



## Synopsis

# The Clinical and Cost-Effectiveness of a Victim Improvement Package (VIP) for the Reduction of Chronic Symptoms of Depression or Anxiety in Older Victims of Community-Crime: the VIP RCT Synopsis

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## Abstract

**Background:** Little is known about the psychological impact of community crime in older victims, whether signposting to their general practitioner is helpful, or the barriers and facilitators to help-seeking. Previous pilot work suggested that a 'cognitive-behavioural therapy'-informed Victim Improvement Package showed promise for treating psychological distress in older victims, but further evaluation was needed.

**Methods:** The study was undertaken between June 2017 and June 2023 in selected areas of a United Kingdom city using Safer Neighbourhood Teams. Safer Neighbourhood Teams consist of a group of police personnel, working across several local authority areas, who are dedicated to managing victims in the community. Within 2 months of the crime, police Safer Neighbourhood Teams screened 3192 victims, aged 65 or over who had reported a crime, for psychological distress using the Generalised Anxiety Disorder-2 and Patient Health Questionnaire-2 items. Those identified as distressed were advised (signposted) by the police to seek help from their general practitioner. The impact of signposting was evaluated using qualitative and quantitative methods.

At 3 months post crime, 877 older victims were reassessed by our researchers and, if still distressed, invited to participate in a randomised controlled trial. This compared the addition of our Victim Improvement Package to treatment as usual against treatment as usual alone. The Victim Improvement Package used a manual to guide our talking therapy (cognitive-behavioural therapy), delivered individually and weekly, for up to an hour by a mental health charity. Up to 10 sessions were offered.

**Outcomes:** The Beck Depression Inventory, version 2, and the Beck Anxiety Inventory, combined in a composite score, were used to evaluate clinical effectiveness. Measures were collected at baseline (3 months post crime), post intervention (primary end point) and follow-up; 6 and 9 months post crime, respectively. Cost-effectiveness was evaluated using the EuroQol-5 Dimensions and a modified Client Service Receipt Inventory.

**Results:** The police screened 24% of older victims ( $n = 17,611$ ) in our selected areas. A third of the police-screened victims were significantly distressed, and for those we rescreened at 3 months post crime, almost half remained distressed.

Few distressed older victims (13%) approached their general practitioner (barriers included wait times and personal beliefs they should cope), and only a third of those who did so received help.

One hundred and thirty-one participants were randomised (65 = Victim Improvement Package; 66 = treatment as usual) at 3 months post crime. The primary outcome was completed in 87 (66.4%). The Victim Improvement Package was acceptable to participants, although it was not possible to recruit our target sample of 226, because of a number of hurdles, which included changes in police leadership, the coronavirus disease discovered in 2019 pandemic and possible reduced confidence in the police. We report on these, the lessons learnt, and make recommendations for further research.

No treatment effect was found for the Victim Improvement Package. Mean Victim Improvement Package  $-0.41$  (standard deviation 0.89) versus mean treatment as usual  $-0.19$  (standard deviation 1.11); adjusted difference in means  $-0.039$ , 95% confidence interval ( $-0.39$  to  $0.31$ ) and the Victim Improvement Package was not cost-effective.

**Limitations:** Recruitment was challenging, with insufficient numbers recruited to meet the sample size calculation. While appearing representative of the population, only 0.7% (131/17,611) of older victims reporting a crime participated in the trial. Assessing the quality of delivery of cognitive-behavioural therapy was challenging.

**Conclusions:** Crime significantly psychologically impacts older victims, with chronicity of symptoms. Distress can be identified by incorporating screening into routine police visits. While Victim Improvement Package remains acceptable and promising, more research is needed, including the feasibility of using typical clinical services to assess clinical effectiveness.

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A plain language summary of this synopsis is available on the NIHR Journals Library Website <https://doi.org/10.3310/KGMR6521>.

## Introduction

This report describes the Victim Improvement Package (VIP) trial, a collaboration between University College London (UCL), the police service (PS) and a mental health charity.

The VIP trial is a series of studies aimed at improving outcomes for older victims of community crimes, which are defined as crimes committed by strangers or acquaintances.<sup>1</sup> These have been overlooked in older victim research compared to elder abuse and domestic violence,<sup>2-4</sup> yet the majority of crimes in older adults relate to property, such as theft, burglary, fraud and scams.<sup>5</sup> Community violence also affects older adults, although the extent is unclear.<sup>5,6</sup>

The VIP trial aimed to understand how community crime psychologically impacts older victims,<sup>7</sup> whether they act on police advice to seek general practitioner (GP) support, and the barriers and facilitators to help-seeking.<sup>8,9</sup> The VIP intervention was tested through a randomised controlled trial (RCT) which examined the clinical and cost-effectiveness of a cognitive-behavioural therapy

(CBT)-informed VIP (*Report Supplementary Material 6*), compared to treatment as usual (TAU), in older victims aged 65 and over with continued psychological distress at 3 months post crime.<sup>10</sup> The VIP trial also allowed reflections and learning from recruitment challenges encountered during this research, which include the coronavirus disease discovered in 2019 (COVID-19) pandemic and low public confidence in policing.<sup>9</sup>

The VIP trial follows on from the Helping Aged Victims of Crime (HAVoC) feasibility study,<sup>11</sup> funded by the NIHR Research for Patient Benefit programme. This found that 28% of older victims of community crimes identified as initially distressed continued to have symptoms 3 months later. CBT appeared acceptable and promising for treating distressed older victims, and home visits from police community support officers were more successful in identifying and engaging older victims in research (91%) than leaflets (5%) or telephone calls (37%) from the police or victim support.

### Rationale for research and background

Nearly one in five (19%) UK citizens are aged 65 or over, and this is forecast to increase to 22% by 2032.<sup>12</sup> With the

population ageing, community crime is increasing among older adults.<sup>5</sup> Accurate data on the extent of older victims in the UK are lacking,<sup>6,7</sup> but figures provided by the PS for the 12 local authority areas (LAAs) in the VIP trial shows that 9953 community crimes were reported between 1 August 2022 and 31 July 2023 [Metropolitan Police Service (MPS). Personal e-mail communication, August 2023]. Extrapolating this to all 32 LAAs suggests, an estimated 26,541 crimes were reported by older people in the past year in London alone. As 60–70% of crimes go unreported, the true figure may be even higher.<sup>13</sup>

Older people may be especially affected by crime due to concurrent life events, including bereavement, diminishing social networks, declining physical health, frailty or reduced income in retirement.<sup>14</sup> Burglary and fraud in older victims have been found to be associated with accelerated mortality<sup>15,16</sup> and violence, with an increased risk of nursing home placement.<sup>17</sup> Depression attributed to victimisation in transgender older victims was found to have an even bigger health impact than well-established risks, including smoking and obesity.<sup>18</sup>

Although there is growing recognition of the impact of crime on victims as a public health concern,<sup>19,20</sup> primary care services appear poorly informed on how to help older victims.<sup>11</sup> A formal inspectorate of policing in England and Wales also found that the police have limited understanding of the needs of older victims and are underprepared for the growing challenges of supporting this population.<sup>21</sup> Taken together, more needs to be done to support older victims.<sup>22</sup>

## Aims and objectives

### Aims

Primary: to conduct a RCT examining the clinical and cost-effectiveness of a cognitive-behaviourally informed VIP for preventing chronicity of depressive and/or anxiety symptoms in older victims of community crime.

Secondary: to understand the psychological impact of crime in older victims, investigate the effectiveness of signposting, explore help-seeking and reflect on the process of conducting research on older victims.

These aims were guided by Goldberg's Filter Model,<sup>23</sup> which suggests that to improve the health of a population, it is necessary to: (1) increase awareness of impact, (2) improve case detection, (3) increase referrals to health care and (4) improve treatment.

## Objectives

1. To systematically review the existing literature on psychological impact and the interventions for older victims of community crime (psychological impact and interventions for older victims of community crime: a systematic review).
2. To determine the effectiveness of police Safer Neighbourhood Team (SNT) officers signposting older victims to their GP, and the facilitators and barriers to help-seeking (signposting and facilitators and barriers to help-seeking in older victims: a mixed-methods study).
3. To determine, through a RCT, the clinical and cost-effectiveness of a CBT-informed VIP for the treatment of continued anxiety and/or depressive symptoms in older victims of community crime aged 65 and over (a RCT of the clinical effectiveness of a VIP for the reduction of chronic symptoms of depression or anxiety in older victims of community crime and health economics).
4. To reflect on lessons learnt and describe how to conduct research with older victims of crime (lessons learnt and overall conclusions and impact, implications and research recommendations).

## Psychological impact and interventions for older victims of community crime: a systematic review

A systematic review of the psychological impact and interventions for older victims of community crime was conducted to establish the strength of existing evidence. This was guided by Cochrane and Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA).<sup>24</sup> The protocol was International Prospective Register of Systematic Reviews registered on 14 August 2019 (CRD42019140137) and amended on 28 February 2022 and 12 May 2022.

### Review criteria

Peer-reviewed studies of any design published in English between 1980 and 2023 were included. As a proportion of studies on older adults included people 50 years and over, our age range was broadly defined as 50 and over to capture all relevant literature.<sup>25</sup> Psychological impact was defined as any psychological/behavioural response.<sup>26</sup> Interventions could have any format or comparator. Non-community crimes (e.g. domestic violence, elder abuse), dementia, serious mental illness, drug/alcohol misuse, reviews and grey literature were excluded.

## Methods

Searches were conducted in August 2019, August 2021, April 2022 and October 2023 across five databases: PsycInfo® (American Psychological Association, Washington, DC, USA), MEDical Literature Analysis and Retrieval System (MEDLINE), Excerpta Medica dataBASE (EMBASE), Cumulative Index to Nursing and Allied Health Literature (CINAHL), PTSDpubs. Search terms were: 'older adult' AND 'mental health' AND 'crime victim', combined using truncation and Boolean functions (see [Appendix 1](#)).

Screening was conducted using Rayyan QCRI (Doha, Qatar; <https://rayyan.qcri.org/>).<sup>27</sup> Two reviewers independently screened results [99.8% agreement,  $K = 0.66$ , 95% confidence interval (CI) (0.52 to 0.79); 'substantial agreement']<sup>28</sup>; PRISMA.<sup>24</sup> Data were extracted and quality appraised using the mixed-methods appraisal tool.<sup>29</sup> Results were narratively synthesised, as recommended for reviews with different study designs.<sup>30</sup> Meta-analysis was considered but unsuitable due to study heterogeneity.

## Results

Twenty-three thousand four hundred and two results were searched: only 21 met criteria. Four included interventions. No studies on mental health service use were found.

## Quality

Studies were disparate across aims, crimes included and outcome definitions. Studies often struggled with timely identification of older victims, lacked reporting detail, were unclear which crimes were eligible, and sample characteristics were inconsistently reported.

## Psychological impact

Synthesis identified symptoms of anxiety, depression, post-traumatic stress disorder (PTSD) and behaviour changes (e.g. locking doors, avoiding activities). Distress was reported in older victims of assault, rape, fraud, burglary, distraction burglary, mugging and criminal damage.<sup>31-40</sup> Qualitative studies on fraud reported emotions, including shame, self-blame, anger and reluctance to report.<sup>34-37</sup> Older violence victims were found to have greater PTSD scores on the Clinician-Administered PTSD scale than older victims of car accidents.<sup>32</sup> A study of transgender older adults found victimisation had a bigger health impact than smoking or obesity.<sup>18</sup> There was little literature on 'low-value, high-frequency' crimes, such as petty theft or individual differences, although two studies found associations between crime and distress even after other variables (e.g. health, age, gender) were controlled for.<sup>40,41</sup>

Initial prevalence estimates suggest that 28% of older victims of different crimes suffer depression and/or anxiety,<sup>11</sup>

which is higher than rates for depression (7%) and anxiety (4%) in older people globally.<sup>42</sup>

## Interventions

The interventions were feasibility studies:

1. Crisis-counselling<sup>33</sup>  
Crisis-counselling for an older rape victim ( $N = 1$ ) alongside medical care helped maintain independent living but is not generalisable.
2. A Nurse-Police Scheme<sup>39</sup>  
District nurses partnered with local police to assess care needs of distraction burglary victims aged 70 and over ( $N = 77$ ). Positive outcomes were described on depression and anxiety measures, but effectiveness was not evaluated.
3. Psychoeducation<sup>31</sup>  
A psychoeducation video, delivered by local police for older violence victims in America, was compared to existing advocacy ( $N = 116$ ). Participants had improved knowledge, but no group differences were found on the Geriatric Depression Inventory or Beck Anxiety Inventory (BAI) at 6 weeks. Effects may have been missed due to lack of power, inclusion based on victim status rather than distress, the intervention was delivered a few weeks post crime, researchers were unblinded, and baseline was not conducted.
4. VIP feasibility study (HAVoC)<sup>11</sup>  
Researchers partnered with local police and victim support to identify and screen older victims for depression, anxiety and PTSD at 1 and 3 months post crime. Those who rescreened positive at 3 months received diagnostic interviews.  $N = 26$  participated in a feasibility RCT of modified CBT compared to TAU. CBT was found acceptable and promising for treating anxiety and depression, but not PTSD.

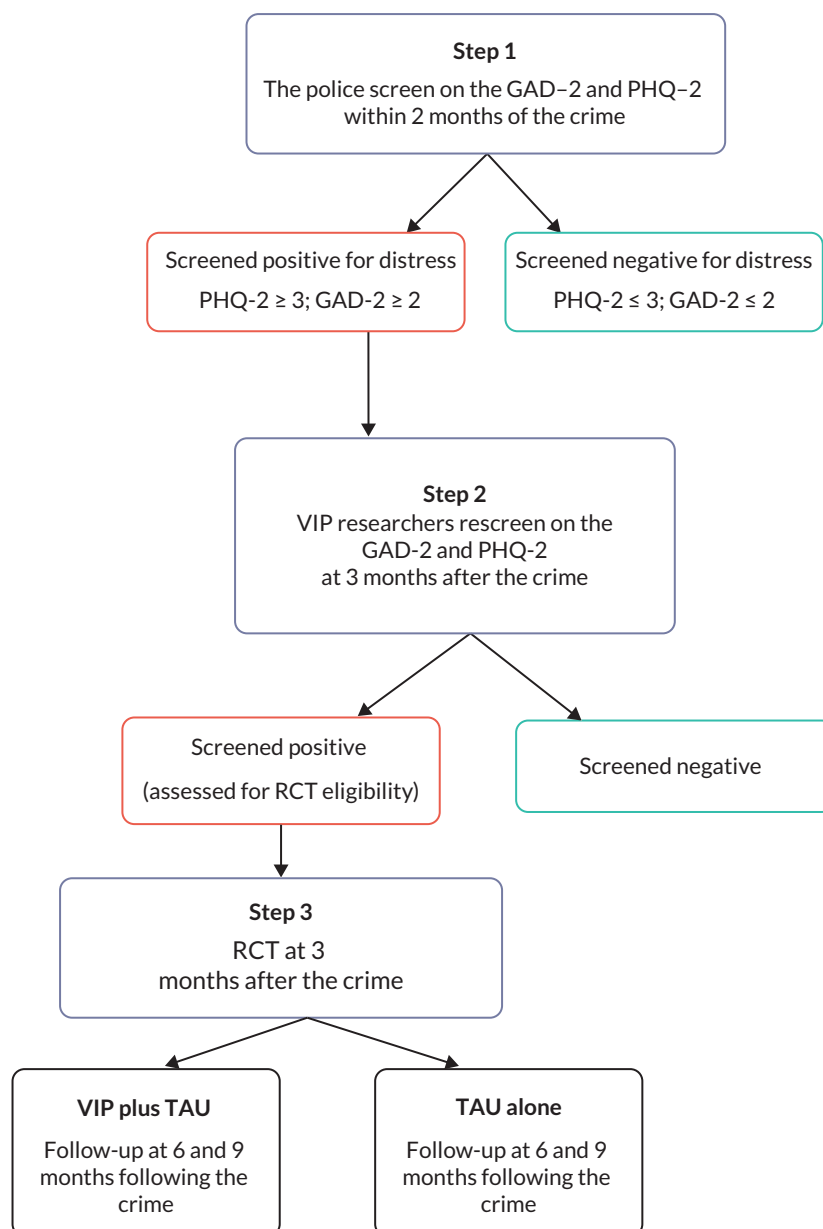
## Future research

As only feasibility studies exist, improved support for older victims is needed. CBT appears promising for treating anxiety and depression in older victims but requires further evaluation.

## Victim Improvement Package trial overview

The VIP trial design is briefly summarised ([Figure 1](#)), with further detail in [Step 1: screening](#) and [Health economics](#).

Step 1: police SNTs screened older victims for depressive/anxious symptoms on the Patient Health Questionnaire-2 items (PHQ-2) and Generalised Anxiety Disorder (GAD-2) questionnaire within 2 months of reporting a community crime.



