



Toxic research cultures: The what, why and how

McKenna, H. P. (2023). Toxic research cultures: The what, why and how. *International Journal of Nursing Studies*, 140, 1-3. Article 104449. <https://doi.org/10.1016/j.ijnurstu.2023.104449>

[Link to publication record in Ulster University Research Portal](#)

Published in:
International Journal of Nursing Studies

Publication Status:
Published (in print/issue): 30/04/2023

DOI:
[10.1016/j.ijnurstu.2023.104449](https://doi.org/10.1016/j.ijnurstu.2023.104449)

Document Version
Author Accepted version

General rights
Copyright for the publications made accessible via Ulster University's Research Portal is retained by the author(s) and / or other copyright owners and it is a condition of accessing these publications that users recognise and abide by the legal requirements associated with these rights.

Take down policy
The Research Portal is Ulster University's institutional repository that provides access to Ulster's research outputs. Every effort has been made to ensure that content in the Research Portal does not infringe any person's rights, or applicable UK laws. If you discover content in the Research Portal that you believe breaches copyright or violates any law, please contact pure-support@ulster.ac.uk.

International Journal of Nursing Studies
Toxic Research Cultures: The What, Why and How
--Manuscript Draft--

Manuscript Number:	
Article Type:	Editorial
Keywords:	Research culture, toxic culture harassment bullying research assessment competitiveness
Corresponding Author:	Hugh P McKenna, BSc(Hons), PhD Ulster University Co Londonderry, UNITED KINGDOM
First Author:	Hugh P McKenna, BSc(Hons), PhD
Order of Authors:	Hugh P McKenna, BSc(Hons), PhD

Editorial

Toxic Research Cultures: The What, Why and How

Hugh McKenna

Email: hp.mckenna@ulster.ac.uk

Faculty of Life and Health Sciences, University of Ulster, Cromore Road, Coleraine, Co Derry, Ireland

Toxic Research Cultures: The What, Why and How

There is mounting evidence that many academics worldwide are working in a toxic research culture. This may be why improving research cultures in universities is high on the agenda of global organisations. We see it in university policies, in the Wellcome Trust's (2021) bullying and harassment policy, in the People and Culture Strategy (BEIS, 2021), in Vitae reports (Parr, 2021), in the San Francisco Declaration on Research Assessment (DORA, 2023), and in the recent European Union's research assessment agreement (CoARA, 2022). According to the Royal Society, research culture encompasses the behaviours, values, expectations, attitudes, and norms of our research communities. It influences researchers' career paths and determines the way that research is conducted and communicated (Royal Society, 2022).

If you type 'toxic nursing culture' into your web browser, you will uncover hundreds of publications on the topic pertaining to health care settings. There are less sources focusing on nurse academics working in toxic research cultures. Rather, Wilkes and Jackson (2014) noted that a positive research culture improved nursing research productivity, positive collegial relationships, inclusivity, non-competitiveness, and effective research processes and training. More recently, Bottcher Berthelsen and Holge-Hazelton (2017) found that a positive nursing research culture was linked to improved patient care. These and many other sources ignore the fact that in most countries nursing is a relatively new discipline in the academy and has had problems adjusting to traditional hyper-competitive research cultures, developed and nurtured by more established disciplines.

There is no doubt that 21st century universities have sought to establish positive research cultures through initiatives such as the Athena Swan Charter (2023), which recognises commitment to gender equality; the Research Development Concordat (2023), which supports the career development of researchers; and the Race Equality Charter (2023), which improves the representation and progression of ethnic staff in universities. Despite these worthy endeavours, a toxic research culture remains firmly rooted in many universities. While PhD students, early carer researchers and research support staff suffer more than most, it permeates every level of academia.

What is a toxic research culture?

A toxic research culture is reflected in bullying and harassment, poor employment terms and conditions, inadequate equality, diversity and integration practices, breeches of research integrity, and an almost pathological pursuit of higher league table positions, H-indices and impact factors. There is also evidence of ‘ghost authoring’, where senior researchers take credit for papers produced by junior staff, to which they had contributed very little—and sometimes nothing at all (Lisaerde, 2022).

In 2020, the Wellcome Trust questioned more than 4,200 researchers on their experiences of research cultures. It identified deep concerns about equality, diversity and inclusion, unhealthy competition, and lack of job security leading to resignations of talented researchers. Ijoyemi (2021) reported on PhD students’ experiences of research cultures. He recounted them being belittled and humiliated in front of colleagues, having supervisors explode with anger at research setbacks, and their

reputations being denigrated with prospective employers. These experiences often led to anxiety, depression, post-traumatic stress disorder and even suicide.

The Covid pandemic contributed significantly to an unhealthy research culture; angst occurred because of lockdowns, travel restrictions, the inability to collect data and recruitment procedures being delayed or even cancelled. Furthermore, isolated home working contributed to mental health problems (McKenna, 2021). One survey found that during the pandemic, face-to-face bullying and provocation were replaced by other harassment tactics, such as abusive emails (ARMA, 2021).

