

Sexual Offences at Sea: Experiences of Victimisation, Witnessing and Reporting

Dr Genevieve F. Waterhouse^{1,2}, Dr Gary Lancaster² & Dr Jordan Randell²

¹*Safer Waves*, ²*Department of Psychology, University of Winchester.*

June 2025

In collaboration with:



Author Note

Genevieve Waterhouse is no longer at the Department of Psychology, University of Winchester.

Acknowledgements

The authors would like to thank all the seafarers who took part in the research. We are very grateful for their time and effort. We are also highly appreciative of all the assistance from Safer Waves and Devon & Cornwall Police, and Professor Rachel Wilcock and Professor Debra Gray. Thanks also to the TK Foundation for providing funding for the research. We are also thankful for the insight and support from our advisory board, including representatives from The Seafarers' Charity, ISWAN, Merchant Navy Welfare Board, Nautilus International, UKSA and Dave Watkins at CHIRP Maritime.

Executive Summary

Sexual offences have a significant and wide-ranging detrimental impact on victims' lives. Obtaining support and reporting sexual offences is particularly complex for seafarers who have experienced sexual offences at sea. Although there is a shared aspiration in the seafaring community to provide tailored support for victims, there is very little data examining the extent of this issue for UK seafarers and thus the level of support required.

The current survey examined UK seafarers' experiences of a range of sexual offences and gender discrimination. Participants were asked whether they had encountered them as a victim or witness within the last five years, what types of vessels they took place on, and whether they had reported the offence officially or unofficially. If participants indicated they had reported any offence, they were also asked which offence they had reported, who they had made the report to, and what the reporting outcome was.

The survey faced problems with recruitment and non-human responses to the survey and so strict rules for data inclusion were created in order to remove non-human responses resulting in a final sample of 276 respondents. However, the following results must still be interpreted with caution as the sample may still include some unidentified non-human responses. The key results are:

- Of the offences included in the survey, participants were most likely to report having experienced sexual harassment as either a victim or witness. Gender discrimination was nearly as frequently experienced.
- A fairly high proportion of serious sexual offences were experienced by the sample. This may, however, be a reflection of bias caused by the self-selection of the respondents.
- For nearly all offences, the majority of victims identified as female whereas the majority of witnesses identified as male.
- Formal and informal reporting to others was infrequent for all types of offence.

In conclusion, despite some issues with recruitment affecting the reliability of the results presented here, the existing data suggests that sexual harassment and gender discrimination are fairly widespread within the seafaring community, and shows that sexual offences of increased severity, such as rape, also occur at sea. Victims and witnesses rarely report any of these offences, and reporting infrequently results in a satisfactory outcome for them. Although the full prevalence of the issue is not clear from these findings, it is clear that there are seafarers who need support now. The maritime industry's enthusiasm to improve safety for all seafarers should continue to and increasingly identify and validate the existence of sexual offences at sea and the damage they cause. Given the unique challenges faced by seafarers in attempting to

obtain support of any kind after a sexual offence, the present study highlights the need for tailored resources and methods that provide such victims the opportunity to obtain psychological and legal advice and assistance.

Introduction

Victims of sexual offences face a multitude of challenges. The offence can create psychological, physical and sexual health issues which can have short- and/or long-term consequences. Victims also often feel responsible for the offence occurring. Rape myths that support victim blaming (such as it wasn't rape if the victim didn't physically resist or fight back) can hinder victims identifying that what happened to them was a criminal offence, with some victims believing that their behaviour in some way encouraged the offender or negated their lack of consent. Even if a victim does not believe these myths, they can still believe any attempt to report the offence (officially or unofficially) will be met by disbelief relating to these myths. For this reason, among others, many sexual offences are never formally reported. If a victim does make the difficult decision to report their offence to police, the investigation, and court procedure, can also be traumatising for the victim, and, frequently, does not lead to a conviction (Harding et al., 2024). While these challenges are common among all victims of sexual offences, when sexual assault offences occur at sea, seafarer victims face even more difficulties.

Victims of sexual offences at sea are a group whose unique environmental circumstances make reporting an offence, and obtaining professional and social support, particularly difficult. Victims often live aboard vessels, sometimes for extended periods and often remain in proximity to the perpetrator. This makes escape, and preventing repeated abuse, difficult.

There is typically a strong hierarchical structure on board ships, and the perpetrator may be more senior than the victim. Thus, reporting may have professional consequences as well as personal impact. In addition, if the victim is female, there is a high chance she may be the only female seafarer on board, and thus may feel particularly isolated (Piñero & Kitada, 2020). The multi-cultural nature of seafaring also means there may not be an agreed view of acceptable behaviour between the genders (Piñero & Kitada, 2020). Furthermore, there are additional barriers to reporting offences; access to the outside world can be limited, with telephone and computer communication intermittent and, in some cases, not entirely private. Victims may also not know where to report the offence due to the international nature of this work and shipping companies. All these supplementary challenges make recovering from the offence and attempting to obtain psychological, legal or emotional support especially challenging.

There is an increasing awareness in the international seafaring community and the general public that unfortunately these offences are taking place at sea, as they do on land. Although work is required to reduce perpetration and ensure these offences never happen in the first place, it is also important to consider the needs of victims of such crimes. Based on the unique nature of the circumstances surrounding sexual offences

at sea, it can be argued that support that is tailored for seafarer victims is necessary, and would be highly beneficial. Key maritime and legal organisations are supportive of the move to create specific seafarer victim aid, such as that provided by Safer Waves. However, a substantial hurdle for this is the lack of data regarding sexual offences at sea.

There have been a few previous attempts to obtain data on this topic. French researchers asked seafarers attending their fitness to sail appointments to complete questions around their experiences of being a victim of sexual harassment, sexual assault and rape. They found that 20% of the 788 seafarers involved in their study had experienced sexual harassment in twelve months over 2022-2023, and 65.5% of women and 38.2% of men during their entire working life (Sanz-Trepiana et al., 2024). In their sample, respondents had experienced sexual assault much less frequently in the last 12 months (1.5%), but female seafarers reported it in the survey more often (5.8%) than male (0.8%). Five women and one man reported having been raped at some point in their career. The Professional Yachting Association found 38% of their 870 respondents had been the recipient of unwanted physical contact on board, with 50% reporting that they had been the recipient of unwanted sexual or sexist comments while on board (Edwards, 2020). In addition, this survey found about 65% had witnessed or been aware of an incident of sexual harassment, but only 22% reported what had happened to their superordinates (Mack, 2019). Research examining workers on cruise ships also suggests an issue with sexual harassment at sea. Thomas et al. (2013) found female workers were significantly more likely to engage in a new sexual relationship in their last contract than male workers, but in qualitative interviews it was suggested that this was to protect themselves from sexual harassment. Data for more general seafaring populations in the UK is non-existent. However, examining the figures from these studies it is clear they are worryingly high, especially in comparison to the available data for the UK population, which suggests in 12 months between 2021 and 2023 (depending on when the survey was completed), 5% of people aged 16 and over experienced some form of sexual harassment (8% of women and 3% of men; Office for National Statistics, 2023). It is possible that the over-representation of victims in the seafaring community will be repeated for other sexual offences, given the unusual environmental factors.