**FIGURE 1** Showing outline of trial design. Reproduced from Serfaty *et al.*<sup>43</sup> This is an Open Access article distributed in accordance with the terms of the Creative Commons Attribution (CC BY 4.0) licence, which permits others to distribute, remix, adapt and build upon this work, for commercial use, provided the original work is properly cited. See: <https://creativecommons.org/licenses/by/4.0/>. The figure includes minor additions and formatting changes to the original text.

Demographic information and data-sharing consent were collected. Distressed older victims were given letters signposting them to their GP.

Step 2: older victims were rescreened at 3 months by UCL researchers on the GAD-2/PHQ-2 and asked whether they had used the signposting letter. Those still distressed were assessed for eligibility and invited to take part in a RCT.

Step 3: the RCT comparing the VIP + TAU with TAU only.

**For convenience, all the report findings are referenced in relation to time from the crime.**

### Materials

Examples of the different materials given to victims at the different steps is provided (see [Report Supplementary Materials 1–3](#)).

### Demographics

The police completed a demographic questionnaire (see [Report Supplementary Material 7](#)), including: age, gender, ethnicity, vulnerability (if recorded), crime type, crime date, marital status, education level, pre-retirement occupation, living arrangement and whether: anyone had been arrested, they had been a victim in the past year, their daily life had been affected, previously suffered depression/

anxiety, number of social contacts in the past week and sense of safety.

### Screening

The reverse of the demographic questionnaire included four questions: the 2-item PHQ-2 and GAD-2<sup>44,45</sup> (see [Report Supplementary Material 7](#)). The PHQ-2 consists of two questions. Each question scores from 0 to 3. The total PHQ-2 is the sum of the scores (range 0–6). The GAD-2 also consists of two questions and is scored in the same way. Scores of  $\geq 2$  on the GAD-2 and/or  $\geq 3$  on the PHQ-2 were screen-positive; scores below were screen negative. The GAD-2/PHQ-2 have been validated in older adults, although the lower score of  $\geq 2$  is recommended on the GAD-2.

### Registration

The VIP trial was pre-registered on ISCRTN16929670.

### Ethics

The VIP trial was approved by the UCL Research Ethics Committee (REC) (6960/001) on 17 March 2016. Data were shared using the secure database Data Safe Haven (certified to ISO27001), conforming to NHS Information Governance. We used UCLs Data Safe Haven (DSH), a secure environment for handling sensitive data, which meets the requirements of the NHS Data Security & Protection Toolkit and ISO 27001 Information Security standard (<https://www.ucl.ac.uk/isd/services/file-storage-sharing/data-safe-haven-dsh>).

## Step 1: screening

Older victims were screened for depressive/anxious symptoms on the PHQ-2/GAD-2 by police SNTs within 2 months, and they also collected demographic information (see [Report Supplementary Material 7](#)). Police leadership changes, major incidents (e.g. terrorism) and resource constraints posed challenges, requiring methods to be adapted. The different approaches are reported here, with reflections in lessons learnt.

## Background

The PS collaboration was informed by the HAVoC study<sup>11</sup> (see [Introduction](#)). The systematic review supported this as previous studies had struggled to systematically identify older victims.<sup>7</sup>

### Targets

The VIP RCT (step 3) required 226 participants, and we aimed to recruit 10 per month. As HAVoC<sup>11</sup> found 120 screenings generated 26 recruitments, we estimated 1043

screenings were needed at step 1 (46 participants monthly over 22 months). We trained 250 SNT officers.

### Identification

Reported crimes were entered on a 'Crime Record Information System' (CRIS), and this was integrated with in-house software (Airspace), which identified older victims and notified SNTs.

### Screening methods

Three screening methods, S1, S2, and S3, were used and are described below.

#### S1: home visits (June 2017–August 2019)

Safer Neighbourhood Teams visited all older victims and consented and data-shared screen-positive and screen-negative victims across nine LAAs (LAA-1 through to LAA-9) (a LAA is broadly the geographical area covered by the local authority, which is the organisation responsible for the delivery of services, including the police). While initially slow due to major incidents (e.g. fires, terrorism and so on), two senior officers were appointed, who effectively mobilised screening. High screening led to high recruitment, but the PS considered it too resource-intensive. Screening was paused while alternative methods were negotiated, leading to a drop-off in recruitment ([Figure 2](#)), which was prolonged due to COVID-19.

#### S2: telephone screening by police service administrators (May 2021–June 2022)

Two PS administrators screened older victims over the telephone using a guided script and directed SNTs to complete home visits and consent screen positives only. This targeted method was welcomed by SNTs but was less effective, as refusal was higher over the telephone and attrition occurred between phone calls and home visits. Administrators needed good rapport with older victims, but coinciding negative police publicity (e.g. the Sarah Everard case) appeared detrimental. They also had prolonged sick leave with no cover available. Additional LAAs (LAA-10, LAA-11, LAA-12) were added to try and increase numbers, and UCL provided communication training. Screening was paused while further funding was negotiated.

#### S3: University College London supporting the police service (March–June 2023)

A UCL researcher was embedded within the PS (the screening pause was prolonged while vetting was completed). Although vetting was intended to enable the researcher to contact older victims, data protection restrictions required the police to obtain older victims' consent before the researcher could speak. This additional consent point created further opportunities for attrition, so it was even less effective.

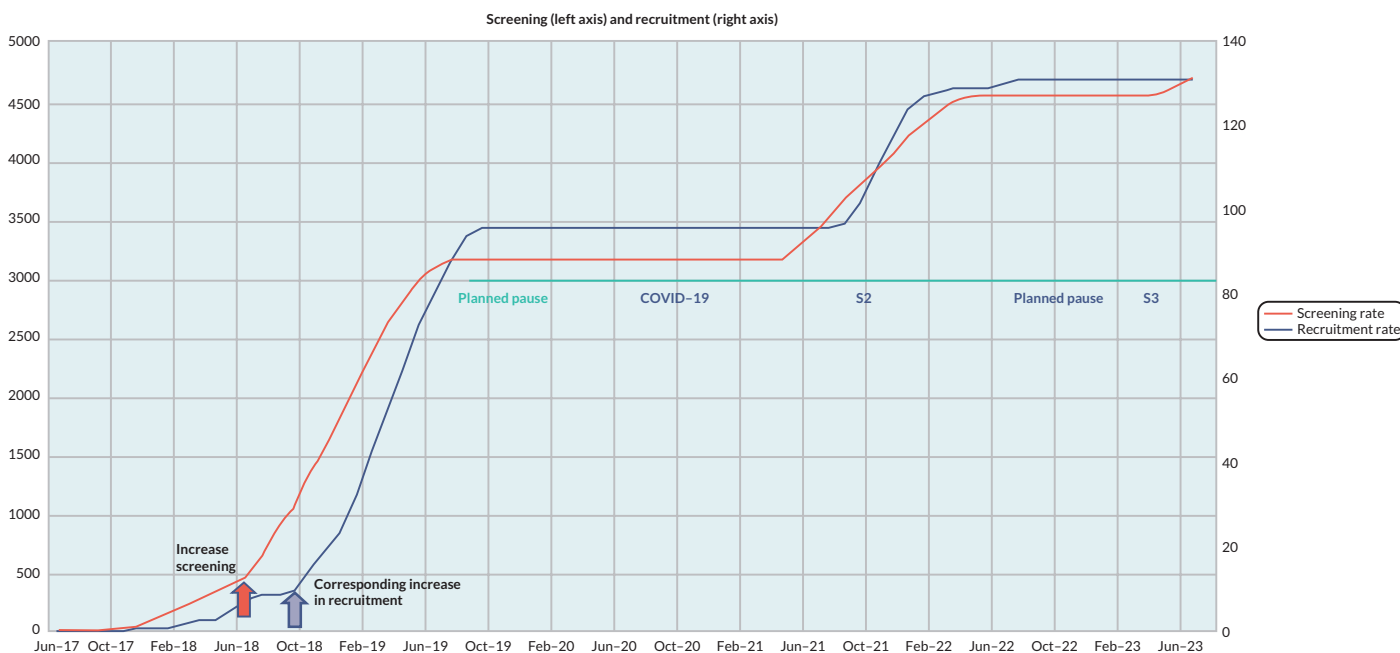


FIGURE 2 Screening rates and corresponding recruitment rates.

## Results

S1: 9391 eligible crimes were reported (Table 1). Thirty-two per cent (3007) were successfully screened, while 68% were not, due to: refusal (30%), trial ineligibility (15%), uncontactable (8%), 2 months' elapsing (14%) or consent missing signatures (1%). Different rates were observed across LAAs (e.g. LAA-3 48%; LAA-4 13%) partly due to sociodemographic differences (e.g. less spoken English in LAA-4) and varying engagement from SNT leads.

S2: 7680 crimes were reported across the 12 LAAs during this shorter screening period. Of these, 18% (1383) were screened over the telephone, which meant 82% were not due to refusal (28%), study ineligibility (13%), uncontactable (7%) and higher numbers elapsing past the 2 months' time window (35%). Of those screened, 25% (347/1384) were positive and agreed to a SNT visit. Of those positive and agreeable, 75% (260/347) were consented and referred to UCL. Referral rates for the new LAAs (LAA-10, LAA-11, LAA-12) were low, as they were still being established. The consent rate following SNT visits increased over time from 63% to 95% of visits. Data for screening method 2 by LAA is shown below (Table 2).

S3: 1566 crimes were reported by older victims across the 12 LAAs in this brief period. Of these, only 152 (10%) were screened; 61 (40%) of which were screened positive and agreeable to an SNT visit. SNTs consented and referred 27 (45%) of these. Our researcher fed back that considerable time was needed reading through case notes

to ensure their eligibility, with many then not answering the telephone. We estimated that 3.5 hours of calls was needed for each referral to UCL. Although the PS were engaged and supportive, negative publicity was ongoing, and there appeared to be wider challenges with recruiting older victims.

## Recruitment into the Victim Improvement Package trial

Figure 2 shows how screening rates influenced recruitment rates in the VIP trial. Figure 3 shows the numbers achieved at each stage of the trial broken down by each screening method.

## Discussion

When screening rates were high, there was corresponding high recruitment at step 3, whereas low screening resulted in low recruitment at step 3. Consistent with HAVoC,<sup>11</sup> home visits (S1) were more effective at recruiting older victims into research than over the telephone. However, PS resource constraints along with the COVID-19 pandemic meant it was necessary to return to telephone screening, which depended on the interaction between the administrator and older victim, and many did not answer the phone.

S1 also had the advantage of streamlining consent into a single point, whereas S2 required older victims to consent

TABLE 1 Police service data for screening methodology 1

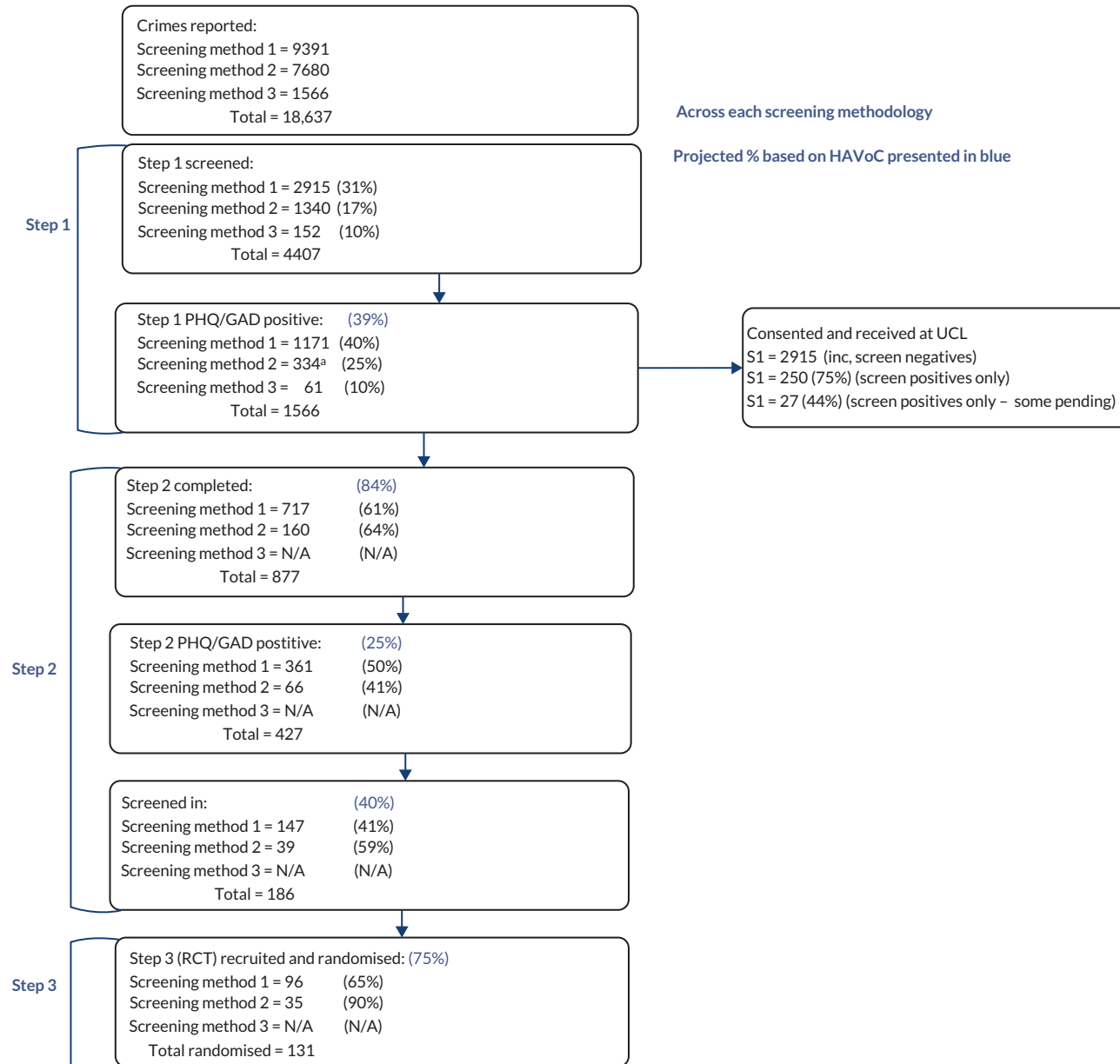
Screening method 1: SNT officers' complete home visits with all older victims and screen positive and negative sent to UCL.													
Borough	Elapsed		Not suitable		Not contactable		Refused		Rejected		Successful		Crimes total
	1311	(14%), %	1432	(15%), %	743	(8%), %	2835	(30%), %	72	(1%), %	3007	(32%), %	
LAA-1	127	11	197	17	122	11	411	36	7	1	290	25	1154
LAA-2	115	14	149	18	66	8	248	30	5	1	240	29	823
LAA-3	76	9	149	18	74	9	119	15	9	1	388	48	815
LAA-4	125	22	94	16	34	6	241	42	8	1	77	13	579
LAA-5	83	9	179	18	47	5	198	20	5	1	464	48	976
LAA-6	141	17	117	14	90	11	169	21	15	2	281	35	813
LAA-7	236	16	207	14	93	6	309	21	6	0	603	41	1454
LAA-8	185	12	206	13	106	7	667	42	8	1	399	25	1571
LAA-9	222	18	133	11	110	9	470	39	9	1	262	22	1206

Elapsed, not seen within 2 months; Not suitable, did not satisfy inclusion criteria (e.g. not a community crime, did not speak English); Refused, participant did not agree to screening; Rejected, consent was not properly completed; Successful, screened positive or negative and sent to UCL; Uncontactable, unable to get hold of older victim.

TABLE 2 Police service data for screening methodology 2

Screening method 2: dedicated PS administrators screen over telephone, and SNTs visit and consent screen-positive older victims only												
Borough	Telephone screening						Screened positive (sent to SNTs)					
	Elapsed		Not suitable		Not contactable		Refused		Crimes total	Successful		Not consented
	2703	35%	968	13%	509	7%	2117	28%	7680	260 (3%)		
LAA-1	278	34%	90	11%	55	7%	219	27%	807	29 (4%)		8
LAA-2	213	35%	78	13%	52	8%	153	25%	617	29 (5%)		5
LAA-3	200	32%	111	18%	42	7%	171	27%	632	22 (4%)		8
LAA-4	142	31%	75	16%	47	10%	120	25%	471	12 (3%)		13
LAA-5	235	33%	94	13%	48	7%	217	30%	723	23 (3%)		7
LAA-6	232	36%	91	14%	37	6%	167	25%	646	26 (4%)		6
LAA-7	265	34%	77	9%	40	5%	227	29%	789	31 (4%)		12
LAA-8	421	33%	146	11%	92	7%	374	29%	1278	43 (3%)		7
LAA-9	366	35%	122	12%	67	6%	297	28%	1043	37 (4%)		19
LAA-10	77	52%	23	15%	10	7%	31	21%	149	3 (2%)		1
LAA-11	154	53%	32	11%	9	3%	80	27%	294	2 (< 1%)		0
LAA-12	123	53%	28	12%	10	4%	62	27%	231	3 (1%)		0

Expired, not screened within 2 months; Not suitable, did not satisfy inclusion criteria (e.g. not a community crime, did not speak English); Refused, participant did not agree to screening; Uncontactable, unable to get hold of older victim.



