

How are the dynamic and interactive elements of resilience reflected in higher education literature? A critical narrative review.

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ABSTRACT

There has been a proliferation of papers on resilience in universities in recent years, many of them focused on how educators can “make students more resilient.” Yet the meaning of the term is nebulous, and critics argue that the focus on individuals obscures wider systemic dysfunction. This paper reports on a critical narrative review informed by a multidimensional framework called the Dynamic and Interactive Model of Resilience (DIMoR; Ahmed Shafi & Templeton, 2020). We found three critical themes in the extant literature: a troubling lack of complexity and coherence in how resilience is conceptualised; unsupported assumptions inherent in typical resilience-training interventions; and incompatibility between traditional scientific investigative methods and the dynamic and interactive dimensions of resilience. We argue for a more considered approach to resilience within the sector, looking to co-create with all community members the conditions that are supportive of resilience: namely, connection, communication, challenge, compassion, and care. By profiling five illustrative examples from the literature, we suggest a way forward for practice and scholarship that embraces resilience in all its contextual and relational complexity.

INTRODUCTION

This paper first explains why a review on resilience in higher education is needed and outlines the benefits of a critical narrative approach to this task. It then describes an iterative review process over three stages, using the Dynamic Interactive Model of Resilience (DIMoR; Ahmed Shafi & Templeton, 2020) as a framework for analysis. Existing literature is then critiqued under three themes: variations in the interpretation of resilience; inconsistencies in the intended purpose of resilience-focused initiatives; and challenges in the application of dynamic and interactive aspects of resilience. Finally, by forwarding illuminative examples from the literature, we argue for a more nuanced and multidimensional understanding of resilience in higher education.

The need for a review on resilience in higher education

Interest in resilience has surged within higher education, such that it now has the unenviable status as a buzzword within the sector (Zembylas, 2021). Resilience, and associated concepts such as mental health and wellbeing, are now deeply embedded in contemporary higher education policy and practice (Hubbard & Bassa, 2023).

Higher education literature demonstrates much enthusiasm for investigating the impact of interventions targeting “student resilience.” There is a plethora of studies, of variable size,

scope, and quality; and an increasing number of systematic reviews attempting to synthesise findings from the burgeoning research canon. Kunzler et al.'s (2020) Cochrane review investigated effects of "resilience" interventions in health sciences students. Ang et al.'s (2022) systematic review, meanwhile, broadened the scope to all higher education. The shared conclusion of both these meta-analyses is that "student resilience" can indeed be modifiable through psychological interventions integrated within the curriculum in programmes of higher education. As reviewers, however, we would introduce caution, based on the profound variance in the nature and scale of the interventions to which students were exposed, and widespread differences in how 'resilience' was conceptualised and measured.

Scholarship of teaching and learning in higher education (SoTL) has also embraced resilience as a focus for conceptual discussion. Brewer et al. (2019) carried out a scoping review pertinent to all HE disciplines and usefully highlighted conceptual challenges associated with resilience, recognising it as a "contested term" (p.1115). In a more recent scoping review, Price (2023) warned of a "conceptually diffuse literature landscape" (p. 90). Both reviews endorse further critical examination of the concept of resilience.

Resilience thinking permeates many disciplines and contexts. Correspondingly, the concept has been subject to robust critique from perspectives ranging from geography (DeVerteuil & Golubchikov, 2016) to social work (van Breda, 2018) and mental health (Fisher & Jones, 2023). The key argument is that conceptualisations of resilience tend to locate responsibility for being or becoming resilient on individuals, thus ignoring complex social, organisational, and political influences (Martin, 2015). Particularly vehement critics attribute intention to powerful organisational and political systems for deliberately propagating a myopic or misdirected application of resilience (Fisher & Jones, 2023; Suslovic & Lett, 2024).