The Current Research

The main purpose of the following survey, therefore, was to try and provide some understanding of the extent to which sexual offences at sea are an issue for UK seafarers; what sorts of offences are occurring and to whom, whether they are being reported and where to, and whether the support and reporting outcomes are perceived as satisfactory.

The following survey is not a full prevalence study; we cannot use the following data to categorically state (or even suggest) that a certain percentage of the entire UK seafaring community have been victims or witnesses to the sexual offences studied. Prevalence studies require a full understanding of the population in question and there is currently very limited data regarding the number of active British seafarers or seafarers working on UK-flagged ships. The Department for Transport does provide some data on UK seafarers, but they acknowledge that this is a best estimate and challenging based on current data (Department for Transport, 2024). This includes estimating how many certificated officers and trainees are active at sea, as although the number of UK certificated seafarers is known, there is no data on current employment. In addition, some key seafarers are not included in these statistics (e.g., fishermen, UK nationals who work on yachts). Furthermore, prevalence studies require a sample of said population to have been randomly picked to answer the survey questions. As we do not have accurate data about the numbers of UK seafarers, it follows that we also do not have contact information for them and so cannot make a random selection from within the total population. Additionally, because this sampling approach is not frequently used (unlike the Crime Survey for England and Wales, for example), making direct contact with seafarers about this topic may make victims and witnesses feel less anonymous and thus be more reluctant to report offences they experienced.

The current survey instead was publicly advertised and all participants were self-selected (i.e., decided to complete the survey themselves). This means there may well have been a difference between those who did and did not complete the survey. Those who completed the survey may have had a particular interest in the topic (perhaps because they were more likely to have experienced sexual offences). Nonetheless, the following survey results can provide us with useful information about which groups of seafarers may be at greatest risk, the sorts of offences that occur, what kind of ships they take place on, whether victims report, where they report to and whether they were satisfied with the reporting process.

Method

Respondents

There were two periods of data collection that took place between 15th September 2023 and 15th January 2024 (Survey 1), and between February 7th 2024 and October 1st 2024 (Survey 2). Initial number of responses for Survey 1 was 3024 and for Survey 2 was 1827. Survey's 1 and 2 were identical in terms of topic-related questions asked, and differed only in that Survey 2 employed additional security measures to try and prevent/reduce the number of internet non-human 'bot' responses that were seen in the Survey 1 dataset.

Data cleaning

Datasets for both surveys were found to have a high frequency of suspected non-human (bot) responses and several data-cleaning rules were introduced to try and eliminate as many non-human responses as possible¹ (see also Appendix A). After data cleaning was completed, there remained 276 responses (from Survey 1 and Survey 2 combined).

Demographic descriptives

Of the 276 remaining participants, 153 stated their sex was male (55.4%), 118 female (42.8%) and five preferred not to say (1.8%). The majority of participants stated their identified gender was the same as their sex at birth (263 respondents; 95.3%). Three respondents stated their identified gender was different to their sex at birth (1.1%) and nine preferred not to say (3.3%). Of those respondents who provided their age, the age range was between 18 and 65 years old (mean = 34 years).

The ethnicity of the respondents were as follows:

Ethnicity	N (%)
White	245 (88.8)
Mixed/Multiple ethnic groups	12 (4.3)
Asian/Asian British	7 (2.5)
Black/African/Caribbean/Black British	3 (1.1)
Chinese	0
Arab	5 (1.8)
Other ethnic group	1 (0.4)
Not stated	3 (1.1)

Most respondents were UK residents who had worked at sea within the last 5 years (255; 92.4%). The remaining participants were non-UK participants who had worked on a UK vessel at any time in the past 5 years (21; 7.6%).

Survey Design

A draft survey was compiled following consultations with a range of stakeholders from the seafaring community (The Seafarers' Charity, ISWAN, Merchant Navy Welfare

¹ Despite the best efforts of the researchers, it remains likely that the final dataset contains an indeterminable number of responses from non-human (bot) sources.

Board, Nautilus International, and UKSA) as well as Devon & Cornwall Police. The draft survey was then sent to stakeholders for feedback and then refined accordingly. Notably, definitions of the offences that would be used in the survey were given final scrutiny and revision in direct consultation with Devon & Cornwall Police. The survey was scrutinised, and given ethical approval, by the University of Winchester Research Ethics Committee.

Survey items

Screening questions were used to ensure no serving MoD personnel could take part and to ensure only persons who have worked as a UK seafarer in the last 5 years could take part. Survey items fell into two categories (i) demographic items; including age, biological sex, ethnicity, types of vessels worked upon, and (ii) items related to sexual offences such as type of offence, whether the respondent had been a victim or witness² (or both) to each offence; which vessel type the offence(s) had occurred upon; whether the offence(s) had been reported; to whom they were reported and (if applicable) what the outcome was following reporting of the offence(s). At no stage was any identifying information, or details of specific cases, requested or recorded.

Distribution

The final survey was compiled on the Qualtrics platform and distributed using an anonymous link, provided to potential respondents via social media posts and internal communications which originated from the stakeholders involved in the original consultation (see above).

Results

As mentioned above, the survey received many non-human responses. Although great care was taken to try and remove these responses, we cannot be certain that some undetectable non-human responses are not included in the below results. Thus, the findings should be interpreted with caution.

Due to the relatively small number of respondents, a decision was taken to keep the analysis descriptive and not to undertake any complex analyses that may result in making conclusions based upon very small samples.

² Although definitions of the offences were given, no definitions of ‘victim’ and ‘witness’ were given to participants.

Seafaring experience

Respondents were asked what type of vessels they had worked on (see Table 1). They could respond with more than one option. Most respondents had experience of working on cargo vessels (46.7% of respondents).

Table 1.