In September 2020, the Association of Research Managers and Administrators (ARMA), conducted a culture survey with 300 research support staff. Forty four percent had directly experienced bullying or discrimination. The respondents also witnessed such behaviour being inflicted on others, 29% of cases involved supervisors and senior managers as perpetrators, with other senior colleagues making up 30%. Where respondents were themselves victims, the dominant perpetrators were reported to be supervisors and senior managers at 34%, followed by other senior colleagues at 22% (ARMA, 2021). When respondents reported an incident or a complaint, 52% believed that no action would be taken by their organisation. Respondents also maintained that people failed to report incidents due to a fear of negative career consequences.

In 2021, Parr described a Vitae survey of over 3,000 people from 22 United Kingdom universities. Findings showed that 22 per cent of female post-doctoral research staff had felt bullied or harassed at work, compared with 13 per cent of their male peers.

Among other academic researchers, the proportions were 26 and 20 per cent respectively.

Why do toxic research cultures exist?

In academia worldwide, there are too few jobs for the number of high-quality staff applying, too few grants for the number of quality proposals presented and too few journal slots for the number of quality papers submitted. This can feed a highly competitive 'corner-cutting' culture increasing the threats to research integrity (McKenna and Thompson, 2023). The League of European Research Universities (LERU, 2022) presented a starker view, asserting that a strong focus on the number and reputation of publications can lead to a highly competitive, long-hours research culture, where bullying goes unnoticed and researcher wellbeing does not receive attention.

Such competitiveness is particularly damaging for those staff who work part time, have caring responsibilities, take sick leave, career breaks and leave of absence. It also encourages those seeking promotion to pursue the enhancement of their own profile to the detriment of that of others. The Wellcome Trust (2020) found that 78% of respondents in their study agreed that high levels of competition created an unkind and aggressive research culture. This led to the launch of its bullying and harassment policy (Wellcome Trust, 2021).

Globally, the current systems for recruiting, retaining and promoting academic staff continue to value quantifiable publications and funding metrics. Rice et al (2020) reviewed ninety-two randomly selected faculties worldwide and found that the

traditional evaluation criteria – of peer reviewed publications, authorship order, journal impact factors, grant funding and national or international reputation – were used in 95% of promotion and tenure guidelines. They identified this as incentivising problematic behaviours that undermine good quality research cultures.

How to generate a positive research culture: the role of research assessment

In June 2022, Science Europe published a set of values that it maintained contribute to a positive research culture. These included autonomy and freedom; care and collegiality; collaboration; equality, diversity and inclusion; integrity and ethics; and openness and transparency. I would add to these, zero tolerances of inappropriate behaviour, a safe and supportive research environment, fair opportunities for career advancement, and common courtesy and kindness.

Obviously, researchers have grant proposals to write, PhD students to complete, publication deadlines to meet and research impact to pursue, but a damaging research culture will hinder rather than help such activities. Research from RAND (2015) found that universities cannot possibly perform at world leading research performance levels, unless they have a positive research culture.

Conclusions from the Wellcome (2020) study, asserted that the existence of unhealthy competitiveness in universities is not solely due to the personal characteristics of researchers, rather it is mainly because of the incentives set by policymakers, institutions and funders. Linked to this, there is a view that international government-led research assessment exercises have contributed to the generation of toxic research cultures. In many countries the main focus of such

exercises is a review of the number and citation indices of publications in high impact factored journals. Few of these exercises pay sufficient attention to the assessment of research environments, where positive research cultures could be reviewed and rewarded. This smacks of the 'end justifying the means' where the presence of a toxic research culture is ignored because there is a perception that its inherent competitiveness produces more and better research outputs and profiles.

In the most recent United Kingdom Research Excellence Framework (REF, 2021), only 15% of the total weighting was allocated to the research environment, whereas 60% went to research outputs (published papers) and 25% to research impact. Here the environment is a catch-all category that includes, research strategy, staff recruitment and profiles, equality, diversity and inclusion, PhD student completions, support for early career researchers, grant capture, ways of encouraging research impact and research partnerships and collaborations. Considering the current emphasis on research culture, the 15% percentage allocation to environment seems inappropriate. After all, it could be asserted that if a university gets the research environment right, then excellent research publications and excellent research impacts should follow. This assertion is supported by the findings from the RAND (2015) study, alluded to above.

Two worrying findings from the panel that included nursing in the 2021 Research Excellence Framework were a reduction in the percentage of early career researchers since the previous exercise and a low percentage of staff members being returned by institutions. One would expect 100% of staff who had research, or research and teaching, in their contract to be submitted, but the average across

ninety universities was 47%, with many well below this. One interpretation is that staff were supported to conduct research but the publications and impact from such studies did not get through the REF submission filter imposed by their university. A more likely interpretation is that those staff who had a contractual responsibility to undertake research were not supported or enabled to do so. How can a professional discipline produce excellent publications and impact when its members are not given the time, space or support to conduct research? Hardly a vibrant research ethos. Add to this, the lower numbers of early career researchers submitted, and it raises an important capacity issue, which will affect research culture..

