Mental health and wellbeing in primatology: Breaking the taboos

Joanna M Setchell[1*], Steve Unwin[2], Susan M Cheyne[3]

[1] Department of Anthropology, Durham University, UK

[2] Wildlife Health Australia, Orangutan Veterinary Advisory Group, and IUCN Conservation Planning Specialist Group

[3] Borneo Nature Foundation International, Oxford Brookes University, UK, and IUCN Species Survival Commission Primate Specialist Group Section on Small Apes

*Corresponding author: joanna.setchell@durham.ac.uk

Author biographies

Jo Setchell is Professor of Anthropology at Durham University, UK, Editor-in-Chief of the *International Journal of Primatology*, and author of *Studying Primates: How to Design, Conduct and Report Primatological Research*. She was President of the *Primate Society of Great Britain* 2018-2021 and is committed to inclusive primatology.

Steve Unwin is the Program Manager in One Health Surveillance for Australia and the Indo-Pacific at Wildlife Health Australia. He is a European specialist in Zoo Health Management and leads international, multidisciplinary wildlife health networks in Africa and South-East Asia. He looks for solutions to poor mental health management of those working with wildlife.

Susan M Cheyne is Co-Director of Borneo Nature Foundation International, Vice-Chair of the IUCN Primate Specialist Group Section on Small Apes, and a Teaching Fellow at Oxford Brookes University, UK. She is passionate about using science for conservation actions and promoting personal and institutional resilience in the primatology community.

Acknowledgements

We are grateful to all the participants of the workshop at the Winter 2021 meeting of the Primate Society of Great Britain, and to all those with whom we have each discussed these issues. We are grateful to the editor and four reviewers for their comments on an earlier version of this manuscript.

Conflict of Interest

The authors have no conflict of interest

Abstract

We hope to raise awareness of mental health and wellbeing among primatologists. With this aim in mind, we organized a workshop on mental health as part of the main program of the Winter meeting of the *Primate Society of Great Britain* in December 2021. The workshop was very well received. Here, we review the main issues raised in the workshop, and supplement them with our own observations, reflections, and reading. The information we gathered during the workshop reveals clear hazards to mental health and suggests that we must collectively acknowledge and better manage both the hazards themselves and our ability to cope with them if we are to avert disaster. We call on institutions and learned societies to lead in seeking solutions for the benefit of primatologists and primatology.

Keywords

Mental health, primatology, well-being, fieldwork, support, pandemic, best practice

The impact of the ongoing Covid-19 pandemic on mental health is well documented (Vindegaard & Benros 2020). We saw this as an opportunity to open up discussion of this difficult and often taboo subject in biological anthropology, primatology in particular. To begin to identify issues and find possible solutions, we hosted a workshop on mental health and wellbeing as part of the main program of the online Winter meeting of the *Primate Society of Great Britain* (PSGB) in December 2021. We aimed to raise awareness of mental health in general, and to get people talking about the specific challenges to mental health

and wellbeing that may arise in primatology, for the benefit of primatologists and primatology.

We used an online digital noticeboard (https://padlet.com) to allow approximately 100 online participants to share their experiences anonymously but openly and in their own words, without the constraints of a questionnaire. Our sample mainly comprises UK postgraduate students and academic staff, with some undergraduate student participants. We suggested themes of students' experiences, academic staff (equivalent to faculty in North America) experiences, field experiences, Covid-19 specific issues, what PSGB could do to support members, and other issues. During the workshop, we added issues of misuse of power, because participants mentioned these repeatedly. Our discussion focused mainly on fieldwork due to the participants' interests, and our own experiences, but also included teaching, learning and research with captive primates.

Levels of engagement were high during the workshop, and we received very positive feedback. For example, tweets included 'Honestly can't say thank you to the organisers @PrimateSociety for this workshop on mental health, particularly the use of padlet, it has been SO cathartic to anonymously air my anxieties in a safe space, and to know I'm not alone in my fears' (Mace 2021), and 'Big shout out to @PrimateSociety for putting together a workshop on mental health and wellbeing. Sometimes you just need to hear that you aren't alone in the way you feel. Thank you to the panelists for sharing their experiences and advice #PSGBwinter2021' (Chell 2021).

During the workshop, primatologists reported mental health issues associated with imposter syndrome, dealing with rejection, toxic working environments, abuse of power relationships, favoritism, bullying, discrimination, and a lack of support (**Fig 1**). Our findings reveal clear hazards to mental health and suggest that we risk creating a mental health

disaster if we continue to ignore an academic population unable to cope with these hazards. To prevent such a disaster, we must collectively acknowledge and better manage both the hazards themselves and our ability to cope with them. Here we review the main issues raised by students, academic staff, and other primatologists, supplementing what we learned from the workshop with our own observations, reflections, and reading. We then highlight two major issues - elitism and abuse of power - before focusing on the effects of the pandemic on primatologists. We address the specific challenges associated with fieldwork, and the effects of the pandemic on fieldwork. Finally, we propose actions for primatologists and learned societies.