Number of respondents with experience of each type of vessel (and percentage of all respondents)

Type of Vessel	N (% of respondents)
Cargo vessels	129 (46.7)
Passengers – Cruise	83 (30.1)
Passengers – Ferries	77 (27.9)
Motor Yachts or sailing vessels	63 (22.8)
Workboats, tugs	61 (22.1)
Fishing vessels	25 (9.1)

Offence Questions

The vast majority of respondents had experienced one of the sexual offences covered by the survey as either a victim or witness within the last five years (220 respondents, 80%). Only 20% stated they had no experience of any of the relevant sexual offences (56 respondents).

The offence most frequently reported by respondents as something they had experienced as victim, witness or both was sexual harassment, followed by gender discrimination. The numbers of respondents stating they had been a victim, witness or both for each of the sexual offences is included below, along with the percentages of all respondents who had stated they had experienced any of the offences (i.e., 8.6% of those who had experience of offences stated they had experienced rape as a victim). Please note that because respondents could state they had experienced each offence as both a victim and witness, the total percentages for each offence do not necessarily add up to 100%. Additionally, no definition for being the ‘witness’ of a crime was provided. Thus, participants’ interpretations of having witnessed a crime may have been broad, including having been informed of the crime or having heard it occur (see discussion on page 19).

Table 2.

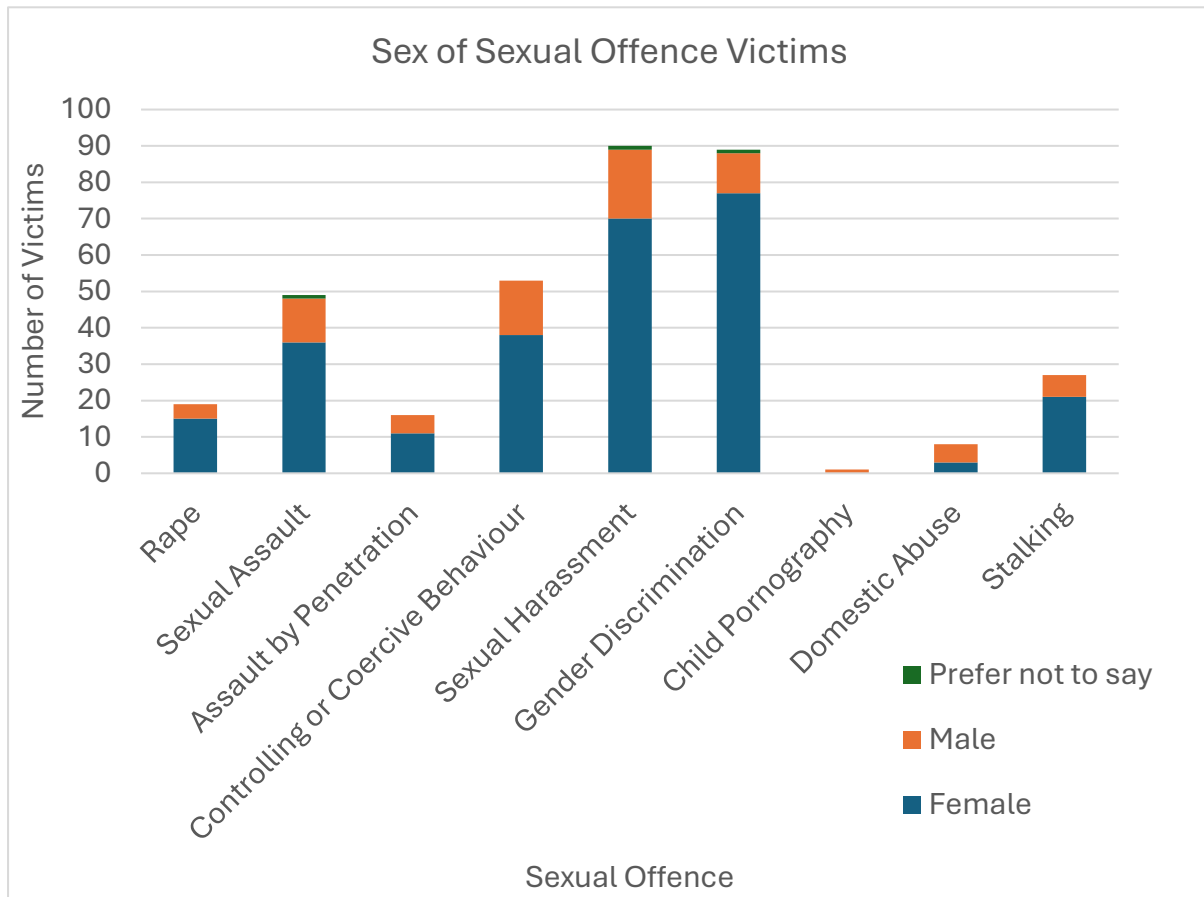
Number of respondents who had experienced each offence as a victim, witness or neither (and percentage of all respondents who had any experience of offences).

Offence	Victim	Witness	N/A
Rape	19 (8.6)	42 (19.1)	161 (73.2)
Sexual Assault	49 (22.3)	50 (22.7)	130 (59.1)
Assault by Penetration	16 (7.3)	30 (13.6)	176 (80.0)
Controlling or Coercive Behaviour	53 (24.1)	84 (38.2)	97 (44.1)
Sexual Harassment	90 (40.9)	107 (48.6)	56 (25.5)
Gender Discrimination	89 (40.5)	105 (47.7)	64 (29.1)
Child Pornography	1 (0.5)	35 (15.9)	184 (83.6)
Domestic Abuse	8 (3.6)	40 (18.2)	174 (79.1)
Stalking	27 (12.3)	61 (27.7)	135 (61.4)

The responses to this question were broken down by sex. Despite most of the respondents stating they were male, for most offences, the majority of victims were female. The victims of child pornography (100% male) and domestic abuse (62.5% male) bucked this trend (see Figure 1).

Figure 1.