Higher education has been slower to embrace criticality around resilience, especially its inherently political dimensions (Hasty, 2017). Nonetheless, the individualisation of resilience has been critically associated with neoliberal ideology in higher education (Duncan et al., 2020). Zembylas (2021, p. 1969) cites Pollard (2014, p. 199) in conversation with Brad Evans, who speaks excoriatingly of how a "pedagogy of vulnerability" has replaced what should be a "pedagogy of oppression." Price (2023) warns that we should resist any conceptualisation of resilience in higher education which seeks to normalise pressure and a lack of adequate resource. This speaks to a significant issue within this discussion: the context of commodification, massification and globalisation of higher education and its attendant issues of insecurity, disconnection, and competition (Lederer, et al., 2021; Nicklin et al., 2019). In this regard, Ikpeme's (2022) blog post amplifies important international staff-student perspectives as it invokes notions of toxic positivity in which it calls the misapplication of resilience.

Interestingly, more indications of conceptual analysis have begun to emerge within the resilience literature focused on higher education. A significant contribution comes from the work of Adeela ahmed Shafi and colleagues, which is deeply cognisant of critiques that resilience has been misapplied in ways that neglect its complexity and ignore the responsibilities of wider systems. Following a systematic review of conceptual models that

incorporate interactive elements, they presented a critical chronology of resilience's conceptual development (ahmed Shafi et al., 2020) culminating in their novel Dynamic and Interactive Model of Resilience (DIMoR). Countering limitations of previous models, they posit that DIMoR "recognises individual agency and its complex reciprocal interactions both with other individuals but also with the wider system within which the individual is situated" (p. 183). Moreover, in a separate paper (ahmed Shafi & Templeton, 2020) the authors position the DIMoR model as valuable for "understanding resilience for learning in a range of educational contexts" (p. 17).

Accordingly, the time seems ripe for a critical review of how the resilience construct has been interpreted and applied within higher education. DIMoR provides a rounded analytical framework within which to critically consider resilience literature. Therefore, this critical narrative review asks the following questions:

- How are the dynamic and interactive elements of resilience, as outlined in the Dynamic and Interactive Model of Resilience (DIMoR), reflected in the literature on resilience in higher education?
- If we accept that dynamic and interactive elements of resilience are important, how can higher education move towards their more consistent integration?

METHOD

Rationale for adopting a narrative review approach

Given the recent proliferation of writing on resilience in higher education, yet the acknowledged conceptual confusion, we accepted Tight's (2018) contention that in circumstances such as these, there is much value in synthesising what is already understood before embarking on new research. We were persuaded by Sukhera's account (2022) of the benefits of narrative reviews in this situation: they can be the method of choice where complex topics require synthesis and nuanced re-thinking. Narrative reviews eschew the narrow focus and pre-determined constraints inherent in systematic searches, and instead embrace the opportunity to synthesise varied perspectives from diverse sources. Consequently, they can include voices not typically afforded entry to the more exclusive echelons of peer-reviewed publication, including those from the Global South (e.g., van Breda, 2018; Zembylas, 2021). It follows, then, that a narrative review is warranted, providing, as it does, the freedom and flexibility to incorporate varied perspectives on complex topics (Sukhera, 2022).

Doing a narrative review also appealed because it affords the opportunity for co-constructing meanings, in layers, and over time (Healey & Healey, 2023) rather than in a "one and done" linear paradigm. Narrative methods accommodate what is "essentially a circular process that you may go round several times" (Healey & Healey, 2023, p. 12). We were attracted, therefore to the inherent potential of the narrative review process to encourage both broad and deep reading, guided by reflection and discussion, revisiting, and (re)searching.

Reflexivity

First, we offer a note on reflexivity, as we acknowledge Sukhera's (2022, p.414) suggestion that narrative reviews give opportunities to "harness unique review team perspectives, which will shape the analysis." As the review process unfolded, we realised that we had been drawn specifically to co-creating a critical narrative review as we were keen to apply an "interpretative lens" (Sukhera, 2022, p. 416), melding both application of the DIMoR conceptual model and our lived experience(s) as university-level educators. Through this interpretation and synthesis, we aimed to add to the extant knowledge base.