FIGURE 1 HERE

'We are not all in the same boat. We are all in the same storm. Some of us are on super-yachts. Some have just the one oar.' (Barr 2020)

This quote went viral during the Covid-19 pandemic and beautifully illustrates the way in which our experiences are shaped by the intersections of multiple aspects of our social identities (Crenshaw 1989). Hierarchical social structures based on race, gender and sexuality, among other aspects of our identities, perpetuate oppression and inequality. It is vital to recognize the disproportionate effects of mental health concerns on underrepresented, marginalized, minoritized, and underestimated (Arlan Hamilton, described in Tulshyan 2022) groups, so we can work to create an environment where everyone feels seen and heard and to identify where we can improve our discipline (Blair 2019, Cheyne 2019, Covert 2019, Loyola 2019).

Mental health concerns in students

The state of mental health in students seeking advanced degrees was worrying before the pandemic (Evans et al., 2018), and has deteriorated during it (Sverdlike et al., 20022). Students in our workshop reported general anxiety and uncertainty about the future, worry about disappointing their family, supervisors, and colleagues, and feeling isolated when family and friends outside academia do not understand the academic system. Students also reported feeling overwhelmed and oppressed by competition for opportunities. They reported concerns with supervisory relationships, including discrimination based on assumptions about mental health, difficulties in communicating, and lack of support. Covid-19 restrictions, online activities and limited or no social events meant that students felt distanced from their department. Students reported funding issues, including the expectation that they will fund some aspects of their studies themselves, and the effects of the pandemic on the ability to self-fund, which intersects with class privilege. Students with access to university mental health support services during their studies reported anxiety about no longer having access to that support after graduation. These concerns echo those of students in other fields, pre-pandemic (e.g., Geography in North America, Peake et al., 2018) and occurs in the context of overstretched mental health support services (Office for Students 2021, Mental Health Innovations 2021).

Mental health concerns in academic staff

As with students, the state of mental health in academic staff was a serious concern before the pandemic (Morrish 2019), and has escalated during it, laying bare inequalities related to women, people with caring responsibilities, staff from minoritized groups, and people on precarious contracts (Jayman et al., 2022). In line with this, academic staff participating in

our workshop reported untenable workloads, greatly exacerbated by Covid-19, and worries about career progress, in conjunction with feeling lucky to have a job when others do not (a form of survivor's guilt). The workshop also revealed that working across time zones means that staff can feel like they are 'always on', with no time off. Staff also commented that stigma attached to mental health concerns and fear of discrimination leads them to conceal such concerns, reflecting broader patterns in academia (Schueth 2022).

Many staff participating in the workshop had recently taken, or supported, industrial action (striking or taking action short of a strike) over drastic cuts to pensions in UK universities and the University and College Union's 'four fights' campaign. These four fights refer to the gender, ethnic and disability pay gaps, precarious employment practices, unsafe workloads, and falling pay. In addition to pay gaps, women, people from minoritized ethnic groups, and working-class academics are disproportionately likely to be on short-term contracts and are less able to protest than those with secure employment (Begum & Saini 2019, Myers 2022). Our own experience in UK universities illustrates how academics on teaching-focused contracts are treated as inferior because of inappropriate reward structures and the priority given to research over teaching. More generally, minoritized individuals are both invisible (i.e., ignored) and hyper-visible when they take up their legitimate space (Landor and Santoro 2017, Settles 2018). Minoritized academics invest more in emotional labor than other staff (Navarro et al, 2013), which is not accounted for in recruitment, performance review or promotion. Moreover, minoritized academics are heavily criticized for behavior that is accepted in senior, white men, and asked to consider the feelings of the oppressor when they complain (diAngelo 2018). Discrimination in universities both exacerbates mental health concerns and makes it difficult or impossible to access appropriate interventions (Arday 2022).

152

153 **Mental health concerns in other primatologists**

154 In addition to students and staff, primatologists work in many other sectors, such as non-
155 profits, zoos, governments, and field stations, or may not be affiliated with an institution.
156 Like students and staff, these primatologists reported feeling overwhelmed, pressure, and
157 competition for opportunities during the workshop. They reported feeling hopeless due to
158 the lack of available jobs, and false hope when institutions advertise positions for which
159 they have a candidate lined up. Participants reported frustration at the lack of feedback on
160 job applications and grant applications, meaning that they cannot improve future
161 applications.

162

163 **Imposter syndrome and elitism in primatology**

164 Primatologists in our workshop described the challenges of fitting into an exclusionary and
165 elitist field. Many comments referred to imposter syndrome, which arises when we
166 internalize a culture of entitlement and disrespect and judge ourselves in comparison to
167 what we observe of others (Clance & Imes 1978). It is important to recognize that the term
168 'syndrome' implies that the person affected is at fault, and can be 'fixed', when in fact it is a
169 toxic culture which results in the syndrome, and we need to change the culture, not the
170 individual (Setchell 2019a, Addison et al 2022).

171 The workshop revealed that elitism takes many forms in primatology. Participants
172 comments showed that elitism can be based on career status and seniority, qualifications,
173 where we work and who we work for, whether we hold academic positions, whether we do
174 research, and the type of research we do. It can be based on academic 'performance
175 indicators', such as where we publish and the grants we do or do not hold, or a hierarchy of

whether we propose theory, test it, describe observations, or participate in data collection. This occurs in a system in which access to opportunity is inequitable, and performance indicators are biased by gender, class, and race (e.g., Lorens et al., 2021; Dupree et al., 2021).

