



**Bournemouth
University**

Exploring the Impact of Call Blockers on User Well-Being

Supporting victims of
financial fraud

**Emily Rosenorn-Lanng
& Stevie Corbin-Clarke**
July 2020

This project was
commissioned
and supported
by:

**NATIONAL
TRADING
STANDARDS**

Scams Team

Contents

| | | |
|-----------|----------------------------|-----------|
| 01 | Executive Summary | 2 |
| 02 | Introduction | 4 |
| 03 | The intervention | 7 |
| 04 | Methodology | 8 |
| 05 | Results | 10 |
| 06 | Discussion and conclusions | 21 |
| 07 | Recommendations | 23 |
| 08 | References | 24 |
| 09 | Appendix | 26 |

Acknowledgements: This work was undertaken in partnership between The National Centre of Post-Qualifying Social Work at Bournemouth University and the National Trading Standards Scams Team. The research team would like to thank the National Trading Standards Scams Team for all their hard and rigorous work to collect the data and the participants who kindly gave their time to participate in the research.

Executive Summary

The problem

The National Crime Agency's (NCA) National Strategic Assessment 2020 found that fraud was the most common crime in England and Wales. Telephone scams or 'Vishing' (voice phishing) are a specific category of financial fraud where the criminals make contact by telephone or text. In the year ending December 2018, Action Fraud reported a 73% increase in reported consumer phone fraud.

Research has highlighted the negative impact of scam engagement on health and well-being, with the discovery that scams undermine self-confidence, as well as confidence in others.

The intervention

The National Trading Standards (NTS) Scams Team Call Blocker Project 2019 was targeted at households who receive scam and nuisance phone calls and/or are susceptible to scams due to their circumstances. The units supplied, trueCall Secure plus units, provide enhanced levels of filtering choices. **Over 2,000 call blockers were applied for within eight days.**

The NTS Scams Team works in partnership with trueCall, who specialise in call blocker technology and who reported that 99% of scam and nuisance calls had been blocked in the initial sample of units supplied.

How we evaluated the impact

A short 7-item well-being assessment scale was included in the online application process to collect baseline data prior to the installation of the call blocker. The same tool was then applied three months after installation via a telephone questionnaire, allowing comparison with the baseline data collected at installation.

Key findings

Before installation of a call blocker

- 94% of applicants reported receiving scam or nuisance phone calls in the previous six months.
- 93% of self-identified vulnerable respondents were worried about losing money in future.
- Applicants of the call-blocker project had a significantly **lower well-being score on average than the UK population.**
- 63% of respondents who lived alone or were vulnerable fell within the **low well-being classification.**

Three months after installation of a call blocker

- 92% of respondents reported **not receiving any scams or nuisance calls** and those who did received significantly less.
- Just 17% of all respondents were worried about losing money in the future.
- Average well-being scores had **significantly increased** bringing the sample in line with the general population.
- Less than 19% of vulnerable respondents and just 11% of those living alone remained on a low well-being score after three months.

Conclusion

The findings support the case for the installation of a call blocker where an individual is in receipt of scam calls. Although a causal relationship cannot be inferred, the findings suggest that there is strong interaction between individual well-being and receiving scam and nuisance calls, with the experience negatively impacting on an individual sense of usefulness, ability to deal with problems and to feel close to other people.

Recommendations

- 1. There should be greater recognition of the impact that scam and nuisance calls have on well-being, regardless of whether there is actual engagement or any financial loss.** The findings of this research revealed the significant negative impact that simply receiving these types of calls has on individual well-being. This suggests that the scale of people experiencing a negative impact due to scam and nuisance calls is likely to be far larger than the occurrences reported to Action Fraud.
- 2. All regular landline users are likely to benefit from call blocker technology.** Significant increases in well-being were observed across all ages, genders, and levels of vulnerability. Although a lot of work is being done to intercept calls at the source, the adaptive behaviour of these criminals leads the best point of intervention to be at the point of contact.
- 3. Call blockers should be made available to vulnerable individuals to support them to live independently.** Supporting the aims of the Care Act 2014, this research demonstrated how a call blocker can be a vital part of a toolkit to support independent living and to safeguard vulnerable individuals from financial abuse.
- 4. Older people, those who self-identify as vulnerable, and individuals who live alone are most likely to benefit from the installation of a call blocker.** These research findings suggest that increased focus should be placed on these groups, as they are most negatively impacted by experiencing scam and nuisance calls and benefitted the most from the installation of a call blocker.
- 5. Building on the previous work of The NTS Scams Team, further signposting would help provide clear guidance regarding the application for and the potential benefits of installing a call blocker.** The call blocker utilized within this research led to the substantial and sustained reduction in unwanted calls; however, more research would be required to explore the impacts of different levels of call reduction and the efficacy of alternative call blockers.

Introduction

Financial Scams and Fraud is a criminal offence which involves a perpetrator deliberately deceiving another person to gain an advantage, often financial, to exploit their target. Scams come in varying forms across varying mediums, but all involve deliberate deception, intending to mislead or trick their intended target for financial gain, often by appealing to visceral needs and desires. This report uses the term 'financial scam' to denote financial abuse perpetrated by those unknown to the victim linked to *'unscrupulous traders or criminals who employ marketing techniques to sell non-existent, valueless or poor quality goods, or engage consumers in bogus schemes such as investment fraud'* (Lee and Baxter, 2017, p. 24).

Recent estimates suggest that *£3.89 trillion is lost to fraud globally* every year, with the UK losing up to an estimated £190 billion across all sectors (Gee and Button, 2019). The 2017 Annual Fraud Indicator estimated a similar annual loss, suggesting that *£7 billion of this was lost by individuals* directly.

The NCA National Strategic Assessment 2020 found that fraud was the most common crime in England and Wales, representing a third of all estimated crime. The Crime Survey for England and Wales (CSEW) estimates that there were *3.7 million incidents of fraud in the year ending December 2019*. Although only marginally higher than the previous year, all three fraud reporting bodies: Action Fraud, Cifas, and UK Finance, reported increases in the number of offences.

In the year ending December 2018, Action Fraud reported a 12% overall increase in the incidents of fraud reported to them, seeing a 73% increase in reported consumer phone fraud. This increase may partly be due to an increase in the activity of criminals, but it could also be because of increased reporting.

Underreporting has been a recurring issue when trying to understand the true size and scale of financial scams. Individuals may be reluctant to report involvement for many reasons, which include being unaware that they are victims of fraud, feeling partly responsible or holding themselves to blame, embarrassment, confusion, low financial loss and the ambiguity of the fraud (Gee and Button, 2019). In addition, scams are even less frequently reported by older people (James, Boyle, and Bennett, 2014), therefore it is likely that the true detriment of financial fraud and scams could be much higher.

The increase in the reported number of incidents may in part be testament to the work undertaken by NTS Scams Team to raise the profile of financial scams, support targets to recognize the signs of a scam and to appropriately report them.



Telephone Scams

Telephone Scams and Vishing are a specific category of financial fraud where the criminals make contact by telephone or text, frequently from a misleading, deceptive, or 'spoofed' phone number via an internet telephone service. This type of scam can be stand alone, using a combination of psychological tactics in an attempt to obtain information from the victim, such as personal and financial details, account numbers and passwords.

However, engagement from the victim often leads to inclusion on a 'suckers list' and further targeting. Telephone scams can also be a development of other types of fraud such as phishing, in which verbal contact is used to persuade the victim to do things they believe are in their best interests, such as allow someone access to a computer to 'fix' a problem.

Common types of telephone scams:

- ❖ Computer software service fraud
- ❖ TV subscription scams
- ❖ Impersonation – e.g. Bank/Police
- ❖ Courier fraud
- ❖ Compensation
- ❖ HM Revenue and Customs (HMRC)
- ❖ Automated voicemails
- ❖ Drainage insurance
- ❖ Warranty scams
- ❖ White good insurance scams
- ❖ Pension and investment scams

The UK accounted for 15% of the total number of fraudulent calls blocked across the world in 2018, accounting for a total of 25 million calls (BIC, 2019).

In addition, there are unwanted nuisance calls, which are made by legitimate companies but can be harmful and distressing for many. Nuisance calls include marketing calls (live and recorded), silent calls, and abandoned calls (ICO, 2020). In January 2020, *48% of phone users, both mobile and landline, reported receiving nuisance calls.*

National Trading Standards Scams Team

The NTS Scams Team is funded by National Trading Standards and is hosted by Surrey County Council. Founded in 2012, the team focuses on postal, telephone and doorstep scams, working with trading standards and partner agencies across England and Wales to investigate scams and identify and support those who may have become victims.

The National Centre for Post-Qualifying Social Work at Bournemouth University.

NCPQSW has worked closely with the NTS Scams Team on a range of research exploring the scale and impact of financial scams. These collaborations have led to the publication of a range of texts and guidance to support individuals and Health and Social Care practitioners to identify the signs of a scam and individuals who may be engaging with or a being targeted by criminals.



What is well-being?

Whilst there is no widely accepted definition of well-being, the Care Act 2014 sets out what is understood as the contributing elements to an individual's well-being. Subjectively, well-being can be interpreted as a combined measure of life satisfaction, feelings of happiness, sadness, anger, stress and pain and a sense of purpose or meaning in life.