While all disciplines have at one time or another experienced a negative research ethos, nursing has encountered it more than most. This is not just because of its recent entry into the competitive university sector, but also because it has been used as 'a cash cow' by many institutions. Nursing schools admit thousands of students each year, many with double intakes, attracting guaranteed millions in fees. Many university leaders channel a substantial part of this income away from nursing to help bolster those academic schools and central department that have difficulty 'washing their faces' financially. Such funding could be used to support optimal time and space for nursing research. The ubiquitous three semester nursing courses also generate heavy teaching, placement/practicum and administrative workloads, leaving little time for research. This clearly violates many of the above values, identified by Science Europe (2022), that underpin a positive research culture.

However, there may be good news ahead. Building upon initiatives such as the San Francisco Declaration on Research Assessment (DORA, 2023) and the Leiden Manifesto (2015), the European Union Coalition on Advancing Research

Assessment (CoARA) is proposing fairer and more transparent ways to evaluate research by institutions, projects and researchers. CoARA (2022) now has more than 400 signatories from over forty countries. These are mostly universities, but also research funding organisations, government groups and professional bodies. One signatory, the European University Association represents 850 universities.

CoARA's work is based on four fundamental tenets: recognise the diversity of research roles; base assessment primarily on qualitative evaluation; abandon the inappropriate use of journal and publication-based metrics such as Impact Factors and H indices; and avoid the use of international rankings of research organisations in the assessment of researchers. CoARA does not push for the abandonment of quantitative indicators, just their more responsible use.

It also calls for a move towards narrative curriculum vitae, focusing on achievements in four areas: generation of knowledge; development of individuals and collaborations; contributions to the research community; and contributions to society and the economy. Furthermore, it recommends embracing open research and valuing activities that researchers engage in such as teaching, leadership, supervision, training and mentoring. While all academic disciplines would benefit from these recommendations, they could transform how nursing research is recognised and supported. Regrettably, as yet, no nursing organisation has signed up to CoARA.

CoARA is a response to the increasing global disquiet over the way research is assessed and how those assessments are interpreted and used. In the UK, Sir

Peter Gluckman is chairing the Future Research Assessment Programme Committee (FRAP), which will report in the Spring of 2023, detailing what the next UK Research Excellence Framework may look like. In the meantime, the research assessment exercises in New Zealand and in Australia have been paused and those managing other global exercises will take cognisance of CoARA's and FRAP's recommendations. It is not possible to know what these deliberations will lead to, but it is a given that research culture and value-led reviews will form a greater role in future assessments of research and researchers.

Conclusion

It is a truism that toxic research cultures exist in many universities. Nevertheless, new efforts are being introduced to help eradicate them, not least on how research excellence is assessed. One would hope that any new indicators would not simply replace the inappropriate uses of current metrics. Regardless, the changes being proposed herald a research culture that disincentivises competition and inappropriate behaviours and rewards care and collegiality. No reasonable persons would deny that these are laudable proposals. However, the motivations behind noxious research cultures are deeply entrenched in respected universities, in powerful publishing houses, in government departments and in reputable funding bodies. Old habits die hard, and it would be naïve of me to think the toxicity problem will be eliminated any time soon. Nonetheless, as the largest health care profession worldwide, nursing should marshal its forces and actively lobby for value-led positive research cultures.

References

ARMA (2021) Research Culture Survey Report <https://arma.ac.uk/arma-research-culture-survey-report/>

Athena Swan (2023) Charter for Gender Equality. <https://www.advance-he.ac.uk/equality-charters/athena-swan-charter> (accessed Jan 2023)

BEIS, (2021). R&D People and Culture Strategy. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1004685/r_d-people-culture-strategy.pdf (accessed Jan 2023)

Bottcher Berthelsen, C. Holge-Hazelton, B. (2017). 'Nursing research culture' in the context of clinical nursing practice: addressing a conceptual problem. *Journal of Advanced Nursing* 73(5), 1066-1074. DOI: 10.1111/jan.13229

CoARA (2022). Agreement of Reforming Research Assessment. https://coara.eu/app/uploads/2022/09/2022_07_19_rra_agreement_final.pdf

DORA (2023). The San Francisco Declaration on Research Assessment. <https://sfdora.org/>

Ijoyemi, T. (2021) Bullying by supervisors is alive and well – now is the time to tackle it. *The Times Higher*. Nov 2021.

<https://www.timeshighereducation.com/campus/bullying-supervisors-alive-and-well-now-time-tackle-it>

Leiden Manifesto (2015). Leiden Manifesto for Research Assessment.