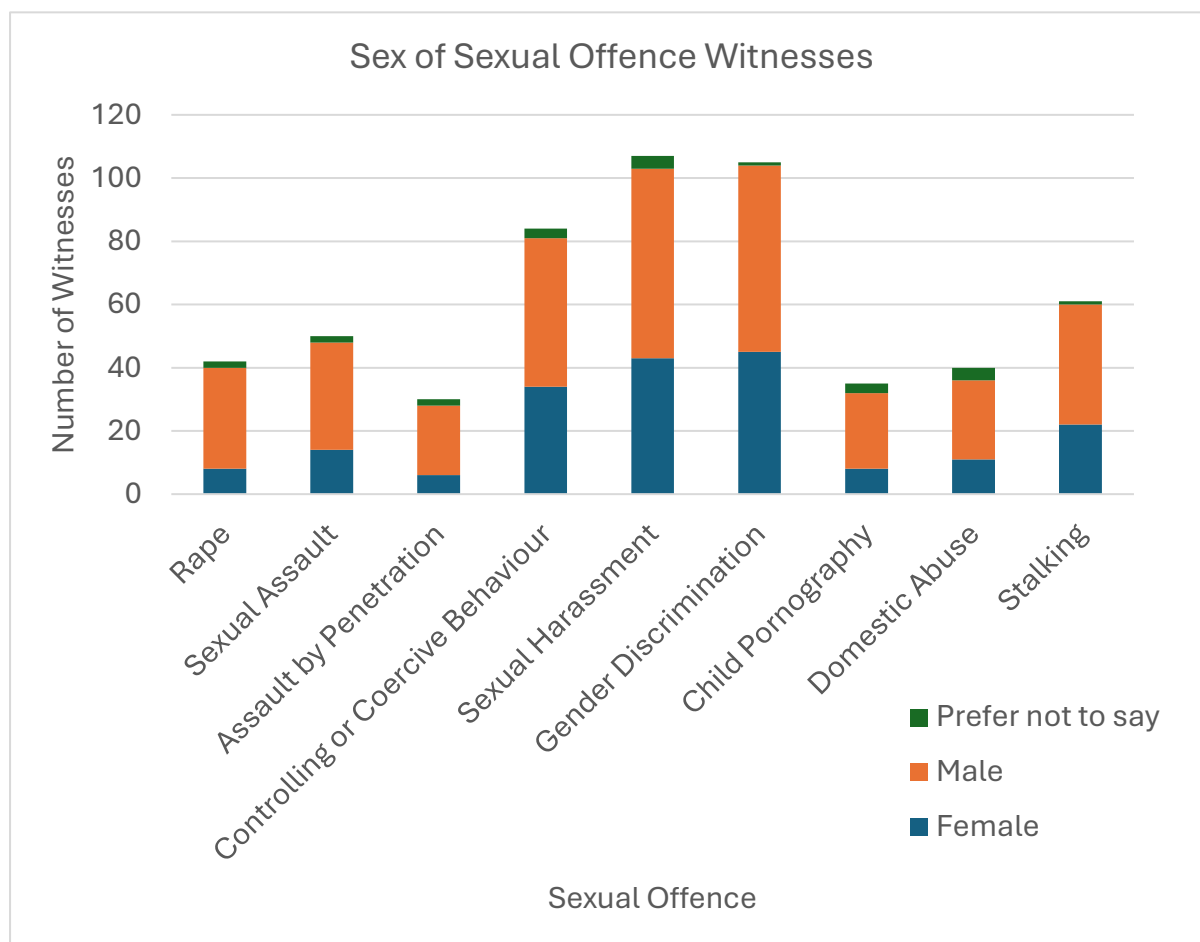
Histogram of sex of victims by offence type.



The majority of witnesses, on the other hand, were male (see Figure 2). This was the case for all the sexual offences included in the survey.

Figure 2.

Histogram of sex of witnesses by offence types.



The types of vessels on which these offences occurred was investigated (see Table 3). The percentages are the percentage of the number of people who stated they had experience of working on each of these forms of vessel who stated they had experienced, as a victim or witness, this type of offence on board this type of vessel (i.e., 22.9% of those with experience of working on passenger cruise ships reported they had either been a victim or witness of rape on board one of these vessels). Respondents' answers suggest that 'Passenger cruise ships' and 'motor yachts or sailing vessels' are particularly high risk; the largest proportion of sexual offence experiences occurred on these sorts of vessels for seven of the nine offences studied.

Table 3.

Number of offences by vessel type (and percentage of respondents with experience on that type of vessel).

Offence	Passengers – Cruise	Passengers – Ferries	Cargo vessels	Workboats, tugs	Motor Yachts or sailing vessels	Fishing vessels
Rape	19 (22.9)	9 (11.7)	17 (13.2)	6 (9.8)	9 (14.3)	3 (12.0)
Sexual Assault	21 (25.3)	15 (19.5)	33 (25.6)	5 (8.2)	18 (28.6)	5 (20.0)
Assault by Penetration	12 (14.5)	8 (10.4)	14 (10.9)	3 (4.9)	7 (11.1)	3 (12.0)
Controlling or Coercive Behaviour	34 (41.0)	25 (32.5)	39 (30.2)	13 (21.3)	27 (42.9)	2 (8.0)
Sexual Harassment	36 (43.4)	36 (46.8)	57 (44.2)	20 (32.8)	32 (50.8)	8 (32.0)
Gender Discrimination	36 (43.4)	35 (45.5)	56 (43.4)	16 (26.2)	33 (52.4)	6 (24.0)
Child Pornography	5 (6.0)	9 (11.7)	11 (8.5)	4 (6.6)	4 (6.3)	5 (20.0)
Domestic Abuse	9 (10.8)	8 (10.4)	10 (7.8)	8 (13.1)	8 (12.7)	6 (24.0)
Stalking	23 (27.7)	16 (20.8)	29 (22.5)	5 (8.2)	11 (17.5)	4 (16.0)

Reporting Questions

Respondents were then asked if they had reported (either formally or informally) any of the crimes they had stated experience of as either a victim or witness. Most respondents had reported at least one of the offences they experienced (133 respondents; 60.5% of those with experience of offences). Five further respondents did not answer this question, but then went on to provide details of their experiences of reporting an offence.³ Therefore, 138 respondents provided data on reporting (62.7% of the sample that had experienced any offence), with 82 respondents stating they reported none of the offences they experienced (37.2%) and thus not being shown any of the following questions.

³ This could be an indication of a non-human response or simple human error. The authors chose to keep these responses in as there were relatively few of them and they could be argued as either.

The next question asked the respondents which offences they had reported and whether they had done so as a victim, a witness, or both (see Table 4). The percentages provided identify the proportion of respondents who identified as victims/witnesses of that specific offence to have reported (i.e., 42.1% of those who stated they had been a victim of rape at sea reported this as a victim).

Table 4.