“Well-being”, in relation to an individual, regards an individual's well-being so far as relating to any of the following—

- (a) personal dignity (including treatment of the individual with respect);
- (b) physical and mental health and emotional well-being;
- (c) protection from abuse and neglect;
- (d) control by the individual over day-to-day life;
- (e) participation in work, education, training or recreation;
- (f) social and economic well-being;
- (g) domestic, family, and personal relationships;
- (h) suitability of living accommodation;
- (i) the individual's contribution to society.

The Care Act, 2014.

Well-being is a concept that relates solely to the individual, as what would be conducive to one person's overall well-being may not be to another. The flexibility of the term is designed to reflect this individual variance; however there are some shared experiences that will affect well-being including chronic health conditions and economic status. Well-being also varies consistently by age, dipping between 45-55 years and rising in older people.

‘Certain types of high harm frauds, such as romance, courier and computer software service fraud, often target those who may be more vulnerable to becoming victims, by virtue of age, technological knowledge or emotional state.’

The NCA National Strategic Assessment, 2020, pp. 50

Although there have been some slight variances in the feelings of happiness, worthwhileness, and anxiety of the UK population since 2011, life satisfaction has remained static between 2016 and 2019.

The relationship between health and well-being is generally thought to be two-directional, with physical health impacting on well-being and vice-versa (Steptoe et al., 2014).

Research has highlighted the negative impact of scam engagement on health and well-being, with the discovery of a scam undermining self-confidence, as well as confidence in others (Fenge and Lee, 2018). The NCA National Strategic Assessment highlights the possible impact of high harm frauds, of which scam calls can be a bridge towards; however, the impact of scam or nuisance calls themselves on well-being should not be underestimated. Potential impacts, and consequences thereof, can be just as detrimental to an individual's sense of well-being as defined above.

Therefore, we need not only consider the impact the installation of a call blocker may have on the individual but also what impact being in receipt of scam and nuisance calls may have on the individual.

The intervention

The NTS Scams Team call blocker project, which began in October 2019, saw over 2,000 call blockers applied for within eight days. This success enabled the team to secure further funding to extend the project. The NTS Scams Team works in partnership with trueCall, who specialise in call blocker technology and reported that 99% of scam and nuisance calls had been blocked in the initial sample of units supplied.

The Call Blocker Project was aimed particularly at people who may already be receiving scam and nuisance phone calls and/or are susceptible to scams due to their circumstances. The units supplied were trueCall Secure plus units, which provide enhanced levels of filtering choices.

trueCall Secure plus

trueCall Secure plus is a call blocker that is specifically designed for older customers. It offers three levels of restrictions on incoming calls, which are designed to encourage telemarketers to disengage and to block international callers (unless they know the code) to the Trusted Caller Only Profile, which only allows designated trusted callers to connect. trueCall Secure plus allows outgoing numbers to be barred should it be required by the user or household.

Applications for partners/organisations opened to the general public October 2019 .

Successful candidates were selected based on an underlying decision tree; if applicants felt that their circumstances make them vulnerable and/or have



received scam or nuisance calls in the last six months, they were asked to complete an optional well-being survey prior to entering their contact details.

Application: Applicants must consent and successfully complete the online application via the Friends Against Scams website.



Installation: Successful applicants could chose to self-install the unit or book an engineer to install the unit for them.



Follow-up: Consenting applicants were contacted by telephone three months after installation.

Methodology

Aim

The aim of this piece of research was to assess the impact of the active use of call-blocker technology on the well-being of users.

Method

A short 7-item well-being assessment scale was included in the application process to collect baseline data prior to the installation of the call blocker. The same tool was applied three months after installation and compared with baseline data. Qualitative responses were also collected to provide greater context.

The Short Warwick-Edinburgh Mental Well-Being Scale (SWEMWBS)

The SWEMWBS is a shorter 7-item version of the Warwick–Edinburgh Mental Well-Being Scale (WEMWBS). It comprises of a series of 7 statements to which respondents select the point on a 5-point Likert scale which best describes their experience over the last two weeks.

Underpinning the scale is a definition of mental well-being covering two perspectives:

- 1. the subjective experience of happiness and life satisfaction.*
- 2. positive psychological functioning, good relationships with others and self-realisation.*

The scale is widely used on both a national and local level to monitor mental well-being of populations and is deemed suitable for measuring change as a result

of specific interventions. Permissions were sought to use the tool by NCPQSW at Bournemouth University.

Data Collection

The SWEMWBS was embedded in a larger question set devised and administered by the NTS Scams Team. They were the data controllers and the team received training to ensure standardization throughout the data collection process.

Data was collected over a rolling time frame, allowing a three-month period between the installation of the unit and data collection. Respondents were not obligated to participate at the follow-up stage.

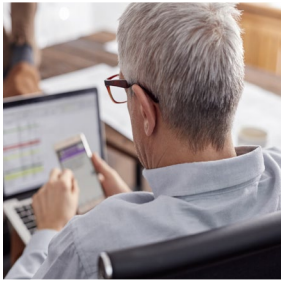
Data Analysis

The data was collected and cleaned by the NTS Scams Team. All identifiable data points were removed prior to delivery to the research team to ensure respondent confidentiality.

Data has been analysed and interpreted as detailed in the Warwick-Edinburgh Mental Well-Being Scale (WEMWBS) User Guide for Researchers (2016).

Sample

770 respondents consented to complete the SWEMWBS at the application stage. Subsequently, 181 respondents completed the 7-item well-being questionnaire at two unique points.



Application for call blocker

Online



Three months after application

Telephone

Therefore, the analysis of the well-being sample will be comprised of the 181 respondents who completed the scale at both points.

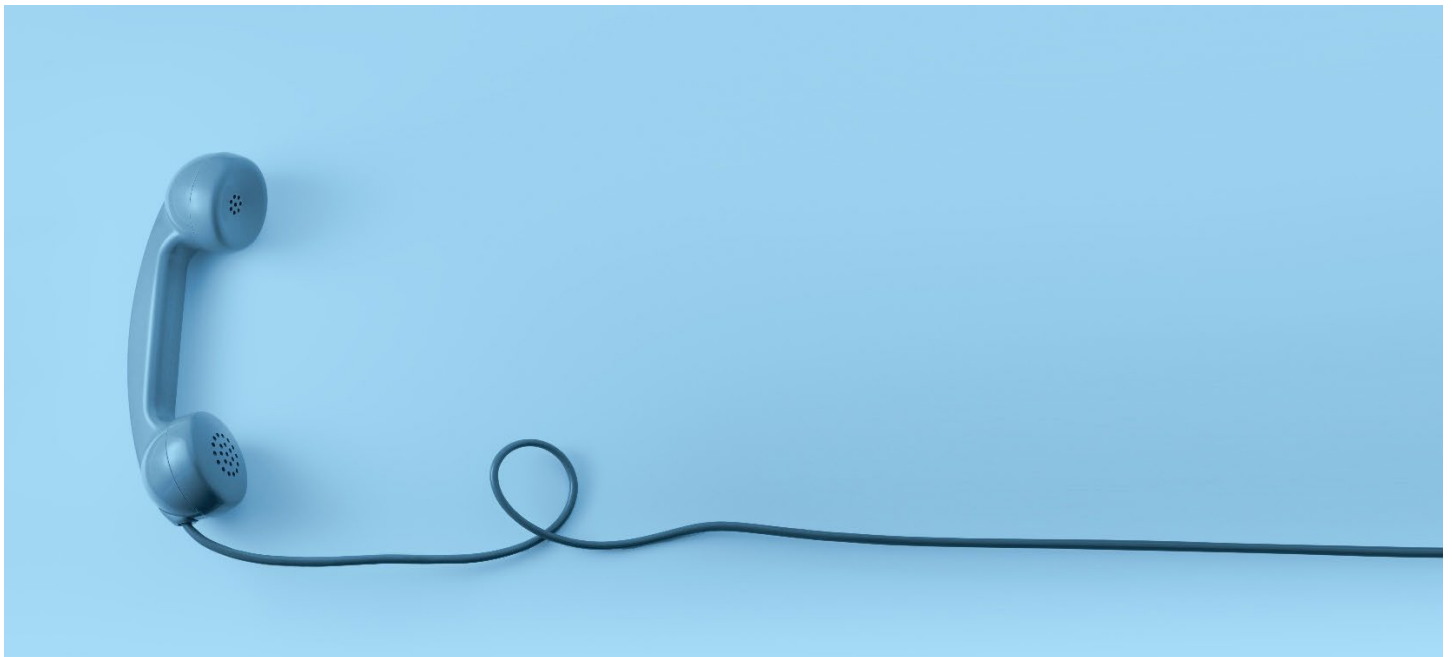
The WEMWBS User Guide for Researchers (2016) states that for practical purposes a sample size of above 100 is required to ensure that changes can be appropriately assessed as statistically significant. Where group sizes drop below this threshold, findings should be interpreted with caution.

Strengths and limitations

It is not possible to infer cause and effect as many other factors may impact on an individual's well-being. The scale does, however, provide an effective indicator to assess the impact of active use of call blockers over a population. This relationship is further explored using open non-directive questions.

COVID-19

COVID-19 has impacted on the research, drawing the data collection period to a close earlier than initially planned. This decision was made for a wide range of logistical reasons; however in the context of this research it would be anticipated that COVID-19 has had the primary impact on respondents' well-being and it would therefore not be possible to obtain any accurate understanding of the impact of the call blocker. It is worth noting, however, that the timely installation of a call blocker may have protected many of the sample from COVID-19 related scams during this period.



