50</sup> Second, most participants identified as Caucasian (65%). Few studies explore the impact of culture on self-care behaviors; it is likely that culture influences a person's experience of utilizing self-care knowledge, implementing self-care, and on the relevance or effectiveness of certain strategies.

Despite these limitations, this is the first theory that explains how health trainees become successful in using self-care, and where they might struggle to do so. The use of GT provided us with a rich description of this change process, which provides us with important recommendations for self-care solutions that address the previously identified limitations and barriers to selfcare. In addition, by sampling a range of health disciplines, we generated a GT that can be applied to several areas of health training. Nonetheless, it will be important that future research continue to explore, refine, and further develop this theoretical model.

#### Future directions

Multiple critical areas for future research arise from our results. First, it is important that additional research be conducted with a more diverse sample, for example in terms of gender identity, culture, and diversity of health disciplines. Using a mixedmethods approach can assist with methodological triangulation of findings as well. Second, our project focused on individual experiences of self-care. It is equally important that research be conducted on organizational and systemic impacts on health trainees' well-being and self-care. For example, leave policies, flexibility of work hours, hidden curriculum, and faculty role modeling are all variables than can influence trainees' self-care practices. Last, our theory does not explain how health trainees develop, know, or evaluate their own values. It will be important for future research to understand how trainees identify values in the first place, to then understand when there is a disconnect between those values and their self-care choices. Last, an important next step will be examining the barriers to trainees progressing through this model, such as possible stigma for engaging in self-care.

#### Conclusion

Values were central in helping health trainees to develop individualized and sustainable self-care plans. First trainees must discover their self-care values and then they should use this to develop a plan that includes manageable goals, scheduling selfcare, and using internal and external motivators. By maintaining self-care, trainees become better equipped to persist in using self-care when challenges arise. Given the practical implications of our theory, programs should educate trainees on how to implement self-care, by providing opportunities to create a plan, try out strategies, and to make modifications. Since our values and life contexts are dynamic, our self-care solutions must reflect this non-linear process of change to best help trainees to thrive. To be consistent with the idea that changing selfcare habits is a dynamic, iterative process, this requires programs to utilize a different way of knowledge distribution and education related to self-care socialization.

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#### Note

1. Researchers use the term trauma synonymously with crises and highly stressful events.<sup>36</sup>

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