<http://www.leidenmanifestom.org/>

LERU (2022). A Pathway towards Multidimensional Academic Careers - A LERU Framework for the Assessment of Researchers <https://www.leru.org/publications/a-pathway-towards-multidimensional-academic-careers-a-leru-framework-for-the-assessment-of-researchers>

Lisaerde, M (2022). Evidence of research theft.

<https://sciencereport.dk/forskningstyveri/vidnesbyrd/>

McKenna, H.P. (2021). Postdoctoral nurse researchers: the ups and downs of their roles, functions and careers. *International Journal of Nursing Studies*. Volume 118, June 2021, 103885. <https://doi.org/10.1016/j.ijnurstu.2021.103885>

McKenna, H.P. Thompson, DR. (2023) Fake News, The research reproducibility crisis. *International Journal of Nursing Studies*. Vol 138.

<https://doi.org/10.1016/j.ijnurstu.2022.104396>

Parr (2021). Female researchers more likely to be bullied, less likely to report it. :

<https://www.researchprofessional.com/0/rr/news/uk/careers/2021/2/Women-researchers-more-likely-to-be-bullied--less-likely-to-report-it.html#sthash.oV93qBJG.dpuf>

Race Equality Charter (2023). <https://www.race-equality.admin.cam.ac.uk/race-equality-charter>

RAND (2015). Characteristics of high-performing research units in UK higher education institutions (HEIs).

<https://www.rand.org/randeurope/research/projects/characteristics-of-high-performing-uk-research-units.html>

REF (2021). Research Excellence Framework, <https://www.ref.ac.uk/>

Research Development Concordat (2023). The Concordate to Support the Career Development of Researchers. <https://researcherdevelopmentconcordat.ac.uk/>

Research Society (2022). Research Culture. <https://royalsociety.org/topics-policy/projects/research-culture/#:~:text=Research%20culture%20encompasses%20the%20behaviours,research%20is%20conducted%20and%20communicated.>

Rice D.B., Raffoul, H. Ioannidis, J.P.A., Moher, D. (2020). Academic criteria for promotion and tenure in biomedical sciences faculties: cross sectional analysis of international sample of universities.

BMJ 2020; 369 doi: <https://doi.org/10.1136/bmj.m2081>

Science Europe (2022). A Values Framework for the Organisation of Research.

<https://www.scienceeurope.org/our-resources/research-culture-values-framework/>

Wellcome Trust (2020). What researchers think about the culture they work in.

<https://wellcome.org/sites/default/files/what-researchers-think-about-the-culture-they-work-in.pdf>

Wellcome Trust (2021) Bullying and Harassment Policy. <https://wellcome.org/grant-funding/guidance/bullying-and-harassment-policy>

Wilkes, L. Jackson, D. (2013). Enabling research cultures in nursing: Insights from a multidisciplinary group of experienced researchers. *Nurse Researcher* 20(4), 28-34.

[10.7748/nr2013.03.20.4.28.e310](https://doi.org/10.7748/nr2013.03.20.4.28.e310)

[Click here to view linked References](#)

Toxic Research Cultures: The What, Why and How

1
2
3 There is mounting evidence that many academics worldwide are working in a toxic
4 research culture. This may be why improving research cultures in universities is high
5 on the agenda of global organisations. We see it in university policies, in the
6
7 Wellcome Trust's (2021) bullying and harassment policy, in the People and Culture
8 Strategy (BEIS, 2021), in Vitae reports (Parr, 2021), in the San Francisco
9
10 Declaration on Research Assessment (DORA, 2023), and in the recent European
11
12 Union's research assessment agreement (CoARA, 2022). According to the Royal
13
14 Society, research culture encompasses the behaviours, values, expectations,
15
16 attitudes, and norms of our research communities. It influences researchers' career
17
18 paths and determines the way that research is conducted and communicated (Royal
19
20 Society, 2022).

21
22
23
24
25
26
27
28
29
30 If you type 'toxic nursing culture' into your web browser, you will uncover hundreds of
31
32 publications on the topic pertaining to health care settings. There are less sources
33
34 focusing on nurse academics working in toxic research cultures. Rather, Wilkes and
35
36 Jackson (2014) noted that a positive research culture improved nursing research
37
38 productivity, positive collegial relationships, inclusivity, non-competitiveness, and
39
40 effective research processes and training. More recently, Bottcher Berthelsen and
41
42 Holge-Hazelton (2017) found that a positive nursing research culture was linked to
43
44 improved patient care. These and many other sources ignore the fact that in most
45
46 countries nursing is a relatively new discipline in the academy and has had problems
47
48 adjusting to traditional hyper-competitive research cultures, developed and nurtured
49
50 by more established disciplines.
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65

There is no doubt that 21st century universities have sought to establish positive research cultures through initiatives such as the Athena Swan Charter (2023), which recognises commitment to gender equality; the Research Development Concordat (2023), which supports the career development of researchers; and the Race Equality Charter (2023), which improves the representation and progression of ethnic staff in universities. Despite these worthy endeavours, a toxic research culture remains firmly rooted in many universities. While PhD students, early carer researchers and research support staff suffer more than most, it permeates every level of academia.