Participant comments showed how financial constraints affect primatologists' career prospects and feelings of belonging. For example, student participants who were working to fund their studies reported that they could not take advantage of opportunities or pay to gain the experience they needed to progress, reflecting broader patterns in primatology (Loyola 2019). Our own broader experience shows that primatologists who must work to pay the bills when their funding runs out or between contracts have less time to think, write, apply for grants, or publish their work than those who can rely on family or friends to support them.

Workshop participants who found it difficult to do fieldwork due to funding, family responsibilities, physical or mental health challenges, and other barriers, reported feeling that they did not fit into a discipline that emphasizes fieldwork. Participants also reported being affected by negative perceptions of primatology from those studying other taxa, and related these negative perceptions to the charisma of our study species. A reviewer of this article suggested that other animal behaviorists in particular resent those studying primates due to perceptions of excessive funding for primatological work compared to other, less-charismatic taxa. Interestingly, this pattern may be reproduced within primatology, with greater focus on great apes than on small apes (Fan & Bartlet 2017) and a focus on a limited number of taxa (Bezanson & McNamara 2019). Our own experience suggests that concerns around 'fit' may also relate to the primatology's position between accepted disciplines (including anthropology, psychology and zoology), but never fully within one discipline,

200 although this intersection of disciplines can bring a huge advantage to our understanding of
201 primates and how to conserve them (Setchell et al., 2017). Our field is also known for
202 powerful female role models, which may negatively affect perceptions of our science, due
203 to sexism (Noble 2000, Fedigan 1994).
204
205 **Abuse of power relationships**
206 Many participants were concerned the abuse of power relationships in primatology,
207 including bullying and harassment, sexual harassment, manipulation, threats, negligence,
208 unequal support, and lack of support. Victimized participants reported that they could not
209 report abuse because they relied on reference letters from their abusers for future career
210 progression. Participants feared not being believed if they reported abuse, and had been
211 told they were over-reacting when they did report abuse. Participants commented that
212 abuse is accepted if the abuser is a person of high status or brings in large amounts of
213 funding. These concerns are horribly familiar, affect people of all genders and all
214 workplaces, including fieldwork (Clancy et al. 2014), extend well beyond our field (Ahmed
215 2021), and have a very negative effect on mental health.
216
217 **Direct effects of the pandemic and lockdown on primatologists**
218 Like everyone, participants in the workshop were and are at risk of infection with Covid-19.
219 Some of the participants had contracted the virus, losing study or work time, sometimes for
220 months. Participant's loved ones were ill, and some died, causing grief and emotional
221 exhaustion. These experiences reflect the more general pattern in society during lockdowns,
222 which included restricted or impossible visits to the sick and the elderly, and funerals held
223 remotely, compounding chronic stress. Problems with access to health provision also

exacerbated non-Covid-19 medical issues, including mental health concerns (World Health Organisation 2022).

Some workshop participants lacked a place to work, or the equipment they needed, during lockdowns and workplace closures. They experienced difficulties sharing space and resources, including internet connections, during lockdown. Participants reported that social media trends exacerbated the perception that we should have been able to devote more time to analysis and publishing during lockdown, in addition to learning new skills, because other pastimes were cancelled.

Some workshop participants and other primatologists we spoke with struggled to combine work with care for babies and toddlers, or to educate children at home during a pandemic. In some cases, employers focused on adjusting workloads for parents and assumed those who do not have children at home could take on additional work under crisis conditions. Other work has shown that university responses to Covid-19 focused on equality, but ignored the context of institutional racism, so failed to achieve equity (Blell et al 2022).

Workshop participants who live alone were isolated from social support, and even touch, for months during lockdown. Those most vulnerable to the virus, and those caring for them, remain isolated. Suspension of international travel left some primatologists stranded far from home, cut-off from their support systems, and facing visa and housing problems. Relationships ended, and we know that domestic abuse increased (Usta et al., 2021).

Participants reported that the pandemic reduced opportunities for in person discussions and meetings with colleagues, and a lack of impromptu, informal encounters reduced the ability to resolve issues before they grow, ask quick questions, or check in with students and colleagues. Participants found that difficult working relationships were

exacerbated by working from home, and that they felt alienated from colleagues. They reported that work overload led to reduced feedback on draft work. Participants worried about their colleagues and peers, students worried about staff, and staff worried about students. As restrictions eased and workplaces reopened, participants reported difficulties in (re)establishing personal and work relationships and adjusting to meetings in person.

Participants in the workshop experienced delayed, curtailed or canceled data collection and students faced radical changes to their plans for masters degrees and PhDs. The associated uncertainty was exacerbated by unreasonable expectations from funders, a lack of understanding from universities, inadequate Covid-19 mitigations, and worries that degrees affected by the pandemic will be perceived as being of lower quality. Workshop participants reported anxiety about the effects of the pandemic on their career prospects and development when they have been unable to gain fieldwork or other experience due to the pandemic and have missed out on networking opportunities. Primatologists whose research is on hold due to Covid-19 said that they felt lost.

