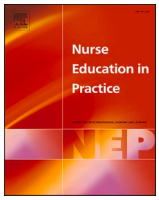
Nurse Education in Practice 61 (2022) 103323

Contents lists available at ScienceDirect

Nurse Education in Practice

journal homepage: www.elsevier.com/locate/issn/14715953



# Violence experienced by undergraduate nursing students during clinical placements: An online survey at a Scottish University

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ARTICLE INFO

*Keywords:*
Nurses
Nursing students
Violence
Clinical placements
Education

ABSTRACT

*Aim:* To assess the prevalence of violence and experiences of violence during clinical placements, among nursing students at a Higher Education Institution (HEI) in Scotland.
*Design:* Cross-sectional survey, using an opt-in online questionnaire.
*Participants:* All 950 undergraduate nursing students aged 18 + years were eligible.
*Methods:* The survey, with 24 open and closed format questions, was advertised over a 6-week period via the students' virual learning platform. Potential participants were provided with study information before giving (electronic) informed consent. The questionnaire used was adapted from two other surveys and piloted prior to administration. Open-ended questions were fully transcribed and categorised and data analysed using SPSS.
*Results:* There were 138 completed questionnaires (approx. 15% response rate); respondents were mainly female (92%). 77% had experienced verbal violence directed at them while on placement, most commonly swearing, shouting and insults. 70% of respondents had experienced physical violence, most commonly hitting, grabbing, kicking and spitting. By the fourth year of study, all 10 students who responded (out of 17 enrolled) had experienced violence. In general, patients (with a mental illness) were perceived to be the most likely perpetrators. The five most commonly reported feelings by respondents during the incident were: anxious (65), understanding (58), vulnerable (54), unsafe (50) and scared (45) and those after the incident were understanding (70), anxious (59), guilty (37), vulnerable (36), incompetent (34). 55 (47.8%) respondents felt supported during this 'significant' incident, 23 (20.0%) were unsure and 28 (24.3%) did not feel supported. There was a trend towards younger respondents and those with fewer years of care experience experiencing more violence.
*Conclusion:* This study indicates that there is a high prevalence of violence experienced by student nurses that can have significant emotional consequences. There is scope to provide more training and support for them to deal with frequent incidents of violence.

## 1. Introduction

Workplace violence towards health care professionals is now recognized as a global public health issue. An international study in Brazil, Bulgaria, Lebanon, Portugal, South Africa, Thailand and Australia highlighted the high levels of violence experienced by employees in the health sector (Martino, 2002) and this was followed by similar results from studies in Europe (Babiarczyk et al., 2020) Switzerland (Hahn et al., 2012), China (Shi et al., 2017) and Iran (Honarvar et al., 2019). Guidelines from the National Institute for Clinical Excellence of the UK National Institute for Healthcare Excellence (2010) define workplace violence as 'immoral, repulsive and inappropriate behaviour which is threatening or harassing. This behaviour coincides with the intention to express physical, emotional or verbal abuse towards an individual, to harm them physically and/ or psychologically'. Health care professionals who have the most direct contact with patients and visitors, are at highest risk of experiencing violence and aggression (Hahn et al., 2012; Lepping et al., 2013).

Episodes of violence towards nurses are likely to have an impact on their overall wellbeing. Parrish (2019) reported that episodes of violence have negative psychological impacts on the nurse involved, such as depression, anger, loss of self-confidence, irritability and humiliation and that this may ultimately have an impact on patient care outcomes. Roche et al. (2010) also argue that violence experienced by

*Abbreviations:* HEI, Higher Education Institution.

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https://doi.org/10.1016/j.nepr.2022.103323
Received 31 August 2021; Received in revised form 16 February 2022; Accepted 28 February 2022
Available online 5 March 2022

nurses can affect patient outcomes, whether directly or indirectly. There have been many studies conducted on violence towards registered nurses while providing care, but there is an evidence gap relating to student nurses' perspectives and experiences. While there have been studies examining horizontal violence in the workplace towards nursing students by other staff (Tee et al., 2016; Üzar-Özçetin et al., 2020) or in their HEI (De Villiers et al., 2014), the only data relating to violence towards students from patients and visitors come from the US (Hinchberger, 2009), South Africa (Hewett, 2010) and Turkey (Celebioglu et al., 2010).