What is a toxic research culture?

A toxic research culture is reflected in bullying and harassment, poor employment terms and conditions, inadequate equality, diversity and integration practices, increasing breeches of research integrity, and an almost pathological pursuit of higher league table positions, H-indices and impact factors. There is also evidence of 'ghost authoring', where senior researchers take credit for papers produced by junior staff, to which they had contributed very little—and sometimes nothing at all (Lisaerde, 2022).

In 2020, the Wellcome Trust questioned more than 4,200 researchers on their experiences of research cultures. It identified deep concerns about equality, diversity and inclusion, unhealthy competition, and lack of job security leading to resignations of talented researchers. Ijoyemi (2021) reported on PhD students' experiences of research cultures. He recounted them being belittled and humiliated in front of colleagues, having supervisors explode with anger at research setbacks, and their

1 reputations being denigrated with prospective employers. These experiences often
2 led to anxiety, depression, post-traumatic stress disorder and even suicide.
3
4

5
6
7 The Covid pandemic contributed significantly to an unhealthy research culture
8
9 because of lockdowns, travel restrictions, the inability to collect data and recruitment
10 procedures being delayed or even cancelled. Furthermore, isolated home working
11 contributed to mental health problems (McKenna, 2021). One survey found that
12 during the pandemic, face-to-face bullying and provocation were replaced by other
13 harassment tactics, such as abusive emails (ARMA, 2021).
14
15
16
17
18
19
20
21
22
23

24 In September 2020, the Association of Research Managers and Administrators
25 (ARMA), conducted a culture survey with 300 research support staff. Forty four
26 percent had directly experienced bullying or discrimination. The respondents also
27 witnessed such behaviour being inflicted on others, 29% of cases involved
28 supervisors and senior managers as perpetrators, with other senior colleagues
29 making up 30%. Where respondents were themselves victims, the dominant
30 perpetrators were reported to be supervisors and senior managers at 34%, followed
31 by other senior colleagues at 22% (ARMA, 2021). When respondents reported an
32 incident or a complaint, 52% believed that no action would be taken by their
33 organisation. Respondents also maintained that people failed to report incidents due
34 to a fear of negative career consequences.
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50

51 In 2021, Parr described a Vitae survey of over 3,000 people from 22 United Kingdom
52 universities. Findings showed that 22 per cent of female post-doctoral research staff
53 had felt bullied or harassed at work, compared with 13 per cent of their male peers.
54
55
56
57
58
59
60
61
62
63
64
65

1 Among other academic researchers, the proportions were 26 and 20 per cent
2 respectively.
3
4
5
6

7 Why do toxic research cultures exist? 8

9 In academia worldwide, there are too few jobs for the number of high-quality staff
10 applying, too few grants for the number of quality proposals presented and too few
11 journal slots for the number of quality papers submitted. This can feed a highly
12 competitive 'corner-cutting' culture increasing the threats to research integrity
13
14 (McKenna and Thompson, 2023). The League of European Research Universities
15 (LERU, 2022) presented a starker view, asserting that a strong focus on the number
16 and reputation of publications can lead to a highly competitive, long-hours research
17 culture, where bullying goes unnoticed and researcher wellbeing does not receive
18 attention.
19
20
21
22
23
24
25
26
27
28
29
30

31 Such competitiveness is particularly damaging for those staff who work part time,
32 have caring responsibilities, take sick leave, career breaks and leave of absence. It
33 also encourages those seeking promotion to pursue the enhancement of their own
34 profile to the detriment of that of others. The Wellcome Trust (2020) found that 78%
35 of respondents in their study agreed that high levels of competition created an
36 unkind and aggressive research culture. This led to the launch of its bullying and
37 harassment policy (Wellcome Trust, 2021).
38
39
40
41
42
43
44
45
46
47
48
49
50

51 Globally, the current systems for recruiting, retaining and promoting academic staff
52 continue to value quantifiable publications and funding metrics. Rice et al
53 (2020) reviewed ninety two randomly selected faculties worldwide and found that the
54
55
56
57
58
59
60
61
62
63
64
65

1 traditional evaluation criteria – of peer reviewed publications, authorship order,
2 journal impact factors, grant funding and national or international reputation – were
3
4 used in 95% of promotion and tenure guidelines. They identified this as incentivising
5
6 problematic behaviours that undermine good quality research cultures.
7
8
9

10 11 How to generate a positive research culture: the role of research assessment