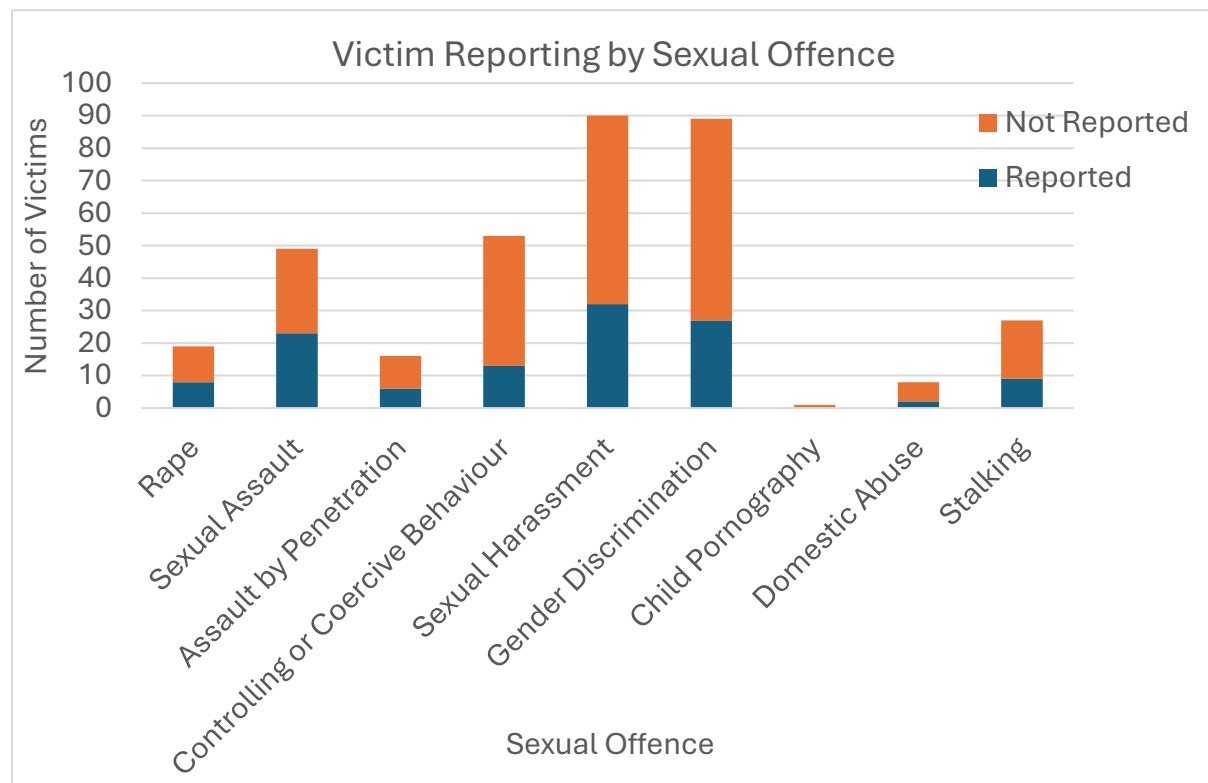
Number of offences reported as victim or witness by offence type (and percentage of respondents who experienced offence as a victim or witness).

Offence	As Victim	As Witness
Rape	8 (42.1)	29 (69.0)
Sexual Assault	23 (46.9)	32 (64.0)
Assault by Penetration	6 (37.5)	19 (63.3)
Controlling or Coercive Behaviour	13 (24.5)	32 (38.1)
Sexual Harassment	32 (35.6)	58 (54.2)
Gender Discrimination	27 (30.3)	46 (43.8)
Child Pornography	0 (0.0)	17 (48.6)
Domestic Abuse	2 (25.0)	22 (55.0)
Stalking	9 (33.3)	35 (57.4)

As can be seen from the above data and the histogram below (see Figure 3), the vast majority of individual offences experienced as a victim were not reported, despite most respondents having reported at least one offence.

Figure 3.

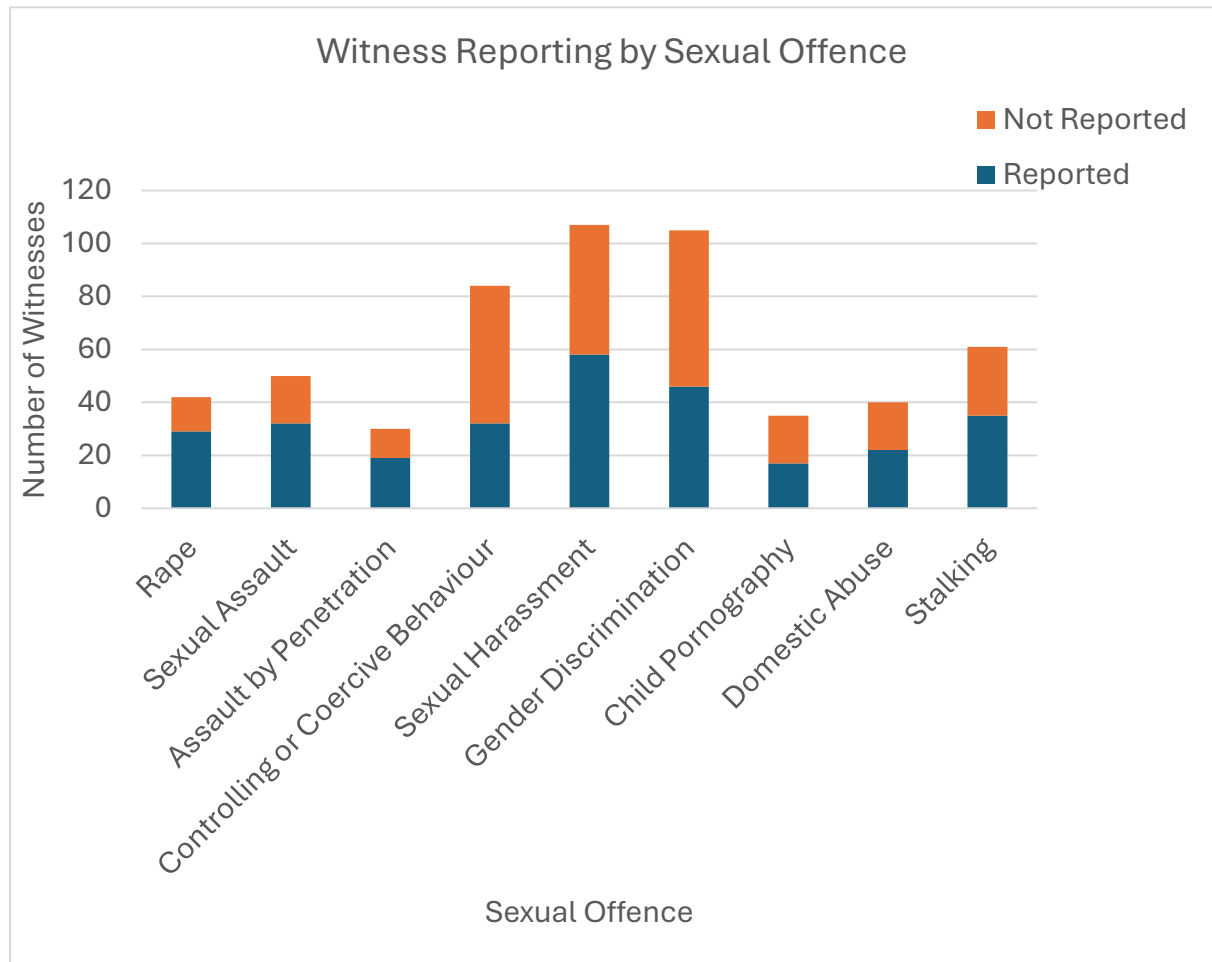
Histogram of number of victims reporting/not reporting offences by offence type.