Results

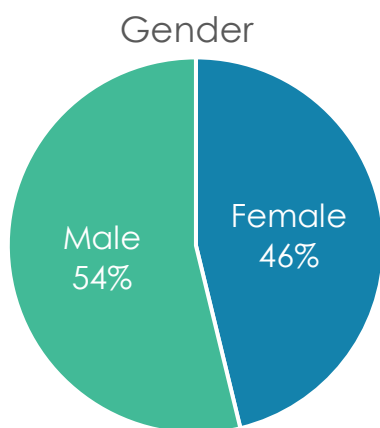
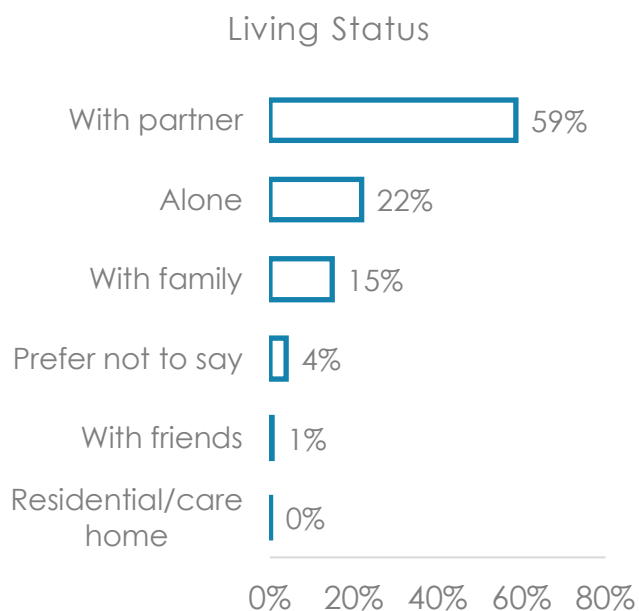
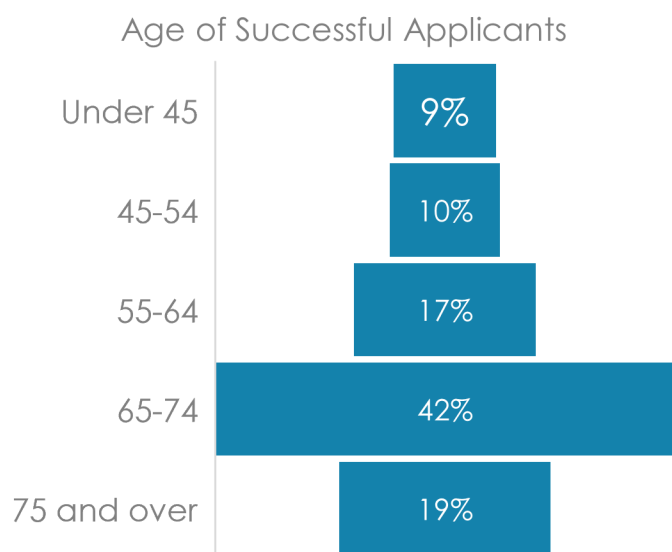
Two populations will be considered:

Parent population: All respondents who consented to participate at the application stage. (n=770)

Well-being sample: respondents who completed the SWEMWBS at both installation and three months after installation. (n=181)

The analysis only includes participants who consented to participate and may therefore demonstrate some variance to data held by the NTS Scams Team.

Who applied for a Call Blocker?



When applicants were asked whether they believe their circumstances made them vulnerable (e.g. bereavement, cognitive decline), 51% said they did not and 49% said they did.

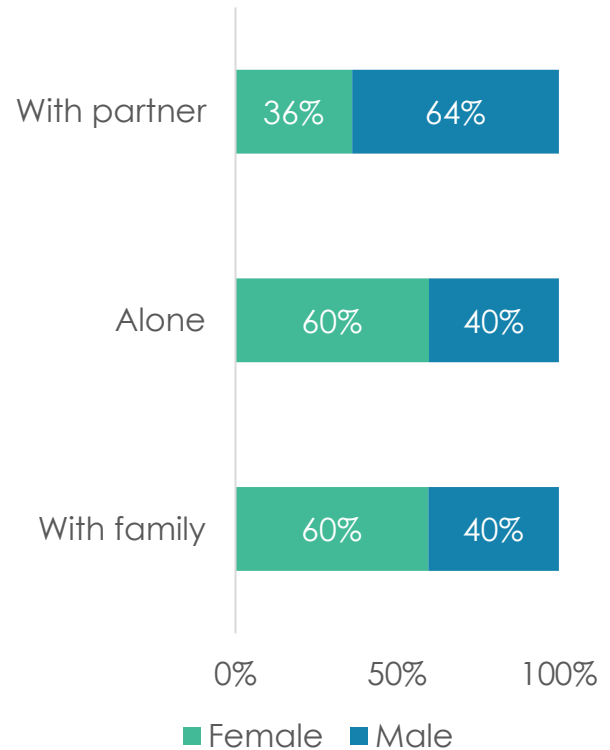
Successful applicant demographics

Most successful applicants were aged over 60 years old (73%), with the youngest applicant being 21 years of age and the eldest being 94 at the time of application. The average age across all groups was 65 years old.

Successful applicants most frequently lived with a partner (59%), alone (22%) or with family (1%).

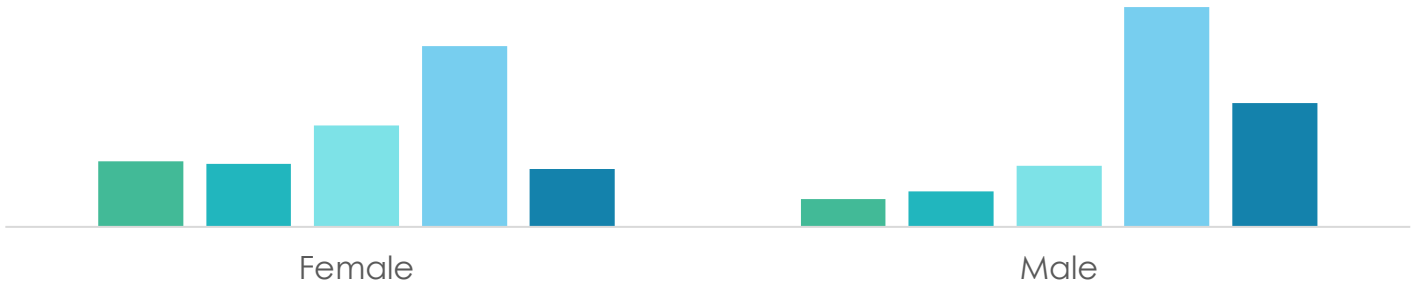
Just over half of successful applicants were male (54%) and a higher proportion of male applicants reported living with a partner compared to living alone or with family, where the majority of applicants were female. Female applicants were younger on average (61 years), compared to male applicants (68 years).

Living Status by Gender



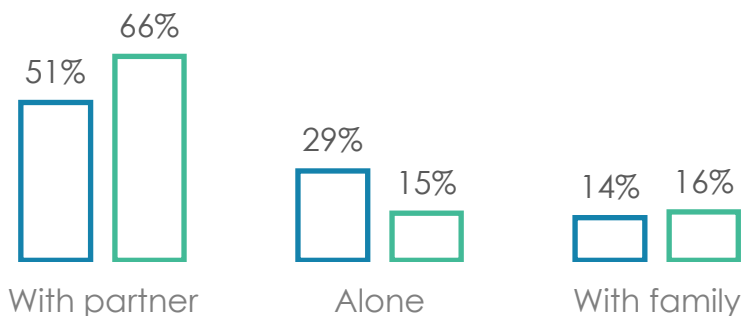
Successful applicants by age and gender

■ Under 45 ■ 45-54 ■ 55-64 ■ 65-74 ■ 75 and over



Living Status by Vulnerability Status

■ Self identified as vulnerable ■ Not vulnerable

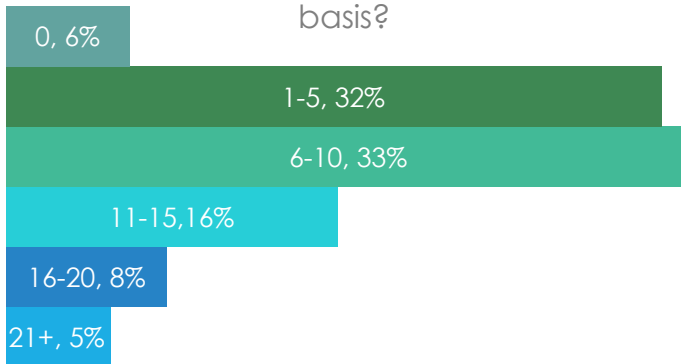


Respondents who indicated that they felt their circumstances made them potentially vulnerable were more likely to live alone, rather than with a partner or family. However, they demonstrated similar age and gender profiles as applicants who did not self-identify as potentially more vulnerable.

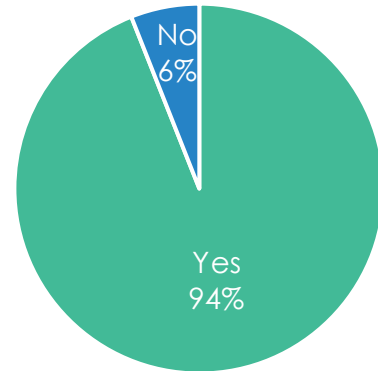
Experience of Scam or Nuisance Calls

94% of applicants reported receiving scam or nuisance phone calls in the last six months, with a third reporting receiving between 6-10 on a weekly basis.