**FIGURE 3** Numbers screened broken down by screening methodology. a, police were only able to record older victims as screen positive; if they also agreed to SNT visits, so screen-positive rate is artificially lower in S2. N/A, not applicable.

over the telephone to SNT home visits, and again to data-sharing during the visit. S3 required consent for the UCL researcher to speak to them, as well as to the visits and to data-sharing. Each extra consent point and the gap between telephone calls and home visits increased the chances of attrition. This meant that S2 and S3 were a more effective use of police resources, but a less-effective use of NIHR resources. As S3 yielded so few numbers, it was jointly agreed with the funders and our REC to end screening, and analyse just the numbers recruited through S1 and S2. The few older victims consented during S3 were notified of study closure and not recruited into the trial.

Although screening did not achieve the target sample size, it did demonstrate that SNT officers can use the GAD-2 and PHQ-2. As it has been recommended that police officers complete needs assessments for all older victims,<sup>21,46</sup> embedding this within routine practice would be a brief and pragmatic solution. In practice, adherence was inconsistent, and senior leaders were under pressure to manage competing priorities, often driven by coinciding adverse publicity (e.g. knife crime). The different screening rates across LAAs were also partly because some borough leads were more engaged than others. Buy-in at both senior and local levels was therefore essential to screening, and considerable efforts were taken to build relationships.

## Signposting and facilitators and barriers to help-seeking in older victims: a mixed-methods study

The systematic review found that adverse outcomes were consistently reported in older victims of community crime, especially anxiety and depression.<sup>7</sup> However, little is known about their engagement with services. Older adults often do not seek help for psychological symptoms, as they commonly view it as a normal response to ageing and stressors.<sup>47</sup> Signposting victims to healthcare services was found to predict help-seeking in the USA,<sup>48</sup> but whether this works for older victims in the UK remains unclear. Little is also known about the support offered to those who do seek help.

### Aims

1. Determine whether distressed older victims act on police-provided letters signposting to their GP.
2. Determine predictors of help-seeking in older victims.
3. Qualitatively explore barriers and facilitators to help-seeking.

### Methods

#### Study design

Ethics approval was granted by UCL REC (6960/001) and signed informed consent obtained for all participants. Data were collected between June 2017 and August 2019, and the study nested within screening methodology 1 (*Victim Improvement Package trial overview* and *Step 1: screening*).

Police SNT officers gave distressed older victims a letter to give to their GP (see *Report Supplementary Material 9*), advising they had screened positive for anxious/depressive symptoms and should be managed as appropriate (see *Report Supplementary Material 8*). UCL researchers followed up older victims at 3 months post crime for rescreening and asked whether they remembered the letter (yes/no), had acted on it (yes/no) and, if yes, what action the GP took (free response). Sociodemographic data collected at step 1 were used to analyse predictors of help-seeking, and a subsample participated in qualitative interviews.

#### Predictor analysis

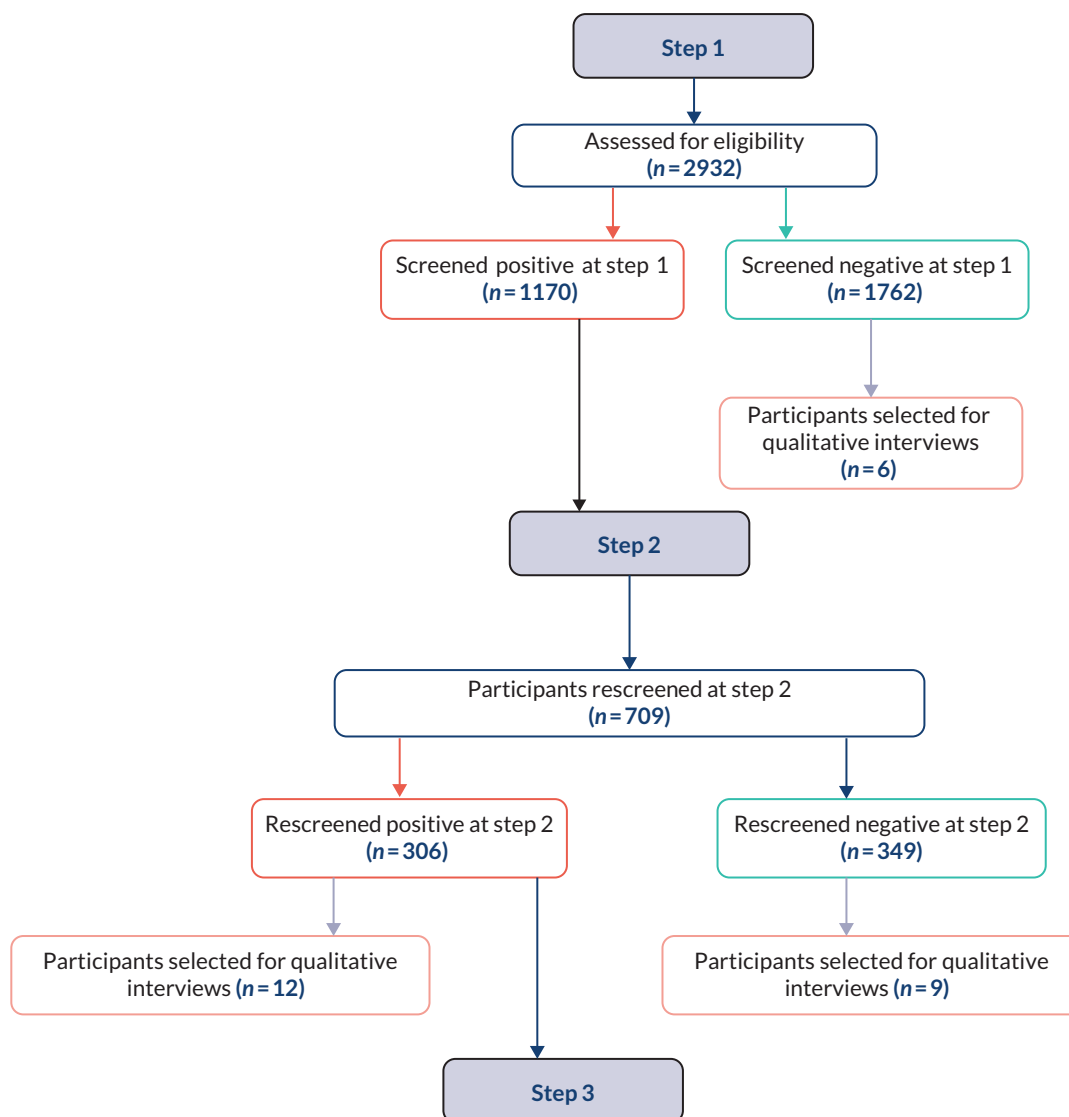
Univariable logistic regression was first used to select potential predictors with a  $p$ -value of  $p < 0.2$  of acting on signposting, using sociodemographic data collected in step 1. Predictors at  $p < 0.2$  were entered into multivariable logistic regression, using backwards elimination, to select final predictors at  $p < 0.05$ . Analysis was conducted using Stata version 17 (StataCorp LP, College Station, TX, USA).

#### Qualitative interviews

Semistructured one-to-one interviews were conducted on barriers and facilitators to help-seeking. Participants were invited during rescreening and, if agreeable, separate visits arranged. Purposive sampling was used to achieve diversity across sociodemographic characteristics, crime type, use of GP letter and distress outcomes. The topic guide enquired about participants' background, crime, whether they sought help, awareness of services and views on signposting. Interviews were recorded using encrypted Dictaphones™ (Nuance Communications, Burlington, MA, USA), transcribed verbatim and then audio files deleted. They were analysed using thematic analysis<sup>49,50</sup> in NVivo 12 (QSR International, Warrington, UK) (NVivo Version 12.0. QSR International Pty Ltd; 2020).

### Results

Of 2932 participants screened at step 1, 1170 (39.9%) were screened positive on the PHQ-2 and/or GAD-2. About 709 (60.6%) were followed up, and 27 participated in qualitative interviews (*Figure 4*).



**FIGURE 4** Flow diagram for VIP trial and qualitative interviews. Reproduced from Serfaty *et al.*<sup>51</sup> This is an Open Access article distributed in accordance with the terms of the Creative Commons Attribution (CC BY 4.0) licence, which permits others to distribute, remix, adapt and build upon this work, for commercial use, provided the original work is properly cited. See: <https://creativecommons.org/licenses/by/4.0/>. The figure includes minor additions and formatting changes to the original text.

### Sample characteristics

Six hundred and sixty-seven (95.5%) were asked about signposting (Figure 5). As shown of those signposted, < 13% (85/677) visited their GP. Even of the 67% (450/677) who remembered the letter, only 19% had acted (85/450). Of those, GPs referred less than a third for help (32%; 27/85). Overall, < 4% (27/709) of initially distressed older victims received any form of GP support; this could include seeing the victim themselves or referring them to other services, such as for therapy or to organisations offering voluntary support.

Descriptive statistics of the sample characteristics ( $n = 677$ ) of those in whom signposting was recorded is also presented. Over half of 51% ( $n = 342$ ) rescreened positive for distress (Table 3).

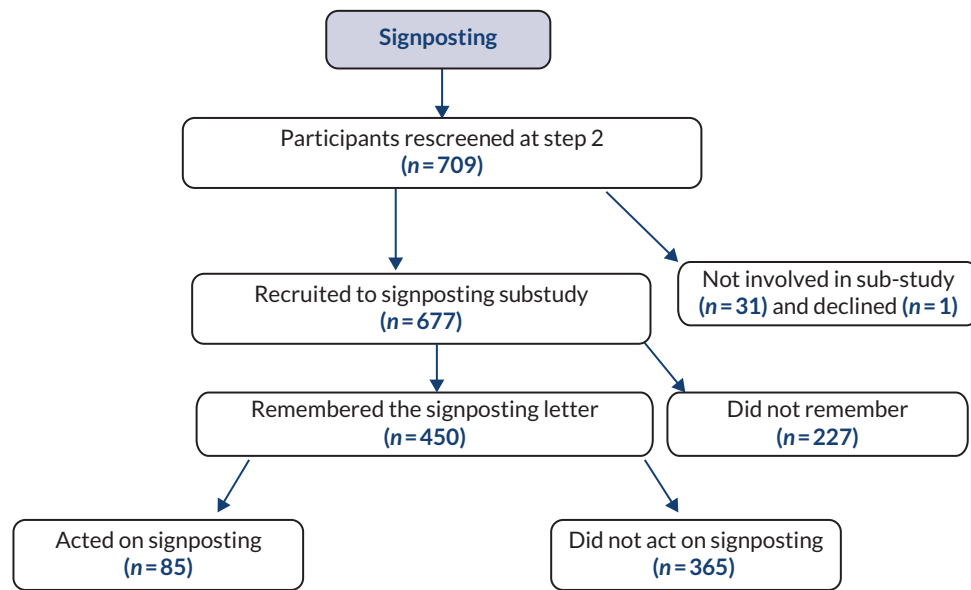
### Predictors of acting on signposting:

The predictors of acting on signposting at  $p < 0.2$  were sex, marital status, police-recorded vulnerability, affected daily life, previous depression/anxiety, sense of safety after crime, severity of depressive/anxious symptoms at steps 1 and 2, and step 2 screening outcome (Table 4).

Backwards elimination suggested only victims identified as vulnerable on the CRIS ( $p = 0.01$ ), and significant anxiety symptoms at step 2 ( $p < 0.01$ ) were associated with acting on signposting at  $p < 0.05$  (Table 5).

### Qualitative data

Qualitative sample characteristics ( $N = 27$ ) are presented below (Table 6). Five discussed with their GP: one was referred to counselling, one given a supporting letter for



**FIGURE 5** Numbers of people who remembered and acted on signposting. Reproduced from Serfaty *et al.*<sup>51</sup> This is an Open Access article distributed in accordance with the terms of the Creative Commons Attribution (CC BY 4.0) licence, which permits others to distribute, remix, adapt and build upon this work, for commercial use, provided the original work is properly cited. See: <https://creativecommons.org/licenses/by/4.0/>. The figure includes minor additions and formatting changes to the original text.

**TABLE 3** Sample characteristics for signposting

<b>N = 677</b>	<b>N</b>	<b>n or mean</b>	<b>% or SD</b>	<b>N = 677</b>	<b>N</b>	<b>n or mean</b>	<b>% or SD</b>
<b>Age</b>	667	74.4	7.3	<b>Acted on signposting letter</b>	645		
<b>Sex</b>	674			Yes	85	13.2	
Male		250	37.1	No	560	86.8	
Female		424	62.9	<b>Perpetrator arrested</b>	668		
<b>Ethnicity</b>	673			Yes	34	5.1	
White		472	70.1	No	634	94.9	
Black		65	9.7	<b>Previous victim</b>	675		
Asian		95	14.1	Yes	118	17.5	
Other		41	6.1	No	557	82.5	
<b>Marital status</b>	660			<b>Affected daily life</b>	674		
Divorced/Separated		100	15.2	Yes	530	78.6	
Married		262	39.7	No	144	21.4	
Widowed		188	28.5	<b>Weekly social contacts</b>	616	7.7	9.3
Single		90	13.6	<b>Previous depression</b>	669		
Other		20	3.0	Yes	288	43.1	
<b>Education</b>	651			No	381	57.0	
Higher degree or equivalent		249	38.3	<b>Sense of safety before crime</b>	670		
Secondary		307	47.2	Very safe/safe	521	77.8	
Primary		95	14.6	Neither safe nor unsafe	73	10.9	
<b>Living arrangement</b>	676			Very unsafe/unsafe	76	11.3	

continued

This synopsis should be referenced as follows:

Serfaty M, Satchell J, Kessel A, Brewin C, Buszewicz M, Billings J, *et al.* The Clinical and Cost-Effectiveness of a Victim Improvement Package (VIP) for the Reduction of Chronic Symptoms of Depression or Anxiety in Older Victims of Community-Crime: the VIP RCT Synopsis. *Public Health Res* 2026;14(8). <https://doi.org/10.3310/KGMR6521>

TABLE 3 Sample characteristics for signposting (continued)

N = 677	N	n or mean	% or SD	N = 677	N	n or mean	% or SD
Rented		233	34.4	<b>Sense of safety after crime</b>	670		
Owner/occupier		419	62.0	Very safe/safe		124	18.5
Other		24	3.6	Neither safe nor unsafe		147	21.9
<b>Crime type</b>	677			Very unsafe/unsafe		399	59.6
Assault		44	6.5	<b>Severity of anxiety symptoms step 1 (GAD-2)</b>	677		
Burglary		169	25.0	< 2		13	1.9
Criminal damage		49	7.2	≥ 2		664	98.1
Distraction burglary		32	4.7	<b>Severity of anxiety symptoms step 2 (GAD-2)</b>	677		
Fraud		36	5.3	< 2		348	51.4
Theft		213	31.5	≥ 2		329	48.6
Theft with threat		122	18.0	<b>Severity of depression symptoms step 1 (PHQ-2)</b>	676		
Other		12	1.8	< 3		363	53.7
<b>Vulnerability</b>	676			≥ 3		313	46.3
No recorded vulnerable		586	86.7	<b>Severity of depression symptoms step 2 (PHQ-2)</b>	677		
Recorded vulnerable		90	13.3	< 3		477	70.5
<b>Remembering signposting letter</b>	677			≥ 3		200	29.5
Yes		450	66.5	<b>Screening outcome at step 2</b>	677		
No		227	33.5	Positive		342	50.5
				Negative		335	49.5

SD, standard deviation.

