Improving Mentorship and Supervision during COVID-19 to Reduce Graduate Student Anxiety and Depression Aided by an Online Commercial Platform Narrative Research Group

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Abstract: Before COVID-19, post-secondary learning was dominated by in-person, institution-organized meetings. With the 12 March 2020 lockdown, learning became virtual, largely dependent on commercial online platforms. Already more likely to experience anxiety and depression in relation to their research work, perhaps no students have endured more regarding the limitations imposed by COVID-19 than graduate students concerning their mentorship and supervision. The increase in mental health issues facing graduate students has been recognized by post-secondary institutions. Programs have been devised to reduce these challenges. However, the additional attention and funds to combat depression and anxiety have not shown anticipated results. A new approach to mitigate anxiety and depression in graduate students through mentorship and supervision is warranted. Offered here is an award-winning model featuring self-directed learning in a community formed by adding together different, equal, diverse points of view rather than agreement. The approach, delivered through a commercial online platform, is non-hierarchical, and based in narrative research. The proposed model and approach are presented, discussed and limitations considered. They are offered as a promising solution to ebb the increase in anxiety and depression in graduate students—particularly in response to COVID-19.

Keywords: COVID-19; graduate students; anxiety; depression; mentorship; supervision; narrative research

1. Introduction

The course of the 2020/21 academic year posed exceptional challenges to graduate education as a result of COVID-19. Concurrent with the global pandemic was the shifting focus in graduate education to matters of inequality and inequity [1], producing a new mind-set that identified the disparity in some graduate research as able to continue during the lockdowns and other research being halted because labs were closed or the graduate student was unable to access resources [2], often as a result of historically hierarchical structures [3]. For research to continue, online and remote learning in graduate studies became a necessity, requiring not only flexible and resilient education systems but also flexibility and resilience among graduate students [4]. Yet, graduate students have been recognized as among those most likely to be affected by depression and anxiety as a result of COVID-19 [5] decreasing the resilience that permits their successful adaptation that would lead to reducing in the deleterious effects of stress exacerbated by the pandemic [6].

Positive emotions have been shown to have an important function for mental health, with reduced positive emotions in the context of stress increasing the risk of poor mental health outcomes [7]. Mentoring and supervision, in encouraging self-direction in research, have been identified as unsurpassed in their ability to positively affect graduate students to increase their work satisfaction and fulfilment [8]. The question to be addressed is, how can the anxiety and depression graduate students face, particularly as a result of inequities reinforced by COVID-19, be reduced with improvement in their mentorship and...
supervision in a way that supports self-directed learning while being attentive to inequality in graduate education?

2. The Problem of Anxiety and Depression in Graduate Students

Mental health issues are on the rise for all post-secondary students [9,10]. In post-secondary institutions supporting graduate programs, the most persistent and evident challenges facing graduate students today are those arising from anxiety and depression caused by stress related to unmet research expectations [11,12]. Graduate students have been found six times as likely to experience depression and anxiety as compared to the general population [13]. This problem has only been further exacerbated by the isolation and strain graduate students now feel as a result of the limitations imposed on their research work as a result of COVID-19 [14].

2.1. Scope of Graduate Student Experience Related to Anxiety and Depression

An inability of graduate students to flexibly persist, through the period between the initial idea related to their research and the fulfilling of final program requirements, acts as an indicator of potential anxiety and depression [15,16]. Overwhelming feelings resulting from existential crises [17]—while knowing their degree requires timely completion of their research—mean that, when things are not going as planned with their work, graduate students may initially exhibit anxiety concerning their future that, if the necessary clarity is not regained, develops into deep and all-consuming depression in relation to their lived experience. When anxiety continues to accompany depression, tragically, the expected result is suicide [18]. If students recover, this existential challenge has at best lengthened the time to completion of the degree; if students survive but do not recover, these students and their supporting academic institutions suffer the loss of what might have been very productive and internationally recognized research. The challenge is thus beyond a personal problem; it is critical to the future of graduate studies.

With respect to the competitive research world, graduate students suffer these difficulties because, as a group, they represent the very lowest rung of the research ladder [19]. They are isolated in their work, require mentorship in various aspects of academe [20], and the supervisory communication they experience may be difficult and anxiety provoking [21]. When, because of COVID-19 restrictions, they are unable to meet directly with their mentors to increase employment opportunities and develop professional skills, or with their supervisors to gain insights into their work, their anxiety and/or depression can be further increased [22]. These problems are further aggravated if the graduate student is part of an already marginalized population, specifically, racial/ethnic minority groups and sexual and gender minority populations have been found to more likely suffer the effects of COVID-19 [23].