Conversely, a larger proportion of offences experienced as a witness were reported (see Figure 4). In particular, rape and sexual assault were stated to have been reported as a witness in slightly over two-thirds of reported cases.

Figure 4.

Histogram of number of witnesses reporting/not reporting offences by offence type.



Given that reporting included both formal and informal routes, the follow-up question asked participants who they reported the offence to (see Table 5). The percentages provided were calculated as a percentage of the number of people reporting having experienced each offence (i.e., 25% of respondents who experienced rape as a victim or witness reported this to a colleague onboard). Again, respondents could report offences to more than one person/institution and thus percentages do not necessarily sum to 100%. For most offences, the majority of respondents reported the offence to a colleague on board. However, for rape and assault by penetration, the police were reported to most frequently.

Table 5.

*Number of respondents and where they reported to by offence type (and percentage of all offences of that type disclosed in survey). Cells in **bold** indicate the organisation/person that crime was reported to most frequently.*

Offence	Colleague onboard	Shipping Company/ Crewing Agency	Police	Union	Maritime Welfare Organisation	Other
Rape	9 (25.0)	7 (19.4)	15 (41.7)	9 (25.0)	3 (8.3)	4 (11.1)
Sexual Assault	23 (44.2)	20 (38.5)	15 (28.8)	12 (23.1)	2 (3.8)	2 (3.8)
Assault by Penetration	7 (29.2)	7 (29.2)	11 (45.8)	7 (29.2)	1 (4.2)	1 (4.2)
Controlling or Coercive Behaviour	20 (44.4)	15 (33.3)	12 (26.7)	10 (22.2)	6 (13.3)	6 (13.3)
Sexual Harassment	44 (53.7)	32 (39.0)	25 (30.5)	13 (15.9)	10 (12.2)	5 (6.1)
Gender Discrimination	36 (56.3)	27 (42.2)	15 (23.4)	17 (26.6)	10 (15.6)	9 (14.1)
Child Pornography	3 (17.6)	5 (29.4)	4 (23.5)	9 (52.9)⁴	5 (29.4)	3 (17.6)
Domestic Abuse	8 (33.3)	8 (33.3)	8 (33.3)	8 (33.3)	3 (12.5)	3 (12.5)
Stalking	18 (41.9)	13 (30.2)	16 (37.2)	10 (23.3)	4 (9.3)	1 (2.3)

The final substantive question in the survey addressed the outcome of the reporting (see Table 6). The percentages are the percentage of respondents who agreed with each outcome as a percentage of the respondents who stated they reported the offence as victim, witness, or both (i.e., 19.4% of reports from respondents who had experience of rape as victim, witness, or both resulted in no further action). Having reported an offence, the number of victims/witnesses who selected the ‘Action taken and satisfactory’ option is relatively low (approximately a third or less). The ‘no further action’ responses are unclear in terms of the resulting satisfaction of the victim or witness (e.g., they may have confided in a colleague onboard and asked them not to take any further action, or they reported to police and expected an investigation but none was conducted). However, ‘do not know’ is interpreted as an unsatisfactory

⁴ Again, this is an unexpected finding and may be an indication of non-human responses. However, the authors chose to keep these responses in as there were relatively few of them and it is possible these offences were being reported to the union most frequently.

response as the victim or witness should be updated as to any further action. Thus, for all offences, a large proportion of outcomes were not satisfactory for the person who reported the offence.

Table 6.

Reporting outcome by offence type (and percentage of respondents who stated they reported offence).

Offence	No Further Action	Action taken but not satisfactory	Action taken and satisfactory	Do not know
Rape	7 (19.4)	13 (36.1)	10 (27.8)	6 (16.7)
Sexual Assault	8 (15.4)	17 (32.7)	20 (38.5)	7 (13.5)
Assault by Penetration	3 (12.5)	8 (33.3)	8 (33.3)	5 (20.8)
Controlling or Coercive Behaviour	16 (33.3)	14 (29.2)	13 (27.1)	5 (10.4)
Sexual Harassment	12 (14.6)	36 (43.9)	27 (32.9)	7 (8.5)
Gender Discrimination	19 (29.7)	14 (21.9)	25 (39.1)	6 (9.4)
Child Pornography	5 (29.4)	3 (17.6)	6 (35.3)	3 (17.6)
Domestic Abuse	3 (12.5)	8 (33.3)	10 (41.7)	3 (12.5)
Stalking	6 (14.0)	12 (27.9)	15 (34.9)	10 (23.3)

Discussion

Despite problems with recruitment and non-human responses to the survey, the current study provides some initial insight into a sample of seafarers' experiences of sexual offences at sea within the last five years. Although the following must be interpreted with caution as they may be based on data that includes some unidentified non-human responses, the key results are summarised below, followed by a more detailed discussion.

- Of the offences included in the survey, participants were most likely to report having experienced sexual harassment as either a victim or witness. Gender discrimination was nearly as frequently experienced.
- A fairly high proportion of serious sexual offences were experienced by the sample. This may, however, be a reflection of bias caused by the self-selection of the sample.
- For nearly all offences, the majority of victims were female and the majority of witnesses were male.
- Formal and informal reporting to others was infrequent for all forms of offence.

For the sample of seafarers who took part in the current survey, a high proportion had experienced some form of sexual or gender-based offence at sea within the last five years (80% or 220 respondents). It is important to bear in mind that the people who

completed the survey decided for themselves whether to take part or not (rather than being asked individually at random as they would for a prevalence study). Thus, there is a high chance that many seafarers who did not have any experience of sexual offences at sea chose not to take part, and that those who did, identified with the topic and chose to take part more often. This high proportion (80%) may therefore be reflective of a bias in the group that chose to take part rather than representative of all seafarers. As outlined in the introduction this is not a prevalence study and we cannot say that 80% of all seafarers are likely to have experienced some form of sexual offences at sea within the last five years based on the present data.

