Title Page

**Doctoral students' well-being in United Kingdom Business Schools:
A Survey of Personal Experience and Support Mechanisms**

Authors and Affiliations.
Author 1 Dr Janet McCray
Professor of Social Care and Workforce Development
Centre For Workforce Development
Institute of Health, Education and Social Sciences
University of Chichester
West Sussex
United Kingdom.
J.McCray@chi.ac.uk

Author 2 Dr Paul Joseph-Richard
Dr Paul Joseph-Richard
Lecturer in Human Resource Management
Department of Management, Leadership and Marketing
Ulster University Business School
Ulster University
Co Antrim
Northern Ireland, United Kingdom.
p.joseph-richard@ulster.ac.uk

Doctoral students' well-being in United Kingdom Business Schools:
A Survey of Personal Experience and Support Mechanisms

Abstract

We present the perspectives on mental well-being of 63 Doctoral students (DS) undertaking a PhD in business schools in United Kingdom (UK) universities. Utilising a cross-sectional survey, the aims of this study are to 1. Capture business and management doctoral students' (DSs) views on their mental well-being and the factors that affect it. 2. Critically review the influence of the business school learning environment on doctoral student well-being. 3. Reflect on the effectiveness of business schools' support for the well-being of doctoral students.

Findings indicate that many business school doctoral students viewed their mental well-being negatively and more than half considered their personal well-being as their own problem. Personal and interpersonal factors caused a very high percentage of their negative mental well-being issues, with the majority of research supervisors being viewed as a positive support.

However, in business school doctoral training programmes, respondents reported minimal input on managing and understanding their personal well-being, despite research which correlates faculty and departmental support for well-being and PhD completion. In the light of these findings we suggest that individual business schools should review their training curriculum for doctoral students to prevent over-reliance on the supervisory team and offer more formal training on managing mental well-being.

Introduction

Recent studies highlight that doctoral students (DSs) worldwide are experiencing mental well-being difficulties, including high levels of anxiety, depression, and psychological distress (Barreira, Basilico & Bolotnyy, 2018; Levecque et al., 2017). Mental well-being is defined as your mental state - how you are feeling and how well you can cope with day-to-day life (Mind.org.uk). Since about a half of DSs globally tend to withdraw from their studies, scholarly interest in their mental well-being

is increasing (Moate et al., 2019; Wollast et al., 2018; Devos et al., 2017; Hunter & Devine, 2016). Undertaking an advanced degree is a stressful experience for many. Recent articles in Nature (2019a and b) together with Australian (Barry, Woods, Warnecke, Stirling, & Martin, 2018) and French studies (Haag et al., 2018), indicate that DSs have higher levels of depression, anxiety and stress than the general population. There is little known about how business and management DSs perceive and manage their own mental well-being. Further, although knowledge about the range of institutional-level and individual support initiatives for promoting health and well-being of the DS group is expanding (Metcalf, Wilson & Levecque, 2018; Authors, 2020), information on how UK business and management DSs cope with their challenges remains limited. This paper addresses the gap in the literature by presenting the perspectives on mental well-being of 63 DSs from business schools in United Kingdom (UK) universities as they undertake their studies.

Study Aims

The aims of this study are to:
 1. Capture business and management doctoral students' views on their mental well-being and the factors that affect it.
 2. Critically review the influence of the business school environment on doctoral student well-being.
3. Reflect on the effectiveness of business schools' support for the well-being of doctoral students.

Background

Mental well -being

It is projected that, by 2030, mental health problems (particularly depression) will be the leading cause of mortality and morbidity globally for all populations (WHO, 2011). Internationally, depression and anxiety are most commonly reported in employment aged adults between 25-64 (Mental Health Foundation, 2016), with North American and Australian populations most likely to disclose. In the Middle East and North Africa (2019), younger people report high levels of negative well-being and are fearful of the stigma attached to seeking help. Globally, women are more likely to have a depression or anxiety mental health issue than men (McManus et al, 2016). Black and Asian minority ethnic populations have higher levels of poor mental well – with causes including discrimination (Williams, 2019) and stigma where it can be hard to admit to mental health issues and seek support (Mermon et al, 2016).

When it comes to Higher Education, the UK university can be a highly stressful place. Bozeman and Gaughn (2011) reported a decade ago that the academic institution has become a more stressful working environment for all academics. The Health and Safety Executive noted that stress is more prevalent in industries such as education (HSE, 2017: 5) in which the university sector is situated. Further the number of students with mental health issues at university is increasing (Thorley, 2017), with postgraduate students least likely to disclose on entry to university. Added to this, although at lower risk of negative mental well-being in the general population (OECD, 2018), university students are at added risk of experiencing poorer mental health and well-being. Causes include academic, financial and social pressure.

The university

Doctoral programmes of study have seen huge growth in the UK, alongside a debate about their purpose, effectiveness and value to society. Doctoral students are studying in universities that need to demonstrate accountability for funding and resources, with increasing competition across institutions, league tables, and research impacts, resulting in a shift of intellectual, structural and operational responses (Mowbray & Halse, 2010).This has placed pressure on institutions with regard to PhD enrolments, the future careers of doctoral completers, and, in tandem, concerns with cost effectiveness, completion rates and minimising student attrition. Within UK universities, individual departments, in this case business schools, carry the main responsibility for the direction and focus of DS research and socialisation, a process through which an individual learns to adopt the values, skills, attitudes, norms, and knowledge needed for membership in a given organisation (Tierney, 1997). The business school has a specific cultural context which impacts on the DS. It is to this context we turn next, to meet the first aim of the paper and offer a critical review of the place and influence of the business school on DS studies.

University business schools

Business schools like other academic departments operate in an increasingly marketized higher education sector (Brown 2015) where impact factors and competitive rankings judge all outputs including that of DSs. Biron, Brun and Ivers (2008) found that this market driven culture is reflected in the social interaction between staff in universities. No longer a culture of collegiality, increasingly university culture is one of

bureaucracy and individualisation, with a management style in which consultation and participation in decision making are not prioritised (Biron et al., 2008).

The business school's relationship with industry may influence the style of engagement with students. On the one hand, business schools are seen to have separate academic concerns from those running a business (Miles, 2010) and are criticised for being too distant from industry and the real world. Yet, paradoxically, business schools are also viewed as increasingly adopting, often unquestioningly, the values and practices of business (Quinn - Trank & Hynes 2003) including competition and entrepreneurship based on individualism and a rejection of collaboration. A recent UK national student survey (NSS 2020) found that business school undergraduate students were less satisfied regarding being part of a learning community than any other university discipline. However 81% in DS business school respondents in the UK Postgraduate Research Experience Survey (PRES) stated they were satisfied with the Postgraduate learning environment.