The workshop showed that furlough, reduced hours, and lay-offs have increased financial anxiety for students working to fund their studies. Employees reported ongoing worry about the economic effects of the pandemic on job security and appointment and promotion freezes aggravate the situation. Academic staff reported expectations of converting teaching to online without additional support. They also reported pressure to ensure that students could complete dissertations without fieldwork. Primatologists in range countries experienced pressure to provide data for those who could not conduct fieldwork. Primatologists working with animals, in captivity and the wild, worried about infecting them with Covid-19.

Mental health concerns specific to fieldwork

Fieldwork can place us in conditions of extreme stress, in harsh physical environments and close to people we might not otherwise choose to spend time with (Setchell 2019a). We can be far from our established support networks of family, friends, and medical providers, and may not be able to use our usual coping strategies, or they may be inadequate. Comments during the workshop revealed that participants felt pressure to perform and produce data in the field regardless of physical or mental health concerns. Participants also commented that perceptions of and attitudes to mental health issues vary within and across countries, and that there is no mental health provision in some places where primatologists work. Moreover, primatologists may be unaware of available support structures, especially if they are not affiliated with a university or other institute.

Fieldwork anxieties reported during the workshop included struggles with bureaucratic barriers in our home institutions, and a lack of understanding or support from managers. Further challenges included difficulties obtaining permits, managing teams, and caring for animals, both captive and wild. Workshop participants reported feeling guilty and powerless in the face of inequalities and poverty and worrying about how to best employ our privilege. Our own observations show that the emotional effects of chronic exposure to primate suffering, combined with feeling powerless to do anything about it, can lead to compassion fatigue, a form of burnout that affects the caring professions (Skovholt & Trotter-Mathison 2016). Comments in the workshop also highlighted concerns that LGBTQ+ primatologists face discrimination, harassment, bullying, or even violence because of their sexuality or how they present themselves (Cheyne 2019). The emotional demands of being

294 closeted and the risks of being outed carry serious costs for mental wellbeing (Ragan 2017,
295 Setchell 2019a).
296 Employment and power issues at fieldsites mentioned during the workshop include
297 problems with Principal Investigators (PIs), both at fieldsites and remotely. Workers at
298 fieldsites reported experiencing alienating behavior, harassment, and assault, often with
299 limited support, reflecting the results of broader surveys (Clancy et al 2014). More broadly,
300 the power imbalance between local staff and international researchers and racism
301 exacerbates inequities (Kantai Duff 2020).
302 Fieldwork is work, and often very hard work, but workshop participants reported
303 that friends and family misconstrue it as a holiday. This is wrapped up with inappropriate,
304 colonial imaginings of tropical landscapes and romantic notions of primatologists (Rodrigues
305 2020). Participant comments showed that friends, family, and colleagues are unable to
306 understand, or avoid discussing, the traumatic aspects of fieldwork, or assume that we can
307 cope with these when we cannot. This lack of emotional validation can exacerbate the
308 effects of trauma.
309 Participants reported unreasonable expectations from supervisors, PIs, and
310 managers. Comments showed that these unrealistic expectations, and the pressure we put
311 on ourselves as primatologists lead to exhaustion, injury, and poor physical health, all of
312 which can exacerbate mental health concerns. Participant comments revealed that stigma
313 and internalized stigma mean that fieldworkers can feel that struggling with their mental
314 health is unacceptable, or perceived as failure, leading to dangerous levels of isolation.
315 Our workshop findings reveal perceptions of fieldwork as a rite of passage,
316 associated with adventure, and, bravado, making it difficult for people carrying out
317 fieldwork (at all career stages) to express vulnerability. Similar perceptions have been

highlighted and critiqued in other disciplines that center fieldwork, including Anthropology, Archaeology, Geography, Earth and Environmental Sciences, Development Studies, and Political Science (Pollard 2009, Backe 2015, Kloß 2016, Valiex 2016, John and Kahn 2018, Tucker and Horton 2018, Hummel and Kurd 2020, Eifling 2021). Academic staff and students participating in fieldwork in these disciplines see fieldwork as a focal site of distress, anxiety, and ordeal, but feel unable to talk about this, with serious effects on mental health.

Effects of the pandemic on fieldworkers

The workshop revealed that the challenges of fieldwork have been hugely intensified by the pandemic, putting primatologists at even greater risk than usual. Pandemic travel restrictions meant that participants were unable to get to the field, affecting their mental health in multiple ways. In addition to worries about canceled or postponed data collection, our own experiences reveal that some primatologists are happiest in the field, find their inspiration there, and need regular fieldwork to maintain their mental wellbeing. The inability to travel during the pandemic, both to primate habitat countries and within them, led workshop participants to feel disconnected from field teams and frustrated at their inability to contribute. Participants missed the people and animals they work with in the field and reported concerns about their welfare and an inability to fulfill promises. Participants felt guilt and anger about privileged access to medical care and vaccines in comparison to colleagues and friends and concerned about the fate of habitats and animals where projects are closed, temporarily or permanently.

Workshop participants reported that field projects have suffered reduced or complete cessation of funding and had to significantly modify their work to account for

Covid-19 restrictions. Participants running or working in rescue centers were concerned about how to pay staff or feed primates. Prolonged absences affected participants' ability to recruit new staff (local or foreign), and projects that rely on volunteer labor and fees faced serious problems. Participants also commented that zoos also suffered financially, further reducing the funding available for field projects.