However, this study can help us identify which offences are more likely to be experienced than others. Sexual harassment was most frequently witnessed (48.6% of respondents with experience of any form of offence), and the highest number of respondents reported being a victim of this (40.9%). Gender discrimination was almost as frequently reported as sexual harassment as a witness (47.7%) or victim (40.5%). Although the numbers for offences with more serious legal repercussions (rape, sexual assault and assault by penetration) were much lower, they were still relatively high (7.3%-22.3% victims; 13.6%-22.7% witnesses).

There are two things to note here. First, again, the bias of self-selecting samples may explain some of the high numbers of offences experienced, especially in comparison to previous research. For example, Sanz-Trepiana et al.'s (2024) sample were taken from a range of seafarers who were attending a fitness to sail assessment. Although they could refuse to take part, it could be argued that the method of introduction to the survey was more likely to result in persons who had not experienced sexual offences taking part. The numbers of participants who reported ever having been a victim of rape at sea was much lower than the current data (0.6% or 5 women vs. 12.7% or 15 women in the current data; 0.1% or 1 man vs. 2.6% or 4 men in the current data). This is particularly concerning given the current data addressed only offences occurring within the last five years. There are three possible reasons for this disparity. The first is that the non-human responses provided a disproportionate number of rape victim responses. The second is that these figures are accurate and UK seafarers are at much greater risk of serious sexual offences than French seafarers. It is also possible that the proportions obtained in the current data are over-estimations due to more victims of serious sexual offences and fewer people with no experience of sexual offences choosing to take part in the survey. Even if this latter explanation is true, it is important to consider that the data suggests that at least 19 UK seafarers were victims of rape in the last 5 years, 49 victims of sexual assault, and 16 victims of assault by penetration. All of whom are individuals who are likely to have experienced severe negative outcomes and required support of one form or another.

Second, there are some slightly surprising results in the data. In particular, that 42 respondents reported having witnessed rape, and 30 reported witnessing assault by penetration. Generally, these sorts of offences are highly private and occur without witnesses (Hohl & Conway, 2017). This may be an indication of a broad interpretation of 'witnessing' an event. That is, the respondents may not have interpreted being a witness solely as having been physically present and seeing the offence occur, but also to include having been told about it (by the victim or another person on board) or having perhaps heard (rather than seen) the offence occurring. This is not necessarily a limitation of these data but may explain the unexpectedly high numbers of witnesses to rape and assault by penetration. Alternatively, as highlighted above, we also cannot entirely rule out that a proportion of these responses were non-human.

The present study can also be beneficial for our understanding of the relative risk of these offences by gender. The proportion of female victims was higher than male for almost all the offences. In contrast, the proportion of male witnesses was higher than female. Similar proportions of men and women witnessed gender discrimination, controlling or coercive behaviour, and sexual harassment. For the other offences, the proportion of men who witnessed the offences was greater than women. Thus, female seafarers appear to be at much greater risk of experiencing these offences as the victim, and male seafarers are more likely to witness certain offences. This corroborates previous findings (Sanz-Trepiana et al., 2024; Thomas et al., 2013) where women report being victims of sexual offences at sea more than men. The literature that has examined male victims' reporting of sexual offences in general suggest that they are less likely to report offences than women (e.g., Widanaralalage et al., 2022), which may explain some of this gender imbalance. However, in terms of support services, it is likely that women will be more likely to reach out for help. It is important, therefore, that services are tailored for women at sea, but not in such a way that denies or discourages men to seek support or benefit from it. These findings also suggest that bystander intervention programmes should target both male and female seafarers, but it may be particularly important to consider how male bystanders intervene in more serious sexual offences.

As in the Professional Yachting Association's survey, the victim and witness respondents in the current survey reported offences rarely, either formally or informally. Less than 50% of victims of any of the offences studied reported what had happened to them to anyone. Witnesses were more likely to report, particularly for more 'serious' sexual offences (rape, sexual assault, assault by penetration). For most offences, respondents were most likely to have reported to another colleague on board. However, for rape and assault by penetration, slightly less than half of victims/witnesses said they had reported the offence to the police. Thus, although identifying the responsible jurisdiction for such offences may be challenging, some victims/witnesses are still attempting to formally report offences for criminal

investigation. Although the survey did not pinpoint satisfaction in reporting based on where the victim/witness reported to, the majority of reports led to no further action or unsatisfactory outcomes for the reporter. These results suggest that there is room for improvement in terms of increasing the number of people who report offences and improving the quality of responses to these reports. For example, tailored psychological and legal support may have a substantial impact on victims and witnesses' lives within a seafaring context.

As previously stated, there are some key limitations to the present study. The most important is the lack of certainty around non-human responses. Although all online studies advertised via social media are at risk of attack from bots, clear evidence of this in the current data due to the dramatic changes in response rate (averaging 5 per day when any participants completed but with peaks of 1599 responses per day), means the results need to be treated with particular caution. As can be seen in Appendix 1, the authors developed a specific set of rules for attempting to identify and remove suspected non-human responses. However, for future studies with this population, we would advise against the use of a survey which can be accessed freely by anyone who has a link to it. Instead, we recommend that future researchers should create a network of interested parties who are able to share individual survey links with seafarers via direct contact (i.e., personal emails, addresses, face-to-face). This would drastically reduce the risk of both non-human responses and repeat responses. The removal of a prize draw (the current study offered entry to a £100 Amazon voucher prize draw in return for completion) may also reduce the attraction of the survey for those creating the bots. This learning is relevant for any future work studying the seafaring community and is likely to be applicable to any attempted replication internationally.

In addition, as stated in the introduction, the present study is not a prevalence study. Thus, we cannot conclude that the results here are representative of the UK seafaring community as a whole. For a prevalence study to be conducted, a considerable amount of work would need to be completed surrounding identifying the population of relevant UK seafarers and contact details for a substantial majority of these (to then be recruited via random selection).

The present study acts as a starting point for understanding sexual offences at sea. The survey was designed to be short and easy to complete. Subsequently, many questions remain unanswered. In relation to the provision of support services for victims, a qualitative study could be beneficial for determining the motivations of victims for reporting. In particular, what outcomes they are looking for (i.e., personal support, legal repercussions, reduction in re-victimisation), any barriers they perceive to reporting, and how victims decide who to report to and when.