12
13
14
15 In June 2022, Science Europe published a set of values that it maintained contribute
16
17 to a positive research culture. These included autonomy and freedom; care and
18
19 collegiality; collaboration; equality, diversity and inclusion; integrity and ethics; and
20
21 openness and transparency. I would add to these, zero tolerances of inappropriate
22
23 behaviour, a safe and supportive research environment, fair opportunities for career
24
25 advancement, and common courtesy and kindness.
26
27
28
29
30

31
32 Obviously, researchers have grant proposals to write, PhD students to complete,
33
34 publication deadlines to meet and research impact to pursue, but a damaging
35
36 research culture will hinder rather than help such activities. Research from RAND
37
38 (2015) found that universities cannot possibly perform at world leading research
39
40 performance levels, unless they have a positive research culture.
41
42
43
44
45

46
47 Conclusions from the Wellcome (2020) study, asserted that the existence of
48
49 unhealthy competitiveness in universities is not solely due to the personal
50
51 characteristics of researchers, rather it is mainly because of the incentives set by
52
53 policymakers, institutions and funders. Linked to this, there is a view that
54
55 international government-led research assessment exercises have contributed to the
56
57 generation of toxic research cultures. In many countries the main focus of such
58
59
60
61
62
63
64
65

1 exercises is a review of the number and citation indices of publications in high impact
2 factored journals. Few of these exercises pay sufficient attention to the assessment
3 of research environments, where positive research cultures could be reviewed and
4 rewarded. This smacks of the 'end justifying the means' where the presence of a
5 toxic research culture is ignored because there is a perception that its inherent
6 competitiveness produces more and better publications.
7
8
9
10
11
12
13
14
15
16

17 In the most recent United Kingdom Research Excellence Framework (REF, 2021),
18 only 15% of the total weighting was allocated to the research environment, whereas
19 60% went to research outputs (published papers) and 25% to research impact. Here
20 the environment is a catch-all category that includes, research strategy, staff
21 recruitment and profiles, equality, diversity and inclusion, PhD student completions,
22 support for early career researchers, grant capture, drivers for ensuring research
23 impact and research partnerships and collaborations. Considering the current
24 emphasis on research culture, the percentage allocation to environment seems
25 inappropriate. After all, it could be asserted that if a university gets the research
26 environment right, then excellent research publications and excellent research
27 impacts should follow. This assertion is supported by the findings from the RAND
28 (2015) study, alluded to above.
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47

48 Two worrying findings from the panel that included nursing in the 2021 Research
49 Excellence Framework were a reduction in the percentage of early career
50 researchers since the last exercise and a low percentage of researchers being
51 returned by institutions. One would expect 100% of staff who had research, or
52 research and teaching, in their contract to be submitted, but the average across
53
54
55
56
57
58
59
60
61
62
63
64
65

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65

ninety universities was 47%, with many well below this. One interpretation is that staff were supported to conduct research but the publications and impact from such studies did not get through the REF submission filter imposed by their university. A more likely interpretation is that those staff who had a contractual responsibility to undertake research were not enabled to do so. Add to this, the lower numbers of early career researchers submitted, and it raises an important capacity issue. How can a professional discipline produce excellent publications and impact when its members are not given the time, space or support to conduct research? Hardly a vibrant research ethos.

While all disciplines have at one time or another experienced a negative research ethos, nursing has encountered it more than most. This is not just because of its recent entry into the competitive university sector, but also because it has been used as 'a cash cow' by many institutions. Nursing schools admit thousands of students each year, many with double intakes, attracting guaranteed millions in fees. Many university leaders channel a substantial part of this income away from nursing to help bolster those academic schools and central department that have difficulty 'washing their faces' financially. Such funding could be used to support the time and space for nursing research. The ubiquitous three semester nursing courses also generate heavy teaching, placement/practicum and administrative workloads, leaving little time for research. This clearly violates many of the above values that underpin a positive research culture as identified by Science Europe (2022).

However, there may be good news ahead. Building upon initiatives such as the San Francisco Declaration on Research Assessment (DORA, 2023) and the Leiden Manifesto (2015), the European Union Coalition on Advancing Research

1 Assessment (CoARA) proposing fairer and more transparent ways to evaluate
2 research by institutions, projects and researchers. CoARA (2022) now has more
3 than 400 signatories from over forty countries. These are mostly universities, but
4 also research funding organisations, government groups and professional bodies.
5 One signatory, the European University Association represents 850 universities.
6
7
8
9
10

11
12
13
14 CoARA's work is based on four fundamental tenets: recognise the diversity of
15 research roles; base assessment primarily on qualitative evaluation; abandon the
16 inappropriate use of journal and publication-based metrics such as Impact Factors
17 and H indices; and avoid the use of international rankings of research organisations
18 in the assessment of researchers. CoARA does not push for the abandonment of
19 quantitative indicators, just their more responsible use.
20
21
22
23
24
25
26
27
28
29
30

