

Emotional baggage: supporting the wellbeing of Animal Technologists

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Abstract

Animal Technologists (for simplicity, the term *Animal Technologist* is used throughout this article to encompass all animal care professionals working within laboratory animal facilities, irrespective of local job title) play a pivotal role in biomedical research, balancing high standards of Animal Welfare with the scientific requirements of research programmes. Whilst considerable progress has been made in advancing Animal Welfare through the principles of Replacement, Reduction and Refinement (the 3Rs), comparatively little attention has been given to the emotional wellbeing of the professionals responsible for implementing these principles daily.

Animal Technologists frequently undertake emotionally demanding duties, including euthanasia, large-scale colony management, the care of animals throughout lengthy studies and participation in procedures that may conflict with their personal ethical beliefs. Repeated exposure to these situations can contribute to compassion fatigue,^{1,9,11} moral distress and burnout, ultimately affecting both staff wellbeing and organisational Culture of Care.

This review combines current literature with findings from an anonymous voluntary online survey conducted by Pearce and Labesse in October 2023, which explored the emotional experiences of Animal Technologists working within laboratory animal facilities. Survey responses are used throughout this article to illustrate the challenges experienced by staff and to provide practical insight into opportunities for improving institutional support.

This article reviews the principal emotional stressors experienced by Animal Technologists, examines existing support mechanisms and identifies practical recommendations that organisations can implement

to strengthen staff wellbeing. Embedding emotional wellbeing within institutional Culture of Care not only benefits employees but also supports Animal Welfare, staff retention, professional resilience and the quality of scientific research.

Keywords

Animal Technologist; compassion fatigue; moral distress; burnout; Culture of Care; mental wellbeing; euthanasia; emotional labour; laboratory animal science.

Introduction

Laboratory Animal Science (LAS) has undergone significant change over recent decades, with increasing emphasis placed on Animal Welfare through the principles of Replacement, Reduction and Refinement (the 3Rs). More recently, the concept of a fourth R (Responsibility) has emerged, recognising that excellent Animal Welfare depends not only upon appropriate housing, husbandry and scientific practice but also upon the wellbeing of the people responsible for delivering this care.

Animal Technologists occupy a unique position within biomedical research. They are responsible for maintaining high standards of animal husbandry, monitoring health and welfare, supporting scientific procedures and where necessary perform euthanasia or assisting with humane endpoints. Unlike many other professionals involved in research, Animal Technologists frequently develop sustained relationships with animals throughout their lifespan. These close working relationships can make emotionally challenging procedures particularly difficult, especially when repeated over many years of professional practice.

Although the physical hazards associated with laboratory animal work are well recognised and routinely managed through comprehensive health and safety programmes, the emotional risks associated with caring for research animals have historically received considerably less attention. Increasing evidence suggests that repeated exposure to ethically challenging situations may contribute to compassion fatigue, moral distress, secondary traumatic stress and burnout among laboratory Animal Technologists.

Compassion fatigue describes the emotional and physical exhaustion that can develop following prolonged exposure to the suffering of others. Closely related is moral distress, which occurs when individuals know the ethically appropriate course of action but are unable to pursue it because of professional obligations, institutional constraints or conflicting priorities. Over time unresolved moral distress may contribute to burnout, a recognised occupational syndrome characterised by emotional exhaustion, depersonalisation and a reduced sense of professional accomplishment.

Animal Technologists routinely encounter emotionally demanding situations including:

- Performing euthanasia as part of routine husbandry or study endpoints.
- Participating in large-scale colony management or surplus animal culling.
- Caring for animals involved in procedures that may conflict with their personal ethical values.
- Managing studies where the anticipated scientific or clinical benefit is not always clear.
- Supporting research teams while balancing scientific requirements with Animal Welfare responsibilities.

For many Animal Technologists, these experiences are not isolated events but cumulative occupational exposures. Repeated involvement in emotionally demanding procedures, particularly when combined with high workloads, limited opportunities for reflection or poor communication may progressively erode resilience. Conversely, opportunities to witness positive scientific outcomes, successful refinement initiatives and improvements in Animal Welfare can foster compassion satisfaction which is the sense of fulfilment derived from contributing positively to animal care and scientific advancement.

Despite growing recognition of compassion fatigue within veterinary medicine and other caring professions, comparatively little published work has focussed specifically on Animal Technologists. Consequently, emotional wellbeing is often inconsistently addressed within training programmes, workplace risk assessments and organisational wellbeing strategies.

Methodology

An anonymous online survey was developed by Pearce and Labesse to explore the emotional experiences of Animal Technologists working within laboratory animal facilities in the United Kingdom (UK). The survey was distributed electronically during October 2023 using an online questionnaire platform and participation was entirely voluntary.

Respondents were informed that completion of the questionnaire implied consent for anonymised responses to be analysed and reported. No identifiable personal information was collected and participants were free to omit questions or withdraw from the survey at any stage prior to submission. Quotations included within this article have been anonymised to protect participant confidentiality.