We were enthusiastic novices in the scholarship of learning and teaching (SoTL), participating in a wider collaborative writing project. Before the project we did not know each other well. We were all new to the literature on resilience in higher education. Importantly, besides our ostensible roles as disciplinary-focused educators, we all had substantial pastoral responsibilities for university students and supportive roles towards university colleagues. This factor undoubtedly shaped our developing understanding of resilience as a community and contextually related construct and added piquancy to our discussions and reflections. Throughout the project, we all experienced times when those roles limited the resources (time, energy, conceptual clarity, and emotional availability) we could devote to the project, often in unanticipated and unscheduled ways. Uncomfortable personal and team experiences such as these were utilised reflexively in the development of our thinking and feeling about resilience in universities, underscoring our commitment to a view of resilience that encapsulates a sense of continually changing and reciprocal influences interacting within and between multiple individuals and systems simultaneously.

Our review process

There are limited guidelines for writing a narrative review when compared to a systematic literature review (Ferrari, 2015) but what follows outlines our search methodology in a desire to be transparent (Sukhera, 2022). The review was carried out in three phases, across seven months.

Phase One (September to January):

Discussion of papers found in personal searches began to foster a shared conceptualisation of the topic and enabled us to develop a consensus around the essential elements we felt were necessary for a rounded and multi-layered appreciation of the resilience construct as it applies to higher education. In writing a first draft outline of our review, our thoughts coalesced around two critical dimensions of resilience: interactivity and dynamism.

First, we agreed that resilience resides in a relational context (Rossetto & Martin, 2022; Russell, 2022). For us, it is best understood as something that exists and adapts *between people*. Importantly, it has reciprocal elements. Within higher education, then, student resilience and educator resilience can be either mutually reinforcing or, critically, either one can have a dampening effect on the other. Influences can be conveyed in multiple subtle but powerful ways within interactions and relationships. Therefore, while appreciating that elements *within* an individual's past, present and (perceived) future have a strong bearing

on their resilience-related experience (Holdsworth et al., 2019), we resisted conceptualisations that saw resilience as being solely confined within an individual (for example, Kokou-Kpolou et al., 2021). We eschewed a deterministic approach that sees resilience as being a static trait. Rather, we embraced the notion of resilience as occupying *the spaces in between* the important agents. We saw resilience as being created and continually co-created in fluid and adaptive resilience-related interactions. These we recognised as the interactive elements of resilience.

From here, our developing understanding gravitated towards the dynamic nature of resilience. We noted, for example, suggestions that student resilience waxes and wanes in relation to variation in educator resilience (Jay de los Reyes et al., 2022), and vice versa. Accordingly, we became intrigued by the multiplicity of wider influences that also have a bearing on the capacity of either, or both, to experience resilience in any given situation. Our thinking progressed, therefore; to consider, additionally, a range of constantly changing, impactful factors *beyond* the immediate partners in a resilience exchange. Drawn, therefore, to social-ecological and systems perspectives on resilience (Ungar, 2013), we became persuaded by the argument that structural and systemic factors, operating at several levels, exert substantial influence on resilience experienced by key players in any given situation. Included in the scope of such systems thinking would be aspects such as resourcing, policy, and societal expectations, among others (Downes, 2017; Ungar, 2013).

Phase Two (January to March):

In January, at a two-day event, we responded to comments of critical friends on our draft outline for the review. Facilitated conversations and activities helped us to (re)articulate our review intentions.

By this stage, we had identified that the higher education literature contains helpful models that illustrate some complexity around resilience, typically providing visual representation of ever-more distal levels within the system as a series of concentric rings (see, for example, Hubbard and Bassa, 2023). In discussion, we found ourselves dissatisfied, however, with the two-dimensional nature of nested models. We were troubled by what we perceived as their failure to explain the mechanism by which contextual influences operate, especially political and organisational elements (Duncan et al., 2020). To this end, we were drawn towards spatial representations, invoking notions of dynamism and reciprocity (Downes, 2017).

In response, we conceived of a tiered celebration cake, constructed from layers built upon each other (we found that a similar model had been applied to sustainable development goals by the Stockholm Resilience Centre). Critical for our developing conception of the resilience construct, though, and influenced by the engineer among us, we found ourselves concerned with binding agents between the layers providing connectivity, and struts going through them as a core, facilitating both transmission and overall strength. We imagined that students and educators might be considered figures on top of the cake, involved in a reciprocal and interactive engagement, but that they sit atop a structure comprised of multiple ingredients, fashioned into different layers, and held together (one would hope) by binding agents and central supports. The whole structure might rest on a surface; if level, the structure would remain sound; if de-stabilised, there would be a risk to the stability of

the whole structure. In this way, we started to conceptualise the complexity of the individual ‘nodes’ within a resilience system – and noted how each operates in an interactive and dynamic manner with its own system of systems (see Figure 1).

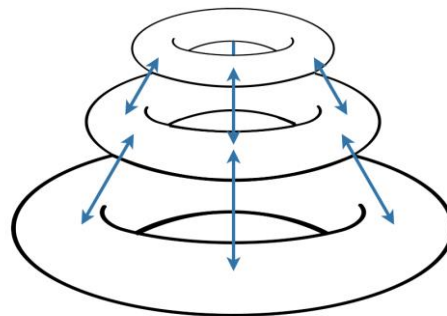


Figure 1 – developing the notion of interdependent systems which only remain stable due to the strength of other parts in the network

We resolved to return to the literature with the goal of seeking more complex explanatory models of resilience in higher education, specifically those highlighting how various parts of the system engage with each other in continually and mutually reinforcing ways.

A range of educational and social sciences databases were identified (Applied Social sciences Indexes and Abstracts, Social Services Abstracts, Education Database, ERIC, British education Index, Australian Education Index, CareKnowledge and Social Science Premium Collection). Again, for efficiency, we distributed them among us, based on personal interest (some of it, still, disciplinary, such as Civil Engineering Abstracts). Although by no means systematic or comprehensive, at this stage we used shared search terms, with appropriate Boolean operators (using a range of synonyms for resilience and for higher education). Individual reviewers maintained a focus on identifying papers pertinent to a social-ecological/ systems conceptualisation of resilience, monitoring the impact of applying a third search term containing synonyms for relational/ systems. The inclusion/exclusion criteria in Table 1 were applied to the results.

Table 1: Inclusion and exclusion criteria for the literature review

Criterion	Inclusion	Exclusion
Period	2014-present	Before 2014
Language	English	Non-English
Access	Online	
Type	Peer reviewed, book chapters	

These searches generated many results, many overlapping across the databases. Retrieved papers were reviewed by title (and, where appropriate, abstract), excluding topics beyond our scope such as climate change and school-age students. Importantly, reviewers were free to pursue any related avenues of interest as they emerged, conducting hand searches and pursuing items from reference lists. Further searches were carried out using Google and Google Scholar to widen the range of sources, seeking to capture pertinent literature more

serendipitously. There was an awareness of the “information monopoly” (Noble, 2018, p. 24) of sites such as Google and the highly commercial environment in which it operates with sponsored links. Articles found in this way were used as base articles (Healey et al., 2020) for subsequent snowball searches. Characteristic of a narrative review, therefore, our approach was highly selective, with us seeking to be “illuminatory, rather than exhaustive of the field” (Hockings, 2010 p. 21).

Phase Three (March-April):

Drafting our review consolidated our thinking and highlighted a need for more papers challenging the concept of resilience and its application within higher education. A further cycle of searching ensued, this time highly focused and purposeful in nature. Since voices dissenting from traditional orthodoxies are less likely to be published in traditional fora, we deliberately sought critical sources from the “grey literature.” Accordingly, more informal publications such as blog posts were welcomed, if they offered insights deemed valuable to our review questions, such as Ikpeme (2022). Our review, therefore, adopted a hybrid and at times highly purposeful search method (Wohlin et al., 2022).

Our framework for analysis and interpretation

Phase 2 (described above) revealed a model that attempted to account for all complexity that had been troubling us (ahmed Shafi & Templeton, 2020). The DIMoR model (Dynamic Interactive Model of Resilience) aimed not only to integrate essential aspects of the conceptual work to date (relational, contextual, systems) but also, by drawing on complexity theory, to encompass the multi-nodal nature of inter-related systems and the synergies between them. Discovering DIMoR confirmed that our thinking had evolved along an established pathway (ahmed Shafi & Templeton, 2020). DIMoR sees resilience as “the emergent property of a range of dynamic and reciprocal interactions between the individual and contextual systems” (ahmed Shafi & Templeton, 2020, p. 32). Moreover, “to illustrate complexity, the individual sub-system is perceived as moving on a trajectory...through its life course interacting with others, each with their own surrounding sub-systems and all within wider surrounding webs” (ahmed Shafi et al., 2020, p. 185). As the most conceptually complete model to date, DIMoR became the framework on which to base which our analysis of the literature (see Figure 2).

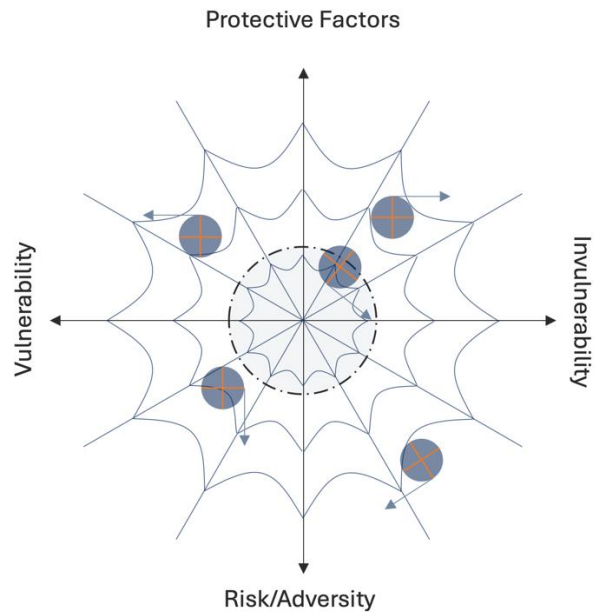


Figure 2 – The dynamic interactive model of resilience (DIMoR) (Adapted from ahmed Shafi & Templeton (2020) p. 33)

REVIEW FINDINGS

Our critique is presented below under three themes: first, variations in the interpretation of resilience; second, inconsistencies in the intended purpose of resilience-focused initiatives; and finally, challenges in the application of dynamic and interactive elements of resilience.

Theme 1: Variations in the interpretation of resilience

Even among its original and most enthusiastic adherents in developmental psychology, resilience has long been recognised as being afflicted by lack of clarity, consistency and/ or coherence in how it is defined (Luthar et al., 2000). A systematic review investigating how resilience is defined in empirical research found that there is no universal definition (Aburn et al., 2016). Among its most vehement critics, from mental health circles, it is decried as “a meaningless slogan” (Fisher & Jones, 2023, p. 186). Indeed, citing a term first introduced by Timms (2017) they reject resilience as “a weasel word” (p. 185), implying deliberate obfuscation or covert implied meanings.

Critique of the apparent definitional deficit within the higher education sector has been more circumspect, though no less impactful. Hasty (2017, p. 3) offers an elegant metaphor, with a clear warning, in writing that “resilience is something of a vessel, a ship to be outfitted and loaded with detailing appropriate to a given context...It is open to interpretation, and it is *how* it is interpreted which makes *all* the difference.”

There are significant differences in what, it is imagined, happens in the process or experience of resilience within university life (Ross et al., 2023). Some definitions focus on endurance during challenging times; for example, Hrabowski et al., (2024, p. 1) invoke the idea of “grit amid uncertainty.” Alternatively, resilience is often seen as “bouncing back” to a pre-adversity state, which is usually assumed (however erroneously) to have been a state of equilibrium (for example, Holdsworth et al., 2019; Walsh, 2022). Hence, Zulu et al., (2021,

p. 3) define resilience as “the ability to recover one’s strength, health, energy, spirit and motivation after experiencing a setback or adversity.” Further still, some definitions of resilience involve a necessary element of adaptation, of moving forward in a manner that evidences growth (Amsrud et al., 2019). In this vein, Low et al., (2019, p.321) define resilience in higher education as “the presence of positive coping skills during adverse experiences and the ability to self-regulate and move forward in a constructive manner following challenging situations.” While the definitions covered here so far infer individual capacities, some others emphasise the resources available to the individual in this process. So, for example, Brewer et al., (2019, p.1114) define resilience as “a dynamic process in the face of adversity. This process involves the capacity to negotiate for, and draw upon psychological, social, cultural, and environmental resources.”

So, where does all the confusion come from? First, resilience’s conceptual creep from application only in groups who had encountered substantial trauma to those who are simply undertaking education raises a fundamental question (Martin, 2015): is exposure to adversity a required part of the construct?

Additionally, there is clear divergence as to whether resilience is considered an intra-personal experience (Johnson et al., 2020; Kokou-Kpolou et al., 2021) or whether its definition expands to include interpersonal and contextual factors (Brewer et al., 2019). Much of the literature we identified leaned towards resilience as individual characteristic, a singular quality (Kelty et al., 2023; Manica & Manica 2023; Prickett et al., 2020), and this reflects the perception of many members of university staff (Brewer et al., 2021). Overall, we noted a pattern whereby papers would acknowledge contextual complexity in their introduction, then go on to adopt reductionist individualised approaches in their study design (Johnson et al., 2020; Kunzler et al., 2020). Therefore, the literature seldom considered community or contextual matters in a holistic manner. Compared to high volumes on student resilience, we noted a remarkable dearth of papers incorporating resilience of university staff. The few available papers focused on pandemic-related resilience (Jay de los Reyes, 2022) or on academics’ stress, with resilience seeming like an afterthought (Ross et al., 2023). As educators we noted, wryly, that a third paper (Brewer et al., 2021) targeted staff resilience purely as a means of enhancing student resilience.

Excessively simplistic constructs of resilience should be resisted as they run the risk of presenting clear explanations for, and “solutions” to, what are, in fact, complex and challenging phenomena (Brewer et al., 2019). The definitions we consider to be in closest alignment to DIMoR are Hasty’s (2017, p. 1) notion of “multiple and concurrent resiliencies” and that of Buzzanell (2019), which was applied to higher education contexts and cited by Rossetto and Martin (2022, p. 306). That definition, based on communication theory, outlines that resilience is “a constitutive process, through which people reintegrate and actively construct their new normal through language, interaction, networks and attention to their identities and identifications.”

Theme 2: Inconsistencies in the intended purpose of resilience-focused initiatives

Obfuscation and variation are also defining characteristics of the literature regarding the intended aims of resilience programmes in higher education (Price, 2023). First, as reviewers, it struck us that the specific purpose of such programmes was often unstated in individual papers, as if the intentions were self-evident (for example, Carstone et al., 2024). Critics such as Pollard (2014) would no doubt argue that in such silence can lurk insidious or even nefarious intentions, such as the preservation of hegemony. In this respect, we note with interest Price's (2023, p. 91) contention that one (unacknowledged) outcome of resilience programmes was the desire of universities to "protect what is a marginal student-retention-reliant business model."

Unsurprisingly, student wellbeing is the most frequently stated outcome of resilience programmes, as noted in Brewer et al.'s scoping review (2019). In this, Price (2023) invokes ethical concerns: questioning the implicit acceptance that the role of higher education is to deliver universal public health promotion interventions; and highlighting the potential harms involved in raising sensitive issues without adequate safeguards.

Price (2023) differentiates extra-curricular resilience programmes (which have safeguards and greater potential reach but are less embedded and are seen as add-ons) from coverage of resilience within disciplinary curricula. As reviewers, we found the latter to be more prevalent in the literature (see, for example, Kunzler et al., 2020). We note certain questionable assumptions in the disciplinary approach, even beyond key philosophical issues about the purpose of education and the immediate practical issue of whether there is space in the curriculum: that "resilience" can be a valid formal learning outcome; that it can indeed be taught; that it can be learned in a linear, systematic way through planned educational interventions; and even that it can be assessed as an academic attainment (van Kessel et al., 2022). To us, these expectations seem at odds with the complex, contextual view of resilience considered in this review.