To address this evidence gap, an online survey was carried out among undergraduate nursing students at a Scottish Higher Education Institution (HEI) to explore the prevalence and effects of violence from patients and visitors experienced by student nurses during their clinical placements.

## 2. Methods

The study design was cross-sectional and data were collected using an opt-in self-report anonymous survey. The study was advertised to all undergraduate nursing students (approx. 950) at a Scottish Higher Education Institution (HEI) over a 6-week period from January to March 2021. The inclusion criteria were that they were currently registered at the institution and were 18 years old or over. There were no specific exclusion criteria.

Information about the study was posted online to all students via announcements on their year space within their virtual learning platform and was followed up by two reminders. Potential participants were required to read through information about the survey before providing (electronic) informed consent, from where they were directed to an online 'Google forms' questionnaire.

The survey questionnaire adapted questions derived from two other surveys: a case study questionnaire created by multiple health care organisations ILO/ICN/WHO/PSI (2003) and a questionnaire adapted from a South African study in student nurses (Hewett, 2010). Questions on sexual harassment were excluded as this was deemed too sensitive a topic for the participant group in an online format. Questions on horizontal violence (bullying or violence perpetrated by members of staff) were also excluded, given the main focus of the study (violence from patients and visitors). A draft version of the questionnaire was reviewed twice by eight third and fourth year student nurses prior to administration to check for readability and understanding. These student nurses were eligible to take part in the final survey.

The final questionnaire consisted of 24 questions, using a mix of closed and open question format. There were five socio-demographic questions (gender, age, year of study, degree and previous care experience). Subsequent questions probed type of incident and frequency (on a Likert scale) of verbal and physical violence and respondents' specific experiences and emotional reactions. Prevalence of violence was defined as the proportion of respondents who had experienced verbal or physical violence directed at them while on placement. Violence itself was not explicitly defined, but examples of physical violence (kicking, hitting, spitting, hand grabbing) and verbal violence (insults, swearing, threats) were provided to the respondents to assist them with answering an open question on the type of violence experienced. There were also questions on whether violent incidents were reported (possible responses: no, sometimes, always) and reasons for not doing so; whether students felt supported after experiencing violence (possible responses: yes, no, unsure); and whether they felt confident in de-escalating violent situations (possible responses: yes, no, unsure). No questions were mandatory and respondents had the opportunity to exit the questionnaire at any point (with none of their data then saved). Open-ended questions were fully transcribed and categorised. Data analysis was conducted using SPSS and presented as proportions within subgroups. Binary logistic regression analyses were carried out to investigate the associations between socio-demographic characteristics and whether respondents had ever experienced verbal or physical violence. For this analysis respondents were categorised as having experienced violence if they answered 'occasionally', 'sometimes' or 'often' to frequency of violence. Odds ratios (with 95% confidence intervals) were calculated in univariate analyses only.

Informed consent was obtained from all participants. Ethical approval to conduct the study was granted by the General University Ethics Panel of the HEI.

## 3. Results

### 3.1. Prevalence of violence

There were 138 completed questionnaires, representing approx. 15% of all student nurses at the HEI. Overall, there were 127 (92%) female respondents, 12 were male and one preferred not to say. The characteristics of the respondents are shown in Tables 1 and 2 (final column). Most (77%) were studying adult nursing. Just over half (57%) were under the age of 25 years, with only 10 respondents over the age of 45 years. The second year group was most commonly represented, with slightly fewer respondents in their first or third years. There were only 10 respondents in their fourth year of study, but this is an optional year and there were only 17 students registered at the HEI in this year group. Most respondents (62%) had some care experience prior to starting their course. All 10 respondents who were over the age of 45 years had care experience of at least one year.

Tables 1 and 2 also show that the prevalence of verbal and physical violence was 76.8% and 69.6% respectively. Almost all of the third year students had experienced violence; all of the 10 fourth year respondents (out of a total of 17 enrolled) had done so. Experiences of physical and verbal violence appeared to be around twice as common among students on the adult nursing programme compared with the mental health programme, with 33% of mental health students never having experienced verbal violence and 43% never having experienced physical violence. The corresponding figures for adult branch students were 21% and 27%.