The survey contained a combination of structured and open-ended questions exploring emotionally challenging aspects of laboratory animal work, existing support mechanisms, communication within research environments and suggestions for improving staff wellbeing. Open-text responses were reviewed thematically by the author to identify recurring issues and illustrative quotations.

As the survey was originally conducted as an anonymous professional wellbeing exercise rather than as a research study intended for publication, formal ethical approval was not sought or obtained at the time of data collection. Only anonymised extracts are included in this manuscript. The survey findings are presented alongside published literature to provide practical context rather than statistical inference. Although qualitative survey data cannot determine prevalence, they provide important insight into participants' lived experiences and are particularly valuable when exploring complex occupational issues such as emotional wellbeing, compassion fatigue and moral distress.

Characteristic	Detail
Survey type	Anonymous online questionnaire
Survey period	October 2023
Participation	Voluntary
Participants	Animal Technologists working in biomedical research
Number of respondents	35
Number of questions	8
Analysis	Inductive thematic analysis of free-text responses

Table 1. Summary of anonymous survey characteristics.

Survey question	Response	n (%)
Experienced compassion fatigue*	Yes	26 (74%)
	No	9 (26%)
Experienced challenging behaviour from researchers or colleagues	Yes	32 (91%)
	No	3 (9%)
Held a Personal Licence (PIL)	Yes	33 (94%)
	No	2 (6%)
Felt increased pressure or anxiety when performing regulated procedures	Yes	23 (66%)
	No	12 (34%)
NACWO respondents reporting increased pressure when making welfare decisions	Yes	14
	No	11

Table 2. Summary of survey respondents and key findings (n = 35).

* Participants were first provided with a definition of compassion fatigue before answering this question.

Responses from non-NACWO participants were excluded from this summary.

Section	Question
Compassion fatigue	After reading a definition of compassion fatigue, have you experienced it?
Compassion fatigue	If yes, please describe your experience.
Workplace culture	Have you encountered challenging behaviour from researchers or members of your team?
Workplace support	What support is currently available?
Workplace support	What additional support would you like?
Professional role	Do you hold a Personal Licence (PIL)?
Regulated procedures	Do you experience increased pressure or anxiety when performing regulated procedures?
NACWO role	Do you experience increased pressure when making welfare decisions?

Table 3. Survey questions.

Theme	Representative quotation
Compassion fatigue	"Feeling very stressed, tired and emotionally burnt out."
Moral distress	"I felt inhumane and no longer sure who I was."
Communication	"Knowing the outcome of a study makes difficult days easier."
Specialist wellbeing support	"Specialised counselling for those working with laboratory animals would be beneficial."

Table 4. Representative themes identified from survey responses.

Aim of this review

This article synthesises findings from the survey, published literature and the authors' professional experience to explore the emotional wellbeing of Animal Technologists within laboratory animal science.

The objectives are to:

1. Describe the principal emotional stressors experienced by Animal Technologists.
2. Examine existing organisational support mechanisms and identify barriers to accessing them.
3. Review current evidence relating to compassion fatigue, moral distress and burnout within laboratory animal professions.
4. Provide practical, evidence-based recommendations that institutions can implement to strengthen staff wellbeing and embed emotional wellbeing within their Culture of Care.

By recognising emotional wellbeing as an integral component of responsible animal research, organisations can better support both their employees and the animals entrusted to their care.

Emotional stressors experienced by Animal Technologists

The survey responses indicated that the emotional burden experienced by Animal Technologists extends far beyond the technical aspects of their role. Although participants recognised the importance of biomedical research and were committed to maintaining high standards of Animal Welfare, many described situations that challenged their emotional resilience and personal values.

While individual experiences varied according to species, research area and level of responsibility, several recurring themes emerged from both the survey responses and published literature.^{1,2,4} These centred

on the emotional consequences of euthanasia, large-scale colony management, ethical uncertainty, limited communication with researchers and a perceived lack of recognition of the emotional labour associated with caring for research animals.

Importantly, these stressors rarely occurred in isolation. Most respondents described the cumulative impact of repeated emotionally demanding events over months or years, suggesting that emotional wellbeing should be viewed as a continual occupational consideration rather than a response to isolated incidents. One participant highlighted the severity this can reach by saying: “I was constantly breaking down and feeling a failure. I eventually walked out and was off work for six months”.

Mass culling and surplus animals

Participants consistently identified large-scale culling of healthy animals as one of the most emotionally difficult aspects of their work. Although colony management is an essential component of responsible animal breeding and the principles of Reduction, respondents frequently described feelings of sadness, frustration and helplessness when asked to euthanise animals that were otherwise healthy.

The emotional impact was particularly pronounced when large numbers of animals were culled with little advance notice or where the reasons for the decision were not fully communicated. Respondents reported that unexpected colony reductions created a sense of moral conflict, particularly when they had invested considerable time caring for the animals concerned.

One participant commented:

“Large culls with no explanation are probably the hardest part of my job. You spend weeks looking after the animals only to be told they all need to go.”