**Source**

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TABLE 4 Predictors of acting on signposting

Acted on signposting letter (yes/no)	Number of observations	Odds ratio	95% CI	p-value	Acted on signposting letter (yes/no)	Number of observations	Odds ratio	95% CI	p-value
Age	635	1.02	(0.99 to 1.05)	0.24	<b>Vulnerability</b>	644			
Sex					No recorded vulnerability		1.00		< 0.01
Male	642	1.00		0.05	Recorded vulnerability		2.26	(1.29 to 3.97)	
Female		1.68	(1.01 to 2.80)		<b>Perpetrator arrested</b>	637			
<b>Ethnicity</b>	642			0.65	No		1.00		0.56
White		1.00			Yes		0.69	(0.21 to 2.34)	
Black		0.72	(0.30 to 1.75)		<b>Previous victim</b>	643			

TABLE 4 Predictors of acting on signposting (continued)

Acted on signposting letter (yes/no)	Number of observations	Odds ratio	95% CI	p-value	Acted on signposting letter (yes/no)	Number of observations	Odds ratio	95% CI	p-value
Asian		1.33	(0.72 to 2.47)		No		1.00		0.85
Other ethnic group		1.19	(0.48 to 2.96)		Yes		1.06	(0.58 to 1.94)	
<b>Marital status</b>	629			0.06	<b>Affected daily life</b>	642			
Divorced		1.00			No		1.00		0.01
Married		0.56	(0.27 to 1.15)		Yes		2.55	(1.24 to 5.22)	
Widow		1.18	(0.59 to 2.35)		<b>Weekly social contacts</b>	587	1.00	(0.97 to 1.03)	0.98
Single		1.34	(0.61 to 2.94)		<b>Previous depression</b>	637			
Other		0.37	(0.04 to 2.98)		No		1.00		0.02
<b>Education</b>	620			0.90	Yes		1.77	(1.12 to 2.80)	
Higher degree or equivalent		1.00			<b>Sense of safety before crime</b>	639			0.68
Secondary		0.95	(0.47 to 1.94)		Very safe		1.00		
Primary		0.89	(0.54 to 1.48)		Safe		0.78	(0.46 to 1.32)	
<b>Living arrangement</b>	645			0.24	Neither safe nor unsafe		0.54	(0.21 to 1.36)	
Council rented		1.00			Unsafe		0.94	(0.42 to 2.14)	
Housing association rented		2.31	(0.90 to 5.89)		Very unsafe		1.21	(0.25 to 5.91)	
Private rented		1.33	(0.39 to 4.51)		<b>Sense of safety after crime</b>	639			0.03
Owner/occupier		1.82	(0.90 to 3.69)		Very safe		1.00		
Other		3.32	(1.01 to 10.91)		Safe		0.64	(0.18 to 2.20)	
<b>Crime type</b>	645			0.26	Neither safe nor unsafe		0.54	(0.16 to 1.82)	
Assault		1.00			Unsafe		0.52	(0.17 to 1.65)	
Burglary		0.76	(0.30 to 1.92)		Very unsafe		1.29	(0.40 to 4.17)	
Criminal damage		0.59	(0.17 to 2.04)		<b>Severity of depressive symptoms at step 1 (PHQ-2 score)</b>	644	1.18	(1.06 to 1.32)	< 0.01
Distraction burglary		1.69	(0.54 to 5.30)		<b>Severity of anxiety symptoms at step 1 (GAD-2 score)</b>	645	1.30	(1.13 to 1.51)	< 0.01
Fraud		0.63	(0.17 to 2.35)		<b>Severity of depressive symptoms at step 2 (PHQ-2 score)</b>	645	1.16	(1.04 to 1.29)	< 0.01

continued

TABLE 4 Predictors of acting on signposting (continued)

Acted on signposting letter (yes/no)	Number of observations	Odds ratio	95% CI	p-value	Acted on signposting letter (yes/no)	Number of observations	Odds ratio	95% CI	p-value
Theft		0.48	(0.19 to 1.24)		Severity of anxiety symptoms at step 2 (GAD-2 score)	645	1.15	(1.04 to 1.27)	< 0.01
Theft with threat		0.94	(0.36 to 2.44)		Screening outcome at step 2	645			< 0.01
Other		0.97	(0.17 to 5.44)		Negative		1.00		
					Positive		1.90	(1.18 to 3.04)	

**Source**

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TABLE 5 Multivariable logistic regression results (n = 644) on whether acting on signposting

Outcome = acted on signposting letter (yes/no)	Odds ratio	95% CI	p-value
<b>Vulnerability</b>			
No recorded vulnerability	1.00		0.01
Recorded vulnerability	2.06	(1.16 to 3.64)	
Severity of anxiety symptoms at step 1 (GAD-2 score)	1.29	(1.11 to 1.49)	< 0.01

**Source**

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TABLE 6 Characteristics of older victims in the qualitative interviews

P. no.	Crime type	Sought help from GP	Gender	Age	Ethnicity	Previous anxiety/depressive	Living alone	Positive GAD/PHQ step 1	Positive GAD/PHQ step 2
1	Burglary	No	F	70	White British	Yes	No	No	No
2	Harassment	No	M	71	White British	No	No	Yes	Yes
3	Attempted burglary	No	M	74	White British	No	No	Yes	No
4	Burglary	No	M	70	White British	No	No	No	No
5	Theft from motor vehicle	Yes	M	71	Asian Indian	Yes	Yes	Yes	Yes
6	Distraction burglary	No	F	82	White British	Yes	No	Yes	Yes
7	Distraction burglary	Yes	F	76	White British	Yes	Yes	Yes	Yes
8	Theft from person	Yes	F	65	White British	Yes	No	Yes	Yes
9	Theft from motor vehicle	No	M	71	White British	No	No	Yes	No
10	Theft from person	No	F	78	Black African	No	Yes	Yes	No
11	Criminal damage to property – under £500	No	F	67	White British	Yes	No	Yes	No
12	Theft from motor vehicle	Yes	F	68	Black African	No	Yes	No	No

TABLE 6 Characteristics of older victims in the qualitative interviews (continued)

P. no.	Crime type	Sought help from GP	Gender	Age	Ethnicity	Previous anxiety/depressive	Living alone	Positive GAD/PHQ step 1	Positive GAD/PHQ step 2
13	Harassment	Yes	M	65	Asian Indian	Yes	Yes	Yes	Yes
14	Fraud	No	F	83	White British	No	Yes	Yes	No
15	Fraud	No	M	87	White British	No	Yes	Yes	No
16	Theft from motor vehicle	No	M	76	White – other	No	No	Yes	No
17	Common assault – racially/religious aggravated assault	No	M	66	White British	No	Yes	Yes	No
18	Actual bodily harm (ABH)	No	F	70	White – other	No	No	Yes	Yes
19	Robbery of personal property with intimidation with knife	No	M	72	Other ethnic group	No	No	No	No
20	Theft	No	F	83	White British	No	Yes	No	No
21	Theft in a dwelling with intimidation	No	F	73	White British	Yes	Yes	YES	Yes
22	Burglary	Yes	F	94	White British			No	No
23	ABH	Yes	F	65	Black – Caribbean	Yes	Yes	Yes	Yes
24	Common assault – racially/religious aggravated assault	No	M	68	Mixed – other	No	No	Yes	No
25	Burglary	No	F	71	Asian Indian	No	Yes	Yes	Yes
26	Fraud	No	F	91	White British	Yes	No	Yes	Yes
27	Theft from motor vehicle	No	F	66	White British		Yes	Yes	Yes

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their housing association and three received no action but found talking helpful. Two took their letter to their GP raising concern about their level of distress but did not hear anything more from their GP. Of those who did not act, 14 remembered the letter, suggesting awareness was not enough. All considered the letter a good idea when asked, but not for themselves, even if distressed.

**Barriers and facilitators to help-seeking**

Three themes were developed: perception of (1) themselves, (2) the crime and (3) services (accessibility and acceptability) (Table 7).

**Perception of themselves**

Some did not seek help because they felt responsible for being a victim of the crime. An older victim with Parkinson's disease could not remember whether he had locked the car, and older victims of fraud and distraction burglary felt ashamed. Others did not seek help because they felt they should 'get on with it' or it was a sign of weakness.

**Perception of the crime**

Participants commonly thought some crimes warranted more support than others. There was no consensus on which; instead, participants compared their experiences with crimes they felt were worse. Some felt at peace, but others appeared to downplay its impact. Participants thought GPs may share this view, stating they did not go because they had been 'just emotionally affected' rather than injured.

**Perception of services**

All of the participants thought it was a good idea for other people to act on services; however, they often did not think it was needed for themselves.

**Accessibility**

Some thought doctors would consider it outside their remit, less important than physical health, getting an appointment was challenging or GPs were under too much

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TABLE 7 Thematic map of barriers and facilitators to seeking help

Theme	Example	Type	
Perception of themselves	I am to blame for what happened	Barrier	
	I am too ashamed to tell people what happened	Barrier	
	You have to cope on your own	Barrier	
	I am too independent	Barrier	
Perception of the crime	Other crimes are more deserving of help than the crime I suffered	Barrier	
	Other victims have it worse than I do	Barrier	
	This should not be affecting me	Barrier	
	Services will not think the crime is severe enough	Barrier	
Perception of services	Perception of service accessibility	Doctors are not trained for emotional problems	Barrier
		Doctors will not see what happened as a priority	Barrier
	Perception of service acceptability	I see my physical health as the priority	Barrier
		Waiting lists are too long	Barrier
		I do not know my GP well	Barrier
		GPs are too busy to be sympathetic	Barrier
		I am seeing my GP anyway	Facilitator
		The crime is impacting on my physical health	Facilitator
		I have a good relationship with my GP	Facilitator
		GPs only prescribe medication	Barrier
		Support through social networks/faith communities is preferable	Barrier
		GPs are people who do not have friends and family	Barrier
		I have a good relationship with my GP	Facilitator
		It is nice to have someone to talk to	Facilitator
I am spooked by the idea of therapy	Barrier		
Talking with others who have had the same experience	Facilitator		
Bring the support to older people	Facilitator		

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pressure. Some felt their relationship with their GP was less close than it used to be, although there was a positive example of a GP writing supporting letters.

**Acceptability**

Others were concerned about how GPs may respond. Medication was considered undesirable. Many saw benefit in discussing their experience but preferred social or spiritual support.

**Discussion**

Most distressed older victims did not act on their letters, supporting studies in older adults and crime victims of all ages.<sup>47,48,52</sup> Where they do, few receive treatment, despite the letters advising they had significant depressive/anxious symptoms, consistent with the Filter Model.<sup>23</sup> Signposting older victims is, therefore, not sufficient to ensure treatment.

Of the few who acted on the guidance to go and see their GP, predictor analysis suggested those with

police-recorded vulnerability or severe anxiety were more likely to do so. They may already be engaged with services, or anxiety may have motivated them, whereas depression may be associated with low motivation. Training to improve identification of vulnerability to ensure active follow-up is recommended.

The qualitative finding that participants thought letters may help others but not themselves may be socially desirable responding<sup>53</sup> or because people are often better at recognising the needs of others over themselves.<sup>54</sup> Some barriers were consistent with older adult studies, including feeling they should 'just get on with it',<sup>55</sup> wanting to maintain independence,<sup>48</sup> prioritising physical health, and concerns around GP resources.<sup>56-58</sup> Other were specific to older victims, including feeling responsible for the crime or that it was not serious enough to justify help. As only a third of GPs treated presenting older victims, doctors may consciously or unconsciously share this view. While a positive relationship with their GP encouraged help-seeking, this was uncommon, as individuals rarely see the same doctor.<sup>59</sup>

Many older victims thought talking would be helpful, supporting psychotherapies. Informal help-seeking from social networks or faith communities<sup>60</sup> was considered preferable to GPs. A stepped-care model of help integrated within the police<sup>61</sup> may be considered.

### Strengths and limitations

Collaborating with the police helped identify and signpost older victims, but as 60% of crimes go unreported,<sup>13</sup> our sample may not be representative. Contacting the police is a form of help-seeking in itself,<sup>52</sup> and reasons for doing so vary. Nevertheless, given timely identification of older victims is challenging, this is an important first step.<sup>7</sup> It is unknown whether the 42% not followed up acted on signposting. Older victims of sexual assault were excluded but may respond differently.

### Conclusions

Signposting older victims is not effective. Active follow-up is recommended.

## A randomised controlled trial of the clinical effectiveness of a Victim Improvement Package for the reduction of chronic symptoms of depression or anxiety in older victims of community crime

### Aim

Randomised controlled trial comparing the VIP + TAU with TAU only for the reduction of continued

symptoms of depression and/or anxiety in older victims of community crime.

### Methods

#### Registration

The VIP trial was registered on ISRCTN on 3 August 2016 (16929670) and the protocol published in *Trials* on 16 April 2020.<sup>10</sup>

#### Design

Single-blind, parallel-group RCT stratified by primary diagnosis of depression with or without anxiety. Trial arm allocation was 1 : 1.

#### Ethics and consent

The VIP trial was registered with the UCL Data Protection Office on 26 February 2026 and approved by UCL REC on 17 March 2016 (6960/001). Procedures complied with the ethical standards of the Declaration of Helsinki.<sup>62</sup> We obtained informed and written consent (see [Report Supplementary Material 10](#)).

#### Interventions

##### The Victim Improvement Package

The VIP therapy manual<sup>63</sup> (see [Report Supplementary Material 6](#)) applies CBT principles to thinking and behavioural patterns relevant to older victims. The efficacy of CBT in older adults is well established,<sup>64</sup> but only preliminary evidence exists in older victims of crime.<sup>7,11</sup>

Up to 10 manualised individual sessions were delivered over 3 months by mental health charity therapists:

Session 1: crime narrative, underlying beliefs, behaviours.  
 Session 2: psychoeducation about crime and CBT.  
 Sessions 3–8: mood diaries, guided discovery, behavioural experiments.  
 Sessions 9–10: relapse prevention.

Therapy was initially delivered at victims' local mental health charity centres but during COVID-19 was remote or in-person depending on participant choice and lockdown restrictions.

##### Treatment as usual

Treatment as usual was routine care. While this could include referral/self-referral to private or Improving Access to Psychological Therapies (IAPT), our help-seeking study found that few older victims receive care.

#### Population

Older victims of community crime with continued symptoms of anxiety and/or depression. The World Health Organization

definition of community violence as perpetrated by strangers or acquaintances<sup>4</sup> was extended to all crimes (e.g. assault, burglary, fraud). Crimes committed within relationships where trust is expected<sup>65</sup> (e.g. domestic violence, carer abuse) were excluded. Sexual violence was excluded, as the HAVoC study found that specialist intervention may be needed,<sup>11</sup> but the extent this affects older adults remains under-researched.<sup>6</sup> As the VIP identified older victims through the PS, only police-reported crimes were included.

### Selection criteria

**Inclusion:** victims of police-reported community crime (e.g. burglary, theft, common assault) (see Serfaty *et al.*<sup>10</sup>), aged 65 years or more, who screened positive on the GAD-2 and/or PHQ-2 at steps 1 and 2 of the VIP trial (described in [Victim Improvement Package trial overview](#)). A positive screen was defined as score of 3 or more on the PHQ-2 and/or 2 or more on the GAD-2 and attributed by the victim to the crime.

**Exclusion:** victims of sexual violence, domestic violence or carer abuse; self-reported diagnosis of schizophrenia or bipolar disorder (yes/no); a Mini-International Neuropsychiatric Interview (MINI) diagnosis of alcohol dependency; receipt of CBT in the previous 6 months (yes/no); significant cognitive impairment as indicated by a six-item Cognitive Impairment Test score of 10 or more or insufficient command of English to receive CBT.

### Setting

Recruitment was conducted from May 2017 to September 2022. The first participant was randomised on 20 November 2017, and the final participant, final follow-up completed on 16 February 2023.

Recruitment was initially across LAAs (LAA-1 through to LAA-9,), with three additional LAAs (LAA-10, LAA-11, LAA-12) added in January 2022. These were selected because they had high rates of older adults and crime, and mental health charity operated in these areas.

### Protocol amendments

The protocol<sup>10</sup> was amended in response to the COVID-19 pandemic to include the option of obtaining consent, collecting data and delivering therapy remotely. Different screening approaches (see [Victim Improvement Package trial overview](#) and [Health economics](#)) and the inclusion of additional LAAs were implemented with the aim of increasing recruitment into the trial.

### Randomisation

Randomisation was completed using the web-based randomisation system Sealed Envelope ([www.sealedenvelope.com](http://www.sealedenvelope.com)) to either TAU or VIP plus TAU. The statisticians and researchers involved in data collection, including the trial manager, were blinded to group allocation. A trial administrator and the chief investigator were not blinded. It was not possible to blind participants or therapists given the intervention was a talking therapy.

statisticians and researchers involved in data collection, including the trial manager, were blinded to group allocation. A trial administrator and the chief investigator were not blinded. It was not possible to blind participants or therapists given the intervention was a talking therapy.

### Therapists

The aim was to use therapists accredited by the British Association of Behavioural and Cognitive Psychotherapists with at least 2 years' experience of delivering CBT. A 1-day training session on the VIP manual was delivered to 49 therapists across 10 training sessions. They were also offered a 6-monthly booster session and supervision over Zoom (Zoom Video Communications, San Jose, CA, USA) twice a month.