2.2. Response of Academic Institutions to Graduate Students’ Anxiety and Depression

Academic institutions have undertaken to improve the outcome of these difficulties faced by many graduate students through increasing access to university mental health services [24]. With a graduate student population of over 20,000 students [25], this perception of the need to improve funding to graduate mental health services has been taken up by the author’s own academic institution, the University of Toronto [26,27]. In June 2020, the University’s School of Graduate Studies issued the School of Graduate Studies Mental Health Working Group Recommendations to create a concerted plan to improve the mental health of its graduate students [28]. However, in each of these encouraging strategies, the problem of graduate student mental health has been assumed a personal one related to helping individual students so that they can re-enter the hierarchical and uncertain life of graduate students. Even though much effort has been put into reducing the stigma of mental health problems [29], still, seen as merely a personal problem, the student remains the focus of the difficulty and it is the student who is expected to change to get back to their graduate work.
More resources are being put into mental health of graduate students [30]. This is especially so as a result of COVID-19 [31]. Yet, if this way of dealing with anxiety and depression were optimal we would be seeing at least a levelling off of the number of students looking for help with anxiety and depression. Instead, these mental health issues are on the rise at an alarming rate [32] and have taken off exponentially as a result of COVID-19 [33].

2.3. Need for a New Perspective

To see a reduction in anxiety and depression in graduate students, a new perspective is required regarding to whom these issues belong. The cause of mental health problems in graduate students, rather than being treated as an individual failing, needs to be recognized as a systemic issue resulting from the particular type of competition that is academe.

Graduate education has a long history of supporting hierarchical, disciplinary research. This type of research produces excellence within the discipline but does so at the cost of the mental health of researchers who are not at the top, most specifically, graduate students [34]. As more and more undergraduate students choose graduate education, the number of graduate students aiming to get to the top increases [35]. Unfortunately, the pinnacle still holds few places, so most graduate students never make it to the top. In the meantime, unable to recognize truth related to their discipline at the level at which they research, if they leave their graduate studies, they feel as if they have achieved nothing of value, increasing their anxiety and depression. Left to flounder, it is the culture of institutional neglect experienced by those students who are not at the top that causes them to consider leaving their graduate work [36].

If graduate schools are truly serious about wanting to improve the graduate student experience, they need to question and change the status quo regarding the research life of a graduate student in a way that will maintain excellence in research pursuits but at the same time improve both mentorship and supervision to lessen the anxiety and depression experienced by an increasing number of graduate students, particularly those from underrepresented groups. The aim needs to focus on reducing the isolation of graduate students—creating a community of researchers who work together, rather than merely in competition with each other. As such, the type of model and approach to graduate studies that perhaps could be created to have the best chance of success is the one to be proposed here.

3. Promoting Resilience through Self-Direction in Graduate Work

Arguably, the most important difference between graduate studies and other forms of learning is the necessity of graduate students to be able to self-direct their learning. Nevertheless, students’ transition toward internally driven ways of meaning making are not without difficulties [37]. The importance of self-direction to promoting resiliency in higher learning has been recognized [38]. Yet, if unreflective about their approach to their studies, graduate students may turn to supervisors and look for mentors to tell them exactly what to do or who impose a structure that guides them through a pre-determined process [39].

Graduate students who look for this type of other-directed support by supervisors and mentors are those who have traditionally been referred to as requiring “hand-holding” by graduate faculty [40]. Yet, students have good reason to worry about not doing what is required given the hierarchical relationship between graduate students and their supervisors and mentors when, among other things, a very important consideration for them is the increasing burden of their student debt [41]. There are many considerations regarding how graduate students select those who can advise them given the various limitations imposed by this hierarchical structure [42] including the increasing call to de-colonize supervision in Western universities [43].

Introducing narrative research to graduate studies is one proven way to reduce the weight of the hierarchy and make the graduate student feel comfortable and supported.
in self-directing. It can also have a positive influence on the groups and organizations in which they work [44].

What graduate schools have not investigated at an institutional level is non-hierarchical mentorship and supervision of graduate students. In this model employing narrative research, beyond organizing research by discipline, researchers become part of interdisciplinary and multi-academic level groups where each person’s contribution as a point of view is considered equal and necessary to the group.