Similar findings have been reported elsewhere, where laboratory animal professionals identified surplus animal management as a significant contributor to compassion fatigue and moral stress.^{1,2} While most Animal Technologists understand the scientific and logistical reasons underpinning colony management, a lack of communication regarding breeding strategies or project changes may reduce opportunities for staff to prepare emotionally for these events.

Institutions should therefore consider strategies to minimise unnecessary breeding through improved colony planning and forecasting while ensuring that staff receive sufficient notice and explanation before significant culling events occur. Where particularly large-scale euthanasia is unavoidable, managers should consider additional staffing, structured debriefing sessions and opportunities for staff rotation to reduce cumulative emotional burden.

Ethical conflict

Many respondents described occasions where the scientific purpose of a study conflicted with their own personal values or understanding of the anticipated benefits. While most participants expressed strong support for ethically justified biomedical research, some questioned whether certain projects provided sufficient scientific or societal value to justify the use of animals.

These concerns did not necessarily reflect opposition to animal research itself. Rather, they frequently arose when Animal Technologists lacked sufficient information regarding the scientific rationale underpinning a project or perceived that animal use could potentially have been reduced through improved experimental design. Such situations may contribute to moral distress particularly when staff feel professionally obligated to undertake procedures that conflict with their personal ethical beliefs.

Several participants referred specifically to commercially driven studies or projects where the anticipated benefits were unclear. Others described frustration when avoidable breeding errors or poor communication resulted in unnecessary use of animals.

Moral distress differs from compassion fatigue in that it arises from ethical conflict rather than emotional exposure alone. If repeated over time, unresolved moral distress may contribute to emotional exhaustion, reduced job satisfaction and burnout. Recognising these concerns does not undermine scientific research and highlights the importance of transparent communication, ethical leadership and opportunities for staff to discuss concerns openly within a supportive organisational culture.³

Lack of feedback and visibility

A recurring finding throughout the survey was the perception that Animal Technologists rarely received information regarding the outcomes or wider impact of the research they had supported. Many participants described caring for animals over prolonged periods without ever learning whether the work resulted in scientific discoveries, improved treatments or published research.

This lack of feedback contributed to feelings of futility among some respondents, particularly following studies involving significant animal suffering or euthanasia. Several participants suggested that understanding the scientific outcomes of their work would help reinforce the value of their contribution and provide reassurance that difficult procedures had served a meaningful purpose.

Published evidence suggests that understanding the positive impact of one’s work contributes to compassion

satisfaction, a protective factor associated with increased resilience and reduced risk of compassion fatigue.⁴ Providing regular updates on study outcomes may therefore represent a relatively simple intervention capable of improving staff wellbeing while strengthening engagement with research programmes.

Potential mechanisms for improving feedback

- Presentations at departmental meetings.
- Short lay summaries following project completion.
- Newsletters highlighting successful research outcomes.
- Opportunities for researchers to explain the translational impact of completed studies.
- Acknowledgement of Animal Technologists' contributions in publications, presentations and awards where appropriate.

Such initiatives reinforce the principle that Animal Technologists are valued members of the research team whose expertise contributes directly to scientific quality and Animal Welfare.

Researcher-technician communication and empathy

Communication between researchers and Animal Technologists emerged as one of the strongest themes identified by survey respondents. Participants consistently expressed a desire for greater collaboration, earlier involvement in study planning and improved understanding of the emotional impact that research decisions may have upon Animal Technologists.

One respondent stated:

"I feel the research staff should receive more training on empathy and the consequences the research being carried out has on the animal tech."

Although researchers and Animal Technologists share the common objective of conducting high-quality scientific research while maintaining excellent Animal Welfare, they often experience different aspects of the research process. Researchers may focus primarily on scientific outcomes, whereas Animal Technologists frequently spend prolonged periods caring for individual animals, monitoring welfare and supporting humane endpoints. These differing perspectives can influence how emotionally challenging situations are experienced.

Several participants reported feeling excluded from discussions surrounding project design or major study changes, despite their extensive practical knowledge of animal husbandry and welfare. Others described occasions where large colony reductions or changes in experimental plans were communicated only shortly before implementation.

Earlier communication may help reduce unnecessary emotional burden by allowing staff to prepare for difficult procedures and understand the scientific reasoning underpinning them. Involving Animal Technologists during project planning may also identify opportunities for refinement, improve practical study design and strengthen collaborative working relationships.

Empathy training should therefore be viewed as a shared professional responsibility rather than solely an interpersonal skill. Joint workshops involving researchers, Animal Technologists, Named Persons, veterinarians and facility managers could encourage discussion of ethical challenges, improve understanding of each professional role and promote respectful communication throughout the research lifecycle. Such collaborative approaches align closely with the principles of a positive Culture of Care and have the potential to improve both staff wellbeing and Animal Welfare outcomes.⁵

Existing coping strategies and organisational support

Despite the emotional challenges associated with laboratory animal science, many Animal Technologists described developing effective personal and professional coping strategies to help manage the emotional demands of their role. Survey responses highlighted the importance of supportive colleagues, understanding managers and opportunities to discuss difficult experiences within a psychologically safe environment.