### Fidelity of therapy measures

Therapists were asked to complete the therapy component checklist (TCC)<sup>66</sup> and record every therapy sessions so that a random sample of at least 1 in 10 sessions could be rated using the Cognitive Therapy Scale-Revised (CTS-R).<sup>67</sup> Therapists were given encrypted Dictaphones to record sessions and asked to upload these to Data Safe Haven.

### Measures

#### Demographic characteristics

Sociodemographic data was collected by the PS during step 1 of the VIP trial (see [Victim Improvement Package trial overview](#)).

#### Primary outcome

The Beck Depression Inventory, version 2 (BDI-II)<sup>68</sup> and BAI<sup>69</sup> were standardised and summed to create a single score for each participant.

#### Secondary outcome

Mini-International Neuropsychiatric Interview depression and/or anxiety caseness, panic disorder, PTSD and alcohol dependency (yes/no),<sup>70</sup> EuroQol-5 Dimensions.<sup>71</sup>

### Bias measures

- *Attrition and therapy engagement:* residence change, illness, distance from therapy, non-attendance rates and reasons.
- *Rater 'blindness'.*
- *Changes in prescribed psychotropic medication.*
- *Other psychological treatments received.*
- *Fidelity to treatment.*
- *Satisfaction with treatment (5-point rating scale: 'not at all' to 'very much').*
- *Serious adverse events (SAEs) (high suicidal risk).*

## Measure timing

Table 8 summarises the time points measures were completed.

## Risk management

Self-neglect and self-harm were classified as SAEs. As the population was 65 and over, instances of physical illness were expected and not recorded as SAE.

Suicide risk at baseline and follow-up was assessed using Module C of the MINI (range: low, medium or high) and question nine of the BDI-II (a score of 3 'I would kill myself if I had the chance' indicating high risk). Participants scoring highly were recorded on risk logs, and the chief investigator used clinical judgement to determine suitability for the trial and appropriate management. High suicide risk at follow-up was recorded as a SAE, and the chief investigator, Clinical Trials Unit, and Data Monitoring and Ethics Committee were notified.

Safer Neighbourhood Team officers were instructed to manage older victims at high risk of self-harm or neglect according to PS routine practice (e.g. Merlin reports) and to prioritise safety over data collection. Mental health charity therapists are trained in supporting people with suicidal thoughts, so they were also advised to adhere to routine practice but were guided through supervision from the chief investigator. If participants became distressed by

therapy ending, their GP was contacted to recommend continued support.

Staff adhered to the UCL lone working policy and used Guardian24 (<https://peoplesafe.co.uk/about/guardian24/>) devices, which could implement emergency support through Global Positioning System technology and a 24-hour control centre, if needed.

## COVID-19

The trial was already paused when COVID-19 unfolded, so it was adapted so that consent could be collected and therapy delivered over Zoom or Microsoft Teams (Microsoft Corporation, Redmond, WA, USA). Screening resumed in May 2021 with the vaccination roll-out. After lockdown restrictions lifted, participants were offered remote or in-person therapy, with taxis available for those who preferred in-person.

## Statistics

### Power calculation

It is feasible to detect a ('true') average difference of at least 0.5 on the standardised joint scale, with 90% power, and a 5% significance level using a sample size of 168, with participants randomised 1 : 1 (VIP + TAU:TAU). Applying overall 'cluster-adjustment' for therapist effects, assuming a cluster size of 8 intraclass correlation coefficient (ICC) of = 0.02 and 15% allowance for dropout, increased the target sample size to  $N = 226$ .

TABLE 8 Summary and timings of the main measures

Summary of main measures	Baseline	Post intervention (3 months)	Follow-up (6 months)
BDI-II	✓	✓	✓
BAI	✓	✓	✓
MINI (caseness)	✓	✓	
EuroQol-5 Dimensions, five-level version	✓	✓	✓
Client Services Receipt Inventory	✓	✓	✓
Prescribed psychotropic medication	✓	✓	✓
Satisfaction with VIP (VIP group only)		✓	
Therapy expectations	✓		
Rheumatoid arthritis blindness assessment		✓	✓
Attrition		✓	✓
Fidelity: adherence and CTS-R		✓	

### Source

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### Analysis

Data extracted from Sealed Envelope were analysed using Stata version 18.0. Intention-to-treat (ITT) analysis was conducted with the use of multilevel mixed-effects models, accounting for therapist clustering in the intervention arm, and treating participants allocated to TAU as their own cluster. The treatment effect estimate was adjusted for corresponding baseline BDI-II or BAI values and sites as fixed effects. Adjusted degrees of freedom (Kenward–Roger) and the restricted maximum likelihood procedure (REML) for estimation were used.<sup>72</sup> Binary outcome measures (e.g. MINI caseness) were analysed using mixed logistic regression models, also accounting for clustering, and included baseline values and site as fixed effects.

### Missing data

Missing items were imputed using mean imputation if there are < 20% of missing data in the outcome measure. Missing primary outcomes were imputed using predictive mean matching ( $k = 20$ ), which corresponds to the proportion of missing data (20%).

### Sensitivity analyses

Worst-case and best-case-scenario sensitivity analyses were conducted under different missing data assumptions. The primary outcome model was refitted, adjusting for baseline predictors of missing data identified by logistic regression models. Analyses using worst-case and best-case-scenario analyses, and multiple imputation (using predictive mean matching with  $k = 20$ ) were also performed.

### Patient and public involvement

Patient and public involvement (PPI) integrates the perspectives of target populations into research design, delivery and dissemination.<sup>73</sup> Two older adults who had previously been crime victims and received CBT contributed to the Trial Management Group meetings and over e-mail, including:

- Advising on acceptability and comprehensibility of study materials, ethical considerations, and making remote therapy accessible during COVID-19.
- Approving proposed adaptations to screening methodologies.
- Providing supporting statements for funding applications.
- Offering interpretations of the VIP results.
- Reviewing the Plain language summary for clarity.
- The VIP trial had also had a website and X [X Corp. (formerly Twitter) Bastrop, Texas, USA] account.

### Results

There were  $N = 131$  participants randomised (65 = VIP; 66 = TAU) (Consolidated Standards of Reporting Trials in [Figure 6](#)).

Sociodemographic characteristics ([Table 9](#)) were balanced, except previous anxiety or depressive symptoms which were more common in TAU.

[Table 10](#) summarises the main outcome scores for depression (BDI-II) and anxiety (BAI) separately and as composite scores across time points. Data were available in 67% and 61% at post intervention (3 months) and follow-up (6 months), respectively. Also, presented as odds ratios by MINI caseness.

Analysis of composite scores did not show treatment effects for the VIP intervention at 3 months post intervention [ $n = 88$ , treatment effect  $-0.039$  standard error (SE)  $0.175$  (95% CI  $-0.386$  to  $0.308$ );  $p = 0.821$ ] or at 6 months' follow-up [ $n = 80$ , treatment effect  $0.189$  (SE  $0.312$ ) (95% CI  $-0.184$  to  $0.561$ )].

Secondary analysis did not reveal any significant effects when stratified for anxiety or depressive  $\pm$  anxiety symptoms. There were no significant effects of the VIP on the MINI diagnoses.

### Sensitivity analyses

Refitted primary models that adjusted for participants' living arrangements, GAD scores and PHQ-2 scores (predictors of missing values for the primary outcome), used imputed missing values and worst- and best-case scenarios, gave similar findings to those of the primary model ([Table 11](#)).

### Bias

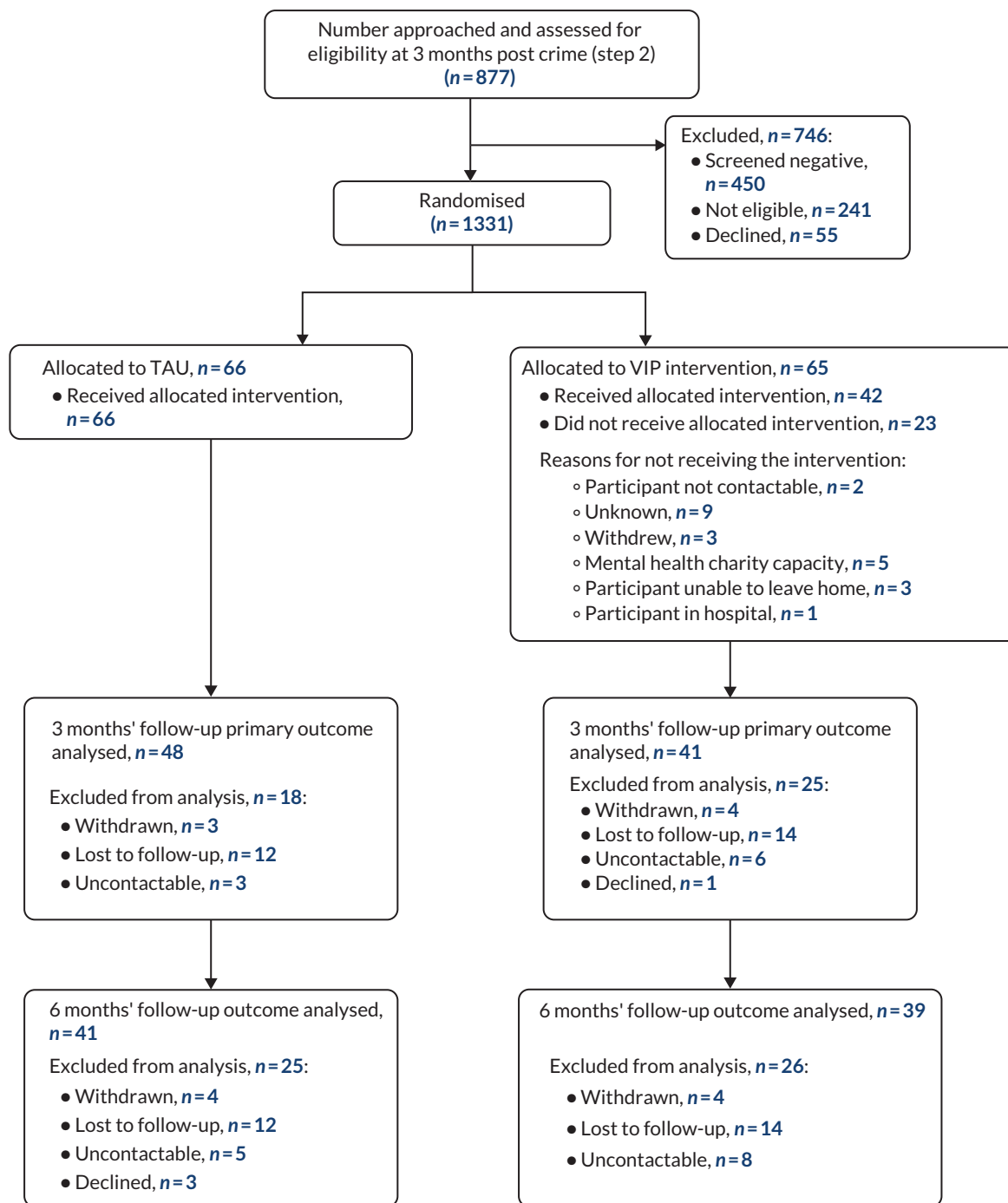
Randomisation appeared balanced across sites except LAA-4 and LAA-6, which had 100% ( $n = 7$ ) and 20% ( $n = 1$ ) randomised to TAU.

### Measure of systematic biases

Measures of systematic biases suggest similar expectations for improvement, receipt of CBT, treatment preference were similar in both the VIP + TAU and TAU group, although participants in both arms stated they would have preferred to have received the VIP ([Table 12](#)). Researcher blindness was hard to achieve. Expected improvement from treatment was slightly higher for the VIP in both arms ([Table 12](#)).

### Therapy and quality adherence

Of 65 participants allocated to VIP, 42 received therapy and 23 did not (reasons summarised in [Figure 3](#)). Half



**FIGURE 6** Victim Improvement Package Consolidated Standards of Reporting Trials diagram. Reproduced from Serfaty *et al.*<sup>43</sup> This is an Open Access article distributed in accordance with the terms of the Creative Commons Attribution (CC BY 4.0) licence, which permits others to distribute, remix, adapt and build upon this work, for commercial use, provided the original work is properly cited. See: <https://creativecommons.org/licenses/by/4.0/>. The figure includes minor additions and formatting changes to the original text.

the session recordings were available ( $n = 110$ ), with at least one session in 21/42 participants. On average, 7.5 [standard deviation (SD) 3.6] sessions were delivered during COVID-19. Session delivery was not recorded pre pandemic, so complier-average causal effect analysis was not possible. For those allocated to VIP, satisfaction with treatment was high, 3.9/5 (SD = 1.5) ( $N = 43$ ).

Quality of CBT: 16 sessions were independently rated. The mean CTS-R score was 15.8 (SD 16.3). Two ratings achieved competence,<sup>74</sup> with CTS-R scores of 38 and 59, which is above the score of 36 required for competence in CBT.

Adherence to the manual: therapists uploaded a total of 109 TCCs.<sup>66</sup> The main interventions reported were: setting

**TABLE 9** Demographic and other patient characteristics of randomised participants (N = 131)

Variable	VIP (N = 65)	TAU (N = 66)	Total (N = 131)
	Mean (SD) or n (%)	Mean (SD) or n (%)	Mean (SD) or n (%)
Age (years)	72.1 (5.9)	72.1 (11.2)	72.1 (8.9)
<b>Gender</b>			
Female	46 (70.8%)	42 (63.6%)	88 (67.2%)
Male	19 (29.2%)	24 (36.6%)	43 (32.8%)
Total	65 (100%)	66 (100%)	131 (100%)
<b>Ethnicity</b>			
White	45 (69.2%)	45 (68.2%)	90 (68.7%)
Black	5 (7.7%)	4 (6.1%)	9 (6.9%)
Asian	8 (12.3%)	10 (15.2%)	18 (13.7%)
Other	7 (10.8%)	7 (10.6%)	14 (10.7%)
Total	65 (100%)	66 (100%)	131 (100%)
<b>Victim vulnerability</b>			
Recorded vulnerability	7 (10.8%)	13 (19.7%)	20 (15.3%)
No recorded vulnerability	58 (89.2%)	53 (80.3%)	111 (84.7%)
Total	65 (100%)	66 (100%)	131 (100%)
<b>Marital status</b>			
Single	12 (18.5%)	11 (16.7%)	23 (17.6%)
Married/cohabitating	29 (44.6%)	23 (34.8%)	52 (39.7%)
Widow/widower	10 (15.4%)	19 (23.8%)	29 (22.1%)
Divorced/separated	13 (20.0%)	11 (16.7%)	24 (18.3%)
Other	1 (1.5%)	2 (3.0%)	3 (2.3%)
Total	65 (100%)	66 (100%)	131 (100%)
<b>Education</b>			
Primary	3 (4.9%)	3 (5.0%)	6 (5.0%)
Secondary	34 (55.7%)	27 (45.0%)	61 (50.4%)
Higher	24 (39.3%)	30 (50.0%)	54 (44.6%)
Total	61 (100%)	60 (100%)	121 (100%)
<b>Living arrangement</b>			
Rented	27 (41.5%)	29 (46.0%)	56 (42.7%)
Owner/occupier	36 (55.4%)	35 (53.0%)	71 (54.2%)
Other	2 (3.1%)	2 (3.0%)	4 (3.1%)
Total	65 (100%)	66 (100%)	131 (100%)
<b>Crime group</b>			
Assault	5 (7.8%)	6 (9.1%)	11 (8.5%)
Burglary	18 (28.1%)	23 (34.9%)	41 (31.5%)
Criminal damage	8 (12.5%)	13 (19.7%)	21 (16.2%)
Fraud	2 (3.1%)	1 (1.5%)	3 (2.3%)

**TABLE 9** Demographic and other patient characteristics of randomised participants (N = 131) (continued)

Variable	VIP (N = 65)	TAU (N = 66)	Total (N = 131)
	Mean (SD) or n (%)	Mean (SD) or n (%)	Mean (SD) or n (%)
Harassment	4 (6.3%)	3 (4.6%)	7 (5.4%)
Robbery	2 (3.1%)	3 (4.6%)	5 (3.9%)
Theft	25 (39.1%)	17 (25.8%)	42 (32.3%)
Total	64 (100%)	66 (100%)	130 (100%)
<b>Anyone arrested?</b>			
Yes	7 (10.8%)	3 (4.6%)	10 (7.7%)
No	58 (89.2%)	62 (95.4%)	120 (92.3%)
Total	65 (100%)	65 (100%)	130 (100%)
<b>Affected daily life</b>			
Yes	56 (87.5%)	62 (95.4%)	118 (91.5%)
No	8 (12.5%)	3 (4.6%)	11 (8.5%)
Total	64 (100%)	65 (100%)	129 (100%)
<b>Previously suffered from depression or anxiety?</b>			
Yes	29 (46.8%)	40 (61.5%)	69 (54.3%)
No	33 (53.2%)	25 (38.5%)	58 (45.7%)
Total	62 (100%)	65 (100%)	127 (100%)
Social contact	3.6 (3.5) (n' = 46)	6.6 (13.9) (n' = 60)	5.2 (10.4) (n' = 116)
<b>Sense of safety before crime</b>			
Very safe	13 (20.0%)	19 (28.8%)	32 (24.4%)
Safe	38 (58.5%)	28 (42.4%)	66 (50.4%)
Neither safe nor unsafe	7 (10.8%)	8 (12.1%)	15 (11.5%)
Unsafe	6 (9.2%)	10 (15.2%)	16 (12.2%)
Very unsafe	1 (1.5%)	1 (1.5%)	2 (1.5%)
Total	65 (100%)	66 (100%)	131 (100%)
<b>Sense of safety after crime</b>			
Very safe	0 (0.0)	0 (0.0%)	0 (0.0%)
Safe	9 (13.9%)	4 (6.1%)	13 (9.9%)
Neither safe nor unsafe	7 (10.8%)	11 (16.7%)	18 (13.7%)
Unsafe	31 (47.7%)	33 (50.0%)	64 (48.9%)
Very unsafe	18 (27.7%)	18 (27.3%)	36 (27.5%)
Total	65 (100%)	66 (100%)	131 (100%)
Severity of anxiety symptom (GAD-2)	6.4 (1.7)	6.6 (1.6)	6.5 (1.6)
Severity of depression symptoms (PHQ-2)	5.4 (1.9)	5.7 (1.9)	5.5 (1.9)

**Note**

n' is the number of observations included in the summary for continuous variables (if different from N).

**Source**

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This synopsis should be referenced as follows:

Serfaty M, Satchell J, Kessel A, Brewin C, Buszewicz M, Billings J, *et al.* The Clinical and Cost-Effectiveness of a Victim Improvement Package (VIP) for the Reduction of Chronic Symptoms of Depression or Anxiety in Older Victims of Community-Crime: the VIP RCT Synopsis. *Public Health Res* 2026;14(8). <https://doi.org/10.3310/KGMR6521>

TABLE 10 Primary and secondary outcomes by randomised groups and overall

Variable	Time	VIP (N = 65)	TAU (N = 66)	Difference or odds ratio adjusting for baseline (6 months) (95% CI)
		Mean (SD) or n/n' (%)	Mean (SD) or n/n' (%)	
BDI-II	Baseline (3 months)	19.8 (11.4)	23.0 (12.0)	
	6 months' follow-up	16.6 (10.7) (n'= 40)	19.7 (13.4) (n'= 48)	0.099 (-3.752 to 3.951)
	9 months' follow-up	19.1 (11.7) (n'= 39)	17.8 (12.0) (n'= 40)	1.946 (-2.291 to 6.184)
BAI	Baseline (3 months)	22.7 (13.5)	21.7 (12.4)	
	6 months' follow-up	17.7 (11.4) (n'= 40)	18.0 (11.8) (n'= 48)	0.658 (-3.753 to 5.069)
	9 months' follow-up	18.9 (10.4) (n'= 39)	19.2 (13.7) (n'= 41)	-0.251 (-5.241 to 4.738)
Composite outcome	Baseline (3 months)	-0.07 (0.97)	0.08 (1.01)	
	6 months' follow-up	-0.41 (0.89) (n'= 40)	-0.19 (1.11) (n'= 48)	-0.039 (-0.386 to 0.308)
	9 months' follow-up	-0.16 (0.98) (n'= 39)	-0.29 (1.06) (n'= 41)	0.189 (-0.184 to 0.561)
<b>MINI caseness<sup>a,b</sup></b>				
Major depressive episode	Baseline (3 months)	36/53 (67.9%)	37/54 (68.5%)	
	6 months' follow-up	16/35 (45.7%)	32/44 (72.7%)	0.244 (0.037 to 1.588)
Panic disorder – lifetime	Baseline (3 months)	22/51 (43.1%)	24/50 (48.0%)	
	6 months' follow-up	7/27 (25.9%)	16/37 (43.2%)	0.285 (0.019 to 4.246)
Panic disorder – current	Baseline (3 months)	19/49 (38.8%)	17/48 (35.4%)	
	6 months' follow-up	3/31 (9.7%)	6/35 (17.1%)	0.454 (0.086 to 2.398)
PTSD <sup>c</sup>	Baseline (3 months)	15/47 (31.9%)	9/47 (19.2%)	
	6 months' follow-up	6/27 (22.2%)	3/30 (10.0%)	1.662 (0.312 to 8.859)
GAD	Baseline (3 months)	27/51 (52.9%)	21/50 (42.0%)	
	6 months' follow-up	11/30 (36.7%)	15/35 (42.9%)	0.792 (0.259 to 2.417)

a Due to small numbers in some sites, sites are taken out from the mixed models.

b Due to small number of cases, alcohol abuse is not included in the modelling.

c Due to non-convergence, sites are taken out and a fixed (logistic regression model) was used instead.

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TABLE 11 Results of sensitivity analyses by method

Methods	N	Treatment effect	SE	95% CI
Adjusting for living arrangement GAD-2 scale and PHQ-2 scale	89	-0.089	0.178	(-0.448 to 0.270)
Complete-case analysis	77	-0.010	0.199	(-0.411 to 0.391)
Multiple imputation <sup>a</sup>	122	-0.160	0.167	(-0.488 to 0.168)

TABLE 11 Results of sensitivity analyses by methods (continued)

Methods	N	Treatment effect	SE	95% CI
Worse-case analysis <sup>b</sup>	131	0.038	0.124	(-0.209 to 0.285)
Best-case analysis <sup>c</sup>	130	-0.055	0.123	(-0.300 to 0.189)

a Multiple imputation was completed using predictive mean matching with  $K = 20$ , with 20 imputed data set. The imputation model included predictors of missingness (living arrangements, GAD-2 scale and PHQ-2 scale), sociodemographic baseline data (Index of Multiple Deprivation Decile), baseline scores and site.

b In the 'worse-case' scenario, participants in the intervention group were assumed to have no improvement from baseline, whereas participants in the control group were assumed to have achieved the average benefit seen in the intervention group.

c In the 'best-case' scenario, all participants were assumed to have achieved the average benefit seen in the treatment group, regardless of their randomised treatment.

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TABLE 12 Measure of systematic biases by randomised groups and overall

Variable	VIP (N = 65)	TAU (N = 66)	Total (N = 131)
	Mean (SD) or n (%)	Mean (SD) or n (%)	Mean (SD) or n (%)
<b>Treatment expectation</b>			
Improvement from VIP <sup>a</sup>	6.5 (3.0) (n = 55)	6.5 (2.5) (n = 55)	6.5 (2.7) (n = 110)
Improvement from TAU <sup>a</sup>	4.2 (2.8) (n = 55)	4.5 (2.5) (n = 59)	4.4 (2.6) (n = 114)
<b>Receiving any CBT before</b>			
Yes	5 (9.3%)	9 (15.0%)	14 (12.3)
No	49 (90.7%)	51 (85.0%)	100 (87.7%)
Total	54 (100%)	60 (100%)	114 (100%)
<b>Treatment preference</b>			
VIP	30 (53.6%)	36 (60.0%)	66 (56.9%)
TAU	5 (8.9%)	1 (1.7%)	6 (5.2%)
No preference	21 (37.5%)	23 (38.3%)	44 (37.9%)
Total	56 (100%)	60 (100%)	116 (100%)
<b>Treatment blindness – 6 months' follow-up (post intervention)</b>			
I do not know which group the participant is in	10 (31.3%)	31 (73.8%)	41 (55.4%)
I have guessed the participant is in the VIP group	4 (12.5%)	2 (4.8%)	6 (8.1%)
I have guessed the participant is in the control group	3 (9.4%)	7 (16.7%)	10 (13.5%)
I know that the participant is in the VIP group	13 (40.6%)	0 (0.0%)	13 (17.6%)
I know that the participant is in the control group	2 (6.3%)	2 (4.8%)	4 (5.4%)
Total	32 (100%)	42 (100%)	74 (100%)
<b>Treatment blindness – 9 months' follow-up</b>			
I do not know which group the participant is in	13 (46.4%)	20 (74.1%)	33 (60.0%)
I have guessed the participant is in the VIP group	4 (16.3%)	0 (0.0%)	4 (7.3%)
I have guessed the participant is in the control group	2 (7.1%)	7 (25.9%)	9 (16.4%)

continued

TABLE 12 Measure of systematic biases by randomised groups and overall (continued)

Variable	VIP (N = 65)	TAU (N = 66)	Total (N = 131)
	Mean (SD) or n (%)	Mean (SD) or n (%)	Mean (SD) or n (%)
I know that the participant is in the VIP group	9 (32.1%)	0 (0.0%)	9 (16.4%)
I know that the participant is in the control group	0 (0.0%)	0 (0.0%)	0 (0.0%)
Total	28 (100%)	27 (100%)	55 (100%)

a Participants' expectation of improvement, or not, on a Likert scale ranging from 0 to 10.

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homework in 61% of sessions, going over the history and impact of the crime in 46% of sessions, focusing on the target complaint in 39% of sessions, using cognitive techniques in 36% and guided discovery in 23%. Our random selection of 16 therapy sessions, independently rated, suggested that the therapist went over the history and impact of the crime in 44% (7/16) of sessions, used cognitive-behavioural techniques in 19% (3/16 sessions), guided discovery in 6% (one session) and set homework in 13% (2/16 sessions).

#### Serious adverse events

Six SAEs were recorded (five in VIP + TAU and one in TAU). In TAU, this was due to increased suicidal ideation. In VIP, two were hospitalised for their physical health, one died (cause unknown), one had increased suicidal ideation and one was hospitalised under the Mental Health Act.

#### Discussion

The VIP trial is the largest trial in older victims of community crime.<sup>7</sup> The police were able to identify distress using screening measures in 1/4 of eligible crimes. Over 1/3 (35%) were positive, which is considerably higher than depression (7%) and anxiety (4%) rates in older adults generally.<sup>75</sup> Symptoms continued at 3 months in almost half, supporting crime as a public health problem.

#### The intervention

The VIP was acceptable and feasible, but a treatment effect on the BAI/BDI was not found. The VIP had lower odds for MINI depression and anxiety but were non-significant, consistent with HAVoC.<sup>11</sup> This may be due to lack of power, differential attrition between 26% and 32% (15% predicted), or therapy quality. Many participants allocated to VIP did not receive the intervention due to limited therapist availability, and only 2 of 16 therapy sessions assessed achieved competency in CBT.

Independent therapists may be better suited to evaluating interventions,<sup>76</sup> as charities and IAPT are often too overburdened to deliver to the timescales needed for research. This would ensure that participants receive high-quality therapy promptly while reducing additional costs (e.g. missed appointments). Determining whether interventions work (efficacy) before determining how to deliver (effectiveness) is consistent with guidance for complex interventions.<sup>77</sup>

The COVID-19 pandemic demonstrated that therapy can be delivered online and that many older people can engage with technology.<sup>78</sup> Therapists reported that many participants requested additional sessions, and there was some increase in distress symptoms once therapy finished. These older victims should be signposted to existing services. Trial-arm dissatisfaction could have been mitigated for the TAU arm through a talking treatment control.<sup>79</sup> Although five or six SAEs were allocated to VIP, these were due to physical health and improved distress detection.

#### Victim care and research

Standardised tools were brief and effective in identifying distress and could be incorporated in routine SNT visits, but more research is required into how to manage older people once distress is identified, possibly through integrated care pathways.<sup>80</sup>

Cognitive-behavioural therapy is clinical and cost-effective and also acceptable to older people.<sup>11,81</sup> Although satisfaction with the VIP was high, suggesting the VIP was acceptable, its clinical effectiveness in older victims remains unclear. Recruiting the numbers required for a RCT through PSs may be unrealistic due their competing priorities. Single-case experimental design (SCED) may be more suitable, as it requires smaller numbers, and retention is improved, as all participants receive the intervention.<sup>82-84</sup>

## Equality, diversity and inclusion

The VIP intervention was initially delivered in community centres, which was intended to encourage older victims to travel and not to avoid leaving home. However, some older victims had mobility issues and were unable to participate even with taxis. An advantage of offering therapy remotely during COVID-19 was that our intervention became more inclusive. Although there were concerns that some older victims may not feel comfortable using video calling, our PPI members advised which platforms were most accessible. Recruitment increased from 65% to 90%. Many older victims chose remote therapy after restrictions were lifted, but whether this enabled avoidance of leaving home was unclear.

Study LAAs were selected because they had high numbers of older adults and were ethnically diverse, especially LAA-6, LAA-4, LAA-11, LAA-3 and LAA-10.<sup>85</sup> Despite this, the majority recruited (69%) were White British. As 60–70% of crimes are unknown to the police,<sup>13</sup> the sample may not be representative and may have particularly excluded older victims who lack trust in statutory services,<sup>86</sup> without a permanent address<sup>86</sup> or with complex care needs.<sup>87</sup> It may also have over-represented older victims of property crimes, who often report for insurance claims.<sup>88</sup> The most common crimes in the sample were burglary (32%) and theft (32%), although crimes targeted towards a person's identity (hate crime) appeared especially distressing in older victims.

As our study involved only one city, we would suggest that the validity of the findings may be enhanced through expanding our work to include LAAs served by police forces, covering a range of different cities and rural communities.

The VIP trial required older victims to speak sufficient English to engage in therapy. Translation was considered, but ensuring accuracy for materials and therapy sessions were not feasible with the available resources. While only 1.6% of the UK population cannot speak English,<sup>89</sup> it is unclear whether this is over-represented in older victims, as SNT officers in LAA-4 reported that considerable numbers of older victims in their borough did not speak English. Once the effectiveness of the VIP intervention has been established, considering how it can be applied to non-English-speaking populations is recommended.

## Conclusions

Community crime in older people is an important public health problem, with sustained symptoms of distress in half of those impacted. The police can effectively

identify distress using standardised measures, and remote delivery of therapy increases access to care. Ensuring that only CBT-accredited therapists are used is recommended, and evaluating the quality and adherence to the CBT model through independent ratings is essential. However, using the police to screen and recruit participants into a RCT and delivering CBT in a realistic setting is not practical. Alternative trial designs and the use of independent therapists who have the skills and capacity to deliver CBT should be considered in future research.

## Health economics

### Background

Psychological therapies have been demonstrated to be as effective as antidepressant medication,<sup>90</sup> and a meta-analysis showed a patient preference for psychological versus pharmacological treatment<sup>91</sup> in anxiety and depression. Psychological therapies such as CBT have been shown to be clinical and cost-effective<sup>92,93</sup> and has demonstrated effectiveness in treating, maintaining progress and preventing relapse in both depression and anxiety disorders.<sup>94–97</sup> Our previous work<sup>76</sup> suggested that CBT for depression in older people is cost-effective.

The VIP trial is the first study investigating service use and the costs of delivering treatment to older victims of crime for the reduction of continued symptoms of depression or anxiety.

### Methods

#### Health service utilisation and costs

A modified version of the Client Services Receipt Inventory<sup>98</sup> was developed to record criminal justice services, social and legal advice services and healthcare services, prescriptions, informal care and out-of-pocket expenses. It was administered at 3, 6 and 9 months post crime (baseline, post intervention and follow-up). Health and social care and broader service use were costed using the most recent unit costs published by the Personal Social Services Research Unit,<sup>99</sup> NHS reference costs,<sup>100</sup> the economic and social costs of crime<sup>101</sup> (see *Report Supplementary Material 4*) and British National Formulary<sup>102</sup> (see *Report Supplementary Material 5*). The analysis was conducted on an ITT basis, and all costs are reported in 2021–2 UK Great British pounds (£), adjusted for inflation, where necessary, using the NHS Cost Inflation Index.<sup>99</sup> Discounting was not applied, given that the duration of follow-up did not exceed 12 months.

## Victim Improvement Package intervention costs

Therapist time attending training sessions and time spent delivering the intervention was recorded. A micro-costing approach<sup>103</sup> was used to cost the intervention. Calculations were based on per hour of direct contact in 2016–7.<sup>104</sup> Annual inflator was used to uprate the costs to 2021–2 values.<sup>104</sup>

## Outcomes

The primary economic outcome was quality-adjusted life-years (QALYs) calculated from the EuroQol-5 Dimensions, five-level version (EQ-5D-5L)<sup>105</sup> collected at 3, 6 and 9 months post crime. The crosswalk algorithm,<sup>106</sup> which maps the EQ-5D-5L value sets to the currently available EuroQol-5 Dimensions, three-level version, was used.<sup>107</sup>

## Analysis

The primary analysis was a complete-case analysis (CCA). Descriptive statistics were reported by trial arm. Mean cost per participant for the VIP intervention versus TAU was reported by type of service. Mean utility values at each time point and mean QALYs were reported. Mean differences (MDs) in cost and outcome were calculated using a mixed-effects model, with therapist clustering as a random effect, site as a fixed effect and adjusting for baseline cost/utilities. The mean costs and QALYs were used to calculate the mean incremental cost per QALY gained of VIP intervention compared to TAU. Conventional decision rules were used to estimate incremental cost-effectiveness ratios (ICERs). Bootstrapped results for incremental costs and incremental outcomes were plotted on cost-effectiveness planes (CEPs).<sup>108</sup> Cost-effectiveness acceptability curves (CEACs)<sup>109</sup> were constructed. The probability that the VIP intervention is cost-effective compared to TAU at a willingness to pay (WTP) for a QALY gained of £20,000–30,000 were reported. Analyses were performed in Stata version 18.