As reviewers, we found multiple inconsistencies in the intended aims of resilience programmes delivered at disciplinary level. Price (2023, p. 95), for example, lauds the potential for disciplinary resilience programmes to produce leaders and problem-solvers, ready to respond to "praxis-related" challenges such as climate change. This made us wonder whose interest such "resilience" focused interventions really serve. Likewise, in reading about resilience in our own disciplinary contexts, we found an emphasis on steeling students for tough times ahead in the workplace post-graduation (Johnson et al., 2020). Related, we noted a focus on preparing students for challenging periods in practice-based placement (O'Sullivan et al., 2021; Zulu et al., 2023) – and correspondingly less emphasis on co-creating safe and effective learning environments. In our review, it became clear that different practitioners tend to bring biases and assumptions based on dealing with analogous issues from their discipline. For example, engineering publications approached the problem as being akin to tempering a metal – subjecting it to processes which change the physical attributes – so that resilience is a process aimed at improving the properties of a student just as they would a material (Hunsu et al., 2021). Accordingly, science publications (Kelty et al., 2023; Prickett et al., 2020) tended to apply scientific conditions to

the endeavour, education viewed it all as a learning process (Mansfield & Beltman, 2019); while health papers (Johnson et al., 2020; Kunzler et al., 2020) tended to adopt an individual-focused, deficits-based approach (akin to the “psychologisation” derided by Zembylas, 2021, p. 1969).

Given the disciplinary slant, and echoing Brewer et al. (2019), we found surprisingly limited reference within the literature to supporting or co-creating *academic* development through a resilience-focused lens. Notable exceptions are included in the concluding section of this paper.

Theme 3: Challenges in the application of dynamic and interactive aspects of resilience

The existence of DIMoR demonstrates that there have been attempts to grapple with thorny conceptual issues around resilience in higher education, to progress understanding, and to disseminate that work as a contribution to an ongoing conversation. Developed as it is by education scholars working within the sector, and building as it does on a long tradition of conceptual development (ahmed Shafi et al., 2020; ahmed Shafi and Templeton, 2020) DIMoR highlights that, in some quarters at least, critical conceptual analysis and refinement is alive and well.

The question, therefore, is how the conceptual progress encapsulated in DIMoR has been reflected in wider higher education literature. How are the dynamic and interactive aspects of the model interpreted and applied in practice? The simple answer is that the nuance and complexity of considered conceptualisations of resilience have, in the main, eluded scholars focusing on higher education.

Scholarship of teaching and learning (SoTL) is typically about university educators devising and delivering ways to enhance their own students’ experience (Geertsema, 2016). The resilience literature bears this out. Price’s (2023) found that six out of eight studies in her scoping review (with publication dates ranging from 2018 – 2020) were reporting on the effects of resilience-focused programmes delivered by staff to students (with the remaining two conceptual and theoretical respectively). Likewise, in the review by Brewer and colleagues (2019) almost two-thirds of 72 included papers reported the effects of resilience training delivered by staff to students in higher education.

Laudable as the intentions are likely to be, such interventionist approaches expose SoTL to fundamental conceptual criticism. The basic premise - that simply by virtue of being a university student, an individual ought to be exposed to interventions targeted at making them more resilient (however framed) - contains numerous assumptions that are incompatible with complex, multifaceted, *agentic* conceptualisations of resilience (DeVerteuil & Golubchikov, 2016). Assumptions of the interventionist paradigm include the following: firstly, that as a subject of intervention and investigation, “resilience” is a quality to be developed exclusively within students; then, that university educators somehow “have resilience”, sufficient for them to impart it to students; and finally, that educators, simply by virtue of their position, possess the knowledge, skills and attributes needed to design and deliver resilience-focused interventions to students safely and ethically. This criticism is most clearly levelled by Price (2023 p. 94), who concludes that “students have been seen as

conglomerate in their needs and passive in their role...rather than empowered and possessing solutions to the problems proximate to them". In such contexts, DIMoR's dynamism and interactivity are sadly lacking.

Furthermore, most of the studies in the literature adhere to the scientific tradition, typically adopting randomised controlled trial (RCT) designs. For example, the Cochrane Review by Kunzler et al. (2020) reported on 30 RCTs while Ang et al. (2022) reviewed 29 RCTs. Central to such investigations is the requirement for strict conditions and controls that serve the scientific method's requirement for replicability. Controlled research reduces complex systems to isolated parts (Deaton & Cartwright, 2018). However, this process imposes rigidity that is inherently inimical to nuanced conceptualisations of resilience which, like DIMoR, highlight its shifting, contextual and reciprocal elements.