The literature consistently suggests that organisational support is one of the strongest protective factors against compassion fatigue and burnout.^{1,2} While individual resilience is important, responsibility for staff wellbeing should not rest solely with the individual. Organisations have a duty to create environments in which emotional wellbeing is recognised, discussed openly and supported through accessible policies and resources.

Peer support and informal debriefing

The most reported source of support among survey respondents was informal discussion with colleagues. Many participants described the value of speaking with people who understood the unique emotional demands of laboratory animal work.

Peer support allows individuals to share experiences, validate emotional responses and reduce feelings of isolation following difficult procedures. Informal conversations after euthanasia sessions, unexpected colony reductions or challenging studies were frequently described as beneficial in helping staff process their experiences.

Several respondents also highlighted the positive influence of approachable supervisors who acknowledged the emotional aspects of animal care rather than focussing solely on operational requirements.

Although informal support should not replace professional mental health services where required, encouraging regular opportunities for team reflection can help normalise conversations about emotional wellbeing. Structured debriefs following particularly challenging events may also reduce the accumulation of unresolved emotional stress.

Employee assistance programmes

Some participants reported access to employee assistance programmes (EAPs), although awareness and utilisation varied considerably between organisations.

EAPs provide confidential access to professional counselling, psychological support, financial advice and other wellbeing services. When promoted effectively they offer an important mechanism for early intervention before emotional difficulties progress to more significant mental health concerns.

However, several respondents indicated that they were either unaware that such services existed or were uncertain how to access them.

Simply providing access to an EAP is insufficient if employees remain unaware of the support available. Organisations should introduce these services during staff induction, reinforce awareness through regular communication and ensure managers are confident in signposting colleagues appropriately. Periodic reminders, wellbeing campaigns and visible promotional materials may help reduce stigma and encourage uptake.

Importantly, managers should communicate that accessing wellbeing support is viewed positively and professionally rather than as an indication of weakness. Creating a culture in which seeking support is normalised is fundamental to improving staff wellbeing.

Mental health first aiders

An increasing number of research institutions have introduced mental health first aiders (MHFAs) as part of broader staff wellbeing initiatives.

These are trained members of staff who provide confidential, non-judgemental first-line support to colleagues experiencing emotional distress. While they do not replace professional MHFA practitioners, they are trained to recognise early signs of psychological difficulty, provide initial support, encourage appropriate self-care and signpost individuals towards professional services where required.

Survey participants working within organisations that had implemented MHFA programmes generally viewed them positively, particularly where MHFAs were visible, approachable and understood the unique pressures associated with laboratory animal science. However only a few respondents were aware of them.

For Animal Technologists, the value of MHFAs may be enhanced where they possess an understanding of the emotional demands associated with animal care. Familiarity with issues such as euthanasia, compassion fatigue and moral distress enables more meaningful conversations and reduces concerns that colleagues may not fully appreciate the challenges being discussed. Institutions should therefore consider training MHFAs from within Animal Technologist teams wherever possible, while ensuring appropriate ongoing supervision and continuing professional development.

Personal coping strategies

Survey participants described a range of individual approaches that helped them manage emotionally demanding situations.

These included:

- talking with trusted colleagues
- spending time with family and friends
- taking regular annual leave
- engaging in hobbies and physical exercise
- mindfulness and relaxation techniques
- maintaining a healthy work-life balance

Many respondents also emphasised the importance of allowing themselves time to acknowledge emotional responses rather than suppressing them. Participants described taking opportunities to reflect following difficult procedures, recognising feelings of grief after euthanasia and supporting colleagues who had experienced particularly challenging days.

Equally important was recognising positive experiences. Celebrating successful refinement initiatives, improvements in Animal Welfare, scientific discoveries arising from completed studies or positive feedback from researchers contributed to a sense of professional achievement and compassion satisfaction. Acknowledging these successes helps balance the emotional demands of the profession and reinforces the value of the work undertaken by Animal Technologists.

Barriers to effective support

Although a variety of support mechanisms were identified, survey respondents also described several barriers that limited their effectiveness.

A recurring concern was that emotional wellbeing remained largely dependent upon local management culture rather than being embedded consistently across organisations. Consequently the support available often varied between facilities, departments or even individual managers.

Several respondents also expressed concern that discussing emotional wellbeing might be interpreted as an inability to cope with the demands of the profession. Such perceptions may discourage individuals from seeking support until emotional difficulties become more significant. Reducing stigma requires visible leadership commitment, open discussion of emotional wellbeing and reassurance that seeking support is compatible with professional competence.

Gaps in current practice

Despite increasing recognition of emotional wellbeing within laboratory animal science, important gaps remain.

Current training programmes continue to focus predominantly on technical competence, regulatory compliance and Animal Welfare assessment.