## Missing data

We explored methods to address potential missing data. Multiple imputation using predictive mean matching and chained equations<sup>110,111</sup> across 50 data sets was conducted to account for data missing at random (MAR) as a sensitivity analysis. The imputation model included predictors of missingness, sociodemographic data, follow-up scores, site, and therapist to estimate costs and utilities. Using the imputed data, total costs, QALYs, ICER, CEAC and CEP were calculated. Mixed-effects logistic regression assessed baseline-adjusted differences in costs and outcomes. Bootstrapping supported uncertainty estimates for CEACs and CEPs.

## Sensitivity analysis

Of the 65 participants in the VIP arm, 23 (32%) did not receive the intervention due to various reasons (e.g. unreachable, withdrawal, illness, therapist capacity). To complement ITT estimates, a structural sensitivity analysis consisting of a per-protocol (PP) analysis<sup>112</sup> was conducted.

## Results

### Health service utilisation and costs

Results for the CCA analysis showed that contacts with primary care services for psychological reasons was significantly lower in VIP arm [MD -0.25 (95% CI -0.48 to -0.02), *p*-value 0.032] (see [Appendix 2](#)). The mean number of times the social and legal advice services used was higher in the TAU arm at all follow-up time points, as was the mean number of hours spent by carers to look after participants.

The costs were significantly lower in the VIP arm (social and legal advice services [MD -£496.81 (95% CI -£884.19 to -£109.44), *p*-value 0.012] and support provided by unpaid carers [MD -£6643.49 (95% CI: -£13,058.54 to -£228.43), *p*-value 0.042] (see [Appendix 3](#)).

### Victim Improvement Package intervention costs

Three hundred and fifteen VIP sessions were delivered (mean duration 1 hour/session), with fortnightly supervision via Zoom. The total cost of the VIP intervention was estimated at £86,463; this translated to a conservative estimate of £1330 per participant allocated in the VIP arm ([Table 13](#)). Sixty-one per cent of the total costs was related to the therapists' training.

### Outcomes (quality-adjusted life-years)

Participants in TAU arm appeared to have better health-related quality of life than those in the VIP arm over 6 months, despite starting from a lower baseline EQ-5D-5L on average (0.441 in TAU arm and 0.468 in VIP arm) ([Table 14](#)). CCA concur with those for the PP approach and multiple imputation (see [Table 14](#)).

### Cost-utility analysis

The VIP intervention generated a lower mean point estimate for costs [-£881 (95% CI -£5947 to £4186)] and a negative mean point estimate for QALYs [-0.011 (95% CI -0.042 to 0.022)] over 6 months' follow-up ([Table 15](#)).

Complete-case analysis concur with those for the PP approach and multiple imputation such that the ICERs range between £65,324 and £127,735 above the WTP for a QALY-gained threshold (see [Table 15](#), [Figure 7](#) and [Appendix 4](#)).

TABLE 13 Estimated cost of VIP intervention

Description	£
<b>Training cost</b>	
Band 9 (n = 1) delivered 10 (7 face-to-face/3 remote) training sessions, 7 hours <sup>1</sup> (+ 4 refresher training) time for 49 therapists	14,308
Therapists	35,672
Therapists, refresher	2912
<b>Total training costs</b>	<b>52,892</b>
<b>Session delivery</b>	
Sessions delivered (mean time per session, 1 hour)	32,760
<b>Total session delivery costs</b>	<b>32,760</b>
<b>Other costs</b>	
Catering	811
<b>Total other costs</b>	<b>811</b>
<b>Total cost</b>	<b>86,463</b>
<b>Cost per participant in adapted VIP arm</b>	<b>1330</b>

**Source**

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TABLE 14 Mean utility values (derived from responses to the EQ-5D-5L) at baseline and follow-up time points per participant and baseline-adjusted MD in QALYs between trial arms over 6 months

	VIP		TAU		VIP vs. TAU	
	Mean	(95% CI)	Mean	(95% CI)	Adjusted MD (95% CI) <sup>a</sup>	p-value
<b>Complete cases (ITT analysis)</b>						
Baseline	0.468 (n = 54)	(0.384 to 0.551)	0.441 (n = 57)	(0.349 to 0.534)		
3 months' follow-up	0.536 (n = 31)	(0.418 to 0.655)	0.588 (n = 42)	(0.490 to 0.686)		
6 months' follow-up	0.526 (n = 32)	(0.424 to 0.628)	0.483 (n = 34)	(0.346 to 0.620)		
QALY	0.260 (n = 26)	(0.203 to 0.318)	0.288 (n = 31)	(0.232 to 0.344)	-0.011 (-0.048 to 0.023)	0.496
<b>Complete cases (PP analysis)</b>						
Baseline	0.468 (n = 35)	(0.357 to 0.578)	0.441 (n = 57)	(0.349 to 0.534)		
3 months' follow-up	0.469 (n = 22)	(0.324 to 0.614)	0.588 (n = 42)	(0.490 to 0.686)		
6 months' follow-up	0.481 (n = 21)	(0.348 to 0.614)	0.483 (n = 34)	(0.346 to 0.620)		
QALY	0.231 (n = 18)	(0.156 to 0.305)	0.288 (n = 31)	(0.232 to 0.344)	-0.027 (-0.068 to 0.014)	0.204
<b>With imputation</b>						
Baseline	0.495	(0.483 to 0.507)	0.470	(0.457 to 0.483)		

continued

**TABLE 14** Mean utility values (derived from responses to the EQ-5D-5L) at baseline and follow-up time points per participant and baseline-adjusted MD in QALYs between trial arms over 6 months (*continued*)

	VIP		TAU		VIP vs. TAU	
	Mean	(95% CI)	Mean	(95% CI)	Adjusted MD (95% CI) <sup>a</sup>	p-value
3 months' follow-up	0.555	(0.542 to 0.568)	0.582	(0.569 to 0.594)		
6 months' follow-up	0.539	(0.529 to 0.549)	0.501	(0.488 to 0.518)		
QALY	0.268	(0.263 to 0.273)	0.267	(0.261 to 0.273)	-0.009 (-0.036 to 0.180)	0.506

a Baseline-adjusted differences calculated using bias-corrected and accelerated bootstrapped regressions.

#### Source

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**TABLE 15** Cost-effectiveness of VIP intervention vs. TAU: primary and sensitivity analyses

	Incremental cost (95% CI)	QALY gained (95% CI)	ICER (£)	Probability CE £20,000 (%)	Probability CE £30,000 (%)
<b>Primary analysis</b>					
ITT analysis	-£881 (-£5947 to £4186)	-0.011 (-0.042 to 0.020)	80,167	36	36
<b>Sensitivity analyses</b>					
PP analysis	-£3179 (-£9489 to £3131)	-0.025 (-0.063 to 0.013)	127,735	33	32
Multiple imputation <sup>a</sup>	-£333 (-£413 to -£253)	-0.005 (-0.005 to 0.005)	65,324	48	48

CE, cost-effectiveness.

a The imputation model includes GAD-2 and PHQ-2 baseline data, accommodation, age, gender, 6-month follow-up scores, site and therapist as variables to impute the costs and utilities.

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The probability that VIP intervention is cost-effective relative to TAU was 36% in the CCA at a threshold of £20,000 or £30,000 per QALY gained, respectively (see [Table 14](#) and [Figure 8](#)). Results based on the PP approach and imputed data were similar (see [Appendix 5](#)).

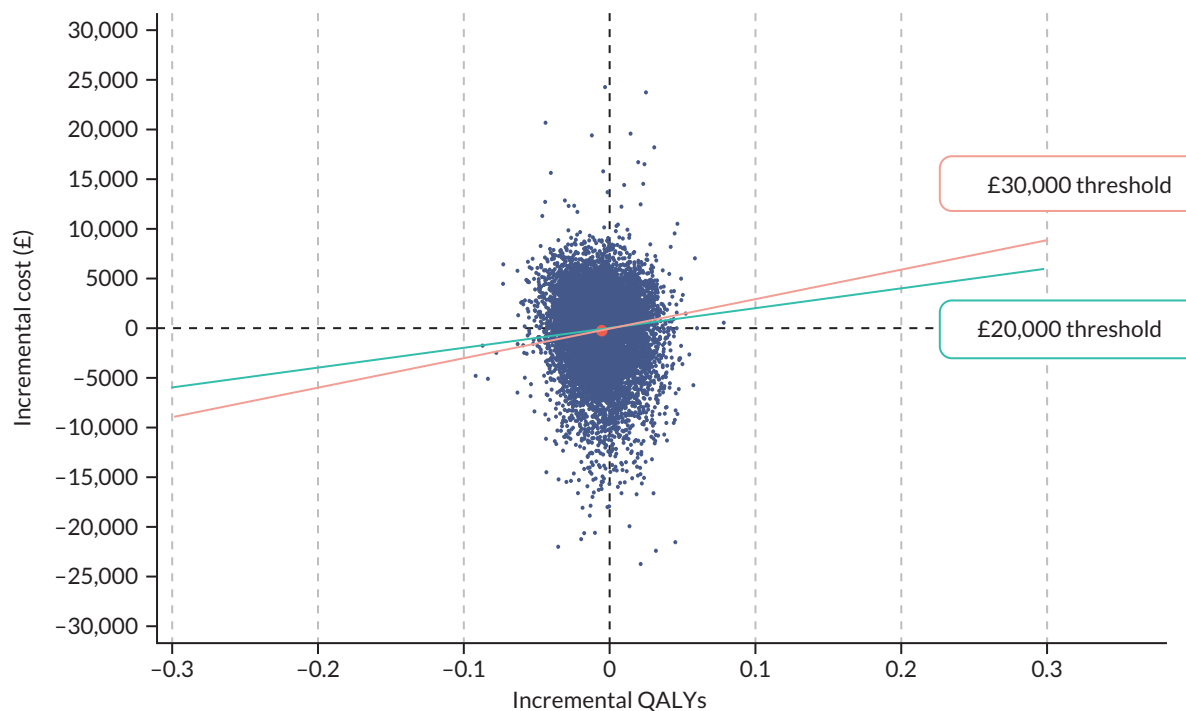
## Discussion

The economic analysis suggests that the VIP intervention is slightly less costly and slightly less effective than TAU with wide uncertainty around both estimates. While this places VIP on the south-west quadrant of the CEP, the magnitude and significance of the QALY difference does not justify declaring VIP cost-effective or TAU not cost-effective. The COVID-19 pandemic may have had an impact on the ability to access services and some responses to participant-reported outcomes and distorted costs and outcomes. Also, missing data posed a significant challenge and may have influenced the cost-effectiveness results. The primary analysis relied on complete cases,

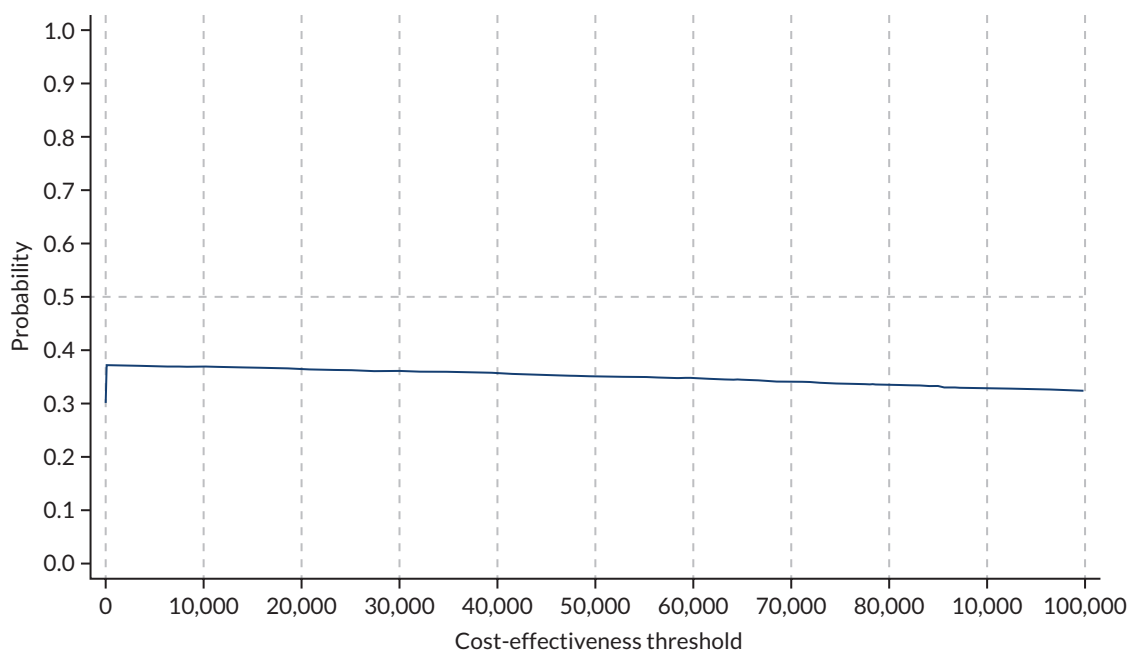
which reduced the effective sample size and potentially introduced bias if the excluded participants differed systematically from those included. To address this, multiple imputation was used as a sensitivity analysis under the assumption of data MAR, allowing for more robust estimates of costs and QALYs. While results from imputed data sets were consistent with the complete-case findings, they reinforced the high level of uncertainty around the cost-effectiveness of the intervention.

## Conclusions

The economic evaluation would not recommend the VIP intervention on the grounds of cost-effectiveness but needs to be interpreted within the wider context of possible lack of treatment effect (whether the VIP intervention did not work or whether it was not properly delivered) or older people' preferences and clinical



**FIGURE 7** Cost-effectiveness plane of VIP intervention compared to TAU from a societal cost perspective over 6 months; complete data. Reproduced from Panca *et al.*<sup>113</sup> This is an Open Access article distributed in accordance with the terms of the Creative Commons Attribution (CC BY 4.0) licence, which permits others to distribute, remix, adapt and build upon this work, for commercial use, provided the original work is properly cited. See: <https://creativecommons.org/licenses/by/4.0/>. The figure includes minor additions and formatting changes to the original text.



**FIGURE 8** Cost-effectiveness acceptability curve of VIP intervention compared to TAU from a societal cost perspective over 6 months; complete data. Reproduced from Panca *et al.*<sup>113</sup> This is an Open Access article distributed in accordance with the terms of the Creative Commons Attribution (CC BY 4.0) licence, which permits others to distribute, remix, adapt and build upon this work, for commercial use, provided the original work is properly cited. See: <https://creativecommons.org/licenses/by/4.0/>. The figure includes minor additions and formatting changes to the original text.

findings. Future research is needed to identify the most cost-effective intervention for older people victims of common crime, including its length and intensity, as well as long-term sustainability.

## Lessons learnt

The VIP studies identified considerable psychological distress and low support in older victims of community crime. Recruiting older victims into a RCT through cross-agency working was found to be challenging but generated important insights.

### Screening

The VIP trial collaborated with the police as feasibility research and Ministry of Justice guidance supported home visits for at-risk crime victims.<sup>11,21</sup> This may not be generalisable, as not all victims report crimes,<sup>13,114</sup> especially victims from ethnic minorities or with complex care needs.<sup>48,52</sup> Property crimes may be over-represented, as these are often reported for insurance claims.<sup>88</sup> Nonetheless, this is an important first step, given previous research has largely been conducted in convenience samples.<sup>7</sup>

### Police screening

Successful recruitment was contingent on police SNT officers screening sufficient numbers of older victims at step 1. Three approaches were tested:

1. **Home visits** were effective, but resource-intensive. Embedding screening into routine practice was intuitive to officers, and some valued this as a return to traditional community policing. However, major incidents in London (e.g. terrorist incidents) meant officers were frequently diverted from the project ('abstracted'), which caused delays to screening. We also observed considerable difference in rate of successful screening visits between LAAs (e.g. LAA-3 – 48%; LAA-4 – 13%) due to varying levels of support from management and degrees of English spoken and trust in the police. This method involved home visits to both screen-negative and screen-positive older victims. However, the police did not consider this to be a good use of resources. This screening method was therefore paused, and negotiations around alternative screening approaches were necessary.
2. **Dedicated PS administrators:** screening over telephone, with targeted home visits to screen-positive older victims only was well received by the police SNTs as it helped identify vulnerable older victims in their areas. However, while significant numbers of

older victims were approached by telephone, only 3.7% of all crime victims were identified as screen positive and referred to UCL. This supported our feasibility work that telephone contact is less effective at identifying screen-positive victims. However, this method was conducted during COVID-19, which created challenges with staff shortages. Older victims expressed frustration with how the police were handling their cases, and we identified training needs around communication with older victims.