There was a trend towards younger respondents and those with fewer years of care experience experiencing more verbal and physical violence, compared with older respondents with more care experience (characteristics that are also likely to co-occur). Respondents aged 18–24 years were seven times more likely to have experienced verbal violence compared with respondents in the oldest age category and this result was statistically significant. Experiences of violence were more common among females. They were nearly four times more likely to have experienced physical violence compared with male respondents. This result was also statistically significant, but in general, confidence intervals for odds ratios were wide as the sample size was relatively small.

Respondents were asked open-ended questions as to the most common actions experienced. The answers were categorised, with the most commonly reported verbal violence involving swearing, shouting and insults and physical incidents being hitting, grabbing, kicking and spitting. In general, patients were perceived to be the most likely perpetrators of physical violence, with only one respondent stating that visitors were the more likely perpetrators and one stating that they had equal experiences from both patients and visitors. However, 14 respondents stated that they had equal experiences of verbal violence from patients and visitors, with two stating that visitors were more likely to be perpetrators of verbal violence.

There were 23 respondents who had never experienced any physical or verbal violence. Of the remaining 115 respondents, there were only six who had never experienced this from someone with a mental illness and four who were unsure. An open question on the most common mental health disorders encountered were dementia, schizophrenia and delirium.

**Table 1**
Reported frequency of verbal violence, stratified by socio-demographic characteristics, and univariate odds ratios for ever having experienced verbal violence.

| | Frequency of verbal violence n (%) | | | | | Ever experienced verbal violence |
|---|---|---|---|---|---|---|
| | Never | Occasionally (1–2 times) | Sometimes (3–5 times) | Often (> 5 times) | Total | Odds ratio (95% CI) |
| **Sex** | | | | | | |
| Male | 4 (33.3%) | 7 (58.3%) | 1 (8.3%) | 0 | 12 | 1.00 |
| Female | 28 (22.4%) | 31 (24.8%) | 34 (27.2%) | 32 (25.6%) | 125 | 1.73 (0.49–6.18) |
| **Age** | | | | | | |
| 18–24 years | 10 (12.7%) | 24 (30.4%) | 25 (31.6%) | 20 (25.3%) | 79 | 7.00 (1.72−28.55) |
| 25–34 years | 9 (32.1%) | 7 (25.0%) | 4 (14.3%) | 8 (28.6%) | 28 | 2.00 (0.46–8.75) |
| 35–44 years | 8 (39.1%) | 7 (33.3%) | 4 (19.0%) | 2 (9.5%) | 21 | 1.63 (0.36–7.43) |
| 45+ years | 5 (50.0%) | 1 (10.0%) | 2 (20.0%) | 2 (20.0%) | 10 | 1.00 |
| **Course of study** | | | | | | |
| Adult branch | 22 (20.7%) | 32 (30.2%) | 27 (25.5%) | 25 (23.6%) | 106 | 1.91 (0.78–4.66) |
| Mental health branch | 10 (33.3%) | 6 (20.0%) | 7 (23.3%) | 7 (23.3%) | 30 | 1.00 |
| **Care experience prior to starting course** | | | | | | |
| None | 7 (13.2%) | 17 (32.1%) | 18 (34.0%) | 11 (20.8%) | 53 | 4.38 (0.98–19.52) |
| <1 year | 5 (16.7%) | 10 (33.3%) | 5 (16.7%) | 10 (33.3%) | 30 | 3.33 (0.68–16.32) |
| 1–3 years | 10 (30.3%) | 8 (24.2%) | 9 (27.3%) | 6 (18.2%) | 33 | 1.53 (0.35–6.65) |
| 4–10 years | 6 (50.0%) | 1 (8.4%) | 2 (16.7%) | 3 (25.0%) | 12 | 0.67 (0.12–3.64) |
| >10 years | 4 (40.0%) | 3 (30.0%) | 1 (10.0%) | 2 (20.0%) | 10 | 1.00 |
| **Year of study** | | | | | | |
| 1st | 20 (50.0%) | 9 (22.5%) | 5 (12.5%) | 6 (15.0%) | 40 | – |
| 2nd | 11 (20.4%) | 17 (31.5%) | 14 (25.9%) | 12 (22.2%) | 54 | – |
| 3rd | 1 (2.9%) | 10 (29.4%) | 12 (35.3%) | 11 (32.3%) | 34 | – |
| 4th | 0 | 3 (30.0%) | 4 (40.0%) | 3 (30.0%) | 10 | – |
| **TOTAL** | 32 (23.1%) | 39 (28.3%) | 35 (25.4%) | 32 (23.2%) | 138 | – |