4. Two Ways to Approach Truth through Research

Bruner [45] referred to two different ways of knowing. The first he identified as the paradigmatic mode of thought which draws on reasoned analysis, logical proof, and empirical observation used to create an unambiguous objective truth that can be proven or disproven. The second he referred to as narrative—knowing created and constructed through stories of lived experience based on meanings created to make sense of ambiguities and complexities in life.

Standpoint theory developed from differentiation of this identified dichotomy from a debate that constructed this theory as an alternative to methodological positivism [46]. Since that time, standpoint theory evolved to have a more general role as permitting the creation of alternative knowledge that destabilizes mainstream knowledge organized to ignore or exclude underprivileged groups [47]. It stresses the importance of experiences from particular points of view in developing truth.

It is in regard to how they view truth that graduate students can become anxious and depressed about their work. With respect to this identified two-fold way of obtaining knowledge, the truth researchers are investigating can be conceptualized as a landscape with obstacles. To contend with those obstacles, the two approaches to truth [48] can be presented best through an analogy.

4.1. First Approach to Truth

The first approach to truth is to climb to the top of the highest barrier and survey the landscape of truth from the loftiest point. This, in effect, represents the competitive research undertaking that graduate students generally find in their disciplines. Obstacles in the landscape of truth are barriers to eliminate through climbing higher; and higher views supersede lower ones because research is recognized as hierarchical. The purpose in this view of truth is to create the most accurate aerial view of the landscape dependent on the view at the top. It is a view, attainable by very few, that only those holding the esteemed position of being at the top of the discipline can achieve [49].

Once a researcher is at the top in disciplinary research, the researcher is excellent at identifying relationships both quickly and expansively. This type of research produces clear and comprehensive views. The problem is, before the researchers in this hierarchy are at the top, they are unable to get an unobstructed view and what it is they see may be at the time unrecognizable, and then they understand as distorted, once they are able to climb higher over the obstacles. Graduate students following this hierarchical model for their research may be told analogously by their supervisors that there is an unimpeded view at the top; however, until they are able to reach the summit, their lack of clarity regarding the truth of their discipline leaves graduate students stressed to the point of becoming anxious and depressed [50]. Yet, most graduate students remain silent about their uncertainty and resulting anxiety and depression [51].

4.2. Second Approach to Truth

The second approach to truth is that which is defined by narrative research [52] where each researcher is considered equal in having a unique, identifiable and communicable position that can be shown in the landscape [53,54]. This uniqueness represents their point of view regarding the obstacles and, rather than climbing to the top to get an overall view of the landscape, obstacles in the landscape are interpreted as landmarks to use as signposts
in constructing various routes around the landscape [55]. Each point of view is equal in being necessary in successfully navigating the landscape of truth as the routes created from one point of view to another can be added together in a way that is non-hierarchical—as such, creating a “street view” of the landscape.

The aim in non-hierarchical narrative research is to connect researchers and understand different points of view given the obstacles with which each researcher contends. In narrative research, all points of view are necessary [56] in order to get a complete picture of the landscape of truth—a view inspired by the later work of Wittgenstein [57]. Based on this view, supervisors are those who have more experience explaining their position in the landscape to graduate students while mentors are those who, by identifying how to get from their point of view to that of the graduate student, help the graduate student in developing routes to other points of view. It is in having a position qua position that the point of view of both the supervisor and mentor is equal to that of the graduate student. Accepted as an equal, working alongside their supervisor and in association with mentors, graduate students as narrative researchers can avoid the anxiety and depression of the graduate student when working hierarchically.

5. The Health Narrative Research Group

In bringing the method of narrative research to the process of mentorship and supervision, how these groups could be structured would be similar to the Health Narrative Research Group (HeNReG) facilitated through the University of Toronto Faculty of Medicine since 2015 [58] as part of Team Narrative associated with the Toronto Mount Sinai Hospital [59]. The facilitator, the author of this paper, has received two awards from that academic institution for program excellence in results [60,61].

Among a number of scholarly initiatives in faculties of medicine devoted to narrative inquiry [62–66] the HeNReG differs by its focus on narrative research in comparison to narrative medicine. Although each of these programs is devoted to narrative—the telling of events [67]—a focus on narrative medicine relates to medicine practiced by recognizing, absorbing, interpreting and being moved by the stories of illness [68]. In contrast, narrative research does not conceptualize the teller of the story as a patient in need of healing. Instead, narrative research is the study of how human beings experience the world dependent on the stories they tell and the interpretation they give to those stories based on their understanding what they value of those stories [69]. Narrative research aims to explore and develop human experience in textual form [70] offering insight and meaning rather than cure.