Vince (2010) wrote that university business schools are emotional organisations yet, within them, teaching and learning is presented as an emotionless activity that can be controlled. There is often no concern for the impact of emotion on the department and how the structures within operate. Vince was not referring to individual management of emotion here, rather the bigger role emotion plays in how the organisation functions. He wrote of the dangers in ignoring the critical aspects of teaching and learning where emotion and politics come together. In other words, how by ignoring power and inequality in the business school structure (for example between students and staff), more complicated and uncomfortable feelings and behaviour (conscious and unconscious) can be created through that avoidance. Vince, whilst talking in general about business school teaching and learning, observed that such teaching and learning is seen as a rational logical process and to question that leads to feelings of discomfort. Of relevance here is Vince's observation of management practice and how fear of failure is addressed. Anxiety about failure is linked to a concern at being called out for poor performance. Consequently anxieties about being seen to fail "create blame of 'the other' and fear of such blame undermines the ability of people within the organization to communicate openly (Vince, 2010: 31). Although Vince was referring to learning and MBA programmes, there are parallels with PhD studies. Notably, this is related to supervisors holding on to control of student learning and what

the student produces, resulting in a focus on deadlines, deliverables and research outcomes.

Research studies have shown that the supervisory role (Gardner, 2010) can impact on motivation to undertake a PhD (Brailsford, 2010), predict productivity (Hollingsworth & Fassinger, 2002) and impact on the students' future career in academia (Weidman & Stein, 2003). Relational factors such as unhappiness with the supervisor also contribute to poor well-being (Nettles & Millett, 2006) and can create anxiety and stress (Di Pierro, 2007).

Disagreement about research decisions, cultural differences in relation to supervisory style when English is not the student's first language (Liechty, Liao & Schull, 2009) are also stress factors. In the research literature, there is still considerable focus on the supervisor and student relationship based on a traditional model where the supervisor as expert gives instruction on how to do research (Bastalich, 2017). However, there has been a shift to exploring other forms of supervisory pedagogy. Boud and Lee (2005) suggested that a focus on other personal learning is often dependent on the supervisors' and DS's priorities and level of comfort with addressing issues not viewed as directly linked to research outcomes (Boud & Lee, 2005: 504). Murphy, Bain and Conrad (2007) drew attention to the skill of the supervisor in knowing when to offer personal support and when the student requires research skills.

The business school environment means that from the start of their studies, business school doctoral students may be going it alone. A set of skills are expected of the new business studies DS including networking (Park, 2005), teaching and getting published (Dalton, Harp, Oler & Widener, 2016), and negotiating access to the research field of business and industry who may see the student's research as theoretical. In general, there is a reported lack of focus on learning beyond research skills training (Boud & Lee, 2005) and more specifically for the business school setting, exposure to a culture of individual competition, acceptance of the power differential between the teaching and research staff and a rejection of collaboration. This is of note as, in a meta-synthesis of DS attrition (cross discipline) in the United States (Bair & Hawarth, 2005), faculty and departmental support were positively related to degree completion. The extent to which the department or faculty offer support that satisfies DSs' well-being needs, and the extent to which DSs felt recognized, appreciated, and cared for, was seen as impacting on their experiences of emotional exhaustion and had an

effect on their decision making (Bair & Haworth, 2005). It is to mental well-being and the well-being of the DS we turn next.

The doctoral student and mental well-being

Doctoral students form a specific occupational category (Haynes et al., 2012) and considerable attention has been directed to understanding their well-being during their studies and why these students may withdraw from their PhD programme (Kyvik & Olsen, 2014). The concept of well-being has been defined in numerous ways. In the UK, Mind (a campaign and public information resource) offers a general definition of good mental well-being, referring to it as the ability to: 'feel relatively confident in yourself and have positive self-esteem, feel and express a range of emotions, build and maintain good relationships with others and feel engaged with the world around you. You are also able to live and work productively, cope with the stresses of daily life and adapt and manage in times of change and uncertainty' (Mind.org.uk). When it comes to the DS and well-being most studies have been undertaken in other subject disciplines, not from a business school perspective. In general, there is significant knowledge about "the influence of personal, social, cultural and institutional factors in explaining a number of aspects of the doctoral experience" (Cantwell et al., 2017 p. 48). However, Scott and Takarangi (2019) note that the term well -being and measures used to assess it in DSs are often poorly conceptualised. Referring to quantitative studies, the authors argue that often available research has used scales of assessment for people's mental health or stress rather than well-being. In this paper the definition from Juniper, Walsh, Richardson and Morley (2012) where "that part of a researcher's overall well-being that is primarily influenced by their PhD role and can be influenced by university-based interventions" (p. 565) is applied.

Scott and Takarangi (ibid) argue that gaps still exist in the conceptualisation of well-being in the DS group, and that the six-factor model of psychological well-being (Rhyff, 1989) that incorporates autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance is underused (Diener et al., 2010). For example, Levecque et al's (2017) major study of DS well-being measured mental illness, finding that a DS had a one-in-three chance of developing a psychiatric illness, such as depression. However, Levecque et al. (ibid) noted that the student's well-being was not tested prior to the doctoral programme, which may be important as poor psychological well-being is associated with symptoms of mental illness, including depression (Ryff, 1989). Reasons for non-completion

and with a direct link to feelings of well-being include personal experiences of emotional exhaustion and depression that are triggered by isolation, stress and low levels of intrinsic motivation (Levecque et al. 2017).

The work of Schmidt and Hansson (2018) and Marais et al. (2018) explored the literature in relation to DS well-being. Related to the self and the individual's motivation on the doctoral journey and affecting mental well-being are personal relationships and their impact, for example, in relationships with partners and family members (Martinez et al., 2013; Schmidt & Umans, 2014). Trying to meet domestic demands when living a dual life had to be balanced to keep stress manageable (Schmidt & Umans, 2014).The general pressures of real-life and financial problems over a long period of time, are all known to contribute to DSs' well-being and attrition (Hunter & Devine, 2016 , Wisker et. al. 2010). An internalisation of feelings related to the doctorate and trying to remain true to ones feelings and thoughts about how the PhD progresses, when faced with external pressures (from the university, department – for example the pressure to teach, or a supervisor who may take a different position on the research) can lead to role conflict (Martinez et al, 2013) and a sense of being out of control of the environment

The DSs' view of their research – either as a process or a product - can also create stress if other learning and personal emotional growth beyond the thesis construction is not highlighted (Shavers & Moore, 2014). Author's (2020) research with successful DSs found that completers had accepted the uncertainty and unpredictability of doctoral studies early on. They shared how they had learnt to master their situation having the resources and capacities to cope, adjust and adapt to problems, and therefore were not overwhelmed by stress, which helped their positive well-being. Relationships with others was also a feature. Lynch, Salikhova and Salikhova's (2018) study showed that individual motivation and well-being was impacted by peer relationships and support. Those DSs who were in work groups (most common in the hard sciences) reported more positive well-being in Stubb's (2012) study. When DSs engaged with a scholarly community in Finland (Stubb, Pyhältö, and Lonka, 2011), positive outcomes of inspiration, empowerment and increased levels of doctoral completion were reported. Isolation or poor or inappropriate socialisation with peers which limited social support impacted on well-being.