### *3.2. Experience of violence*

Respondents were provided with a list of feelings and asked which were their five most predominant feelings during and after their most 'significant' incident of verbal or physical violence. The five most commonly reported feelings among 115 respondents during the violence were: anxious (65), understanding (58), vulnerable (54), unsafe (50) and scared (45). Only nine respondents said that they were unbothered. The most commonly reported feelings after the incident were understanding (70), anxious (59), guilty (37), vulnerable (36), incompetent (34). 55 (47.8%) respondents felt supported during this 'significant' incident, 23 (20.0%) were unsure and 28 (24.3%) did not feel supported. In response to an open-ended questions to those 55 who felt supported, many were debriefed or given opportunities to discuss the situation (22) and they also reported receiving emotional support and reassurance from a range of people, including staff, mentors, personal tutors and peers (23). One student was offered counselling. However, among the 28 respondents who did not feel supported, over half (15) reported that nothing was done in response to the incident; fellow staff were not particularly interested, there was no debrief or follow-up and they were expected just to '*get on with it*'. Others reported that violence was laughed at or laughed off (3) or told that it '*comes with the job*' (6). One student was advised that there was no point in reporting incidents formally. In one case the incident '*resulted in a long time [sic] injury and a trip to ED. Charge nurse disciplined me for time off the ward and time missed on shift*'.

Among the 115 respondents who had experienced violence, 26 (22.6%) stated that they were not confident to competently de-escalate the situation and 33 (28.7%) were unsure. This was the case despite most (90.6%) respondents overall having received violence and aggression training (Table 3). Confidence increased with increasing age and care experience. There were higher proportions of respondents who had received training outside the HEI who felt confident. However, only half of students in their final year felt confident in this area.

In relation to reporting of violent incidents, 19 (16.5%) of the 115 students who had experienced violence never reported it the charge nurse, regardless of whether it was physical or verbal. In contrast, 43 (37.4%) respondents always reported every incident. For the remaining 53 respondents, this depended on the situation. The main two reasons given for not (always) reporting the more serious incidents were as follows: the violent incident was part of the normal representation for that patient/condition (16) or the student nurse understood why it was happening (11). However, 12 students did not report incidents because of a perception that nothing would be done about it and /or it would not be not taken seriously. For six students, the reasons were that they were embarrassed (2), they thought it was their fault, they did not want to be perceived as too '*soft*', they did not want to cause trouble, or they were expected to '*put up*'.

## 4. Discussion

This study confirms that violence, both physical and verbal, is commonly experienced by student nurses in Scotland, while they are on clinical placement, although it is acknowledged that data were collected from only one HEI in Scotland and the response rate was relatively low. However, all students at the HEI were eligible for the study and the respondents came from a range of year groups, so are likely to reflect the diverse student intake of the undergraduate course. Most respondents were female, with around half of the students under the age of 25 years.

The extent and nature of violence experienced by students may differ between different clinical environments and we did not collect data on specific care locations. However in general, the findings from this study accord with studies carried out in other countries, many of which also used self-report surveys. For example, all female student nurse

**Table 2**
Reported frequency of physical violence, stratified by socio-demographic characteristics, and univariate odds ratios for ever having experienced physical violence.