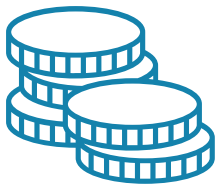
Roughly how many scam or nuisance calls do you receive on a weekly basis?



Have you received any scam or nuisance phone calls in the last six months?



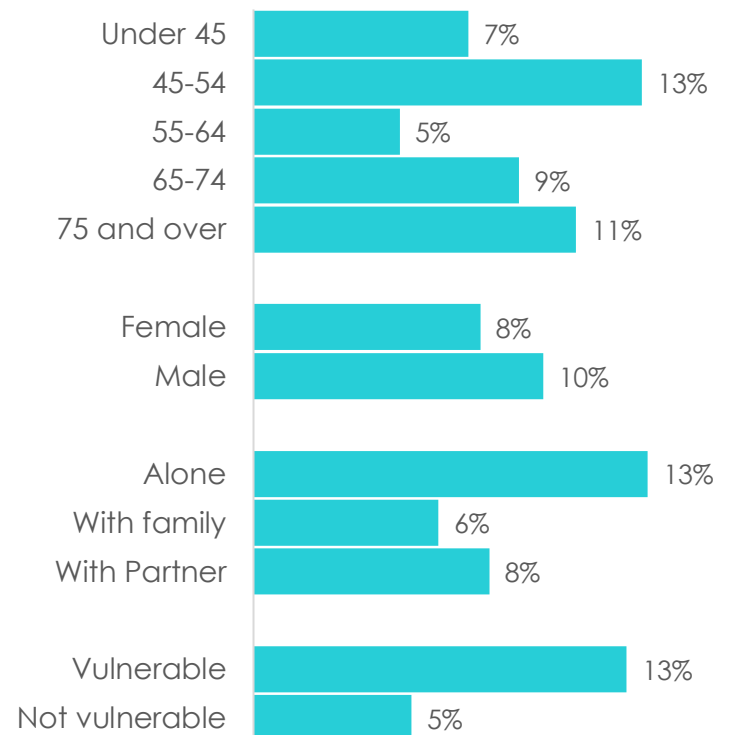
Levels of nuisance or scams calls did not vary significantly by age, gender, living arrangements or vulnerability status. However, as this was a prerequisite for a successful application this may not be representative of the wider population. Similarly, the volume of calls received remained consistent over the sample.



9% of successful applicants (n=65) reported losing money to scam or nuisance calls prior to applying for the call blocker.

Respondents were more likely to report losing money if they lived alone or indicated that they were vulnerable. 13% of respondents aged between 45-54 reported a loss as did 11% of respondents over the age of 75.

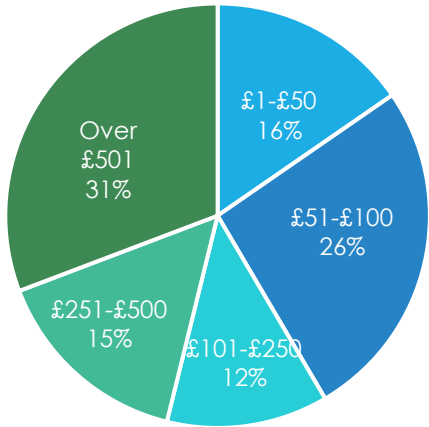
Have you lost any money to scam or nuisance calls? - Yes



93% of vulnerable respondents were worried about losing money in the future.

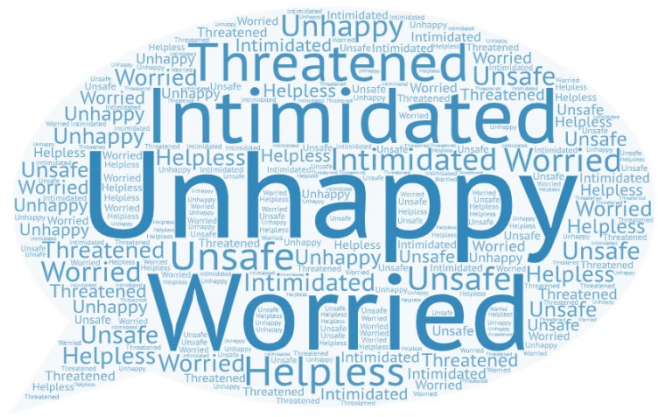
93%

How much money have you lost to scam or nuisance calls?



Just under half of respondents reported that scam and nuisance calls made them feel unhappy (48%), 44% reported feeling worried or anxious and over a third reported feeling intimidated (38%).

31% of respondents who had lost money to scam and/or nuisance calls lost over £501 and a quarter of respondents reported losing between £51-£100. Furthermore, 81% of all respondents were worried about losing money in the future, increasing to 93% of respondents who felt they were vulnerable.

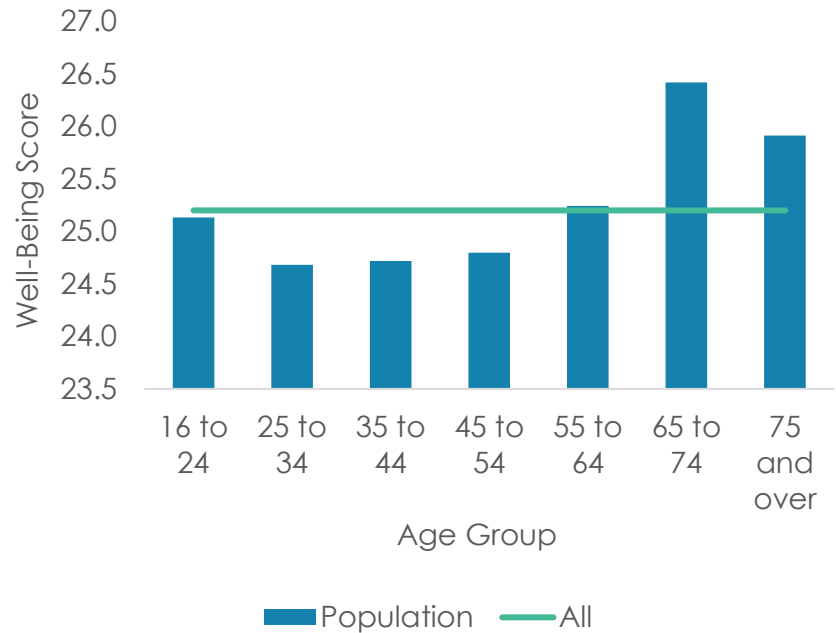


Successful applicant well-being and population norms

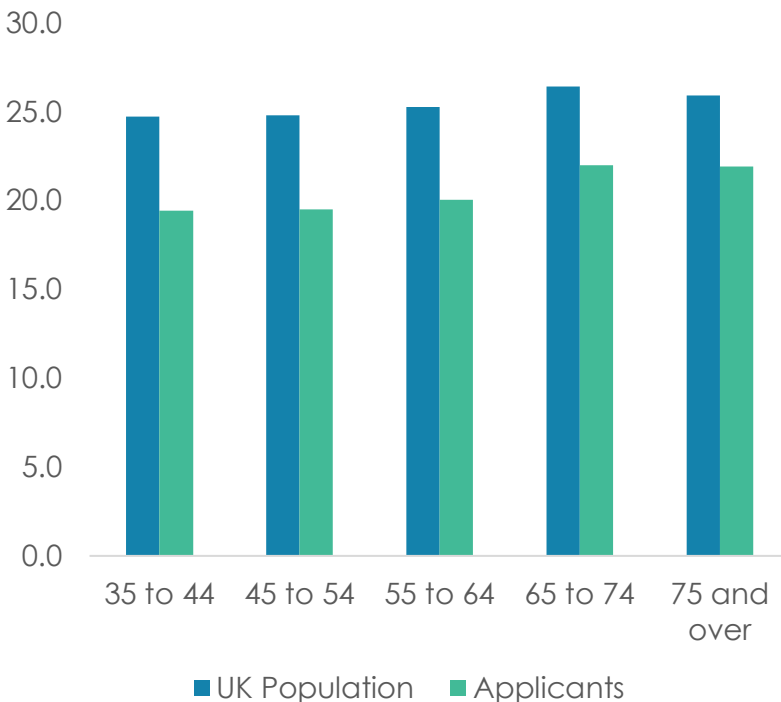
The Office of National Statistics (ONS) assessment suggests there is no overall long-term change in the well-being of the population as assessed by the SWEMWBS since 2008, although some short-term variance has occurred (± 0.9).

The average level of well-being for the UK population in 2016 was 25.2; levels of self-reported well-being vary most notably by age, with the highest levels being observed in those aged over 65. Population well-being appears consistent across both genders: 25.4 on average for men and 25 for women.