More positively, some workshop participants felt that fieldwork experience made them more resilient to the social isolation of the pandemic.

Inclusive cultures are safer cultures: what we can (all) do

What we report here for primatology provides further evidence of a mental health crisis in academia, particularly those in training, on precarious contracts, and from minoritized groups. Mental health issues have a negative effect on the individuals concerned, on those close to them, and on primatology. For individuals, mental distress affects their quality of life, relationships, physical health, and productivity. Mental health difficulties interfere with academic work and productivity, leaving students unable to finish their degrees, and leading people to leave the field. Long-term work stress leads to physical and emotional exhaustion ('burnout'). For those close to the individuals concerned, mental distress causes worry, and can be contagious. For primatology, the higher risk to minoritized and underestimated groups means that our discipline is less diverse, leading to impoverished science, and ineffective conservation strategies (Nielsen et al. 2017, Setchell 2019b).

The workshop revealed that admitting to a mental health issue can be perceived as weakness and may impact how others view us. Internalizing this stigma can further increase anxiety. To address these issues, primatologists can all make mental health a more common part of conversation, creating a space like the workshop we ran more frequently and at

365 different meetings, and making it the norm to mention mental health as part of our careers
366 (**Fig 2**). Senior primatologists, in particular, must learn to show their vulnerability. If only
367 some people do this, we make little progress, because those people are stigmatized, and the
368 problem persists. We can all acknowledge that positive intentions are not enough and work
369 purposefully to create inclusive institutions. We can include mindfulness techniques in
370 courses, fieldwork, and during conferences, to promote wellbeing (e.g., Weston 2023).
371 Primatologists in positions of power can improve their own understanding of harassment
372 (e.g., Cassito et al., 2003), use their influence to change workplace cultures, and work to
373 dismantle institutional policies that protect harassers.
374 Primatological societies can promote mental wellbeing by creating a space like the
375 PSGB workshop more frequently and at different meetings, and retain online gatherings to
376 allow those unable to attend in person to participate. To address elitism and cultures of
377 disrespect, societies can require supportive, positive, and constructive feedback in
378 meetings, diversify the criteria for awards and opportunities, and diversify leadership to
379 include varied viewpoints. Societies can also create best practice guidelines and run
380 workshops on mental health for PIs and supervisors. They can encourage groups,
381 departments, universities, and other institutions, to adopt codes of conduct addressing
382 issues of mental health in workplaces, including fieldsites. Societies can promote
383 understanding in supervisors and employers that the current generation of students have
384 not had the opportunity to gain fieldwork, and other, experiences.
385 Primatological societies can also run workshops to clarify and explain processes
386 related to recruitment and progression. Taking inspiration from the American Association of
387 Geographers task force on mental health (Peake et al., 2018), societies can create and
388 promote email discussion lists and social media groups to discuss issues around mental

health. They can create websites, and organise online peer support networks to increase the sense of community, collate tips for how to cope when things get tough, and share high quality online resources for mental health support. These must be carefully monitored for effectiveness, however. Resources in the form of seminars, brochures, and materials available via the Internet for veterinarians seeking help for mental health and wellbeing issues were not widely used, and for the most part, those who did use them did not rate them very highly (Volk et al 2018, Jaworski et al 2022).

FIGURE 2 HERE

In relation to fieldwork (**Fig 3**), we can all work to create manageable expectations. Reducing the length of field trips would reduce the mental health burden of long, isolated periods of work and make our discipline more inclusive by allowing people from a greater diversity of backgrounds to participate (Loyola 2019). Primatologists visiting a site or country for the first time should find out as much as they can about where they are going, including the language, culture, and history, so that they know what to expect. Such preparation is also essential for a decolonized approach to primatology (Waters et al 2022).

Fieldwork organizers (PIs, managers, etc.) should undergo training in mental health awareness and first aid, and reflect on how to best support fieldworkers (e.g., Pollard 2009). They should develop a code of conduct for fieldwork, including mechanisms for reporting concerns including psychological wellbeing and inappropriate behavior. They should discuss mental health during fieldwork preparation, for example via seminars in which fieldworkers share their experiences. Organizers should provide details about the living environment (e.g., power facilities, contact facilities) and be available for questions, allowing people to make

informed decisions about their options. They should include mental health considerations in fieldwork planning and risk assessments for all staff and students, both local and foreign, including both ongoing and new conditions. Organizers should insist on downtime for everyone and provide mental health support structures in the field for all students and staff. This includes establishing a communication plan in advance, so that a missed contact is noticed immediately. Organizers should check in with all students and staff regularly about their mental health, provide emotional validation and take care not to dismiss, ignore or judge concerns raised. They should act on concerns, and ensure that everyone knows how to access help.

Primatological societies can bring us together to discuss fieldwork concerns and invite experts to encourage us to reflect on how to best employ our privilege, and address compassion fatigue and other issues associated with fieldwork. Some other learned societies provide access to online resources to help academics and their students cope with the mental health challenges associated with fieldwork (e.g., Royal Geographical Society: https://www.rgs.org/research/higher-education-resources/mental-health/). The Metooanthro collective provides fieldwork training guides for students and supervisors (Hanes & Walters, no date provided). The Orangutan Veterinary Advisory Group has responded to mental health concerns with a combination of an anonymous group chat board, a Whatsapp group where all members monitor each other's messages by mutual consent, and an anonymous psychological hotline (Sulistyo et al., 2022).

In doing all this, we must ensure that people who experience mental and emotional distress are not excluded from fieldwork or other opportunities. We can all act to reduce stigma around withdrawing from fieldwork, or any other opportunities, if it has a negative impact on our mental health.

FIGURE 3 HERE

Conclusions

Primatologists study primates to understand, protect and conserve them, and to share this knowledge with the wider community. To achieve these goals, we must collectively acknowledge the mental health crisis we are in and support change. We need to discuss mental health more often, include all primatologists, and involve mental health experts in this discussion. We encourage all conference organizers to give space to this discussion as a core part of the program, people and organizations who run field sites to consider the mental health of all who live and work there, and learned societies and senior primatologists to champion mental health issues.

References

Addison M, Breeze M, Taylor Y (eds). (2022). *The Palgrave Handbook of Imposter Syndrome in Higher Education.* Palgrave Macmillan.

Arday J. (2022). No one can see me cry: understanding mental health issues for Black and minority ethnic staff in higher education. *High Educ* 83, 79–102. https://doi.org/10.1007/s10734-020-00636-w

Backe EL. 2015. Playing along: Fieldwork, emotional labor and self-care. *The Geek Anthropologist*. https://thegeekanthropologist.com/2015/07/24/playing-along-fieldwork-emotional-labor-and-self-care/. Accessed 16 December 2022.

459 Barr D. 2020. We are not all in the same boat. We are all in the same storm. Some are on
460 super-yachts. Some have just the one oar. *Damian Barr.*
461 https://www.damianbarr.com/latest/https/we-are-not-all-in-the-same-boat
462 Begum N & Saini R. (2019). Decolonising the Curriculum. *Political Studies Review*, 17: 196–
463 201. https://doi.org/10.1177/1478929918808459
464 Bezanson M, McNamara A. (2019) The what and where of primate field research may be
465 failing primate conservation. *Evol Anthropol* 28: 166–178.
466 https://doi.org/10.1002/evan.21790
467 Blair ME. (2019). Toward more equitable and inclusive spaces for primatology and primate
468 conservation. *Int J Primatol* 40: 462–464. https://doi.org/10.1007/s10764-019-00093-y
469 Blell M, Liu SJS, and Verma A. (2022). Working in unprecedented times: intersectionality
470 and women of color in UK higher education in and beyond the pandemic. *Gend Work*
471 *Organ*. 1– 20. https://doi.org/10.1111/gwao.12907.
472 Cassitto MG, Fattorini E, Gilioli R, Rengo C, Gonik V. (2003). Raising awareness of
473 psychological harassment at work. *World Health Organization*. Available at
474 https://apps.who.int/iris/handle/10665/42649
475 Chell C [@CoralChell]. (2021, Dec 7). *Big shout out to @PrimateSociety for putting together*
476 *a workshop on mental health and wellbeing. Sometimes you just need to hear that you*
477 *aren't alone in the way you feel. Thank you to the panelists for sharing their experiences*
478 *and advice #PSGBwinter2021*. [Tweet] *Twitter.*
479 https://twitter.com/CoralChell/status/1468199259648540680
480 Cheyne SM. (2019). Being 'out' in the field: Who is responsible for health and safety? *Int J*
481 *Primatol* 40: 468–469. https://doi.org/10.1007/s10764-019-00107-9

Clance PR, Imes SA. (1978). The Impostor Phenomenon in high achieving women: Dynamics and therapeutic intervention. *Psychotherapy: Theory, Research & Practice*. 15: 241–247. https://doi.org/10.1037/h0086006.

Clancy KBH, Nelson RG, Rutherford JN, Hinde K (2014) Survey of Academic Field Experiences (SAFE): Trainees report harassment and assault. *PLoS ONE* 9: e102172. https://doi.org/10.1371/journal.pone.0102172

Covert HH. (2019). Including habitat country scientists in all aspects of research. *Int J Primatol*. 40: 459-461 https://doi.org/10.1007/s10764-019-00090-1

DiAngelo R. (2018). *White fragility: Why it's so hard for white people to talk about racism*. Beacon Press.

Dupree CH, Boykin CM. (2021). Racial inequality in academia: systemic origins, modern challenges, and policy recommendations. *Policy insights from the Behavioral and Brain Sciences* 8: 11–18. https://doi.org/10.1177/2372732220984183

Eifling KP. (2021). Mental health and the field research team. *Adv Archaeol Pract* 9: 10-22. https://doi.org/10.1017/aap.2020.51

Evans TM, Bira L, Gastelum JB, Weiss LT, and Vanderford NL. (2018). Evidence for a mental health crisis in graduate education. *Nature Biotech* 36: 282–84. https://doi.org/10.1038/nbt.4089

Fan P, Bartlett TQ. (2017). Overlooked small apes need more attention! *Am J Primatol* 79:1–4.