| | Frequency of physical violence n (%) | | | | | Ever experienced physical violence |
|---|---|---|---|---|---|---|
| | Never | Occasionally (1–2 times) | Sometimes (3–5 times) | Often (> 5 times) | Total | Odds ratio (95% CI) |
| **Sex** | | | | | | |
| Male | 7 (58.3%) | 4 (33.3%) | 1 (8.3%) | 0 | 12 | 1.00 |
| Female | 35 (28.0%) | 51 (40.8%) | 22 (17.6%) | 17 (13.6%) | 125 | 3.60 (1.07–12.1) |
| **Age** | | | | | | |
| 18–24 years | 18 (22.7%) | 37 (46.8%) | 10 (12.7%) | 13 (16.5%) | 79 | 2.30 (0.58–9.03) |
| 25–34 years | 10 (35.7%) | 10 (35.7%) | 6 (21.4%) | 2 (7.1%) | 28 | 1.13 (0.26–5.01) |
| 35–44 years | 10 (47.6%) | 6 (26.6%) | 4 (19.0%) | 1 (4.8%) | 21 | 0.73 (0.16–3.38) |
| 45+ years | 4 (40.0%) | 2 (20.0%) | 3 (30.0%) | 1 (10.0%) | 10 | 1.00 |
| **Course of study** | | | | | | |
| Adult branch | 29 (27.4%) | 45 (42.5%) | 17 (16.0%) | 15 (14.2%) | 106 | 2.03 (0.88–4.70) |
| Mental health branch | 13 (43.3%) | 9 (30.0%) | 6 (20.0%) | 2 (6.7%) | 30 | 1.00 |
| **Care experience prior to starting course** | | | | | | |
| None | 13 (24.5%) | 25 (47.2%) | 7 (13.2%) | 8 (15.1%) | 53 | 1.32 (0.30–5.85) |
| < 1 year | 8 (26.7%) | 13 (43.3%) | 4 (13.3%) | 5 (16.7%) | 30 | 1.18 (0.25–5.70) |
| 1–3 years | 14 (42.4%) | 11 (33.3%) | 6 (18.2%) | 2 (6.1%) | 33 | 0.58 (0.13–2.66) |
| 4–10 years | 4 (33.3%) | 3 (25.0%) | 4 (33.3%) | 1 (8.3%) | 12 | 0.86 (0.14–5.23) |
| > 10 years | 3 (30.0%) | 4 (40.0%) | 2 (20.0%) | 1 (10.0%) | 10 | 1.00 |
| **Year of study** | | | | | | |
| 1st | 21 (52.5%) | 12 (30.0%) | 4 (10.0%) | 3 (7.5%) | 40 | – |
| 2nd | 18 (33.3%) | 25 (46.3%) | 5 (9.3%) | 6 (11.1%) | 54 | – |
| 3rd | 3 (8.8%) | 13 (38.2%) | 12 (35.3%) | 6 (17.6%) | 34 | – |
| 4th | 0 | 6 (60.0%) | 2 (20.0%) | 2 (20.0%) | 10 | – |
| **TOTAL** | 42 (30.4%) | 56 (40.6%) | 23 (16.7%) | 17 (12.3%) | 138 | |

**Table 3**
Reported confidence in dealing with most 'significant' incident of violence, stratified by socio-demographic characteristics, and whether specific training had been received.

| | Confidence in de-escalating violent situation n (%) | | | |
|---|---|---|---|---|
| | Yes | No | Unsure | Total |
| **Sex** | | | | |
| Male | 6 (66.6%) | 2 (22.2%) | 1 (11.1%) | 9 |
| Female | 48 (46.6%) | 24 (23.3%) | 31 (30.1%) | 103 |
| **Age** | | | | |
| 18–24 years | 34 (46.6%) | 17 (23.6%) | 21 (29.2%) | 72 |
| 25–34 years | 8 (38.1%) | 8 (38.1%) | 5 (23.8%) | 21 |
| 35–44 years | 7 (46.7%) | 1 (6.7%) | 7 (46.7%) | 15 |
| 45 + years | 7 (100%) | 0 | 0 | 7 |
| **Course of study** | | | | |
| Adult branch | 48 (52.7%) | 20 (22.0%) | 23 (25.3%) | 91 |
| Mental health branch | 8 (36.4%) | 5 (22.7%) | 9 (40.9%) | 22 |
| **Care experience prior to starting course** | | | | |
| None | 20 (42.6%) | 14 (29.8%) | 13 (27.7%) | 47 |
| < 1 year | 15 (57.7%) | 4 (15.4%) | 7 (26.9%) | 26 |
| 1–3 years | 8 (33.3%) | 6 (25.0%) | 10 (41.7%) | 24 |
| 4–10 years | 6 (60.0%) | 2 (20.0%) | 2 (20.0%) | 10 |
| > 10 years | 7 (87.5%) | 0 | 1 (12.5%) | 8 |
| **Year of study** | | | | |
| 1st | 16 (61.5%) | 5 (19.2%) | 5 (19.2%) | 26 |
| 2nd | 18 (40.0%) | 12 (26.7%) | 15 (33.3%) | 45 |
| 3rd | 17 (50.0%) | 6 (17.6%) | 11 (32.3%) | 34 |
| 4th | 5 (50.0%) | 3 (30.0%) | 2 (20.0%) | 10 |
| **Violence and aggression training** | | | | |
| Received within HEI | 43 (46.2%) | 23 (24.7%) | 27 (29.0%) | 93 |
| Received outside HEI | 10 (71.4%) | 0 | 4 (28.6%) | 14 |
| None received | 3 (37.5%) | 3 (37.5%) | 2 (25.0%) | 8 |
| **TOTAL** | 56 (48.7%) | 26 (22.6%) | 33 (28.7%) | 115 |