Currently, factors related to well-being and the doctoral journey remain underexplored in the business school DS. This research study makes a contribution to the literature by addressing that gap.

Methodology

Design: This is a survey of 63 DSs' perceptions on their mental well-being. Ethical approval was gained from the host University's Ethical Review Board. Using the Checklist for Reporting Results of Internet E-Surveys (CHERRIES) (Eysenbach, 2004), we summarise the study procedures.

Participants: Our target population was self-selecting business and management DSs who are registered in any UK university. Our sampling frame was the list of DSs with an email address on file with the British Academy of Management. In those participants 34 were women and 29 were men.

Measures: Both the authors developed the questionnaire tool for the present study which consisted of open ended questions throughout with the exception of questions 4 and 5 which were closed questions. Two of our colleagues peer-reviewed the questionnaire to establish content validity and feasibility and, prior to distribution, the tool was piloted with four DSs from other subject disciplines.

The questionnaire was developed from the literature review. A number of themes emerged from the literature and we wanted to explore these in the context of the UK business school. First, the term well-being. There is a vast literature on the challenges of defining and interpreting the concept (Juniper et al., 2012). We sought to examine the definition from the DS perspective, which informed (Q1), the DS understanding of the term well-being. Then, with reference to Schmidt and Hansson (2018) and Marais et al.'s (2018) research on non-subject specific causes of positive and negative well-being in DSs, we gathered views on what causes, or contributes to, positive mental well-being in DSs in the business school setting (Q2). We then investigated negative mental well-being in DSs in the business school setting (Q3). The intention was to capture any similarities and differences with current research. From the literature we had identified that UK universities may not always offer formal support for mental well-being (Thorley, 2017). Therefore, in Q4, we wanted to find out more about the experience of accessing support for the sample. Where was DS support gained from and to what extent? We designed Q5 and Q6 to gain further insights on this theme: (Q5)

Have you been taught to manage your mental well-being? and (Q6) Who organises sessions on well-being and what contents are covered in those sessions?' Finally we asked respondents (Q7) Do you access other mental health and well-being services?

Procedures: Participation was invited in three ways: An email invitation for the survey was distributed (1) through a LinkedIn online community for business and management DS; (2) via emails sent to our own universities and to those in our professional networks, requesting distribution of an invitation to participate; and (3) by asking participants to pass along the survey link to other eligible participants, using a snowball sampling strategy. The mail contained a web-link to a voluntary, open-access survey hosted on the host University's Qualtrics platform. No incentives were provided for participating in this study.

Analysis: For all questions except question 4, the authors provisionally coded data, and placed into thematic groupings. Once these groupings were confirmed, content analysis procedures (Schreier, 2012; Elo et al. 2014; Hunter & Devine, 2016) were applied. Respondents' words, well-being related phrases and short narratives were the units of analysis. Descriptive statistics were then used to measure the frequency of codes under each theme. For the closed questions (Q4 and Q5), descriptive statistics measured the number of responses under each statement option.

Findings

The first question aimed to capture the respondents' understanding of the term well-being when related to them. We asked: When you hear the phrase 'Doctoral Students' Mental Health and Wellbeing,' what comes into your mind?

(Q1) On understanding the term well-being

All respondents answered this opening question (n=63). Three groups (a,b,c,) were identified. Group (a), 31% (n=19) related their well-being to the process of undertaking a PhD, stating that their studies influenced many dimensions of their lives. Their statements did not connect negative mental well-being to the PhD. However, group (b), 50% , (n=32)whilst also linking well-being to their PhD, stated that negative aspects of their well-being come to mind when they encountered the term mental health and well-being and their PhD. Respondents described being anxious, lonely, stressed, in a precarious position, depressed and

overwhelmed and that it was their own problem. The final group of respondents, group (c), 19% ,(n=12) did not relate their understanding of well-being to themselves and their studies with responses including that of the broadness of the topic and its increasing exposure in wider society.

(Q2) What causes, or contributes to your positive mental well-being?

Within the sample the factors which created positive mental well-being were evenly balanced, with personal, interpersonal and other aspects of life and doctoral studies cited. The relationships between factors that influence positive mental well-being would fit with the definition of mental well-being presented by Mind who note "if you are able to: feel relatively confident in yourself and have positive self-esteem, feel and express a range of emotions, build and maintain good relationships with others and feel engaged with the world around you. You are also able to live and work productively, cope with the stresses of daily life and adapt and manage in times of change and uncertainty (Mind.org.uk)**.** This close correlation of the respondents' views on positive well-being and the definition was important because it indicates our respondents were able to discuss the topic from a position of personal understanding and therefore conversely we had confidence in the respondents' understanding and assessment of their negative well- being and their awareness of its causes.