Another important aspect of sexual offences at sea that was not covered by the present study is perpetration. Some further information about the perpetrators of these

offences would be vital for any interventions designed to reduce offending. For example, having a better understanding of the gender, age, roles and training routes (i.e., UK or international) of the perpetrators would enable targeted educational programmes to be introduced at key career stages and to seafarers at higher risk of committing such offences. Furthermore, the existing literature suggests that this is an international issue, and broadening the participant pool to an international population would allow a much greater understanding of sexual offences at sea.

The current research identifies that UK seafarers are experiencing sexual offences at sea, both as victims and witnesses, that women are at greater risk of becoming victims, and that reporting levels are low. Although the full prevalence of the issue is not clear from these findings, it is clear that there are seafarers who need support now. The engagement of maritime organisations in the current research has been vital and incredibly encouraging. There is clear interest in this issue and a drive to change things and improve safety for all seafarers. The issue is, therefore, increasingly being recognised and validated, but there is more to be done in the wider seafaring industry to increase awareness. Further work around prevention (as discussed above) is also required in order to reduce and ideally eradicate this problem. To support victims, reporting methods need to be developed that are clear, safe and accessible, alongside tailored support that acknowledges the unique challenges faced by seafarers in these circumstances.

In conclusion, despite some issues with recruitment affecting the reliability of the results presented here, the existing data suggests that sexual harassment and gender discrimination are fairly widespread within the seafaring community. More serious sexual offences also occur. Victims and witnesses rarely report any of these offences, and reporting infrequently results in a satisfactory outcome for them. Given the unique challenges faced by seafarers in attempting to obtain support of any kind after a sexual offence, the present study highlights the need for tailored resources that provide such victims the opportunity to obtain psychological and legal advice and assistance.

References

- Department for Transport (2024, February). *Accredited official statistics. Seafarers in the UK shipping industry: 2023*. UK Department for Transport.
<https://www.gov.uk/government/statistics/seafarers-in-the-uk-shipping-industry-2023/seafarers-in-the-uk-shipping-industry-2023>
- Edwards, L. (2020, July 1). *Sexual harassment in the superyacht industry 2020*. Onboard Online. <https://www.onboardonline.com/superyacht-crew/wellbeing/sexual-harassment-in-the-superyacht-industry-2020/>
- Harding, R., Maguire, L., & Williams, E. (2024). Competing concepts of public values and legitimacy in the police: Organisational challenges in the investigation of rape and serious sexual offences. *International Journal of Law, Crime and Justice*, 76, 100646. <https://doi.org/10.1016/j.ijlcj.2023.100646>
- Hohl, K., & Conway, M. A. (2017). Memory as evidence: How normal features of victim memory lead to the attrition of rape complaints. *Criminology & Criminal Justice*, 17(3), 248-265. <https://doi.org/10.1177/1748895816668937>
- Mack, A. (2019, January 8). *Sexual harassment in yachting: Survey results*. Dockwalk. <https://www.dockwalk.com/news/sexual-harassment-in-yachting-survey-results>
- Office for National Statistics (2023, December). *Experiences of harassment in England and Wales: December 2023. Estimates on the experiences and nature of harassment from the Crime Survey for England and Wales (CSEW)*. UK Office for National Statistics.
<https://www.ons.gov.uk/peoplepopulationandcommunity/crimeandjustice/bulletins/experiencesofharassmentinenglandandwales/december2023>
- Piñeiro, L. C., & Kitada, M. (2020). Sexual harassment and women seafarers: The role of laws and policies to ensure occupational safety & health. *Marine Policy*, 117, 103938. <https://doi.org/10.1016/j.marpol.2020.103938>
- Sanz-Trepiana, L., Bost, E., Jégo, C., Lucas, D., & Fort, E. (2024). Aggression, psychological violence and sexual harassment in seafarers in France. *International Maritime Health*, 75(2), 121-134. <https://doi.org/10.5603/imh.99382>
- Thomas, M., Bloor, M., & Little, K. (2013). Sexual risk among female workers on cruise ships. *WMU Journal of Maritime Affairs*, 12, 87-97.
<https://doi.org/10.1007/s13437-013-0037-6>
- Widanaralalage, B. K., Hine, B. A., & Murphy, A. D. (2022). Male victims of sexual violence and their welfare in the criminal justice system. In A. Tarrant, L. Ladlow, & L. Way (Eds.), *Men and Welfare* (pp. 140-150). Routledge.
<https://doi.org/10.4324/9781003178811-14>

Appendix 1

The following rules were applied to the data to remove incomplete responses, responses which were not relevant to our intended sample, and suspected bots from the data. These were based on the research team's examination of the data and response rates, dates and timings. They were also informed by research into bot creation conducted by the team.

1. Responses that were not complete or did not directly provide consent for their data to be used were removed. This included:
 - a. Preview responses completed by the research team.
 - b. All responses where full consent was not provided.
 - c. All responses that did not complete the survey to the point of seeing the debriefing form at the end.
2. Responses from those who did not meet our sample criteria were removed. This included:
 - a. All responses from military personnel.
 - b. All responses from those with no UK seafaring experience in the last 5 years (either as a British person on any vessel, or a non-British person on a UK vessel).
3. Responses that were identified as non-human by the Qualtrics surveying software were removed. The software provides four specific scores that indicate the likeliness of the response being non-human or a repeated response. The Qualtrics recommendations were applied for removing those that were suspicious.
4. Responses that had suspicious timings were removed. This included:
 - a. All responses on days with over 200 responses in total. The reason for this was that, on average, the survey was taken by approximately 5 people a day. On the days with over 200 responses, it was evident that a bot had been utilised on the survey with huge numbers of very similar responses coming in within a short period of time.
 - b. All responses with identical start and end times (to the nearest minute).
 - c. Days where responses per day were more than two standard deviations about the mean number of responses per day for both datasets were inspected further. If a large number of responses fell below the median on that day (i.e., the respondents were very quick in completing the survey) then remove any responses that are less than the median response duration for the dataset AND all start within 10 minutes of the previous responses, AND where they all fall within a small-time window.
5. Responses that included incorrect answers or inconsistent answers to the questions created for identifying bots were removed.
6. Responses that provided contradictory information were removed. This included:
 - a. Those that provided different ages for the two age questions.

- b. All responses that stated they had both witnessed or been a victim of an offence and 'not applicable' to the same offence.
- c. All participants that stated they reported an offence in a different role to having experienced it (i.e., said they were a witness to sexual harassment but reported it as a victim or vice versa).