Fedigan LM. (1994). Science and the successful female: why there are so many women primatologists. *Am Anthropol*, 529-540.

Gebbie KM, Qureshi K. 2022. Emergency and disaster preparedness: core competencies for nurses. Am J Nurs. 102: 46-51

506 Hanes A, Walters H. (no date provided) “A long journey home: supporting students in the
507 field.” Online. Retrieved from https://metooanthro.org. Accessed 16 December 2022.
508 Hummel C, El Kurd D. (2021). Mental Health and Fieldwork. *PS: Political Science & Politics*,
509 54: 121-125. https://doi.org/10.1017/S1049096520001055
510 Jaworski JL, Thompson LA, Weng HY (2022) Quality of life of veterinary residents in AVMA-
511 Recognized Veterinary Specialty Organizations using the WHOQOL-BREF instrument. *PLoS*
512 *ONE 17*: e0268343. https://doi.org/10.1371/journal.pone.0268343
513 Jayman M, Glazzard J, Rose A. (2002). Tipping point: The staff wellbeing crisis in higher
514 education Front. Educ. 7: 929335 https://doi.org/10.3389/feduc.2022.929335
515 John CM, Khan SB. (2018) Mental health in the field. *Nature Geosci* 11, 618–620.
516 https://doi.org/10.1038/s41561-018-0219-0
517 Kantai Duff R. (2020). Building a road to recovery for subtle racism in conservation
518 (commentary). *Mongabay*. https://news.mongabay.com/2020/11/building-a-road-to-
519 recovery-for-subtle-racism-in-conservation-commentary/ accessed 16 Dec 2022.
520 Kloß ST (2017). Sexual(ized) harassment and ethnographic fieldwork: A silenced aspect of
521 social research. *Ethnography* 18: 396–414. https://doi.org/10.1177/1466138116641958
522 Lander V, Santoro N. (2017). Invisible and hypervisible academics: the experiences of Black
523 and minority ethnic teacher educators. *Teaching in Higher Education*, 22:8, 1008-1021,
524 DOI: 10.1080/13562517.2017.1332029.
525 Llorens A, Tzovara A, Bellier L, Bhaya-Grossman I, Bidet-Caulet A, Chang WK, Cross ZR,
526 Dominguez-Faus R, Flinker A, Fonken Y, Gorenstein MA, Holdgraf C, Hoy CW, Ivanova MV,
527 Jimenez RT, Jun S, Kam JWY, Kidd C, Marcelle E … Dronkers NF (2021). Gender bias in
528 academia: A lifetime problem that needs solutions. *Neuron*. 109: 2047-2074,
529 https://doi.org/10.1016/j.neuron.2021.06.002.

530 Loyola LC. (2019) Financial barriers to primatological field work: A brief commentary. *Int J*
531 *Primatol*. 40: 465–467. https://doi.org/10.1007/s10764-019-00102-0
532 Mace B. [BroganMace1] (2021, Dec 7). I honestly can't say thank you to the organisers
533 @PrimateSociety for this workshop on mental health, particularly the use of padlet, it has
534 been SO cathartic to anonymously air my anxieties in a safe space, and to know I'm not
535 alone in my fears #PSGBwinter2021. [Tweet]. *Twitter*
536 https://twitter.com/BroganMace1/status/1468197834537463810
537 Mental Health Innovations 2021. Supporting student mental health: Insight into students
538 seeking support. September 2021. Available at
539 https://shout.ams3.cdn.digitaloceanspaces.com/mentalhealthinnovations/media/docum
540 ents/Student-reportV4.pdf
541 Morrish L. (2019). Pressure Vessels: The epidemic of poor mental health among higher
542 education staff. *Higher Education Policy Unit Occasional Paper 20.*
543 https://www.hepi.ac.uk/2019/05/23/pressure-vessels-the-epidemic-of-poor-mental-
544 health-among-higher-education-staff/ Accessed 15 June 2022.
545 Myers M. (2022). Racism, zero-hours contracts and complicity in higher education, British *J*
546 *Sociol Edu* 43: 584-602, https://doi.org/10.1080/01425692.2022.2042192
547 Navarro T, Williams B, Ahmad A. (2013). Sitting at the kitchen table: Fieldnotes from
548 Women of Color in Anthropology. *Cult Anthropol*, 28: 443-463.
549 https://doi.org/10.1111/cuan.12013
550 Nielsen W, Alegria S, Börjeson L, Falk-krzesinski HJ, Joshi A, Leahey E, et al (2017). Opinion:
551 Gender diversity leads to better science. *Proc Natl Acad Sci USA*, 114: 1740–1742.
552 https://doi.org/10.1073/pnas.1703146114.

553 Noble BE. (2000). Politics, gender, and worldly primatology: the Goodall-Fossey nexus. In:
554 Strum S, Fedigan L, eds. *Primate encounters: models of science, gender, and society*.
555 University of Chicago Press. Chicago, USA. pp. 436–462
556 Office for Students (2021). Insight 10 – The National Student Survey: Student experience
557 during the pandemic. Available at
558 https://www.officeforstudents.org.uk/media/1480/insight-brief-10-nss-finalforweb.pdf
559 Peake L, Mullings B, Parizeau K, Thornburg GK, Magee J, Metzel D, Wadhwa V, England K,
560 Worth N, Mountz A, Finlay J, Hawkins B, Pulsipher L. (2018). Mental health and well-being
561 in geography: creating a healthy discipline report of the AAG Task Force on Mental Health
562 (2015-2018). Technical report. 10.13140/RG.2.2.14123.28960
563 Pollard A (2009). Field of screams: difficulty and ethnographic fieldwork. *Anthropology*
564 *Matters.*
565 https://www.anthropologymatters.com/index.php/anth_matters/article/view/10/10.
566 Acccessed 16 December 2022.
567 Ragen B (2017). Being queer in the jungle: The unique challenges of LGBTQ scientists
568 working in the field. https://blogs.biomedcentral.com/bmcblog/2017/06/28/being-
569 queer-in-the-jungle-the-unique-challenges-of-lgbtq-scientists-working-in-the-field/.
570 Accessed 16 December 2022.
571 Rodrigues MA. (2020). Neocolonial Narratives of Primate Conservation. https://human-
572 primate-interactions.org/blog/. Acccessed 16 December 2022.
573 Schueth A. (2002) Reducing the stigma of academic mental health can save lives. *Nat Rev*
574 *Urol* 19: 129–130. https://doi.org/10.1038/s41585-021-00549-
575 Setchell JM. 2019a. *Studying Primates: How to Design, Conduct and Report Primatological*
576 *Research.* Cambridge University Press.Cambridge, UK.

Setchell, J.M. 2019b. Introduction to the Special Section on Equity and Inclusion in Primatology. *Int J Primatol* 40: 457–458. https://doi.org/10.1007/s10764-019-00115-9.

Settles IH, Buchanan NT, Dotson K. (2018). Scrutinized but not recognized: (In)visibility and hypervisibility experiences of faculty of color. *J Vocational Behav* 113: 62-74. https://doi.org/10.1016/j.jvb.2018.06.003

Skovholt TM, Trotter-Mathison M. 2016. *The Resilient Practitioner: Burnout and Compassion Fatigue Prevention and Self-Care Strategies for the Helping Professions.* Routledge. London and New York.

Sulistyo F, Unwin S, Nagalingam P, Sugnaseelan S, Prameswari W, Nente C, Indarjulianto S, Commitante R, Lung N. (2022). Improving mental health resilience of One Health practitioners is vital to creating a sustainable cadre of professionals in South East Asian conservation medicine. *Proceedings of the 15th Asian Society of Conservation Medicine 25th-28th October, Chang Mai University Thailand: 38.*

Sverdlik A, Hall N C & Vallerand R J. 2022: Doctoral students and COVID-19: exploring challenges, academic progress, and well-being. *Edu Psy*. https://doi.org/10.1080/01443410.2022.2091749.

Tucker F, Horton J. (2019) "The show must go on!" Fieldwork, mental health and wellbeing in Geography, Earth and Environmental Sciences. *Area*. 51: 84– 93. https://doi.org/10.1111/area.12437

Tulshyan R. (2022). *Inclusion on Purpose: An intersectional Approach to Creating a Culture of Belonging at Work*. MIT Press. Cambridge MA.

Usta J, Murr H, El-Jarrah R. (2021) COVID-19 lockdown and the increased violence against women: understanding domestic violence during a pandemic. *Violence and Gender* 8: 133-139. http://doi.org/10.1089/vio.2020.0069.

601 Valeix S (2016). Managing mental health on fieldwork: a research skill? Institute of
602 Development Studies. https://www.ids.ac.uk/opinions/managing-mental-health-on-
603 fieldwork-a-research-skill/ Accessed 25 July 2022.
604 Vindegaard N, Benros ME. (2020) COVID-19 pandemic and mental health consequences:
605 Systematic review of the current evidence. *Brain Behav Immun*. 89: 531-542.
606 http://doi.org/10.1016/j.bbi.2020.05.048.
607 Volk J, Schimmack U, Strand E, Lord L, Siren W. (2018). Executive summary of the Merck
608 Animal Health Veterinary Wellbeing Study. *J Am Vet Med Ass* 252: 1231-1238.
609 https://doi.org/10.2460/javma.252.10.1231.
610 Waters S, El Harrad A, Bell S, Setchell JM. (2022). Decolonizing Primate Conservation
611 Practice: A Case Study from North Morocco. *Int J Primatol*.
612 https://doi.org/10.1007/s10764-021-00228-0.
613 Weston LY. (2023). *Teaching Resilience and Mental Health Across the Curriculum: A Guide*
614 *for High School and College Teachers*. Routledge.
615 World Health Organization. (2022). Mental health and COVID-19: early evidence of the
616 pandemic's impact: scientific brief, 2 March 2022. *World Health*
617 *Organization*. https://apps.who.int/iris/handle/10665/352189.
618

FIGURE LEGENDS

Fig 1: Factors contributing to mental health concerns described by primatologists attending a workshop at the Primate Society of Great Britain Winter meeting 2021

Fig 2: What we can do to promote mental wellbeing in primatology

Fig 3: What we can do to promote mental wellbeing in primate fieldwork