31 It also calls for a move towards narrative curriculum vitae, focusing on achievements
32 in four areas: generation of knowledge; development of individuals and
33 collaborations; contributions to the research community; and contributions to society
34 and the economy. Furthermore, it recommends embracing transparency and open
35 research and valuing activities that researchers engage in such as teaching,
36 leadership, supervision, training and mentoring. While all academic disciplines would
37 benefit from these recommendations, they could transform how nursing research is
38 recognised and supported. Regrettably, as yet, no nursing organisation has signed
39 up to CoARA.
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55

56 CoARA is a response to the increasing global disquiet over the way research is
57 assessed and how those assessments are interpreted and used. In the UK, Sir
58
59
60
61
62
63
64
65

1 Peter Gluckman is chairing the Future Research Assessment Programme
2 Committee (FRAP), which will report in the Spring of 2023 detailing what the next UK
3 Research Excellence Framework may look like. In the meantime, the research
4 assessment exercises in New Zealand and in Australia have been paused and those
5 managing other global exercises will take cognisance of FRAP's recommendations.
6
7 It is not possible to know what these deliberations will lead to, but it is a given that
8 research culture and value-led reviews will form a greater role in future assessments
9 of research and researchers.
10
11
12
13
14
15
16
17
18
19
20
21

22 Conclusion

23
24 It is a truism that toxic research cultures exist in many universities. Nevertheless,
25 new efforts are being introduced to help eradicate them, not least on how research
26 excellence is assessed. One would hope that any new indicators would not simply
27 replace the inappropriate uses of current metrics. Regardless, the changes being
28 proposed herald a research culture that disincentivises competition and
29 inappropriate behaviours and rewards care and collegiality. No reasonable
30 researchers would deny that these are laudable proposals. However, the motivations
31 behind noxious research cultures are deeply entrenched in respected universities, in
32 powerful publishing houses, in government departments and in reputable funding
33 bodies. Old habits die hard, and it would be naïve of me to think the toxicity problem
34 will be eliminated any time soon. Nonetheless, as the largest health care profession
35 worldwide, nursing should marshal its forces and actively lobby for value-led positive
36 research cultures.
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65

References

1
2
3 ARMA (2021) Research Culture Survey Report <https://arma.ac.uk/arma-research-culture-survey-report/>
4
5
6

7
8
9
10
11 Athena Swan (2023) Charter for Gender Equality. <https://www.advance-he.ac.uk/equality-charters/athena-swan-charter> (accessed Jan 2023)
12
13
14
15
16

17
18
19
20 BEIS, (2021). R&D People and Culture Strategy.
21
22 [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attach](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1004685/r_d-people-culture-strategy.pdf)
23
24
25 [ment_data/file/1004685/r_d-people-culture-strategy.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1004685/r_d-people-culture-strategy.pdf) (accessed Jan 2023)
26
27

28
29
30
31 Bottcher Berthelsen, C. Holge-Hazelton, B. (2017). 'Nursing research culture' in the
32
33 context of clinical nursing practice: addressing a conceptual problem. Journal of
34
35 Advanced Nursing 73(5), 1066-1074. DOI: 10.1111/jan.13229
36
37
38
39
40

41
42
43 CoARA (2022). Agreement of Reforming Research Assessment.
44
45 https://coara.eu/app/uploads/2022/09/2022_07_19_rra_agreement_final.pdf
46
47
48
49
50

51
52
53 DORA (2023). The San Francisco Declaration on Research Assessment.
54
55 <https://sfdora.org/>
56
57
58
59
60
61
62
63
64
65

1 ljoyemi, T. (2021) Bullying by supervisors is alive and well – now is the time to tackle
2 it. The Times Higher. Nov 2021.
3

4 [https://www.timeshighereducation.com/campus/bullying-supervisors-alive-and-well-
5 now-time-tackle-it](https://www.timeshighereducation.com/campus/bullying-supervisors-alive-and-well-now-time-tackle-it)
6
7

8
9
10
11
12
13 Leiden Manifesto (2015). Leiden Manifesto for Research Assessment.
14

15 <http://www.leidenmanifestom.org/>
16
17
18
19
20
21

22 LERU (2022). A Pathway towards Multidimensional Academic Careers - A LERU
23 Framework for the Assessment of Researchers [https://www.leru.org/publications/a-
24 pathway-towards-multidimensional-academic-careers-a-leru-framework-for-the-
25 assessment-of-researchers](https://www.leru.org/publications/a-pathway-towards-multidimensional-academic-careers-a-leru-framework-for-the-assessment-of-researchers)
26
27
28
29
30

31
32 Lisaerde, M (2022). Evidence of research theft.
33

34 <https://sciencereport.dk/forskningstyveri/vidnesbyrd/>
35
36
37
38
39
40

41 McKenna, H.P. (2021). Postdoctoral nurse researchers: the ups and downs of their
42 roles, functions and careers. *International Journal of Nursing Studies*. Volume 118,
43 June 2021, 103885. <https://doi.org/10.1016/j.ijnurstu.2021.103885>
44
45
46
47
48
49
50
51