While these remain essential components of professional development, relatively little formal training is devoted to recognising compassion fatigue, managing moral distress or developing emotional resilience throughout a professional career. Newly qualified Animal Technologists may therefore enter the profession with excellent technical skills but limited preparation for its emotional demands.

Similarly, emotional wellbeing is not routinely incorporated into workplace risk assessments.

Traditional occupational risk assessments focus appropriately on physical hazards such as allergens, sharps injuries, manual handling, hazardous substances and biological agents. However emotionally demanding procedures, including repeated euthanasia, large-scale colony reductions, long-term care of animals reaching humane endpoints and work involving emotionally challenging species may also represent foreseeable occupational hazards requiring appropriate management.

Incorporating emotional risks into existing risk assessment frameworks, for example through local templates, encourage managers to identify mitigation strategies before work begins. These may include staff rotation, advance communication regarding planned culls, opportunities for debriefing, access to MHFAs, flexible scheduling following emotionally demanding procedures and ensuring that individuals are not routinely required to undertake particularly distressing tasks in isolation. Individual preferences should also be considered where

lawful and appropriate. For example, some staff may wish to be present during Schedule 1 euthanasia to provide continuity of care or to mark the end of an animal's life, while others may prefer not to be present. Decisions regarding Schedule 1 methods should always be guided by legislation, Animal Welfare, local policy, technical competence and the availability of appropriately trained staff. Where more than one lawful method is available, organisations should recognise that staff may experience different emotional responses and should provide opportunities for discussion, support and rotation without presenting one method as universally preferable.

Finally, respondents consistently identified limited communication regarding research outcomes as a missed opportunity to reinforce the value of their contribution.

Providing regular feedback regarding scientific progress, successful publications, improvements in Animal Welfare or translational impacts may strengthen compassion satisfaction while reinforcing the essential contribution made by Animal Technologists to high-quality research.

Several participants highlighted that generic workplace wellbeing services did not always address the unique emotional demands of laboratory animal science. One respondent commented:

“HR don't really understand the unique set of emotional challenges which impact technicians.”

Another suggested that they would value

“A HR representative that understands our work and role.”

These comments suggest that wellbeing initiatives may be more effective when delivered by individuals familiar with the laboratory animal environment.

Discussion

This review combines evidence from the published literature with insights gained from an anonymous qualitative survey of Animal Technologists, enabling consideration of both the existing evidence base and the lived experiences of professionals working within laboratory animal facilities. Laboratory Animal Science requires Animal Technologists to balance compassionate animal care with the scientific and regulatory requirements of research, creating situations in which professional responsibility and personal emotion may occasionally conflict.^{1,5}

The survey responses suggest that the emotional burden associated with laboratory animal work is not attributable to a single event but rather develops through repeated exposure to emotionally challenging situations over the course of a career. Participants

described cumulative experiences involving euthanasia, colony management, ethical uncertainty and limited communication regarding research outcomes, all of which have the potential to contribute to compassion fatigue, moral distress and reduced professional wellbeing.

Importantly, most respondents did not question the value of biomedical research itself. Instead, they expressed a strong commitment to providing the highest standards of Animal Welfare while seeking greater understanding, communication and recognition of the emotional demands associated with their work. This distinction is important because it suggests that improving staff wellbeing does not conflict with scientific excellence; rather, it supports the responsible conduct of research and strengthens institutional Culture of Care.

Compassion fatigue, moral distress and burnout

Compassion fatigue has become increasingly recognised across healthcare, veterinary medicine and Animal Technology professions. It is generally described as the emotional and physical exhaustion that may develop through repeated exposure to the suffering of others, often resulting in reduced empathy, emotional withdrawal and decreased job satisfaction.^{2,6}

For Animal Technologists, compassion fatigue may arise through prolonged involvement in caring for animals experiencing illness, disease progression or regulated procedures, together with repeated participation in euthanasia and humane endpoints. Unlike many clinical professions, laboratory animal professionals frequently establish long-term relationships with animals that they have bred, cared for and monitored throughout their lives. This continuity of care may intensify the emotional impact when animals subsequently reach study endpoints or require euthanasia.

Compassion fatigue should not be interpreted as an inability to cope with the profession. Rather, it represents a recognised occupational response to sustained emotional engagement and has been described across many caring professions. Acknowledging compassion fatigue as a normal occupational risk may help reduce stigma and encourage earlier access to appropriate support.

The survey responses echoed these findings, with participants describing emotional exhaustion in their own words. One respondent commented that they experienced *“feeling very stressed, tired and feeling burnt out”*, while another described *“mental exhaustion [and] overwhelming sadness”*. These accounts illustrate how compassion fatigue may manifest as both emotional and physical exhaustion within laboratory animal facilities.