Figure 1: Factors contributing to positive mental well-being
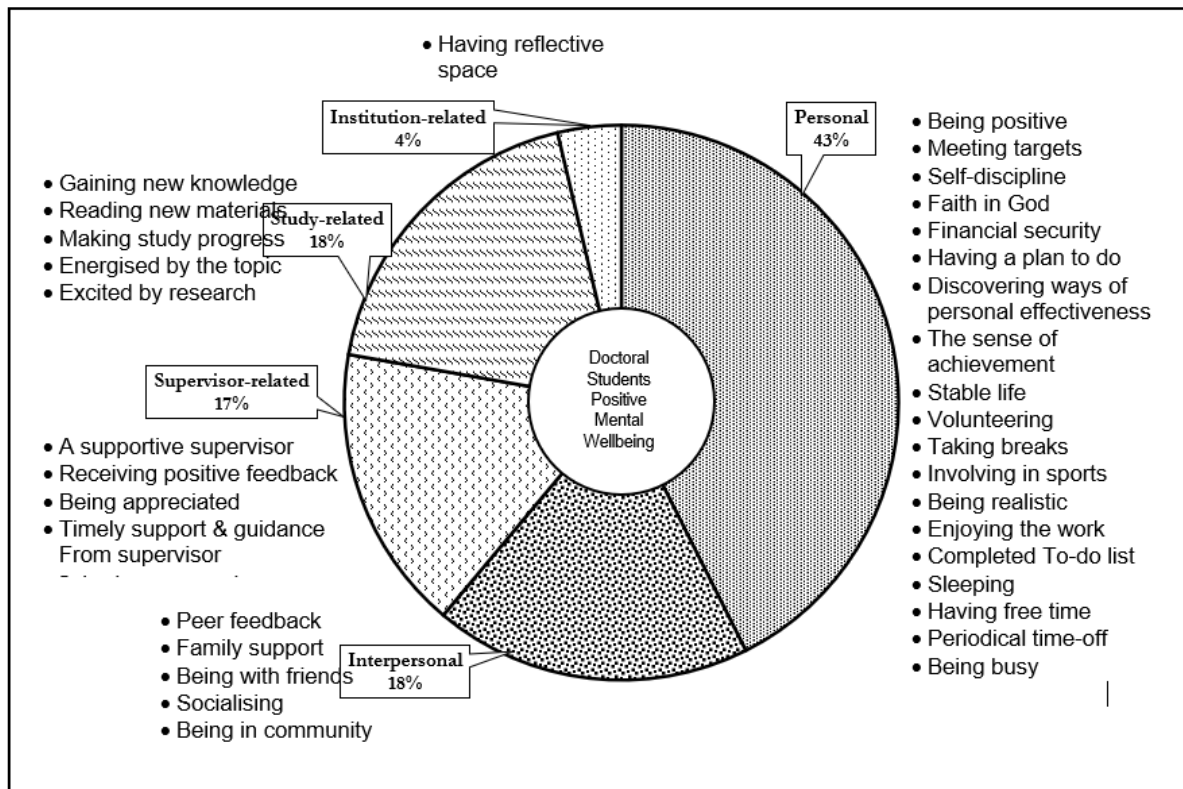
Q3) What causes, or contributes to your negative mental well-being?

Personal factors overwhelmingly contributed to the respondents' negative mental well-being. Self-doubt, isolation, stagnation, anxiety, financial worries and a lack of self-acceptance in themselves were highlighted. In addition to these personal factors, there are also social factors (e.g. pressures from family, and relationship issues). Supervisor-related factors (e.g. lack of guidance and appreciation for the work done and negative feedback) and study-related factors (e.g. too much workload and the writers' block) also contributed to their negative mental well-being, although to a much lesser extent.

Figure 2: Factors contributing to negative mental well-being
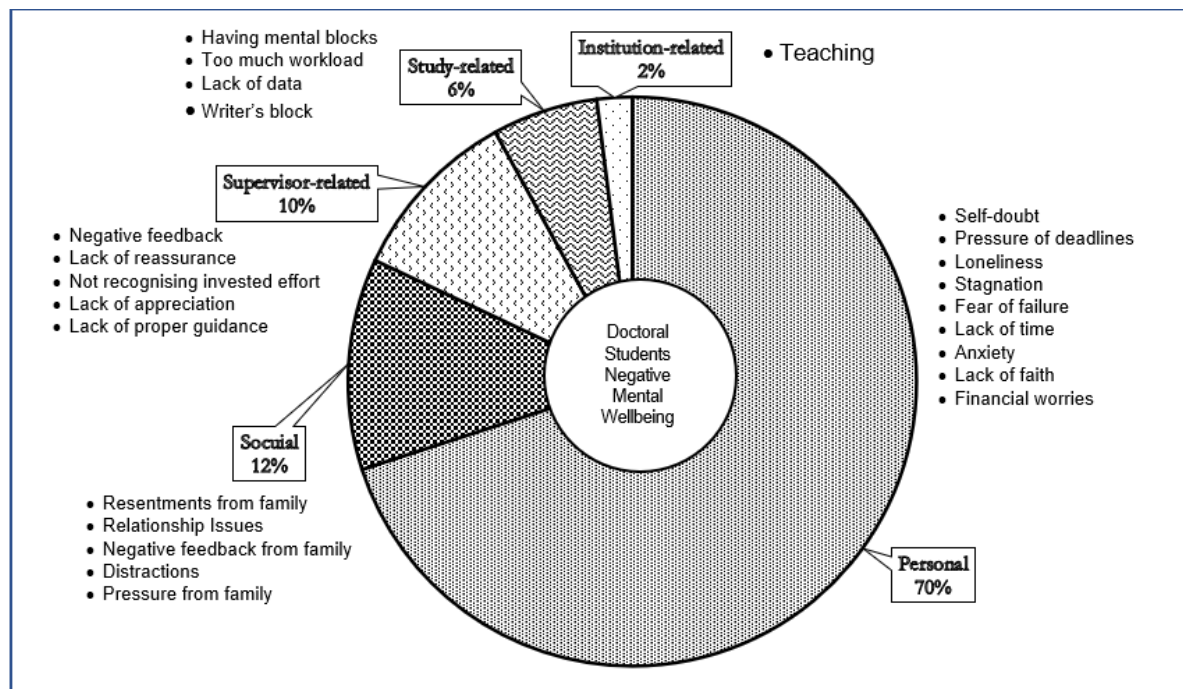
Remaining with negative well-being, Q4 asked respondents to choose sources of support.

(Q4) Where do you get your support for your well-being from?

In Q4 respondents were asked to identify individuals who offered support and helped them with their well-being during their programme of study. The survey offered the choice of friends, first supervisor, partner, other family member, parents, second/third supervisor, researcher development office or business school department. Respondents could choose as many from this list as they wished.

We were most interested in the role of the business school in the support process. Most respondents highlighted that their friends 77% (n=49) first supervisor 71% (n= 45)and partner or spouse 67%(n=42) helped them manage their well-being challenges. Other family members 54% (n=34), second/third supervisors 49% (n=31) and parents 44% (n=28)were perceived to have helped the DS. However, only 17%

(n=11)of the respondents identified that their researcher development office or business school department had helped them manage their well-being challenges.

Importantly when asked if they had been taught to manage their mental well-being, in Q5 most respondents gave a negative response.
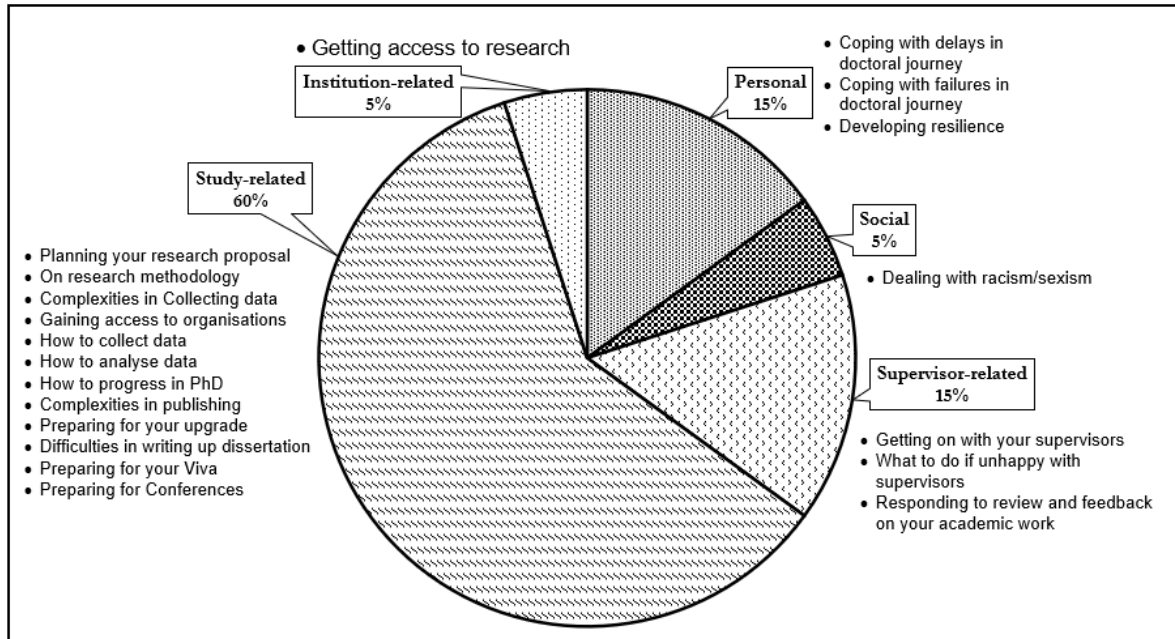
(Q5) Have you been offered training or support to manage your mental well-being?

Only 19% (n=12) of the respondents said that they have been taught to manage mental well-being during their business school Doctoral programme, with a majority of the respondents 81% (n= 51)reporting that they had not been offered ongoing sessions to support their positive well-being. Where sessions were offered, a range of options were identified in Q6.

(Q6) Who organises sessions on well-being and what contents are covered in those sessions?'

These were either organised by the respondents' own department (5%), by the central, doctoral researchers' development office (35%) or through reflective practice during supervision (30%). Respondents also identified that at least four groups of facilitators conducted these sessions. They included staff at the researchers' development office, specialised departments within the university such as a counselling service or pastoral office, external providers and students' own supervision group, where available. Only one respondent pointed out that a session was offered 'as part of their induction, on the opening day of the year in the school'.

Figure 3: Contents Covered in Doctoral Students' Well-being Sessions

- Getting access to research

Institution-related
5%

Study-related
60%

- Planning your research proposal
- On research methodology
- Complexities in Collecting data
- Gaining access to organisations
- How to collect data
- How to analyse data
- How to progress in PhD
- Complexities in publishing
- Preparing for your upgrade
- Difficulties in writing up dissertation
- Preparing for your Viva
- Preparing for Conferences

Personal
15%

- Coping with delays in doctoral journey
- Coping with failures in doctoral journey
- Developing resilience

Social
5%

- Dealing with racism/sexism

Supervisor-related
15%

- Getting on with your supervisors
- What to do if unhappy with supervisors
- Responding to review and feedback on your academic work

It is important to note that the majority of the topics are 'study-related' challenges. Many of the personal and interpersonal topics that trigger mental well-being challenges for DSs in the research literature are not always fully covered in the sessions on offer in business schools.

We also asked the DSs in Q7 if they knew how to access other university services that offer support such as pastoral, counselling and healthcare, and if they would use them.

(Q7) Do you know how to access other university mental health and well-being services and would you use them?

When asked about whether they knew how to access support for their mental well-being, only 56% (n=35) said that they knew, and the rest 44% (n=28) answered 'no' . However, when asked if they would access mental health support, when they needed it, 63% (n=40) answered 'no' and 37% (n= 23) said that they would.

Summary of findings

The first study aim is to capture business and management doctoral students' views on their mental well-being and the factors that affect it. Findings indicate that many business school doctoral students viewed their mental well-being negatively and more than half considered their personal well-being as their own problem. Personal and interpersonal factors caused a very high percentage of their negative mental well-being issues.

When it comes to the second study aim, to critically review the influence of the business school learning environment on doctoral student well-being, findings indicate that the majority of research supervisors are viewed as supportive. However, in business school doctoral training programmes, respondents reported minimal input on managing and understanding their personal well-being, despite research which correlates faculty and departmental support for well-being and PhD completion.

Finally the third aim is to reflect on the effectiveness of business school support for the well-being of doctoral students. The findings captured give a mixed picture. On the one hand, many DSs feel negatively about their mental well-being and see it as their own problem and not for sharing in the business school environment. The DSs had a lack of knowledge about other sources of university support for DS mental well-being, alongside a reluctance from many of the respondents to seek support via university routes. Some of the business schools had not

provided or promoted information on these resources. On the other hand, supervisory team members scored very highly in supporting DSs' well-being. At a team or individual level business school support may be deemed effective for these DSs. The implications of these findings are now discussed.

Discussion

Firstly, aim one, factors that create positive and negative well-being in DSs. The study affirms the findings of other studies, with personal and interpersonal factors being the biggest contributors and influences on both positive and negative well-being. Personal factors include self-belief (Wisker, 2012) and interpersonal features, and encompass capacity to cope with the competing demands of the family and a PhD (Martinez et al, , 2013), or conflicting goals (Haynes et al., 2012).

Secondly, a business school specific focus has shown within this sample that there was little difference in the type of factors that impacted on the doctoral students' mental well-being in business schools when compared to other disciplines. The students share the same challenges as other doctoral students.

Within the sample, the factors which created positive mental well-being were more evenly balanced across personal, social, institutional (university), study and supervisor related factors. However, when negative well-being was discussed, there was a greater dominance of factors in the personal and social categories.

In relation to aim two, critically reviewing the influence of the business school learning environment on doctoral student well-being, the study suggests that the environment of the business school itself with regard to individualism, competition and pressure may be important. Although competition and pressure were not stated explicitly as a cause of the respondents' positive or negative well-being, more than half of the students in the study thought issues related to their personal well-being were their own problem. Such views may indicate that some of the doctoral students had gained a perception of the business school teaching and learning environment as being one in which emotions or stress are not discussed. This confirms Vince's (2010) theory of conscious or unconscious organisational emotion whereby a disclosure or sharing of feelings and exploration of conflict in the department is discouraged or ignored. If we add to this the position of the DS who may be viewed as a less important member of the business school, there is

the possibility that more complicated and uncomfortable emotional feelings do end up being hidden and perceived as one's own problem. Such an environment could also account for half of the respondents viewing their mental well-being negatively. The business school environment itself may be unconsciously perpetuating this view at an organisational level.

Conversely, at team level, the role of the supervisory team came out strongly as a source of support for the respondents in this study. Seventy one percent of the sample stated that the first supervisor was a source of support, with second supervisors also featuring at 44%. This is positive but raises an important question. What if supervisors and their students are not in alignment? In other studies, and in the case of some of the respondents here, the relationship can be a source of negative well-being for the DS. Therefore an over reliance on the relationship as the source of mental well-being support should be monitored. Pearson and Brew (2002) commented that there is considerable difference and no one set of orientations from supervisors, with regard to the different DS view and how they work together. This has implications for the very individual process of supervision. How DSs learn, develop and identity their personal learning skills is under-developed in the literature across disciplines. Linden, Ohlin and Brodin (2013) wrote, in their study of supervision, that none of the students noted any personal learning in their PhD education. Deuchar (2008) cited the different perceptions of personal learning and support, highlighting tensions where the supervisor thinks they are offering student centred support and the PhD student sees the supervisor's intervention as task focused.

In respect of aim three, reflecting on the effectiveness of business schools support for the well-being of doctoral students, the majority of training available to doctoral students was related to research skills' training and was provided by a central research office. Business studies students are well supported if they wish to access training in research skills. However minimal support was provided or available on the topic of mental well-being. This finding correlates with that of Boud and Lee (2005) who, when discussing DS performance rates, noted that in the main DS experience is largely viewed by institutions as training in research skills. Boud and Lee concluded that elements of the DS socialisation process, such as the DSs' application of their own personal resources, learning with and from peers and their community are secondary and may be viewed as less important. Yet they may still impact on performance and attrition.

When it came to managing one's mental well-being, institutional training was not widely available to these respondents. Business schools did not in the main offer input on mental well-being – or it was not recognised as such by the respondents. Findings suggest that whilst PhD students may value learning beyond research training, business schools themselves may be less effective in their response. Barnes and Randall (2012) have commented that it is at individual departmental level that efforts to support PhD students should be offered, rather than focus on the institution as a whole (Barnes & Randall, 2012). Lovitts and Nelson (2000) noted that, while the overall university may treat graduate students with less attention than undergraduates, individual departments could take a different approach to make themselves more supportive, and hence ensure the completion of more of their doctoral students. We consider the implications of taking a different approach as we arrive at the final part of the paper.

How business schools and other organisations could provide further support for the doctoral student

What these study findings suggest is that business and management DSs may not need support strategies that are unique, as they face similar challenges to DSs in other disciplines. Customisation is needed in terms of when, where and how support is offered for the business and management DS. What learning is viewed as significant, and how emotional issues and feelings are responded to, in the business school environment may require more scrutiny, recognising the many different people and their attitudes to mental well-being within the DS community.

Peer and family support played an important role in enabling business and management DSs' positive mental well-being in this study. Therefore, reimagining and developing support mechanisms that are based on a creative alliance between student, peers, supervisors and institutions holds promise to make interventions more effective. Such coalitions would be dependent on business schools learning more about the collective power of collaboration for positive mental well-being, and to create a culture that better protects its future scholars.

Finally since the participants from business schools across the four nations of the United Kingdom reveal a similar pattern in the well-being challenges they face, the time may be right to come up with a set of collaborative well-being solutions. For example, if a national coalition of business schools (such as the Chartered Association of Business Schools (CABS)) could agree on a set of DS-focused well-being

interventions, universities could learn from one another's progress. Making DSs' well-being a strategic investment issue for professional associations such as the British Academy of Management (BAM) can also enhance the business schools' collective capability to learn how to mitigate well-being risks and prevent them from contributing to DS attrition and the consequent loss to scholarship.

Limitations

Our study has certain limitations. It is a self-funded, United Kingdom based study that aimed to capture the patterns in DSs' experience of well-being. In the absence of a national-level database of business and management DS, we used a multi-stage, snowball sampling strategy, taking advantage of our experience as supervisors, insider knowledge and professional networks. Although we were able to reach and obtain a sample size of 63 from the DS population, we do not make any claims of generalisability, because of the possible lack of representativeness of the population. We did not test differences across gender or ethnicity because of the sample size, which could have offered further insights into how well -being is addressed. Our intention is to develop an in-depth and contextualised exploration of a central phenomenon (Creswell & Guetterman, 2019), that is the mental well-being of DS. We may have missed DSs who are not connected to any network that we tapped into. Considering the sensitive nature of the research topic, we opted for the use of an anonymous questionnaire tool and hence we were unable to follow-up for clarification when the meanings of some responses remained unclear or incomplete.

Conclusion

In addressing the calls to expand DSs' well-being research, by including business and management fields (e.g. Schmidt & Hansson, 2018), this study shines a light on the doctoral education environment from the perspectives of the business and management DS. Findings show, as in other generic DS studies, personal and interpersonal factors are the biggest contributors to both positive and negative well-being for the DS. However the context of the business school may affect how these factors are responded to and supported. More targeted support for the DS, alongside recognition and further examination of how the business school culture itself can affect mental well-being, could positively influence the DS and their study outcomes. The findings in this paper provide useful insights to guide decision makers and doctoral supervisors in business schools.

References

ABS (2020) ps://charteredabs.org/national-student-survey-2020-results-for-business-management-studies/

Asda'a BCW, (2019) Arab Youth Survey https://www.arabyouthsurvey.com.

Bair, C. R., & Haworth, J. G. (2005) Doctoral student attrition and persistence: A meta-synthesis of research. In Smart, J.C. (Ed.) *Higher Education: Handbook of Theory and Research* (pp. 481-534). The Netherlands: Springer.

Barnes, B. J. (2010) The nature of exemplary doctoral advisors' expectations and the ways they may influence doctoral persistence. *Journal of College Student Retention*, 11(3)

Barnes, B.J. Randall, R. (2012) Doctoral Student Satisfaction: An Examination of Disciplinary, Enrollment, and Institutional Differences Research in Higher Education 53(1). 323-343.

Barreira P., Basilico M., & Bolotnyy V. (2018) Graduate Student Mental Health: Lessons from American Economics Departments. Working Paper.

Barry, K. M., Woods, M., Warnecke, E., Stirling, C. et al. (2018). Psychological health of doctoral candidates, study-related challenges and perceived performance. *Higher Education Research & Development,* 37(3): 468–483

Bastalich, W. (2017) Content and context in knowledge production: a critical review of doctoral supervision literature. *Studies in Higher Education,* 42 (7)1145-1457.

Biron, C., Brun, J.-P., & Ivers, H. (2008) Extent and sources of occupational stress in university staff. *Work,* : 511–522.

Bluntz, C. (2020) Research acceleration and empirical alienation: the complicated relationship between PhD Students and their field studies.

Boud, D. & Lee, A. (2005) Peer learning as pedagogic discourse for research education. *Studies in Higher Education,* 30: 501-516.

Bozeman,B. and Gaughn,M. (2011) Job Satisfaction among university faculty: individual work and institutional determinants. *Journal of Higher Education*, 82 (2),154-186.

Brailsford, I. (2010) Motives and aspirations for doctoral study: career, personal, and inter-personal factors in the decision to embark on a history PhD. *International Journal of Doctoral Studies,* 5

Brown, W. (2015) *Undoing the Demos: Neoliberalism's Stealth Revolution.* Cambridge, MA: MIT Press.

Cantwell, R.H., Bourke, S.F., Scevak, J.J., Holbrook, A.P. & Budd, J. (2017) Doctoral candidates as learners: a study of individual differences in responses to learning and its management. *Studies in Higher Education*, 42 (1):.47-64.

Dalton, D. W., Harp, N.L., Oler, D. & Widener, S.K. (2016) Managing the review process in accounting research: advice from authors and editors. *Issues in Accounting Education,* 31 (2).

Deuchar, R. (2008) Facilitator, director or critical friend? : Contradiction and congruence in doctoral supervision styles. *Teaching in Higher Education,* 13:489-500.

Devos, C., Boudrenghien, G., Van der Linden, N., Azzi, A., Frenay, M., Galand, B., & Klein, O. *(*2017*)* Doctoral students' experiences leading to completion or attrition: A matter of sense, progress and distress. *European Journal of Psychology of Education,* 32, 61.

Diener, E., Wirtz, D., Tov, W., Kim-Prieto, C., Choi, D.-w., Oishi, S., & Biswas-Diener, R. (2010). New well-being measures: Short scales to assess flourishing and positive and negative feelings. *Social Indicators Research*, 97(2): 143- 156. https://doi.org/10.1007/s11205-009-9493-

Di Pierro, M. (2007) Excellence in doctoral education: Defining best practices. *College Student Journal*, 47(2), 368-375.

Elo, S., Kääriäinen, M., Kanste, O., Pölkki, T., Utriainen, K., & Kyngäs, H. (2014) Qualitative content analysis: A focus on trustworthiness. *SAGE open*, 4(1), 2158244014522633.

Eysenbach, G. (2004) Improving the quality of web surveys: The Checklist for Reporting Results of Internet E-Surveys (CHERRIES), *Journal of Medical Internet Research*, 6 (3), p. e34, 10.2196/jmir.6.3.e34

Gunnarsson, R.K., Jonasson, G. & Billhult, A. (2013) The experience of disagreement between students and supervisors in PhD education: a qualitative study. *BMC Medical Education* [serial online]. 2013 ;(134) Available from: SwePub, Ipswich, MA. Accessed May 21, 2018.

Haag, P., Shankland, R., Osin, E., Boujut, É. et al. (2018) Stress perçu et santé physique des doctorants dans les universités françaises. *Pratiques Psychologiques*, 24(1), 1–20. doi: 10.1016/j.prps.2017.04.005

Haynes C, Bulosan M, Citty J, Grant-Harris M, Hudson J. C, & Koro-Ljungberg M. (2012) My world is not my doctoral program … or is it?: Female students' perceptions of well-being. *International Journal of Doctoral Studies,* 2012; 7:1–17.

Health and Safety Executive (2017) Work-related Stress, Depression or Anxiety Statistics in Great Britain 2017 http://www.hse.gov.uk/statistics/causdis/stress/stress.pdfaccessed November 2nd 2017.

Hollingsworth, M.A. & Fassinger, R.E. (2002) The role of faculty mentors in the research training of counselling psychology doctoral students. *Journal of Counselling Psychology*, 49: 324-330.

Hopwood, N. (2010) A socio-cultural view of doctoral students' relationships and agency. *Studies in Continuing Education,* 32 2: 103-117.

Hunter, K. H., & Devine, K. (2016) Doctoral students' emotional exhaustion and intentions to leave academia. *International Journal of Doctoral Studies*, 11: 35–61.

Juniper, B., Walsh, E., Richardson, A., & Morley, B. (2012) A new approach to evaluating the well-being of PhD research students. *Assessment & Evaluation in Higher Education*, 37(5); 563–576.

Kyvik, S. & Olsen, T.B. (2014) Increasing completion rates in Norwegian doctoral training: multiple causes for efficiency improvements. *Studies in Higher Education*, 39 (9);.1668-1682.

Lee, A. (2012) *Successful Research Supervision.* New York: Routledge.

Levecque, K., Anseel, F., Beuckelaer (de), A., van der Heyden, J. et al. (2017). Work organization and mental health problems in PhD students. *Research Policy*, 46(4); 868–879. doi: 10.1016/j. respol.2017.02.008

Liechty, J, Liao, M, & Schull, C (2009) Facilitating dissertation completion and success among doctoral students in social work. *Journal of Social Work Education*, 45 (3); 481-497.

Linden, J. Ohlin, M. & Brodin, E. (2013) Mentorship supervision and learning experience in PhD education. *Studies in Higher Education*, 38: 5: 639-662.

Lovitts, B. E., & Nelson, C. (2000). The hidden crisis in graduate education: Attrition from Ph. D. programs. Academe, 86(6), 44

Lynch, M. F., Salikhova, N. R., & Salikhova, A. B. (2018) Internal motivation among doctoral students: Contributions from the student and from the student's environment. *International Journal of Doctoral Studies*, 13: 255-272.

Marais, G. A. B., Shankland, R., Haag, P., Fiault, R., & Juniper, B. (2018) A survey and a positive psychology intervention on French PhD student well-being. *International Journal of Doctoral Studies*, 13: 109-138.

Martinez, E., Ordu, C., Della Sala, M. R., & McFarlane, A. (2013) Striving to obtain a school-work-life balance: the full-time doctoral student. *International Journal of Doctoral Studies*, 8;39–59. doi:10.28945/1765 .

Authors (2020) Towards a model of resilience protection: factors influencing doctoral completion. *Higher Education*, 80, (4), 679 – 699.

McManus S, Bebbington P, Jenkins R, & Brugha T. (eds.) (2016) Mental health and wellbeing in England: Adult Psychiatric Morbidity Survey 2014. Leeds: NHS Digital. Available at: http://content.digital.nhs.uk/catalogue/PUB21748/apms-2014-full-rpt.pdf

Mermon A., Taylor K., Mohebati L.M et al. (2016) Perceived barriers to accessing mental health services among black and minority ethnic (BME) communities: a qualitative study in Southeast England. *BMJ Open* 2016

Metcalfe, J. Wilson, S., & Levecque K.(2018) *Exploring well-being and mental health and associated support services for postgraduate researchers.* Research England: Institute for Employment Studies.

Mental Health Foundation (2016) *Fundamental Facts About Mental Health 2016.* Mental Health Foundation: London.

Miles, E.W (2010) Historical context and insights for criticisms of the 21st C Business School.*Journal of Education for Business,* 92 (5): 254-254.

Mind (2020) Definition of Well-being https://www.mind.org.uk/

Moate, R.M. Erin, M.W. & Rice, K.G. (2019) Doctoral student perfectionism and emotional well-being. *Measurement and Evaluation in Counselling and Development*, 52 (3):145-155.

Mowbray, C. & Halse, S. (2010) The purpose of the PhD: theorising the skills acquired by students. *Journal of Higher Education Research and Development,* 29(6): 653-664

Nature (2019a). Being a PhD student shouldn't be bad for your health. *Nature*, 569, 307. Retrieved from https://www.nature.com/articles/ d41586-019-01492-0

Nature (2019b). The mental health of PhD researchers demands urgent attention. *Nature*, 575, 257–258. Retrieved from https://www.nature. com/articles/d41586-019-03489-1 Orwell, G. (1933/2013). Down and out in Paris and London. London: Penguin

Nettles, M. T., & Millett, C. M. (2006) *Three magic letters: Getting to Ph.D.* Baltimore: The Johns Hopkins University Press.

Office for Economic Cooperation and Development Library (2018) Statistics for mental health and educational and employment levels. www.oecd-ilibrary.org/education

Park, C. (2005). New variant PhD: The changing nature of the doctorate in the UK. *Journal of Higher Education Policy and Management*, 27(2); 189– 207. doi: 10.1080/13600800500120068

Pearson, M. & Brew, A. (2002) Research Training and Supervision Development. *Studies in Higher Education,* 27, 2 (1), pp.135-150.

PRES (2020) Postgraduate Research Experience Survey (PRES) | Advance HE https://www.advance-he.ac.uk.

Ryff, C. D. (1989) Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57 (6): 1069–1081.

Schmidt, M. & Hansson, E. (2018*)* Doctoral students' well-being: a literature review. *International Journal of Qualitative Studies on Health and Well-Being,* 13, 1508171.

Schmidt, M., & Umans, T. (2014) Experiences of well-being among female doctoral students in Sweden. *International Journal of Qualitative Studies on Health and Well-Being*, 9 (1).

Schreier, M. (2012) *Qualitative Content Analysis in Practice*. Thousand Oaks, CA: Sage.

Scott, H, & Takarangi, M. (2019) Measuring PhD students' psychological well-being: are we seeing the whole picture? *Student Success,* 10(3):14-24

Shavers, M. C., & Moore, J. L., III. (2014) Black female voices: Self-presentation strategies in doctoral programs at predominately White institutions. *Journal of College Student Development,* 55(4), 391–407.

Stubb, J., Pyhältö, K., & Lonka, K. (2011) Balancing between inspiration and exhaustion: PhD students' experienced socio-psychological well-being. *Studies in Continuing Education*, 33(1), 33–50.

Stubb, J., Pyhältö, K., & Lonka, K. (2012). The experienced meaning of working with a PhD thesis. *Scandinavian Journal of Educational Research*, 56(4): 439–456.

Thorley, C. (2017) Not By Degrees: Not by degrees: Improving student mental health in the UK's universities, IPPR. www.ippr.org/publications/not-by-degrees

Tierney, W.G. (1997) Organizational socialization in higher education. *Journal of Higher Education*, 68(1): 1–16.

Trank – Quinn C. & Hynes, S.L. (2003) Who moved our cheese? Reclaiming professionalism in business education. *Academy of Management Learning and Education*, 2 (2): 189—205.

Vince, R. (2010) 'Anxiety, politics and critical management education'. *British Journal of Management*, 21: s26–s39. doi: 10.1111/j.1467-8551.2009.00678.x.

Weidman, J.C. & Stein, E.L. (2003) Sozialisation of doctoral students to academic norms. *Research in Higher Education,* 44: 641-656.

WHO (2011) Global burden of mental disorders and the need for a comprehensive, coordinated response from health and social sectors at the country level: Report by the Secretariat. Retrieved from apps.who.int/gb/ebwha/ pdf_files/EB130/B130_9-en.pdf [Accessed 02/07/16].

Williams D.R. (2018) Stress and the mental health of populations of color: advancing our understanding of race-related stressors. *Journal of Health and Social Behavior,* 59(4): *466-485.*

Wisker, G., Morris, C., Cheng, M., Masika, R., Warnes, M., Lilly, J., Trafford, V. & Robinson, G. (2010) "Doctoral learning journeys – final report of the NTFS-funded project", available at: http://www.heacademy. ac.uk/resources/detail/ntfs /Projects /Doctoral_Learning_Journeys.

Wollast, R., Boudrenghien, G., Van der Linden, N., Galand, B., Roland, N., Devos, C., ... & Frenay, M. (2018) Who are the doctoral students who drop out? Factors associated with the rate of doctoral degree completion in universities. *International Journal of Higher Education*, 7(4): 143-156.

Zhao, C. M., Golde, C. M., & McCormick, A. C. (2007) More than a signature: How advisor choice and advisor behavior affect doctoral student satisfaction. *Journal of Further and Higher Education*, 31(3): 263-281.