Narrative medicine, in being an aid to the practitioner to heal the patient, maintains a hierarchy of inquiry. On the other hand, narrative research, as originating from what is personally valued by researchers, is an activity undertaken among equals.

5.1. Purpose

The (HeNReG) allows researchers the opportunity to take the personally relevant stories that initiated their commitment to health care and develop them into narratives with a particular point of view. The process includes both personal reflection and the willingness of the researchers to share their stories and gain additional insights from the rest of the group. The aim is to help researchers reduce the anxiety and/or depression that often accompany work as a researcher. Information on the efficacy of this group from a number of perspectives—especially with respect to COVID-19—has been published in various journals [71–74].

5.2. Membership

The HeNReG is a weekly, voluntary, non-credit group, free of charge, open to any member of the university community interested in health care. Diversity of membership is both supported and encouraged. The group includes students (undergraduate and graduate), faculty, administrators and alumni, each representing various marginalized groups.
among them. Participants range from disparate disciplines. For the 2020/21 academic year they include: Diaspora and Transnational Studies, Paediatrics, Education, Statistical Science, Economics, Bioinformatics and Computer Science, Narrative Research, Social Work, Information Science, English, Neuroscience, Psychology, Bioethics, Family Medicine, Health Studies, Immunology, Medicine, Drama, and East Asian Studies (see Table 1).

Table 1. Membership to the HeNReG for the 2020/21 academic year by academic group to which each member belongs, their discipline, and if belonging to a marginalized group, from information provided by the researchers’ own accounts. The table presents the diversity of membership with respect to these three variables.

| Academic Group     | Discipline                                      | Marginalized Group |
|--------------------|-------------------------------------------------|--------------------|
| Alumni             | Diaspora and Transnational Studies              | -                  |
| Graduate Students  | Paediatrics                                     | Arab               |
| Administrators     | Education                                       | -                  |
| Alumni             | Statistical Science                             | East Asian         |
| Alumni             | Economics                                       | -                  |
| Alumni             | Bioinformatics and Computer Science             | East Asian         |
| Graduate Students  | Narrative Research                              | African            |
| Faculty            | Social Work                                     | -                  |
| Graduate Students  | Information Science                             | East Asian         |
| Faculty            | English                                         | African            |
| Alumni             | Neuroscience, Psychology, Bioethics             | Southeast Asian    |
| Faculty            | Medicine                                        | East Asian         |
| Graduate Students  | Social Work                                     | -                  |
| Graduate Students  | Education                                       | -                  |
| Undergraduates     | Health Studies and Immunology                    | -                  |
| Alumni             | English                                         | South Asian        |
| Undergraduates     | Medicine                                        | Arab               |
| Graduate Students  | Drama                                            | Homosexual         |
| Alumni             | East Asian Studies                              | East Asian         |
| Faculty            | Medicine                                        | Latin American     |

5.3. Method

The HeNReG elicits the points of view of the researchers regarding how they see themselves as healthcare researchers through five-minute writing prompts that follow a process. The purpose of the prompts is to take the researcher’s story and develop it into a narrative with a particular point of view. It is a method reflecting standpoint theory that acts as an example of Wittgenstein’s philosophy of therapy undertaking [75] and emphasizes Russell’s view that education with the freedom to develop a contemplative habit of mind is necessary to promote an appreciation for what is intrinsic to the significance of knowledge [76].

The prompts, developed by the facilitator, are arranged in a particular order. The first prompt of the year is “Describe yourself regarding your research related to health.” This prompt elicits the story representing what is valued of their research by the researcher that is the basis of their answers to the prompts that follow.

Questions are then asked every week of participants to construct each researcher’s point of view on their research story. Members are requested to respond to the questions stream of consciousness, aiming to write for no longer than five minutes. The questions are arranged weekly from those that are most objective to those that are increasingly subjective to recognize that researchers taking this risk to provide insight into themselves is both fact-laden and value-laden, containing both objective and subjective components [77]. As such, this is the order of questions: “when,” “where,” “who,” “what,” “how,” and then “why.” For the HeNReG process, the first four questions (“when,” “where,” “who,” “what”), have four weeks of prompts; the next two questions (“how,” and then “why”), six weeks of prompts each. “How” and “why” questions have two additional weeks compared with
the others as these questions promote a deep level of thought regarding what is valued by researchers about their research, additionally aiding the inquiry (see Table 2).