Closely related to compassion fatigue is moral distress, which occurs when individuals believe they know the ethically appropriate course of action but are unable to pursue it because of organisational, scientific or professional constraints.³

Within laboratory animal science, moral distress may arise when Animal Technologists perceive avoidable animal use, are insufficiently informed about the scientific rationale underpinning studies or feel unable to influence decisions affecting Animal Welfare. Although such situations may be relatively uncommon, repeated exposure without opportunities for discussion or resolution may progressively erode professional wellbeing.

Burnout represents a broader occupational syndrome resulting from prolonged workplace stress and is characterised by three principal components:

- emotional exhaustion
- depersonalisation or emotional detachment
- reduced sense of professional accomplishment⁷

Burnout differs from compassion fatigue in that it develops through chronic occupational stress rather than exposure to emotionally challenging situations alone. Nevertheless, the two conditions may coexist and share common organisational risk factors, including excessive workload, inadequate managerial support, poor communication and limited opportunities for recovery.

Emotional labour and professional identity

Animal Technologists perform substantial emotional labour as part of their everyday work. Emotional labour refers to the process of regulating one's emotional responses while fulfilling professional responsibilities often requiring individuals to display calmness, compassion and professionalism despite experiencing personal distress.⁸

This emotional labour is frequently invisible. Technical competence, regulatory compliance and procedural skills are readily measured and assessed, whereas emotional resilience is seldom acknowledged formally despite representing an equally important component of professional practice.

Survey respondents frequently described balancing compassion for the animals in their care with the practical responsibilities associated with scientific research. Many indicated that they deliberately compartmentalised their emotions during working hours to maintain professionalism, while processing these emotions later through conversations with colleagues, family members or trusted friends.

Although such coping strategies may be effective in the short term, relying solely upon individual resilience places an unrealistic expectation upon staff and risks overlooking the organisational factors that contribute to emotional wellbeing.

Culture of Care as a shared responsibility

The concept of Culture of Care has become increasingly embedded within Laboratory Animal Science, encouraging organisations to promote openness, collaboration, continuous improvement and high standards of Animal Welfare. Increasingly however Culture of Care is recognised as extending beyond Animal Welfare alone to include the wellbeing of the people responsible for delivering that care.⁹

The survey findings suggest that emotional wellbeing should be regarded as a shared organisational responsibility rather than solely the responsibility of individual Animal Technologists. Researchers, Named Persons, veterinarians, facility managers, human resources departments and institutional leadership all influence the working environment in which emotional wellbeing is either supported or neglected.

Recognising emotional wellbeing alongside physical health and safety represents an important cultural shift. Most research organisations already undertake detailed risk assessments for hazards such as biological agents, allergens, sharps injuries and hazardous chemicals. Emotional hazards should be considered with equal seriousness where work is known to involve repeated euthanasia, large-scale colony reductions, emotionally demanding species or ethically challenging procedures.

One participant described the impact of the COVID-19 pandemic:

“Having to carry out mass culling of animals due to poor animal management and lack of communication from researchers... it felt like the work we were doing had less value.”

This response illustrates that emotional distress may arise not only from euthanasia itself but also from organisational factors, including communication, planning and the perceived value of the work undertaken. Incorporating emotional wellbeing into organisational risk assessments does not imply that laboratory animal work is inherently harmful. Rather, it reflects good occupational health practice by identifying foreseeable psychological risks and implementing proportionate measures to minimise them.

Potential mitigation strategies include:

- Rotating staff undertaking repeated euthanasia.
- Providing advance notice of planned colony reductions.

- Scheduling time for structured debriefing following challenging procedures.
- Ensuring access to confidential wellbeing services.
- Avoiding prolonged periods of emotionally demanding work without variation.
- Encouraging managers to monitor staff wellbeing proactively during routine supervision.

Communication, recognition and compassion satisfaction

One of the strongest messages emerging from both the survey and published literature is the importance of meaningful communication. Participants consistently described feeling more motivated when they understood the scientific purpose of their work and received feedback regarding research outcomes.

Compassion satisfaction is the positive emotional reward derived from helping others and contributing to meaningful work and has been shown to protect against compassion fatigue.⁵ Within Laboratory Animal Science, compassion satisfaction may arise from knowing that high standards of husbandry have contributed to robust scientific outcomes, successful refinement initiatives or advances in human and animal health.

Simple interventions may therefore have disproportionate benefits. These include:

- Researchers presenting study outcomes to animal care teams.
- Sharing publications and lay summaries of completed projects.
- Recognising Animal Technologists within presentations and awards.
- Celebrating successful refinements and welfare improvements.
- Acknowledging the expertise of technologist staff during project planning and review.

Such initiatives reinforce professional identity, strengthen multidisciplinary collaboration and help ensure that Animal Technologists remain connected to the broader scientific purpose of their work.

Limitations

This review combines published literature with qualitative findings from a voluntary anonymous survey and the professional experience of the authors. As participation was voluntary, responses may over-represent individuals with particularly positive or negative experiences of workplace wellbeing. Furthermore, the survey was designed to explore experiences rather than establish prevalence; consequently the findings should be interpreted as illustrative rather than statistically representative of all Animal Technologists.