respondents to a survey in the US reported having experienced some form of violence from either other staff members or patients (Hinchberger, 2009). A survey of students in Turkey found similar levels of verbal violence to students in Scotland, but much lower levels of physical violence (Celebioglu et al., 2010) and in a South African study, a slightly lower proportion of student nurses in South Africa had experienced verbal violence (Hewett, 2010).

In our study, females were at higher risk of physical violence than males, which is a worrying finding. In general, younger student nurses and those with less care experience also experienced more violent incidents. Jiao et al. (2015) similarly found that inexperienced nurses in China were more vulnerable to experiencing violence and a study by Lepping et al. (2013) also showed that longer service in the NHS correlated with less verbal abuse.

Furthermore, we found that higher proportions of older and more experienced nurses reported feeling more confident in de-escalating violent situations. However, while competence and confidence inevitably develop with experience, student nurses must be appropriately prepared for clinical placements. Many reported anxiety and fear and felt vulnerable while on placement. Some even felt guilty and incompetent experiencing violence and these emotional responses show that some students, who may be very young, need appropriate support from their colleagues and peers. In a minority of cases, the opposite was the case, with one student nurse reprimanded by her charge nurse for getting hurt in a violent incident and others feeling that they were being laughed at. These emotional effects may also have an impact on effective learning. Nursing is a caring profession and nurses should care not only for their patients, but also for their colleagues, co-workers and other collaborative healthcare professionals (Hinchberger, 2009). Emotional support should be provided to student nurses who have experienced violent incidents.

Interestingly, student nurses registered on the mental health nursing

programme reported experiencing fewer violent incidents than student nurses in general adult settings. It may be that mental health nurses are more equipped to deter violence as a result of their training. However, given that patients with conditions such as dementia who may sometimes behave aggressively are increasingly being cared for by nurses without specific mental health training, it is essential that all student nurses are sufficiently prepared to deter or deal with violence before working on clinical placements. There needs to be a focus on communication skills and techniques to assist in de-escalating violent situations (Wei et al., 2016). This could include simulations (Martinez, 2017).

Violence can be a daunting and challenging topic to speak about openly to a stranger, therefore an anonymous self-report questionnaire was an appropriate data collection tool to use in this study, due to the sensitivity of the topic. The questionnaire was piloted and tested for readability and acceptability. However, there may have been differences between respondents according to what they defined as violence; self-reported measures can be influenced by factors such as social desirability or recall bias; and the surveys may have been prone to self-selection bias. In other words, the students choosing to opt-in to the survey might have been those who were more likely to have experienced violence. But it is worth noting that the response rate was high (59%) among the small number of fourth year students at the Scottish HEI and all 10 of these 17 students had experienced some form of violence. So even if none of the non-responders in this group had experienced violence, this still represents most students. In short, the evidence does suggest that student nurses in Scotland are at risk of violence in clinical areas, even if the exact numbers are hard to pinpoint. It is encouraging to see how many student nurses expressed 'understanding' over this, recognising that violence from patients may be the result of a particular condition. But while it might be regarded as *'part of the job',* it is important that violence is not normalised in the nursing profession.

## 5. Conclusions

Undergraduate nursing students experience high levels of verbal and physical violence. We recommend that improved training programmes to assist with de-escalating techniques and key communications skills are implemented in HEIs and that emotional support is freely available to student nurses emotionally affected by violence. Further research in the area is needed to evaluate the effects of such interventions and which students are at highest risk.

## Competing interests

The authors declare that they have no competing interests.

## CRediT authorship contribution statement

**Eilidh J. Hunter:** Conceptualization, Methodology, Formal analysis, Project administration, Writing – review & editing. **Claire E. Eades:** Conceptualization, Supervision, Writing – review & editing. **Josie M.M. Evans:** Formal analysis, Supervision, Writing – original draft.

## Data Availability

Research data can be made available to interested parties on reasonable request to the corresponding author.

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