Table 2. The order of each of the six type of questions (from most objective to most subjective) in how they posed over the weeks during the academic year at the HeNReG meetings and the number of weeks each type of question is the focus.

| Rank of Question Objectivity | Order of Questions Posed by Weeks | Number of Weeks Posed |
|-----------------------------|-----------------------------------|-----------------------|
| 1.                           | When                              | 4                     |
| 2.                           | Where                             | 4                     |
| 3.                           | Who                               | 4                     |
| 4.                           | What                              | 4                     |
| 5.                           | How                               | 6                     |
| 6.                           | Why                               | 6                     |

5.4. Online Communication

A private Facebook group is set up yearly by the facilitator for the purpose of communication. For the 2020/21 academic year, as a result of COVID-19, there have been no in-person meetings of the HeNReG. All meetings have taken place synchronously on the hybrid private Facebook group. In order to participate in the weekly meetings, all members of the HeNReG must become Facebook friends of the facilitator to be invited to the private Facebook group. Members may or may not decide to become Facebook friends with any of the other participants.

The facilitator posts the descriptions that have been provided by participants in answer to the first prompt for each member at the initial online meeting. At subsequent meetings, the facilitator poses the question of the week through individual messages via Messenger and participants ask additional questions of each other in the private Facebook group, making sure their question begins with the same word of the week. The facilitator, during the synchronous, weekly, two-hour meeting, posts responses to the prompts and poses questions to each member. Members are encouraged to ask further questions to each other on the private Facebook group either during the synchronous meeting or another, convenient time for them. As well, they are to read the posts they are receiving regarding their research on the private Facebook group and respond to questions posted by other members either synchronously at the time of the meeting or asynchronously at another time (see Figure 1 for a visual representation of this process).

5.5. Doodling

Another aspect of the HeNReG that has been shown to help reduce anxiety and depression is the promotion of doodling during the academic meeting [78]. Everyone participating in the online meeting is encouraged to doodle over the two hour period. Doodling can be done throughout the meeting at any time members are not otherwise engaged with posing questions to others or answering questions others have provided regarding their response to the writing prompt. At the end of the meeting, members are asked to send their doodles to the facilitator who then posts their doodles and their descriptions of the doodle on the private Facebook group. Doodles are added to the HeNReG process during the third-last and second-last functions as seen in Figure 1.

5.6. Feedback

Feedback for the HeNReG is formally requested by the facilitator twice per year, at the last meeting in December and the last meeting in April. The feedback form is one common to the Health, Arts and Humanities Program of the Department of Psychiatry, University of Toronto and is given as a Google survey to be completed online. The results of these surveys are compiled and then conveyed to the Chair of the History of Medicine Program (the academic home of the facilitator) and the Director of Health, Arts and Humanities in
the Department of Psychiatry. The information serves to enhance the program’s delivery and conceptualization and record participant satisfaction.

5.7. Potential Applications of the HeNReG Method

The HeNReG is a group focused on health research serving approximately 20 researchers per year in various stages of their research programs. However, narrative research groups need not focus on health. They could apply to the complete experience related to graduate studies. In this case, the initial request of the researchers could be, Describe yourself regarding your research? As well, many groups of twenty could be set up to serve additional researchers.

6. Proposed Graduate Narrative Research Groups

Adopting this model of mentorship and supervision—as self-directing, non-hierarchical, and supportive of developing personal narratives—can be expected to reduce the anxiety and depression increasingly faced by graduate students as it has in the University of Toronto, Faculty of Medicine with the HeNReG. The role of graduate mentorship and supervision would be to introduce this model beginning with those directly associated with each aspect of graduate education. This model must be understood and championed by those invested graduate studies for them to be ambassadors of the model.

6.1. Phase I

In keeping with the intent of non-hierarchical methods, the way to approach the various stakeholders of graduate education is by initially finding out and recording their current views on graduate supervision and mentorship before any new model is introduced. Regarding the non-hierarchical approach, the stakeholders include everyone involved with graduate education: graduate students through their elected student body, graduate faculty through their elected academic representatives, graduate studies administrators, the support staff for graduate education and graduate alumni. The process to be followed during Phase I is illustrated in Figure 2.

Figure 1. Weekly activities created and administered by the facilitator of the HeNReG for participants over each academic year.
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Figure 2. Process facilitator follows during Phase I of developing and presenting a report on current views of various stakeholder groups regarding graduate supervision and mentorship at a university. Depending on the responses given, the process may need to be repeated.

The first few months of implementing the proposal would entail the facilitator contacting by email, and then meeting with, as many representatives from each of these groups as possible. In keeping with the restrictions of COVID-19, these meetings would take place with a video conferencing tool, the most popular being Zoom. When the facilitator contacts these various groups, members would be asked what they think of the current methods of graduate supervision and mentorship. Recording and analyzing their responses using qualitative research methods appropriate for narrative research [79] would take place well before they are introduced to the notion that a major change is planned to take place in how both are undertaken.

After this preliminary information is gathered, the facilitator—in administering this process—would compile it and write a report on the current perceptions of graduate supervision and mentorship associated with graduate studies in the academic institution. This report would be submitted to the graduate studies administrative team and presented to the elected members of the faculty, students and alumni. A forum would also be set up to present the results to graduate support staff.

In presenting this report, the facilitator would look for feedback from the stakeholders. The feedback given may result in a repetition of the process. The questions asked and the concerns provided would be those incorporated into the next phase of modifying graduate supervision and mentorship at the academic institution to increase self-direction and decrease anxiety and depression in graduate students through non-hierarchical narrative research—a Delphi method of group decision making [80].

6.2. Phase II

Those directly involved with graduate education would be invited by the facilitator to become part of one of a number of Graduate Narrative Research Groups based on the work of the Health Narratives Research Group, since 2015, in the Faculty of Medicine, University
of Toronto. Potential members directly associated with graduate studies—students, faculty, administrators, support staff and alumni—would receive an email from the facilitator asking if they would like to be involved in a pioneering project to improve their own understanding of their relationship to graduate education and, at the same time, help other members of graduate studies understand theirs. If they agree, they would be sent information on how the group would operate, including being part of one of the of a number of private Facebook groups set up for only these members.

The groups would be created with the intent of having a diverse composition including representatives from all academic groups and various academic disciplines. As well, it would be welcoming of those from marginalized groups. Once the groups are formed, the facilitator would send weekly prompts to the group members over Messenger for them to respond to in writing for five-minutes. How many groups are formed will depend on the number of representatives of the various stakeholders in graduate education at a particular institution. Their response would be posted to the private Facebook group set up for each group during a two-hour synchronous time period in which members of the group can ask questions of the others to clarify the relationship each member has to graduate studies and answer questions they themselves receive from other members.

The initial prompt would be, “Describe yourself regarding graduate studies.” From that question, each week a new prompt would be provided starting with questions that are most objective and moving to those that are increasingly subjective. As such, the prompts would be questions that begin with “when,” move to “where” questions, then “who,” “what,” “how,” and “why.” The different private Facebook groups would have their synchronous meetings at separate times organized by the facilitator. It is suggested the groups would run for 24 weeks from the first week of October to the last week in March with four weeks of each type of question (differing from the HeNReG, which runs for 28 weeks) to have group ending date coincide with the academic year-end to reduce the likelihood of members not completing the process. The reasoning behind this is that, although 6 weeks each for “how” and “why” questions have been found most effective in the HeNReG, the Graduate Narrative Research Groups would be tied with the graduate studies administration and, as such, their meeting schedules would be in line with the academic year.

Concurrent with the question asking of the synchronous meeting, group members would be encouraged to doodle as they wait for others to ask and answer questions. The purpose of the doodling is to help to reduce any anxiety and depression in group members who are experiencing these difficulties. The ability of doodling to act as measure of the mental state of some researchers has been demonstrated in HeNReG groups and has been reported [78].

Being part of the proposed Graduate Narrative Research Group, those associated with graduate learning would see what it is like to experience non-hierarchical supervision and mentorship in that, for the purposes of the group, each person would be treated as equal in helping the others understand their relationship to graduate studies. This includes the facilitator of each of the separate Graduate Narratives Research Groups who would act as an equal member.

This method must be experienced to be understood. It is for this reason that a change can begin to take place in graduate studies related to supervision and mentorship only once representatives of all the stakeholders can themselves be part of such a research group where each person’s voice counts and is equal. This is a completely different type of supervisory and mentoring relationship than that with which most of those associated with academe have experienced.

These initial, narrative research groups would take place over one academic year. During this time, a feedback form would be provided twice yearly to all members of the each of the private Facebook groups, at the end of the fall term and again at the end of the spring term. The results from these feedback forms would then be tabulated and presented by the facilitator in a yearly report to the council with charge of graduate education at the
The need to improve supervision and mentorship in graduate studies results from increases in each of: the number of graduate students, the high cost of graduate education, the amount of information that must be absorbed and understood by graduate students, inequality and inequity in graduate education, and the expectation that graduate students are to publish regularly in peer-reviewed journals. Graduate education has become a
progressively high stakes, risky business. As a result, graduate students have become more reluctant to self-direct their learning. This is especially so as they view their own contribution to scholarship as limited and at the lowest rung of the academic ladder.

Yet, in order for graduate students to be successful, they must take the risk of being self-directed in their work [81]. How to do this has been the problem. Especially when graduate students may be suffering from anxiety and depression as a result of the enormous stress under which they feel, particularly as a result of the COVID-19 pandemic. Improving the supervision and mentorship that graduate students receive is a promising direction through the proposed Graduate Narratives Research Groups.

In these groups, mentorship and supervision have a different meaning than they do in hierarchical research. In these proposed research groups, mentorship is a joint undertaking of all members of each other. Supervision results from those members who are most able to communicate their positions. In other words, the more easily and completely your point of view regarding your research is understood by others in the group, the greater your role as a supervisor. As such, “mentor” describes members willing and able to provide questions to other members to encourage them to look more deeply at what they value in their research, helping them to develop routes to what is known by other researchers. In these roles, rather than telling graduate researchers what to do from their particular hierarchical position, each member is able to reach out to others to form an equal, academic connection.

The expectation is that, based on their experiences participating with a Graduate Narratives Research Group and with the help of the new policy with respect to supervision and mentorship, this type of non-hierarchical group supporting self-directed learning and the development of equal community through narrative research would be able to be initiated by any person associated with graduate studies to help with self-reflection on their relationship to graduate studies. Yet, this does not mean that all are suitable to initiate these groups. There are particular characteristics of the kind of person who can act as a facilitator to these types of groups.

Important to the success of these Graduate Narratives Research Groups is the ability of the facilitator to gain the trust of all those participating in each individual group [56]. Given that the group is grounded in non-hierarchical relations, the most necessary requirement for a facilitator is an understanding of, and familiarity with, participating in non-hierarchical groups where the facilitator has been an equal member. Such a person would have been drawn to such organizations in the past in both student government and broader university relations. As well, the person best suited to act as facilitator would be an active alumni member, volunteering their time to mentoring, at their alma mater. The reason for expecting this level of institutional engagement from the facilitator is so the facilitator is aware of the “street view” of each of the representative groups and, as such, can be trusted by these groups—important ingredients to the success of narrative research [82].

The facilitator should also be creative in originating writing prompts and distributing them to group members by Messenger, methodical in posting information to the private Facebook group and persistent to keeping participants involved—sending messages to engage them in the online discussion when they are on Facebook but have not yet signed on to the group to participate. Furthermore, the facilitator should have the ability to think constructively about the feedback received by the group members twice a year to find ways to improve the functioning of the group based on the responses that participants provide. Without this level of commitment from the facilitator, the ability of the Graduate Narrative Research Groups to remain together and functioning weekly is compromised.

With respect to the outcome of the Graduate Narratives Research Groups, the facilitator should be capable of devising policy for the mentorship and supervision of graduate students in collaboration with all stakeholders. At the same time, the facilitator should be able to analyze and evaluate the groups’ results as a form of qualitative research relevant to narrative research to be published in appropriate and significant peer-reviewed journals.

The facilitator needs to also be aware that other non-hierarchical groups have identified that those who participate in such groups—entirely conditioned to hierarchy and accepting
of its necessity—may see the narrative groups as a waste of time and merely an opportunity to focus on themselves without regard for what they might learn from others [83].

To mitigate these concerns, the facilitator of this model would focus on taking note of group participants who appear to be getting less from the opportunity to self-direct their learning than others and communicate with them about these concerns over Messenger. Messenger is chosen over Zoom because the conversations can be recorded and used in documents by the graduate student. Yet, it is less formal and less intimidating than the use of email, which may be interpreted as a method of communication associated with hierarchical structures not in keeping with the interests of current graduate students [84].

Finding such a facilitator will not be simple. However, once identified, the facilitator will have the ability devise and initiate and maintain each of the three phases suggested for creating these non-hierarchical narrative research groups to encourage self-direction and consensus decision making in graduate students.

8. Limitations

Although this inclusive, non-hierarchical model has good results with respect to decreasing anxiety and depression in graduate researchers, the ability of the model to be effective depends on various factors that represent limitations to its applicability.

8.1. Zoom, Facebook and Messenger as Online Platforms

There is a video conferencing platform proposed for Phase I in gathering information for the Graduate Narrative Research Group. Currently the most popular platform as a result of COVID-19 is Zoom. It should be cautioned it is a commercial platform and has not been developed specifically for academic meetings. As a result, it has its limitations. These include a 40 min limit on the time of meetings unless an upgrade is purchased [85], problems with participants “freezing” on the screen if their internet connection is too slow [86], and if the connection is stopped entirely the participant appears on the screen in a different location than previously [87]. Each of these limitations contributes to Zoom fatigue [88]. As such, it requires substantial planning and resources to ensure equal and adequate participation using Zoom—an imperative for developing these types of Graduate Narrative Research Groups [74].

Furthermore, the hybrid (including both a synchronous and asynchronous feature) conferencing platforms that are used to undertake these narrative research groups are Facebook and Messenger. They too are commercial platforms that have not been developed specifically for academic meetings. Their limitations include issues of privacy, especially for inexperienced uses [89,90] and a lack of control by the academic institution over the content, as the private Facebook group entries and the Messenger texts belong to the facilitator rather than the academic institution [91]. Given that the Graduate Narrative Research Groups would be part of the graduate administrative body, this lack of institutional control of the content of the group must be weighed with the ability of these online platforms to successfully engage potential group members.

8.2. Contacting Stakeholders

With certain of the stakeholder groups, who it is that would be included in these video conferencing meetings for Phase I would be evident—there are a limited number of graduate studies administrators, for example, and who they are and how to get in touch with them is easily determined. For other groups, such as graduate alumni, contact information may be out of date and include duplicate records. As such, getting in touch with all those recognized as involved with graduate education may take time and effort on the part of the facilitator.

8.3. COVID-19

A final limitation is the COVID-19 pandemic itself. As of March 2021, Pfizer, Moderna, Oxford-AstraZeneca, and Johnson and Johnson have produced vaccines that are being
administered worldwide. The first three each require two doses, the timing of which is less than thirty days apart [92,93] while the Johnson and Johnson vaccine is a one-dose alternative [94]. Yet, there is a scarcity of material and labor to create the billions of doses required [95]. Until enough people have received the vaccine, lockdown measures are considered the most effective strategy to stopping the spread of COVID-19 [96]. These lockdowns place an additional strain on graduate students with respect to worry concerning their own health and that of their families as well as a decreased ability to be productive as a result of working at home while contending with family matters [97]. Although graduate students may want to participate in these non-hierarchical Graduate Narrative Research Groups, the toll of the pandemic on their personal and professional lives may be too great for them to find the time or energy to participate.

It is unknown how long COVID-19 will be so prevalent that lockdowns must continue. However, not all graduate students are equally affected by the constraints of lockdown. The overriding feature for determining the ability of people to cope with lockdown appears to be resiliency. Furthermore, psychological resilience in the face of the pandemic is related to modifiable factors including physical exercise and personal support by family, friends and a clear belief system [98]. Yet, given that the aim of this proposal is to help reduce anxiety and depression in graduate students, these students are those less likely to demonstrate resilience. Therefore, it can be anticipated that they will be more affected by the lockdowns than other graduate students and less able to engage in modifiable factors. Fortunately, cognitive emotion regulation strategies can contribute to resilience in patients with depression and/or anxiety disorders [99]. The proposed Graduate Narratives Research Groups in stressing self-reflection is one such strategy.

9. Conclusions

The importance of effective supervision and mentorship through non-hierarchical methods has become increasingly clear and prominent [100,101]. As well, the need for institutional reform in graduate education has become evident [102]. If this proposed model for introducing self-directed learning through narrative research is initiated in graduate studies this would be in line with supporting diversity, equity, fairness and ethical conduct in graduate education. At the University of Toronto, these goals are part of the mission statement of the School of Graduate Studies [103]. As well, it would do much to encourage a close and positive relationship between graduate students and their supervisors and mentors. Furthermore, it would improve the student experience and support mental health, especially of marginalized groups, during the COVID-19 pandemic.

Graduate mentorship and supervision are seen to represent an area primed for new models and approaches. The method and approach to graduate mentorship and supervision that has here been proposed is one that has proven successful in the University of Toronto Faculty of Medicine since 2015. It would be a coordinated effort across multiple units, one that is highly visible and, through the research that would be undertaken and submitted for publication in peer reviewed journals by the facilitator of the model, a program that is a leader to help bring about the change. During the COVID-19 pandemic, the need for a new model for graduate mentorship and supervision is imperative. The model outlined in this proposal has the ability to not only to improve graduate mentorship and supervision during COVID-19 times, it also offers a lasting solution to reducing anxiety and depression suffered by an increasing number of graduate students.

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