Nevertheless, the consistency between survey responses and published literature suggests that the themes identified are likely to be relevant across many laboratory animal facilities. Future research involving larger multi-centre studies and validated measures of professional quality of life would further strengthen understanding of emotional wellbeing within the profession.^{1,2}

Recommendations

Improving the wellbeing of Animal Technologists requires a proactive organisational approach that recognises emotional wellbeing as an integral component of responsible animal research. Although individual resilience remains important, the findings of this review suggest that the greatest improvements are likely to arise through organisational commitment, supportive leadership^{4,5,6} and meaningful collaboration between all members of the research community.

The following recommendations are intended to provide practical measures that institutions can implement as part of their wider Culture of Care.

1. Normalise conversations about emotional wellbeing

Survey participants consistently emphasised the importance of being able to discuss emotionally challenging experiences openly without fear of judgement or stigma.

Organisations should encourage regular opportunities for staff to reflect on emotionally demanding situations through informal conversations, team meetings and structured debriefing sessions. These discussions should be viewed as routine components of professional practice rather than interventions reserved for times of crisis.

Managers play an important role in creating psychologically safe workplaces by acknowledging the emotional aspects of laboratory animal work and encouraging staff to seek support when required.

Regular one-to-one meetings, wellbeing check-ins and reflective practice sessions may help identify emerging concerns before they develop into more significant difficulties. These conversations should be confidential, supportive and focussed on problem-solving rather than performance management.

2. Strengthen access to professional support

Many organisations already provide EAPs, occupational health services and MHFAs.^{5,6}

These services should be introduced to all employees during induction and revisited regularly throughout employment

to ensure staff remain aware of the support available. Managers should receive training in recognising signs of emotional distress and in confidently directing colleagues towards appropriate professional services.

Access alone is insufficient if employees feel unable to use the services provided.

Organisations should actively challenge misconceptions that seeking psychological support reflects professional weakness. Senior leaders and managers can help normalise help-seeking by openly discussing wellbeing initiatives and demonstrating visible commitment to staff welfare.

3. Expand mental health first aid within animal facilities

MHFAs represent an increasingly valuable component of workplace wellbeing programmes.

Institutions should consider training MHFAs from within laboratory animal facilities wherever practical. Individuals who understand the unique emotional demands associated with animal care are often better placed to recognise the early signs of compassion fatigue and moral distress among colleagues.

MHFAs should receive ongoing refresher training and regular supervision to ensure that they remain confident in their role while recognising the limits of their responsibility.

Importantly MHFAs should complement and not replace professional psychological support services.

4. Provide joint empathy and communication training

One of the strongest themes emerging from the survey was the need for improved communication between researchers and Animal Technologists.

Empathy training should not be viewed solely as communication skills training. Instead, it should encourage greater understanding of the responsibilities, pressures and perspectives experienced by different members of the research team.

Joint workshops involving researchers, Animal Technologists, Named Persons, veterinarians and facility managers could include:

- discussion of ethical case studies
- shared review of challenging scenarios
- communication skills training
- collaborative refinement exercises
- reflection on the emotional impact of research decisions
- opportunities to learn about each other's professional roles

Such multidisciplinary training may strengthen mutual respect, improve collaboration and reduce misunderstandings that contribute to workplace stress.

5. Incorporate emotional wellbeing into risk assessments

Traditional workplace risk assessments (RA) focus primarily on physical hazards.

Emotional hazards should also be considered where work is known to involve repeated exposure to emotionally demanding situations.

Examples include:

- repeated euthanasia sessions
- large-scale colony reductions
- long-term care of animals reaching humane endpoints
- work involving companion species or non-human primates
- lone working during euthanasia
- studies with significant welfare implications
- emergency disease outbreaks requiring rapid depopulation

Where such risks are identified, organisations should consider mitigation strategies including:

- staff rotation
- advance communication of planned procedures
- additional staffing during major culls
- protected recovery time following emotionally demanding work
- access to confidential support services
- opportunities for structured reflection or debriefing

Incorporating emotional wellbeing into existing occupational health processes reinforces the principle that psychological health deserves the same consideration as physical safety.

6. Improve feedback and recognition

Many participants described limited awareness of the outcomes of the research they supported.

Providing regular feedback regarding scientific progress helps Animal Technologists understand how their work contributes to advances in science, medicine and Animal Welfare. Improved communication also strengthens professional identity and promotes compassion satisfaction.

Practical approaches include:

- presentations following project completion
- departmental newsletters
- lay summaries of published studies
- researcher presentations within animal facilities
- sharing publications arising from completed work
- celebrating successful refinement initiatives

Where appropriate, Animal Technologists should also be recognised for their contribution through acknowledgements in publications, conference presentations, awards or institutional recognition schemes. Such recognition reinforces that high-quality science depends upon multi-disciplinary collaboration.

7. Recognise emotional labour within professional practice

The emotional aspects of laboratory animal work should be recognised formally rather than remaining an invisible expectation of the profession.