52 McKenna, H.P. Thompson, DR. (2023) Fake News, The research reproducibility
53 crisis. *International Journal of Nursing Studies*. Vol 138.
54
55

56 <https://doi.org/10.1016/j.ijnurstu.2022.104396>
57
58
59
60
61
62
63
64
65

1
2
3 Parr (2021). Female researchers more likely to be bullied, less likely to report it. :

4
5 [https://www.researchprofessional.com/0/rr/news/uk/careers/2021/2/Women-](https://www.researchprofessional.com/0/rr/news/uk/careers/2021/2/Women-researchers-more-likely-to-be-bullied--less-likely-to-report-it.html#sthash.oV93qBJG.dpuf)
6
7 [researchers-more-likely-to-be-bullied--less-likely-to-report-](https://www.researchprofessional.com/0/rr/news/uk/careers/2021/2/Women-researchers-more-likely-to-be-bullied--less-likely-to-report-it.html#sthash.oV93qBJG.dpuf)
8
9 [it.html#sthash.oV93qBJG.dpuf](https://www.researchprofessional.com/0/rr/news/uk/careers/2021/2/Women-researchers-more-likely-to-be-bullied--less-likely-to-report-it.html#sthash.oV93qBJG.dpuf)
10
11

12
13
14
15
16 Race Equality Charter (2023). [https://www.race-equality.admin.cam.ac.uk/race-](https://www.race-equality.admin.cam.ac.uk/race-equality-charter)
17
18 [equality-charter](https://www.race-equality.admin.cam.ac.uk/race-equality-charter)
19
20

21
22
23
24 RAND (2015). Characteristics of high-performing research units in UK higher
25
26 education institutions (HEIs).

27
28
29 [https://www.rand.org/randeurope/research/projects/characteristics-of-high-](https://www.rand.org/randeurope/research/projects/characteristics-of-high-performing-uk-research-units.html)
30
31 [performing-uk-research-units.html](https://www.rand.org/randeurope/research/projects/characteristics-of-high-performing-uk-research-units.html)
32
33

34
35
36
37 REF (2021). Research Excellence Framework, <https://www.ref.ac.uk/>
38
39

40
41 Research Development Concordat (2023). The Concordate to Support the Career
42
43 Development of Researchers. <https://researcherdevelopmentconcordat.ac.uk/>
44
45

46
47 Research Society (2022). Research Culture. [https://royalsociety.org/topics-](https://royalsociety.org/topics-policy/projects/research-culture/#:~:text=Research%20culture%20encompasses%20the%20behaviours,rese)
48
49 [policy/projects/research-](https://royalsociety.org/topics-policy/projects/research-culture/#:~:text=Research%20culture%20encompasses%20the%20behaviours,rese)
50
51 [culture/#:~:text=Research%20culture%20encompasses%20the%20behaviours,rese](https://royalsociety.org/topics-policy/projects/research-culture/#:~:text=Research%20culture%20encompasses%20the%20behaviours,rese)
52
53 [arch%20is%20conducted%20and%20communicated.](https://royalsociety.org/topics-policy/projects/research-culture/#:~:text=Research%20culture%20encompasses%20the%20behaviours,rese)
54
55
56
57
58
59
60
61
62
63
64
65

1 Rice D.B., Raffoul, H. Ioannidis, J.P.A., Moher, D. (2020). Academic criteria for
2 promotion and tenure in biomedical sciences faculties: cross sectional analysis of
3 international sample of universities.
4
5

6 *BMJ* 2020; 369 doi: <https://doi.org/10.1136/bmj.m2081>
7
8
9

10
11 Science Europe (2022). A Values Framework for the Organisation of Research.

12 <https://www.scienceeurope.org/our-resources/research-culture-values-framework/>
13
14

15
16 Wellcome Trust (2020). What researchers think about the culture they work in.

17 [https://wellcome.org/sites/default/files/what-researchers-think-about-the-culture-they-
18 work-in.pdf](https://wellcome.org/sites/default/files/what-researchers-think-about-the-culture-they-work-in.pdf)
19
20
21

22
23 Wellcome Trust (2021) Bullying and Harassment Policy. [https://wellcome.org/grant-
24 funding/guidance/bullying-and-harassment-policy](https://wellcome.org/grant-funding/guidance/bullying-and-harassment-policy)
25
26
27

28
29 Wilkes, L. Jackson, D. (2013). Enabling research cultures in nursing: Insights from a
30 multidisciplinary group of experienced researchers. *Nurse Researcher* 20(4), 28-34.
31
32

33 [10.7748/nr2013.03.20.4.28.e310](https://doi.org/10.7748/nr2013.03.20.4.28.e310)
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65

Declaration of interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

The authors declare the following financial interests/personal relationships which may be considered as potential competing interests: