

Reflective piece**Doctoral supervision in developing countries: desperately seeking the Scholarship of Teaching and Learning****Pammla Petrucka**College of Nursing,
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ABSTRACT

This reflective paper presents a contextual overview of doctoral supervision in low- and middle-income countries. It highlights several models or frameworks used in Western academic settings. Through a critical lens it considers a number of the opportunities and gaps, which may reframe and/or reform doctoral supervision in the low- and middle-income settings. It identifies a significant gap in the evidence and scholarship on the topic of graduate supervision in developing contexts. In the current and evolving higher education milieu and the global emergence of the knowledge economy, the topic of graduate supervision can no longer go without a serious and fulsome discussion.

Introduction

Twelve percent of the world's population is in sub-Saharan Africa; however, less than 1% of all research outputs emanate from this region (World Bank 2014). This deficit position is attributed, in part, to the variance of numbers of doctorate (PhD) holders in low-income countries versus high-income countries (Africapedia Research 2016). For every million people in high-income countries there are 3963 PhDs, whereas in select Africa nations (such as Tunisia, Egypt, Kenya) the number ranges from 100 to over 1500; but, in most low-income countries (such as Ethiopia, Uganda, Tanzania) this number falls to less than 100 (World Bank 2014). Some have suggested a target of 100 per million by 2030, but this is arbitrary and somewhat aspirant given the current lack of qualified PhDs to operationalize the required supervisory needs to generate the next generation of doctoral graduates (Cloete, Mouton & Sheppard 2015).

As we consider this persistent disparity, we are taken through an academic context replete with inequities. The dominance of Western academic models (Altbach & Selvaratnam 1989), which dictate faculty and student experiences, degree and institutional structures, and scholarly efforts, cannot be overlooked. The Western (primarily English-language) preeminence continues to control production and distribution of knowledge leading to the repression of intellectual and cultural autonomy (Altbach 2004). As we continue to unpack this issue, we must recognize that developing countries (the so-called majority world) are experiencing the dual burden of the highest levels of higher education expansion with the lowest levels of resources (human, fiscal, and experiential) (Murissa 2015). The massification and societal demand for highly educated personnel (Pearson, Evans & Macauley 2008) has historically led to the outflow of academic potential from South to North, with nearly 80% of international students globally emanating from developing countries. The so-called brain drain has been responded to, in part, through technological and organizational strategies, such as distributed learning and multinational initiatives (such as twinning, franchised and open universities) (Outward bound 2002). But, these solutions remain embedded in and dominated by Western academic models. Given this, the need to establish Southern-based supervisory approaches for PhD programs in low- and middle-income contexts is readily apparent.

As efforts to establish PhD programs in low- and middle-income countries increase, so does the imperative to ensure a Southern-informed quality supervisory environment. And, on this topic the silence becomes deafening. Students in a South African context indicated that the quality of the supervisory relationship was one of the most important factors in deciding on where to pursue a PhD program (Cloete, Mouton & Sheppard 2015). And, the quality of that relationship is contingent upon several factors including credentials, quality of feedback, and perception of roles. Again, substantive literature from the Western perspective exists on power issues (Manathunga 2007) and threats to PhD completion (Burton & Hoobler 2006; Heath 2002; Lian, Ferris & Brown 2012), with incidental contributions from Bloom, Canning and Chan (2006), Lee (2013) and MacGregor (2013). Fundamentally, the lack of evidence of PhD supervisory models for Southern-based programs potentially compromises the success of programs, faculty, and, most importantly, students in this emerging context. The student/supervisor relationship has been highlighted as critical, if not the most important, element of graduate student success (Grose 2011; Jairam & Kahl 2012; Spaulding & Rockinson-Szapkiw 2012).

Within the extensive scholarship of teaching and learning contributions related to quality PhD supervision (Carr, Lhussier, & Chandler 2010; McSherry & Bettany-Saltikov 2014), we are provided with a range of models (Hemer 2012) and metrics of quality (McSherry & Bettany-Saltikov 2014; Spiller, Byrnes & Ferguson 2013). However, these studies seldom consider and/or focus on the global South or the realities of PhD supervision in resource-limited environments, leaving those of us practicing and participating in such contexts to seek out and implement interim rather than integrated and evidence-informed solutions. There is a significant opportunity for academics based in these settings to address this deficit through reflective, experiential recounts of their supervisory strategies and learnings. Also, there is a need to intentionally revisit and document the supervisor role and contribution to the quality of the relationship and the supervisory environment to inform potential models which are contextually responsive. But we must be cognizant of the complexity of such an effort when one considers that some research suggests that supervisors may assume as many as 16

different roles (Down, Martin & Bricknell 2000). Additionally, there is an urgent need to address the gap in metrics and outputs for supervisory success in low- and middle-income country (LMIC) contexts. The classic elements of numbers supervised, on-time completion, publication outputs, funding success and post-PhD employment (Spiller, Byrnes & Ferguson 2013) are often reflected in reports, but no evidence of locally or contextually relevant indicators was found. Through the scholarship of teaching and learning, we can begin to explore and share how to capture and measure impacts of international research collaborations, exchange opportunities, industry links, and program accreditations in strengthening PhD supervision in Southern LMIC contexts.

As one considers models of higher education supervision, it is quickly evident that no single model, or set of attributes, clearly exists in any setting. Some speak of the focus of the relationship; others of the composition of the supervisory team; and some of the roles of the supervisor (Grant 2001; Pearson & Kayrooz 2004). With regards to focus, many authors discuss models that are task- or thesis-oriented, as opposed to those that focus on professional development, or are relationship- or person-oriented. The task-oriented model centers on the orderly and timely completion of the thesis and, despite its efficiency and logistics, this model does little to build the supervisor-supervisee relationship, often converting it into a relationship more akin to manager-worker. The professional development-oriented model focuses on moving from student to academic with the effort being on engaging and building the next generation of scientists, and with a tendency towards enculturation of the supervisee into academe. Finally, the relational model links the academic and the personal in a collegial and more situational manner which often evolves due to prolonged engagement and mutual interest and results in altering roles as a friend, confidante, idol/protege, and mentor (Garvis & Pendergast 2012).