This recognition is supported by literature describing emotional labour and moral distress as important features of caring professions.^{3,10}

Organisations should acknowledge emotional labour within job descriptions, induction programmes, continuing professional development and annual appraisal processes. Managers should recognise that emotional resilience requires ongoing support rather than assuming that experienced staff are unaffected by repeated exposure to difficult procedures.

Professional bodies may also consider incorporating emotional wellbeing into competency frameworks and continuing education programmes.

8. Develop wellbeing champions

Several respondents suggested that local wellbeing champions could help improve awareness of available support.

Wellbeing champions should be volunteers or nominated members of staff who receive recognised training in mental health awareness and workplace wellbeing. Their role is not to provide counselling but to promote available support, encourage positive conversations about wellbeing and act as approachable points of contact for colleagues.

Wellbeing champions may also assist organisations by:

- promoting wellbeing events
- signposting available resources.
- supporting new starters
- encouraging participation in wellbeing initiatives
- helping managers identify opportunities for continual improvement

9. Foster a respectful and inclusive culture

Perhaps the most important recommendation arising from this review is the need to cultivate organisational cultures in which emotional wellbeing is regarded as everyone's responsibility.

Respectful communication should be expected between researchers, Animal Technologists, veterinarians, Named Persons and managers. Decisions affecting Animal

Technologists, particularly those involving large colony reductions or challenging procedures should be communicated openly and as early as practicable.

Human Resources processes, including appraisal, promotion, leadership development and disciplinary procedures, should reinforce organisational expectations regarding respectful behaviour and psychological safety.

Leaders play a critical role in shaping organisational culture. Visible commitment from senior management demonstrates that staff wellbeing is valued alongside scientific excellence, regulatory compliance and Animal Welfare.

Summary of recommendations

Although many of the recommendations described in this review require organisational commitment rather than significant financial investment, collectively they have the potential to improve staff wellbeing, strengthen retention, reduce compassion fatigue and reinforce a positive Culture of Care.

Supporting the emotional wellbeing of Animal Technologists should not be regarded as an optional wellbeing initiative but as an essential component of responsible Laboratory Animal Science. Institutions that invest in their staff create environments in which both people and animals are better cared for, ultimately supporting higher standards of science and Animal Welfare.

Conclusion

Animal Technologists occupy a unique and essential position within Laboratory Animal Science, combining technical expertise with compassionate daily care of

research animals. While this work is professionally rewarding, it can also expose staff to repeated emotional challenges that are not always recognised within traditional occupational health and safety frameworks.

This review suggests that compassion fatigue, moral distress and burnout may arise from cumulative exposure to euthanasia, colony management, ethically challenging situations and limited feedback regarding the scientific outcomes of work. These experiences are influenced not only by individual resilience but also by organisational culture, leadership, communication and access to appropriate support.

Embedding emotional wellbeing within Culture of Care should therefore be regarded as an essential component of responsible Laboratory Animal Science. Practical measures such as structured debriefing, MHFAs, emotional risk assessments, improved researcher to technologist communication and regular feedback on research outcomes require modest organisational investment but may deliver substantial benefits for staff wellbeing, retention, Animal Welfare and scientific quality.

Responsibility for emotional wellbeing should not rest solely with Animal Technologists. Researchers, veterinarians, Named Persons, managers, Human Resources departments, senior leaders and professional organisations all have a role in creating psychologically safe workplaces where emotional labour is recognised and appropriately supported.

Future research should quantify the prevalence of compassion fatigue and moral distress within laboratory animal facilities using validated assessment tools and evaluate interventions designed specifically for Animal Technologists. Such evidence would support the continued development of sustainable wellbeing strategies across the profession.

Emotional challenge	Evidence from Survey	Consequence	Possible intervention
Euthanasia	Participants described emotional exhaustion	Compassion fatigue	Rotation and debriefing
Mass culling	Feelings of sadness and helplessness	Moral distress	Early communication
Lack of feedback	Reduced compassion satisfaction	Reduced motivation	Research updates
Poor communication	Workplace stress	Stress	Joint workshops
Ethical conflict	Moral distress	Burnout	Ethics discussions

Table 5. Summary of recommendations.

Practical implications

The findings of this review have several practical implications for organisations involved in Laboratory Animal Science.

Institutions should consider:

- Incorporating emotional wellbeing into existing Culture of Care programmes.
- Including emotional hazards within occupational risk assessments.
- Providing regular MHFA and wellbeing awareness training.
- Improving communication between researchers and Animal Technologists throughout the lifecycle of research projects.
- Recognising the contribution of Animal Technologists to scientific outcomes.
- Evaluating staff wellbeing as part of routine organisational quality improvement.

Embedding these approaches within existing governance structures has the potential to improve employee wellbeing while supporting scientific excellence and the highest standards of Animal Welfare.

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Data availability

The anonymous survey data supporting the findings of this review are not publicly available because they contain qualitative responses provided in confidence. Anonymised extracts are included within the manuscript where appropriate.

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