UK Population well-being by age



Well-being - UK Population and applicant comparisons

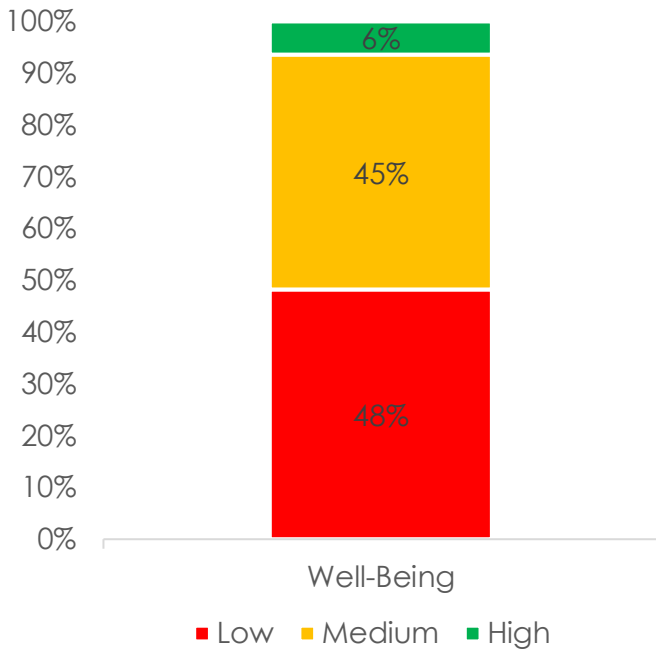


The applicants to the call blocker project had an average well-being of 21.1, considerably lower than the UK population average of 25.2. This remained consistent across all age groups, although individual age groups followed the trend observed in the population as a whole.

The highest level of recorded well-being was observed in respondents who lived with a partner (21.9), and the lowest in those who reported living alone (19.9).

Respondents who regarded themselves as vulnerable reported an average level of well-being of 19.9, which is significantly lower than respondents who do not regard themselves as vulnerable.

Well-being Classification

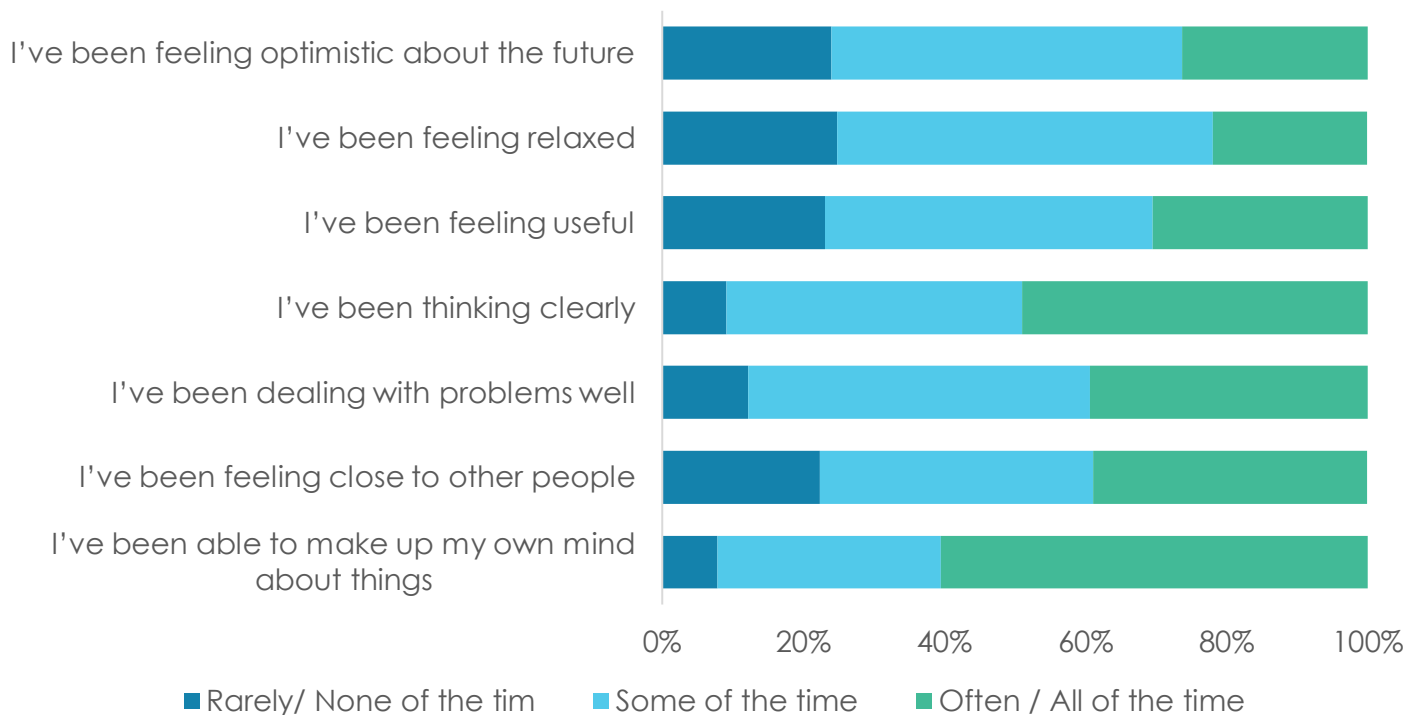


The SWEMWBS provides us with three levels of classification of well-being: low, medium, and high. 48% of respondents scored as low on the scale, with a further 45% indicating medium levels of well-being and less than 6% scoring were in the high group. Significant variance in group allocation was observed.

As seen with the population data, well-being scores demonstrate variance by age and gender and this is reflected in the well-being classifications across the applicant sample. **Respondents who lived alone or were vulnerable were more likely to fall within the low well-being classification.**

Comparisons with the wider population data suggest that receiving scam or nuisance calls, regardless of whether it results in further engagement or financial loss, may negatively impact on an individual's sense of well-being. Over one fifth of respondents reported rarely or never feeling relaxed (25%), optimistic about the future (24%), useful (23%) or close to other people (22%).

Distribution of Well-Being measures



Open Comments

All applicants had an opportunity to share any other thoughts in an 'open comments' section. Upon analysis of these comments, the topics discussed by applicants were broken down into the following categories:

- 1) Feelings of anger and frustration (60%)
- 2) Feelings of anxiety and fear (36%)
- 3) Feelings of incompetence or loss of confidence (24%)
- 4) Feeling attacked and intimidated (14%)
- 5) Feelings of sadness and exhaustion (11%)
- 6) Disability and mental health (8%)
- 7) Other (4%)

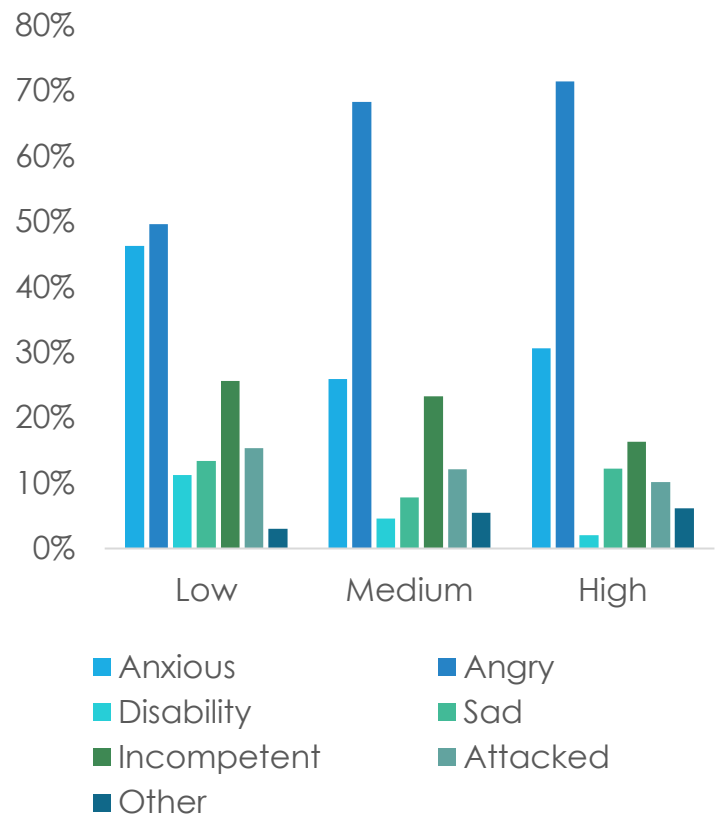
Those who were female, self-identified as vulnerable or who lived alone were more likely to report feelings of anxiety, sadness, or intimidation and less likely to report feelings of anger. However, those who were male, self-identified as not vulnerable or who lived with a partner were more likely to feel report feelings of anger and less likely to report feelings of anxiety, intimidation, or sadness.

Furthermore, those who discussed having a disability were highly likely to also report feelings of anxiety (51%) and discuss how these were linked.

Notably, those in the low category of well-being were significantly more likely to report feeling anxious than those in the high category of well-being, whereas those in the high category of well-being were significantly more likely to report feelings of anger.

There was no significant variation in the levels of anger or anxiety amongst the different age groups; however those in the 55-64 age group were most likely to report feeling sad, vulnerable, and attacked.

Open comments by Well-being



Well-Being Study Sample

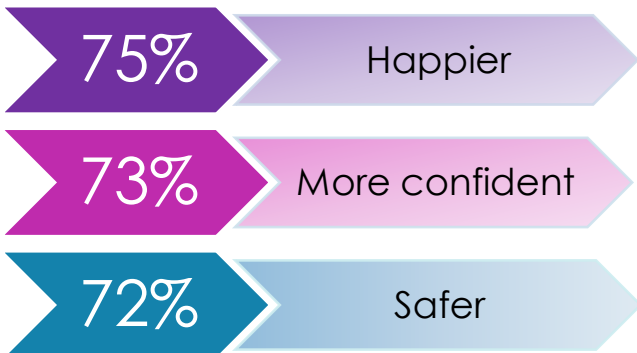
The well-being sample comprises of the 181 participants who completed the SWEMWBS at both installation and three months after installation.