Ismail, Abiddin, Hassan, and Ro'is (2014) offer five distinct models including qualities (traits), mentoring, critical thinking, experiential learning and supervisory working alliance. The qualities model is as much a model as a foundational set of indicators, such as experience, resourcefulness, and confidence, for guiding a supervisee through to completion (Ismail *et al.* 2014; Wisker, Robinson, Trafford, Lilly & Warnes 2003). The mentoring model similarly variably appears as a skill or a role, but this model, some suggest, is about advancing the supervisee through activities, knowledge sharing, and support in a co-created non-judgmental positive environment (Pearson & Kayrooz 2004). Both the critical thinking and experiential learning models emphasize an open and dynamic learning environment with the first emphasizing the enculturation of the individual into discipline-based knowledge, skills, and attitudes whereas the second focuses on collaborative learning processes and created opportunities to enable higher level learning (Scager, Boonstra, Peeters, Vulperhorst & Wiegant 2016). Finally, the supervisory working alliance model is rooted in facilitation and advisory functions with a relational bond between the supervisee and supervisor to work on and achieve common goals (Sterner 2009).

Ismail, Abiddin & Hassan (2011) argue for the centrality of the supervisory role as a complex social encounter which builds professionalism, collegiality, and spirited open-mindedness. This 'socialization' imperative into academia has been described by Van Rensburg and Danaher (2008) as enculturation, but, in the global South, socialization often mirrors the international (primarily Western) education of repatriated supervisors rather than considered and locally relevant processes. On review, most models variably describe dual socialization into the roles of doctoral student and future disciplinary career paths (Bender, Katz & Palmer 2004; Lindén, Ohlin & Brodin 2013; Lovitts

2001; Weidman & Stein 2003). But, again, we meet the North-social variance. Regarding career trajectories in Western countries, the likelihood of a PhD graduate securing a tenured faculty position is in the range of 3% to 16% (Cannon 2016); but, in Africa, the need for PhDs to fill faculty positions is significant and will likely remain so for the foreseeable future (Cloete, Mouton & Sheppard 2015). Despite such divergences, no consideration of utility and/or relevance of these models in non-Western contexts has been undertaken resulting in an opportunity for Southern-based academics to reconsider and reframe the intents and outcomes of PhD socialization. Without such locally considered and constructed models the risk is to continue to perpetuate unresponsive and/or conflicting efforts which may fail to meet the contextual realities and preferred futures for doctoral supervisory excellence in LMIC settings.

As one reflects on these evolved PhD supervisory models, it is again apparent that they derive from Western academic contexts which have unique histories, philosophies, and attributes (especially language). The research on the effectiveness of these models has also been exclusively rooted in these same contexts, which is limiting when one begins to consider the LMIC post-secondary context which is relatively young as a whole, and infantile when one considers postgraduate studies. There are critical questions to be posited, studied, and revisited to build an understanding of what is necessary and sufficient for doctoral supervision in these emerging environments. What is workable? What can be adopted? What needs to be adapted? What should be rejected? What needs to be created? As alluded to earlier, the dearth of evidence is constraining and potentially detrimental to excellence in PhD supervision.

To envision the future models may be preemptive. But, before entering this discussion, it must be recognized that, even in the Western higher education context, there remains pedagogical absence respecting the supervisory relationship where the supervisor as researcher has dominated the supervisor as educator (and almost any other supervisory role) as described by Evans and Green (1995). At an observational level, there is a lack of sociocultural consideration in the existing models which is counterintuitive to the realities in most LMIC contexts. Issues of knowledge(s) and ways of knowing in these developing contexts are often rooted solely in scientific rhetoric, leaving little room for innovative committee membership or supervisory styles to embrace more Indigenous approaches to higher education supervision. Further challenges lie in the power relationships which are highly traditional in most LMIC academic contexts, yet many of the described models are intentional in efforts to equalize power and knowledge. These are but a few of the considerations that are required to develop more appropriate and functional supervisory models in the LMIC contexts.

Advancing the scholarship of teaching and learning on PhD supervision in the global South will challenge the silence, initiate the necessary dialogues, and potentiate the building of the long overdue evidentiary base for excellence in PhD supervision in LMIC contexts. Pearson (2001) stresses that supervisors must critically reflect on their own practices to bring clarity to what they believe, how they enact, and how they evaluate their supervisory involvements. We know little of the characteristics, beliefs, skills and aspirations of PhD supervisors in LMICs because of a lack of scholarship. We have not articulated the essence of global South (LMIC-relevant) supervisory capacities, opportunities and challenges simply due to a Western dominance of higher education approaches. We have gone far too long unquestioning and failing to hold the critical conversations and debates about supervision in these contexts. Pearson and Brew (2002) conceptualized scholarship in the area of supervision

development as adding new knowledge, contributing to knowledge dissemination (broadly), demonstrating professionalism, and making research relevant. This paper is a call to action for supervisors in Southern LMIC to purposively consider and build the scholarship of teaching and learning relating to this important yet neglected higher education imperative. The time has come to make the implicit explicit within this context, sharing the exemplars, revealing the best or promising practices, challenging the parameters, and building the evidence for potential future directions regarding the PhD supervisory process in Southern LMIC contexts. Whether we undertake reflection, critique or commentary (Bitzer 2007; Wolff 2010), we need to write about our supervisory experiences for the benefit of people and process.

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