Moreover, the quest for replicability within the scientific method carries with it certain problematic assumptions when applied to anything as complex as resilience (Carey & Stiles, 2016). First, there are assumptions about measurability: for example, that resilience can be measured by the intended instrument, both at baseline and as an outcome; and that the appropriate unit of measurement is at the level of an individual student. Then it is assumed that control of variables is achievable: for example, that student agency is lacking to such a degree that resilience is modifiable via a standard intervention that is "done to" the individual(s); that any differences measured following the intervention are, in fact, related to the intervention and not to other factors within or beyond the individual; and finally, that having effected change, it will remain stable and impervious to other influences. To us (and to other critics such as Krauss, 2018) this seems like an extensive list of large assumptions.

CONCLUSIONS AND THE WAY FORWARD

Overall, we found a lack of literature applying dynamic, interactive, relational, and contextual aspects of resilience in higher education. Resilience literature is hampered by inconsistencies in how the construct is interpreted and operationalised, and by the privileged nature of empirical investigation and paternalistic forms of scholarship. This moves us, then, to consider how higher education might respond, so that the dynamic and interactive elements of resilience are more consistently and coherently integrated.

In this closing section, we briefly highlight five reviewed papers that we found intriguing or exemplary in some respect, and that might act as beacons, pointing the way to future progress. Their inclusion here does not imply that they fully encapsulate a fully rounded conceptualisation of resilience. Rather, they struck us as showing an alternative to the prevailing orthodoxy that sees "learning resilience" as an obligation, imposed upon individual students, so that they become somehow impervious to inadequacy or dysfunction within their institution and beyond (Price, 2023). Within the scope of resilience, the selected examples below might even infer an element of collective resistance (DeVerteuil & Golubchikov, 2016). To us, these papers go some way to answering two provocations introduced by Price (2023, p. 95):

1. What if resilience training allowed students to co-create with peers, educators, and administrators the types of learning environments where they could explore their own evolving sense of identify and anticipate likely challenges in their prospective careers?
2. What if resilience training was a way to reflect and sense make upon experiences of working and living within institutions under stress?

First, in qualitative research with university student-support staff, Rossetto and Martin (2022) develop a framework that includes due regard for organisational systems and structures, aligned with Buzzanell's (2019) communication processes theory of resilience. Applicable to the whole university community, it is built around four key themes: reflection and recognising strengths; mattering and belonging; mentorship; and, finally, reframing and reorienting.

Based on a relational interpretation of resilience, Hasty (2017, p. 5) outlines a simple framework applying a networked approach to fostering student resilience. The framework comprises seven principles; each of them a lens through which educators are invited to use everyday interactions and practices "to encourage students to: grow; struggle; delve; organise; reflect; ask; and connect through their studies."

Amsrud et al. (2019, p. 2) present a systematic review of exclusively qualitative research that would help answer the question "How can nurse educators support students' development of resilience?" Through thematic analysis and synthesis, five themes emerged: demonstrating caring relationships; recognising resources and power; acknowledging uncertainty; reframing burdensome experiences; and adjusting frames for learning. Two overarching themes were identified: an educational culture of trustworthiness and readiness to care.

Maddock and Oates (2021) reported on a qualitative study of a novel, arts-informed method in which healthcare students gathered evocative objects into a "Little Tin of Resilience" (p.227). These items were photographed, sorted, and discussed during interviews with an artist-researcher. Resilience emerged as a characteristic formed over time, represented by objects used in simple everyday rituals. Analysis provided valuable insights into how resilience was viewed by students; namely that it was built on identity, connection, activity, and protection.

Creative storytelling lies at the heart of the phenomenological research paper in which Russell (2022) outlines how she and her students together developed their understandings about resilience over the course of a new module in which they learned, applied, and reflected on life story interviewing with interactive elicitation methods. This paper demonstrates how engaging students as researchers, co-creating narratives of resilience in intensely personal ways, aligns with the socially constructed, contextual and embodied nature of the phenomenon.

Russel's article (2022, p. 363) points the way to future exploration and revelations of resilience, through a question that prompts deep reflection: "How might we embrace appreciative understandings and give voice to the diverse conceptions through which

resilience takes shape not only in interpersonal contexts, but in community settings?”
Concluding our review, then, our response would be that five indispensable concepts are central to meaningful community resilience in higher education: connection, communication, challenge, compassion, and care.

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