Sample summary

- ☆ 81% aged 65 or over
- ☆ 59% male, 41% female
- ☆ 66% living with a partner
- ☆ 21% living alone
- ☆ 38% self-identified as vulnerable
- ☆ 99% had received scam or nuisance phone calls in the six months prior to installation
- ☆ 10% reported losing money to scam or nuisance calls in the six months prior to installation
- ☆ 77% reported being worried about losing money to scam or nuisance calls prior to installation

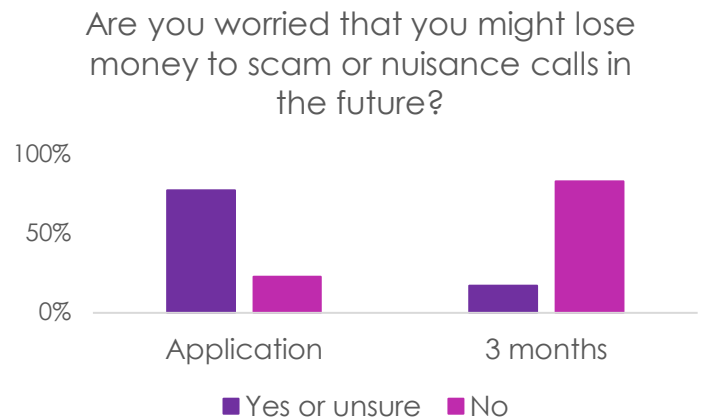
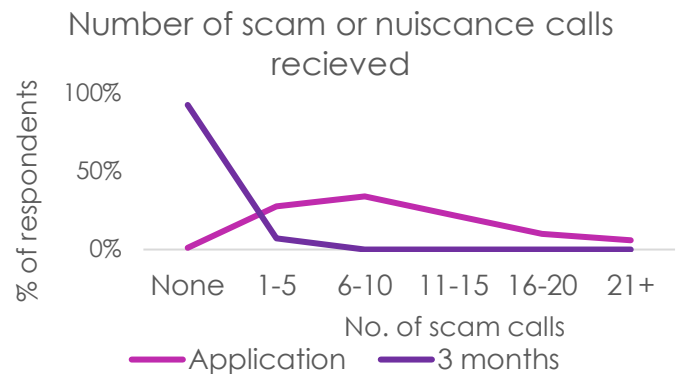
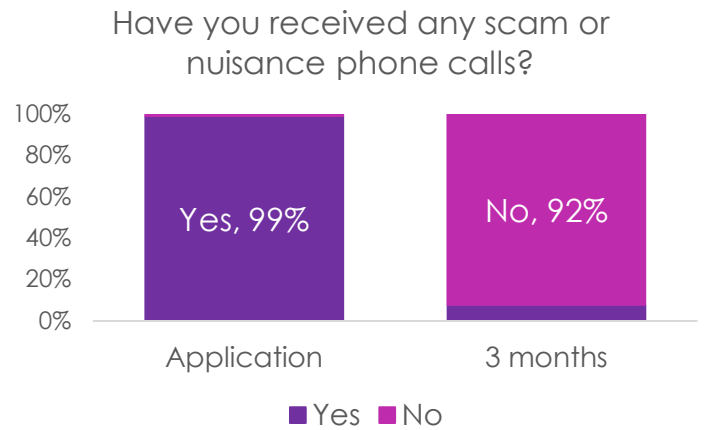
What impact did the call blocker have?

Three months after installation, applicants were asked to complete a telephone questionnaire. Calls were made by the NTS Scams Team, who received rigorous training to ensure continuity in the application of the SWEMWBS measures. In addition, the NTS Scams Team devised a series of questions designed to capture the impact of the installation of the call blocker.



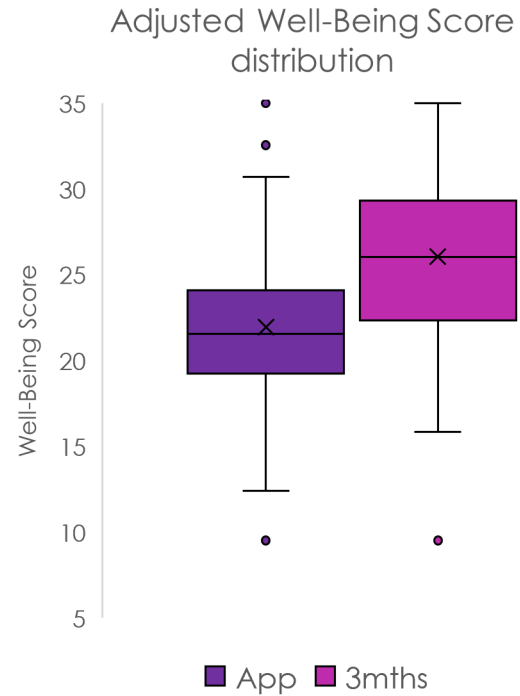
The vast majority of respondents indicated that after three months they felt happier, more confident, and safer; 22% indicated feeling empowered.

After three months, 92% of respondents reported not receiving any scams or nuisance calls and those who did received significantly less. At the time of application, 77% of the sample were concerned about losing money in the future, with this decreasing to 17% three months after installation.

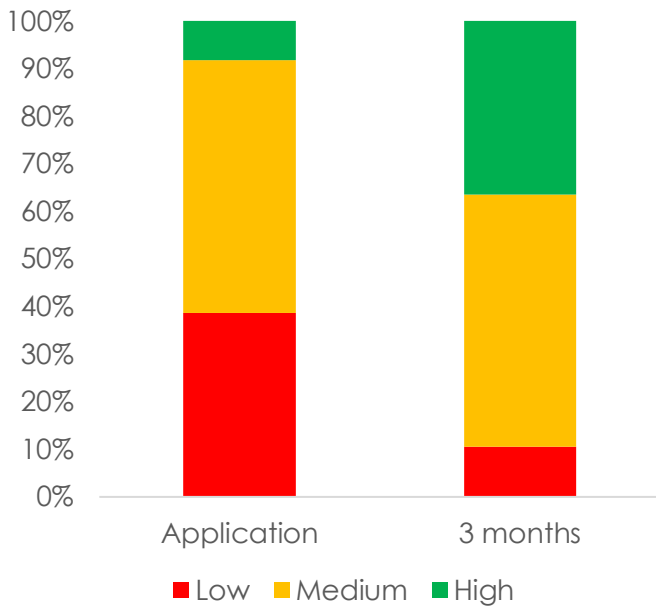


Impact on Well-Being

At the time of application, respondents reported an average well-being score of 21 and after three months respondents reported a significant increase ($p < 0.05$) in their overall well-being, reporting an average score of 26. This increase is most pronounced for respondents who were classed as vulnerable who reported a lower average well-being score at installation, 20 increasing to 25 after three months. The lowest levels of well-being were observed in respondents under 65 years old.



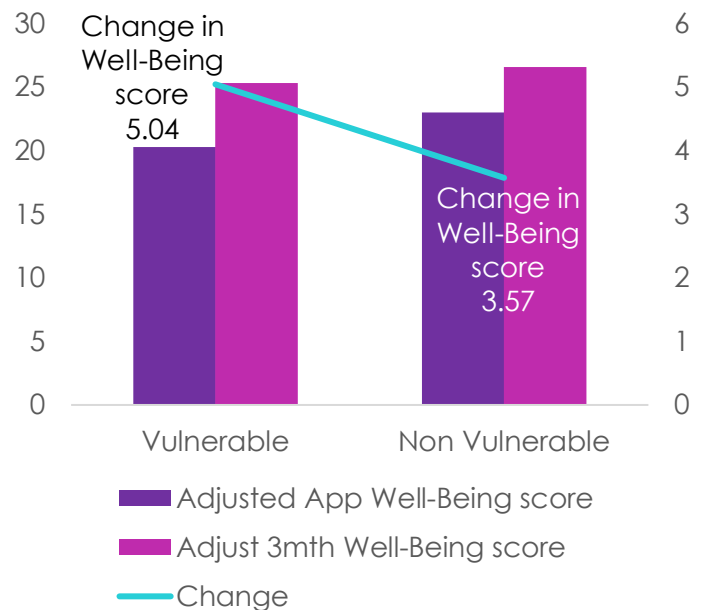
Sample Well-Being Status



The SWEMWBS defines three levels of well-being, low (under 20), medium (between 20 and 28) and high (over 28). At the time of application, 39% of respondents scored as low on the scale and only 8% scored as high on the scale. Conversely, after three months, 37% scored as high and only 11% remained as low.

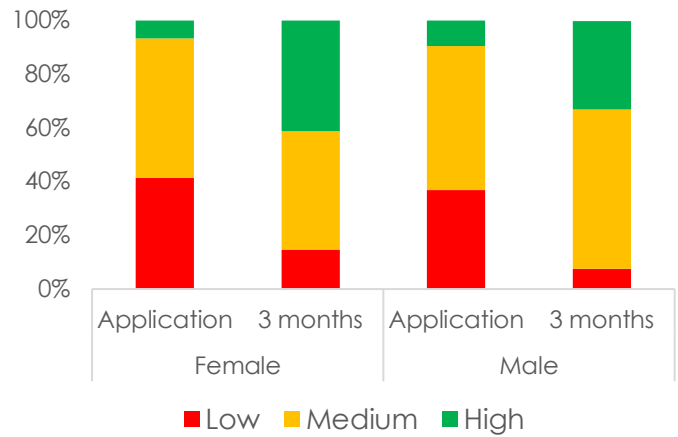
Respondents who indicated that they were within the vulnerable group demonstrated consistently higher increases in their average well-being scores when compared to respondents who were not indicated to belong to this group, suggesting that the call blocker may be of maximum benefit to this group. It should be noted that increases remain significant across both groups.

Adjusted Well-Being Score by vulnerability status

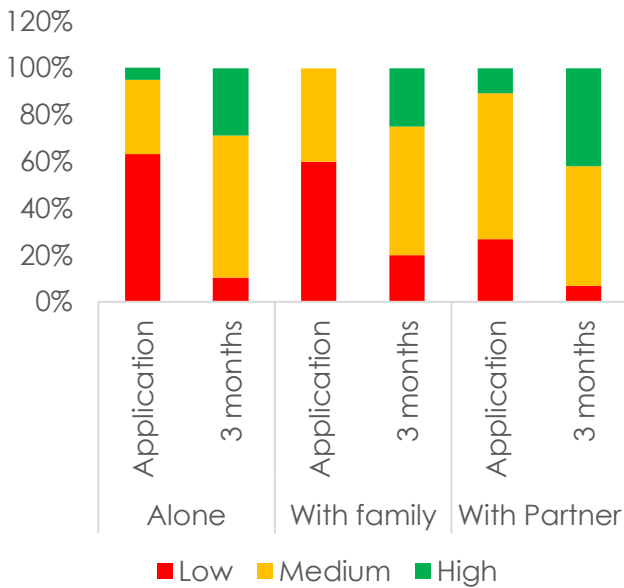


More notable shifts in well-being classification were observed in female participants, with 41% reporting a low well-being score at application decreasing to 15% at three months. Male respondents demonstrated marginally less of an increase, although still demonstrated significant improvements. It is worth noting that male respondents were more likely to be living with a partner than female respondents.

Well-Being Classification by gender



Well-Being Classification by Living status

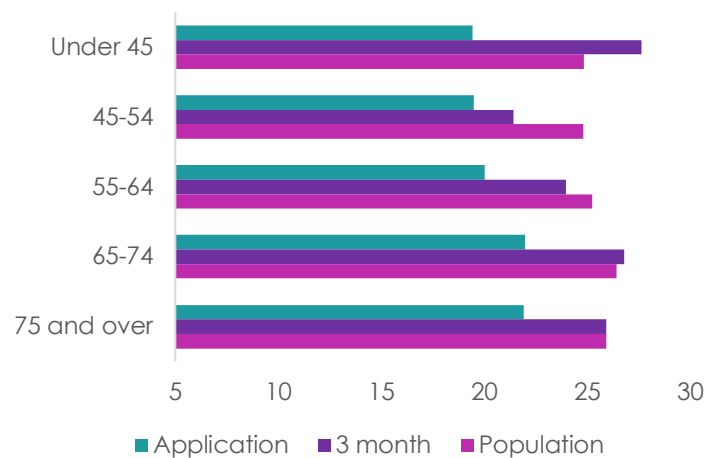


The majority of respondents who lived alone (63%) or with family (60%) initially demonstrated low well-being levels, substantially more than respondents who lived with a partner (27%).

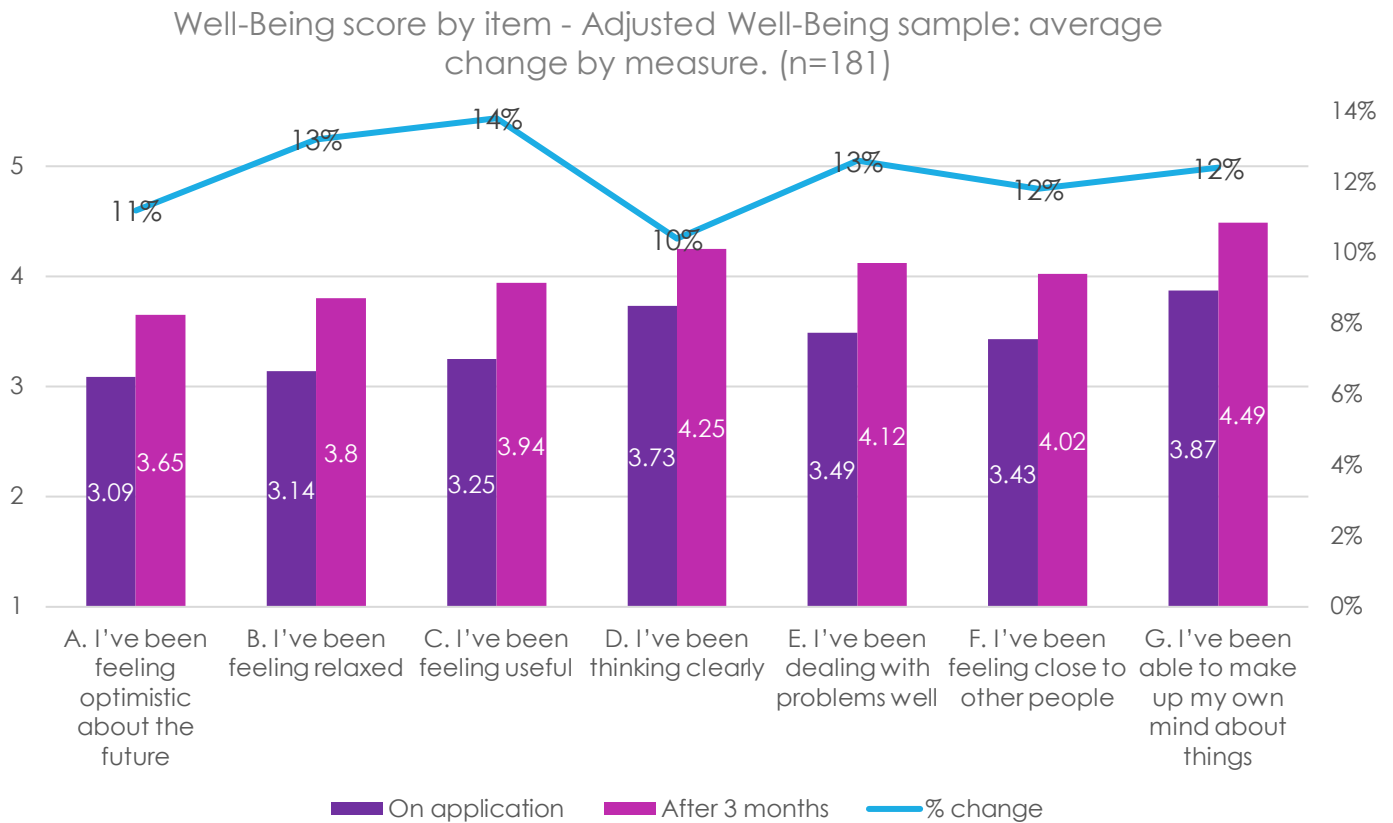
A similar pattern was observed in regard to respondents who considered themselves vulnerable, with 63% indicating a low level of well-being at application, compared to just 28% of respondents who did not regard themselves as vulnerable. Three months after installation, less than 19% of vulnerable respondents remained on a low score and only 5% of the comparison group reported a low well-being score.

There is a significant correlation between well-being score and age; increases in well-being scores were observed over all age groups. Lower increases were observed in the 45-54 age group, although it should be noted that this group is relatively small (n=6). Respondents over the age of 65 demonstrated the highest increases, placing them in line with, or exceeding, the well-being levels of the same age within the wider population.

Adjusted Well-Being score comparison by age group



Significant positive increases were observed in respect to all items in the SWEMWBS, with the highest being reported in relation to respondents feeling useful (+14%), relaxed (+13%) and being able to deal with problems well (+13%).



Overall impact on Well-Being

Respondents were asked what impact, if any, the installation of a call blocker has had on their well-being. 166 respondents answered this question, with **96% reporting a positive impact on their well-being**; the remaining 4% reported no or little impact. **No respondents reported a negative impact.**

Examples of the types of impact recorded by respondents are included below:

“Amazing! I was getting so many calls it was so bad. Before I was beginning to doubt myself and uncomfortable and now, I feel myself again it's really made a difference.”

“I feel a lot happier as I know I won't get any more scam calls – I am disabled so getting up to answer each call was a nuisance.”

“Enormous effect. Prior to the call blocker, I was getting calls on a regular basis. I lost my husband, and this has really helped me feel safer.”

“It's brilliant as my husband doesn't answer scam calls anymore and he used to reply to scammers and we lost money to scams. It has all stopped now.”

Discussion

Previous research has demonstrated that scam engagement and individual health and well-being are intrinsically linked. This research demonstrates that this relationship may also extend to receiving scams and nuisance calls regardless of whether the individual engages with the caller or not.

Less than 9% of those who applied indicated that they had lost money to scams but this is still a substantial figure, especially if it is replicated over the general population. Significantly lower levels of well-being were recorded over the sample population, suggesting that the calls themselves may lower well-being; this is supported by the majority of respondents, prior to installation, reporting being concerned about becoming a victim to a scam in the future.

Respondents who indicated they felt they were vulnerable or lived alone were more likely to have previously lost money to a scam. This accordingly is related to a lower sense of well-being amongst these groups.

A notable finding was the consistently lower levels of well-being recorded by the SWEMWBS for successful applicants than is observed across the general population. These were consistent over all age groups, although reflecting the patterns observed over the population as a whole, supporting their validity in context.

When considering the well-being sample, we see a significant increase in well-being scores. Respondents over the age of 55 demonstrate an increase from well below the population norm to align within the norms for their age group. This, to a certain degree, supports a targeted approach.

However, significant improvements in well-being scores were observed across all groups, regardless of age, gender, living status and vulnerability status. Supporting the view that there is a potentially significant benefit of installing a call blocker for the well-being of all individuals who receive scam or nuisance calls.

The findings within this report support the installation of a call blocker where an individual is in receipt of scam and nuisance calls, aligning with the Care Act well-being strategy to support personal independence. Although a causal relationship cannot be inferred, the findings suggest that there is a strong interaction between well-being measures and scam and nuisance calls; this has the potential to impact on individual sense of usefulness, ability to deal with problems and ability to feel close to other people.

Further work would be required to ensure that this change is sustained, and although this was originally intended within this project, the impact of COVID-19 on individual well-being may be significant, therefore further data collection at this time would not have been representative of the intervention. The work is timely, however, as future comparisons with population norms may not be so robust.

It is also true that the sample was not only self-selecting but were motivated to apply for a call blocker, suggesting that scam and nuisance calls were of concern to respondents. Results may therefore not be representative of the wider population; however, they do provide a robust subset representing those who are impacted by scam and nuisance calls.



Conclusions

- Receiving scam and nuisance calls has a significant negative impact on individuals' well-being.
- An individual does not have to engage in a scam for their well-being to be negatively impacted by scam or nuisance calls.
- Installation of the trueCall secure plus call blocker reduces the number of scam and nuisance calls received.
- Call blockers provide an effective intervention against scam and nuisance calls, which remains consistent over all age groups, genders, living arrangements and vulnerability status. This supports the wide application of call blocker and call blocking technology.
- Well-being scores significantly and consistently increased in the three months from the installation of a call blocker.
- Older and vulnerable respondents demonstrated the highest levels of change in well-being, suggesting these groups gain the maximum benefit from the call blocker.

Recommendations

- 1. There should be greater recognition of the impact that scam and nuisance calls have on well-being, regardless of whether there is actual engagement or any financial loss.** The findings of this research revealed the significant negative impact that simply receiving these types of calls has on individual. This suggests that the scale of people experiencing a negative impact due to scam and nuisance calls is likely to be far larger than the occurrences reported to Action Fraud.
- 2. All regular landline users are likely to benefit from call blocker technology.** Significant increases in well-being were observed across all ages, genders, and levels of vulnerability. Although a lot of work is being done to intercept calls at the source, the adaptive behaviour of these criminals leads the best point of intervention to be at the point of contact.
- 3. Call blockers should be made available to vulnerable individuals to support them to live independently.** Supporting the aims of the Care Act 2014, this research demonstrated how a call blocker can be a vital part of a tool kit to support independent living and to safeguard vulnerable individuals from financial abuse.
- 4. Older people, those who self-identify as vulnerable, and individuals who live alone are most likely to benefit from the installation of a call blocker.** These research findings suggest that increased focus should be placed on these groups, as they are most negatively impacted by experiencing scam and nuisance calls and benefitted the most from the installation of a call blocker.
- 5. Building on the previous work of The National Trading Standards Scams Team, further signposting would help provide clear guidance regarding the application for and the potential benefits of installing a call blocker.** The call blocker utilized within this research led to the substantial and sustained reduction in unwanted calls; however, more research would be required to explore the impacts of different levels of call reduction and the efficacy of alternative call blockers.

References

BICS. (2019). UK world's biggest target for fraudulent telecoms traffic. <https://bics.com/news/uk-biggest-target-fraudulent-telecoms-traffic-bics/> (accessed 29/06/20).

Button, M., Lewis, C., Tapley, J., (2009) National Fraud Authority - Fraud typologies and Victims of fraud. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/118469/fraud-typologies.pdf (accessed 29/06/20).

Fenge, LA., and Lee, S. (2018). Understanding the Risks of Financial Scams as Part of Elder Abuse Prevention. British Journal of Social Work 48, 906–923

Financial Times. (2020). UK remains prime target for telephone scammers, report shows. <https://www.ft.com/content/b1263272-a566-11e9-984c-fac8325aaa04> (accessed 29/06/20).

Great Britain. Parliament (2014) Care Act 2014. London: Stationery Office. Available at: <http://www.legislation.gov.uk/ukpga/2014/23/contents/enacted>

Gee J., and Button M. (2019). The Financial Cost of Fraud 2019, The latest data from around the world. Jim Gee and Professor Mark Button

ICO and Ofcom (2020). Nuisance calls and messages. Update to ICO-Ofcom joint action plan. https://www.ofcom.org.uk/data/assets/pdf_file/0034/194974/nuisance-calls-joint-action-plan-2020.pdf (accessed 29/06/20).

Kaspersky. What Is Vishing? <https://www.kaspersky.com/resource-center/definitions/vishing> (accessed 29/06/20).

Lee S., Baxter L. (2017) 'Adult safeguarding and financial abuse from scams', in Fenge L., Lee S., Brown K. (eds), Safeguarding Adults: Scamming and Mental Capacity, London, Sage Learning Matters.

National Centre for Post-Qualifying Social Work, (2019). Financial Scamming and Fraud. <https://ncpqsw.com/financial-scamming/> (accessed 29/06/20).

National Crime Agency. (2020). National Strategic Assessment of Serious and Organised Crime. <https://www.nationalcrimeagency.gov.uk/who-we-are/publications/437-national-strategic-assessment-of-serious-and-organised-crime-2020/file> (accessed 29/06/20).

National Trading Standards Scams Team (2020), About us. <https://www.friendsagainstscams.org.uk/about-us> (accessed 29/06/20).

ONS (2019), Measuring national well-being: domains and measures <https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/datasets/measuringnationalwellbeingdomainsandmeasures> (accessed 29/06/20).

ONS (2020a), Crime in England and Wales: Fraud. Year ending December 2019 <https://www.ons.gov.uk/peoplepopulationandcommunity/crimeandjustice/bulletins/crimeinenglandandwales/yearendingdecember2019#fraud> (accessed 29/06/20).

ONS (2020b), Crime in England and Wales: Appendix tables. Year ending December 2019.

<https://www.ons.gov.uk/peoplepopulationandcommunity/crimeandjustice/datasets/crimeinenglandandwalesappendixtables> (accessed 29/06/20).

Steptoe, A., Deaton, A., & Stone, A. A. (2015). Subjective wellbeing, health, and ageing. *Lancet (London, England)*, 385(9968), 640–648.

[https://doi.org/10.1016/S0140-6736\(13\)61489-0](https://doi.org/10.1016/S0140-6736(13)61489-0)

Warwick-Edinburgh Mental Well-Being Scale (WEMWBS) User Guide for Researchers (2016). Warwick University, UK. <https://warwick.ac.uk/fac/sci/med/research/platform/wemwbs>

Whitley, E., & Ball, J. (2002). Statistics review 4: sample size calculations. *Critical care (London, England)*, 6(4), 335–341. <https://doi.org/10.1186/cc1521>



Appendix – Open Comments

Feelings of anger and frustration

This was the largest category and it represents those applicants that reported feelings of anger at receiving scam calls and at having their daily life interrupted by these calls. It also included applicants who felt their time was being wasted and who felt they had lost their patience with the calls.

'Extremely irritated considering they start early morning (08:00) and I have young children.'

'Annoyed... really fed up with calls in the early hours. Some calls show withheld, this is really frustrating.'

'Annoyed, angry, resentful and frustrated.'

Feelings of anxiety and fear

This category included applicants that reported feeling anxious and scared regarding receiving scam calls. They discuss various reactions such as distress and loss of trust in people.

'Threatened, scared of how my contact details have been obtained. They make me less trusting of people that ring who are not known to me.'

'I always worry that these callers are so convincing that they are sure to trap me at some time in the future.'

Feelings of incompetence or loss of confidence

This category represents those applicants that reported feeling useless or foolish for falling for scam calls. Many would discuss

how the calls makes them feel old and vulnerable, or that they felt like easy prey.

'Vulnerable. The scammers' techniques are becoming more and more sophisticated and I am anxious that I will be scammed.'

'As a household of myself at age 64 and my husband... age 74, I worry that we will be targeted and be easy prey for scammers.'

Feeling attacked and intimidated

The applicants included in this category were those who reported feeling harassed and violated. It also included those who felt that their lives were being intruded upon or disturbed.

'Calls are intrusive and usually mean I have to interrupt an activity I am involved with.'

'I am resentful that thieves are entering my house via the telephone.'

Feelings of sadness and exhaustion

This category represents those applicants who discussed feeling upset and worn down. Many applicants even reported feeling depressed and exhausted due to the effects of the scam and nuisance calls.

'They really wear you down.'

'They upset me because I think a friend is ringing and it is someone who doesn't care about me.'

Disability and mental health

This category included any applicant that discussed how scam and nuisance calls interacted with their physical or mental health. This included those who were dealing with grief from a loss.

'I am blind. I have bipolar disorder and sleep apnoea. I also have hearing problems. I feel that I am quite often not up to speed. If my wife is out, I worry about answering the phone in case I misunderstand and agree to something silly'

'The almost daily calls constantly interrupt me. As a woman with a disability who often rests during the day it can be very disconcerting'

'I suffer really bad with anxiety and when the phone rings and it's not someone I know I have panic attacks. I'm disabled... I

just can't cope with all these callers.'

Other

Some of the other notable comments included some applicants that felt like they experienced a loss of privacy due to the calls.

'Hugely intrusive into my privacy and well-being as if I am being watched.'

Few also discussed experiences with being scammed and how they wish that more was being done to combat these calls