3. **Embedding UCL researchers on honorary contracts within the PS to complete screening** may have overcome some of the communication challenges of the previous method. However, data protection regulations still required the police to make first contact. Our researchers also found that considerable preparatory time was needed to read notes before each call, only for the older victim to then not pick up the phone. We tried a PS text messaging service so older victims knew to expect our call and targeting phone calls to severe crimes but found this made little difference. As we only had a small time frame of a couple of months, it is difficult to know how much authority can be placed on these findings.

The decision to terminate the trial prematurely was difficult but taken in the context that we had tried a variety of methods to maximise screening.

The key lessons we have learnt through trialling different screening methods were:

### Lesson 1: building rapport between senior members of the police service and University College London

Buy-in at a senior level of the PS is essential. Our trial was overseen by the Commander for Community Policing, who operate on rotation, which meant we had eight different commanders during the course of the trial. Each rotation required us to build new relationships and advocate for the VIP trial from scratch. The commanders who recognised the value of our project ensured successful screening by ensuring the approvals we needed were in place, delegating senior officers to oversee the screening, facilitating training and expanding study sites. Commanders who did not recognise the value of our research delayed or halted screening. As shown in [Figure 2](#), there were high screening rates while we were overseen by a supportive commander (February 2018–April 2019) and a drop-off in screening when a new commander was appointed in April 2019. We recommend other researchers agree on Memorandum of Understanding to ensure continuity of study procedures.

### Lesson 2: case identification

A PS officer with Information Technology skills modified their CRIS to identify our target population. Integrating this within their existing systems allowed information to be efficiently transferred to the SNT teams and worked well. However, there were insufficient resources to maintain this, and at the point of closing down recruitment, new systems were being introduced, so this effective way of working may soon be lost.

### Lesson 3: policy changes

Our research was conducted at a time when there was a shift in public confidence in policing, due to highly publicised incidents of institutional prejudice (Police Foundation, 2022; Baroness Casey Review, 2023). It is, therefore, disappointing that the recent Right Care, Right Person strategy aims to move away from supporting people with 'minor' mental health problems will mean fewer police officers attending mental health calls despite the police being the first port of call for older victims of crime. Public pressure and media attention appeared to influence policing priorities, their direction of resources and correspondingly their engagement with our research.

### Lesson 4: continuity of care

We found that older victims had often forgotten about the study by 3 months' follow-up at step 2, so our trial co-ordinator made brief introductory phone calls once we had received referrals from the SNTs. This was well received by participants who regularly expressed appreciation at the interest. More older victims appeared to remember the trial at step 2 follow-up, which seemed helpful for engagement with our research.

### Mental health charity role

The mental health charity was an independent charity providing mental health support. We used a mental health charity instead of the NHS because the complex approvals process makes it challenging to access therapy within a 2-week period in the NHS, and our feasibility work suggested that the mental health charity may be more acceptable to older victims.

### Lesson 1: waiting times

As the mental health charity was a federation, it was often challenging to establish who had responsibility for service delivery. We opted for a single co-ordinator who was able to liaise with other mental health charity centres and agree which service would deliver care. This was useful, as the local service could be at a larger geographical distance and facilitated overlap between services.

### Lesson 2: quality of therapy

We aimed to train therapists with CBT experience to adapt their skills to older victims, but in practice, only 12.5% (2/16) of available therapists achieved proficiency (most were from humanistic backgrounds). This raised concerns about therapy fidelity, but this was representative of a typical service. We, therefore, stipulated that therapists attend monthly supervision before receiving their Continuing Professional Development certificate. Our feedback suggested that therapists felt the training in CBT principles had given them knowledge, skills and confidence to work with older victims.

### Lesson 3: mode of therapy

Mental health charity therapists initially provided sessions face-to-face, but during the COVID-19 pandemic, it was necessary to switch to remote therapy. Although there were concerns about computer access, the numbers of older people using the internet is growing.<sup>115</sup> Our REC initially approved online therapy through Microsoft Teams only due to privacy concerns, but our PPI members fed back that Zoom was more accessible, so REC agreed we could offer either platform according to participant choice. We found that remote therapy was both popular and more inclusive, as it allowed us to offer therapy to older victims who were house-bound. However, we have found that a number of older victims avoid leaving the house after a crime, and offering remote therapy may encourage safety-seeking behaviours. On balance, it was felt that the first priority was to engage the victim in therapy, and as highlighted to therapists in supervision, participants should be encouraged to transition to face-to-face therapy at some point in the treatment.

### Conclusions

The VIP trial has shown that older victims of community crime experience considerable distress, and as signposting them to their GP was not effective, more assertive management appears necessary. We found that it is possible to detect distressed older victims using a brief screening tool embedded within routine SNT visits, but that community policing is dependent on consistency of leadership within the PS and that public perception of the police remains a challenge. We were unable to fully evaluate the clinical and cost-effectiveness of the VIP intervention due to insufficient numbers. The VIP intervention was found to be acceptable, however, and the COVID-19 pandemic taught us that offering therapy online is popular and more accessible to older victims with limited mobility. Raising public awareness about the impact of crime, that for a significant proportion, symptoms of distress do not settle, and encouraging people to seek help is a priority.

## Overall conclusions and impact, implications and research recommendations

### *Impact and learning*

We trained 49 therapists to deliver the VIP intervention. All therapists agreed or strongly agreed that this had improved their understanding of older victims and the application of the VIP intervention to this group. Qualitative feedback highlighted that the session-by-session guidance, interactive discussion and role plays, and expertise of the facilitator were helpful. Completion of training contributed towards continued professional development, and some included this in their appraisals. Further guidance and skill development was also offered through fortnightly supervision sessions with the chief investigator, although there was mixed attendance at these sessions.

We estimate that around 280 PS SNT officers were educated locally about the VIP trial and how to screen older victims using the GAD-2/PHQ-2. VIP researchers also shadowed SNT officers to share best practice. The chief investigator also presented on the VIP trial at two police leadership events. We were, therefore, able to educate the police on the importance of identifying distress in older victims and provide them with an effective method for objectively identifying distress using structured clinical tools.

### *Clinical implications*

Community crime adversely psychologically impacts older victims, as 48.7% (427/877) older victims who were rescreened experienced depressive and anxious symptoms at 3 months contrasting with expected rates of depression (7%) and anxiety (4%) in older people globally.<sup>42</sup> However, the challenges with identifying and recruiting sufficient numbers of older victims into a RCT suggest that this is not an effective use of resources in this population.

The GAD-2 and PHQ-2 provided a simple and quick way for the police to screening older victims for distress and could easily be incorporated into safeguarding visits. Older people were receptive to a manualised talking therapy.

Our systematic review and current research highlighted the deficit in knowledge on how best to manage chronically distressed older victims who tend not to visit their GP or use voluntary services. Informal networks of support, such as faith organisations, were identified as helpful,<sup>7</sup> and encouraging older victims to seek support from local communities or enlisting the support of an advocate or relative could be considered.

## *Research recommendations*

### **Police involvement**

The police are the first port of call for older victims. Screening for distress should be part of routine practice. Expanding the recruitment base and targeting screening towards those who may be at higher risk of distress may be worthwhile, but it ultimately depends on whether cocooned or welfare visits take place. Service-level agreements between researchers and the police may help ensure that screening target is delivered. The commanders responsible for community policing, however, prioritise service needs over research.

### **Recruitment**

Multiagency recruitment is recommended, as many victims do not approach the police. Indeed, multiple community recruitment, including from religious settings, such as churches, mosques, synagogues and temples, may enhance recruitment and retention of participants.

Face-to-face contact with victims is recommended, as consistent with the HAVoC study, telephone screening was not effective.

Although SNTs were successful at engaging victims, obtaining consent is time-consuming, and this may be best undertaken by directing victims to research teams, or embedding university researchers within police teams.

The negative perceptions of the police remain a hurdle to research, and an alternative trial design should be considered.

### **Delivery of therapy**

There needs to be a strengthening of the quality and monitoring of therapy delivered by non-for-profit organisations, especially when the quality and speed of access for therapy is compromised by the pressures imposed by the demands on clinical services. Although it may be possible to negotiate contracts which ensure that therapists' time is ring-fenced, in reality this rarely happens, and it is also costly because this approach lacks flexibility.

Using therapists from the independent sector may offer an alternative option.

### **Alternative trial design**

Future studies should consider using a single screening point by researchers, who can be contacted from multiple community-based sources (family, friends, the police, healthcare professionals and charities).

While RCTs are the gold standard in trial design, the use of SCED<sup>82</sup> may be more suitable as participants act as their own control,<sup>83</sup> reducing the sample size required and improving retention as all participants receive an intervention.<sup>84</sup> Findings may also be more generalisable.<sup>84</sup>

## Conclusions

The VIP trial has highlighted the significant public health implications that the impact crime has on older victims. While police screening is an effective method for identifying distress, older people do not act on signposting, and how best to manage their distress remains to be evaluated. Undertaking a RCT in this population is challenging because of the service demands and competing priorities of the agencies involved. It remains unclear whether a CBT-informed VIP is effective in this population, as it was not possible to achieve sufficient numbers to achieve full power. The economic evaluation would not recommend the VIP intervention on the grounds of cost-effectiveness. The quality of therapy delivered also needs close attention, and, unfortunately, existing services may not be able to realistically deliver this. Nonetheless, the VIP trial has provided valuable insights into the need for research in this vulnerable population and provides indicators into how future work should be undertaken.

## Additional information

### CRediT contribution statement

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### Data-sharing statement

All data requests should be submitted to the corresponding author for consideration. Access to anonymised data may be granted following review.

### Ethics statement

The VIP trial was registered with the UCL Data Protection Office on the 26 February 2026 and approved by UCL REC on 17 March 2016 (6960/001). Procedures complied with the ethical standards of the Declaration of Helsinki.

### Information governance statement

University College London is committed to handling all personal information in line with the UK Data Protection Act (2018) and the General Data Protection Regulation (EU GDPR) 2016/679.

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### Disclosure of interests

**Full disclosure of interests:** Completed ICMJE forms for all authors, including all related interests, are available in the toolkit on the NIHR Journals Library report publication page at <https://doi.org/10.3310/KGMR6521>.

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This synopsis was published based on current knowledge at the time and date of publication. NIHR is committed to being inclusive and will continually monitor best practice and guidance in relation to terminology and language to ensure that we remain relevant to our stakeholders.

### Trial registration

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### Award publications

This synopsis provided an overview of the research award *The VIP trial: a randomised controlled trial of the clinical and cost effectiveness of a Victim Improvement Package (VIP) for the reduction of chronic symptoms of depression or anxiety in older victims of common crime*.

Other articles published as part of this thread are:

Satchell J, Craston T, Drennan VM, Billings J, Serfaty M. Psychological distress and interventions for older victims of crime: a systematic review. *Trauma Violence Abuse* 2023;**24**:3493–512. <https://doi.org/10.1177/15248380221130354>

Serfaty M, Billings J, Vickerstaff V, Lee T, Buszewicz M, Satchell J. Help-seeking in older crime victims: a mixed-methods study in collaboration with the Metropolitan Police Service. *PLOS Ment Health* 2024;**1**:e0000082. <https://doi.org/10.1371/journal.pmen.0000082>

Serfaty M, Satchell J, Laycock GK, Brewin CR, Buszewicz M, Leavey G, *et al*. The VIP trial: a randomised controlled trial of the clinical effectiveness of a Victim Improvement Package (VIP) for the reduction of continued symptoms of depression or anxiety in older victims of community crime. *BMJ Open* 2025;**15**:e095184. <https://doi.org/10.1136/bmjopen-2024-095184>

Panca M, Serfaty M, Satchell J, Hunter RM. Cost-effectiveness of a victim improvement package: randomised controlled trial for reduction of continued symptoms of depression or anxiety in older victims of community crime. *BJPsych Open* 2026 Jan 7;**12**(1):e29. <https://doi.org/10.1192/bjo.2025.1093>

Serfaty M, Satchell J, Laycock GK, Brewin CR, Buszewicz M, Leavey G, *et al*. Cross-agency working when conducting a pragmatic RCT for older victims of crime: our experiences and lessons learned. *Trials* 2025;**26**:17. <https://doi.org/10.1186/s13063-024-08680-y>

For more information about this research, please view the award page ([www.fundingawards.nihr.ac.uk/award/13/164/32](http://www.fundingawards.nihr.ac.uk/award/13/164/32)).

### Additional outputs

Serfaty M, Aspden T, Satchell J, Kessel A, Laycock G, Brewin CR, *et al*. The clinical and cost-effectiveness of a victim improvement package (VIP) for the reduction of chronic symptoms of depression or anxiety in older victims of common crime (the VIP trial): study protocol for a randomised controlled trial. *Trials* 2020;**21**:333. <https://doi.org/10.1186/s13063-020-4211-9>

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### List of supplementary material

#### Report Supplementary material 1

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Example of Signposting Letter given to distressed victim

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Example of Signposting Letter victim received to take to GP

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Consent Sheet

Supplementary material can be found on the NIHR Journals Library report page (<https://doi.org/10.3310/KGMR6521>).

Supplementary material has been provided by the authors to support the report and any files provided at submission will have been seen by peer reviewers, but not extensively reviewed. Any supplementary material provided at a later stage in the process may not have been peer reviewed.

The supplementary materials (which include but are not limited to related publications, patient information leaflets and questionnaires) are provided to support and contextualise the publication. Every effort has been made to obtain the necessary permissions for reproduction, to credit original sources appropriately, and to respect copyright requirements. However, despite our diligence, we acknowledge the possibility of unintentional omissions or errors and we welcome notifications of any concerns regarding copyright or permissions.

### List of abbreviations

BAI	Beck Anxiety Inventory
BDI-II	Beck Depression Inventory, version 2
CBT	cognitive-behavioural therapy

CCA	complete-case analysis
CEP	cost-effectiveness plane
CINAHL	Cumulative Index to Nursing and Allied Health Literature
CRIS	Crime Record Information System
CTS-R	Cognitive Therapy Scale-Revised
EMBASE	Excerpta Medica dataBASE
EQ-5D-5L	EuroQol-5 Dimensions, five-level version
GAD-2	Generalised Anxiety Disorder-2
GP	general practitioner
HAVoC	Helping Aged Victims of Crime
ICER	incremental cost-effectiveness ratio
ITT	intention to treat
LAA	local authority area
MAR	missing at random
MEDLINE	MEDical Literature Analysis and Retrieval System
MINI	Mini-International Neuropsychiatric Interview
PHQ-2	Patient Health Questionnaire-2 items
PP	per-protocol
PPI	patient and public involvement
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses
PS	police service
PTSD	post-traumatic stress disorder
QALY	quality-adjusted life-year
RCT	randomised controlled trial
REC	Research Ethics Committee
SAE	serious adverse event
SCED	single-case experimental design
SNT	Safer Neighbourhood Team
TAU	treatment as usual
TCC	therapy component checklist
UCL	University College London
VIP	Victim Improvement Package
WTP	willingness to pay

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## Appendix 1 Search terms for systematic review

### Search strategy

Every effort has been made to find and credit the original source/author(s) of the search strategies and to obtain permission from their copyright holders to reproduce this material; any further information related to the rightsholder if notified will be incorporated in any revisions or updates to this report/ article older adult\* OR older people OR older victim\* OR older complainant OR aged OR elderly OR pensioner\* OR senior citizen\*

AND

crime\* OR felon\* OR misdemeanour\* OR assault OR theft OR fraud OR robbery OR burglary OR violent\* OR interpersonal violent\* OR rape OR scam\* OR arson OR criminal damage OR distraction burglary OR stalking OR harassment OR phishing OR cyber-crime OR cybercrime OR cyber crime

AND

wellbeing OR anx\* OR depress\* or traum\* OR distress OR psychological impact OR mental health outcome\* OR psychiatric outcome\* OR psychological outcome\* OR psychological symptom\* OR psychiatric symptom\*

### Original screening 1 August 2019

EMBASE 1980–2019 week 30 - 6207

Ovid MEDLINE(R) 1946 to July week 4 2019 (with 1980 & English language filter) – 6491

PsycInfo 1806 to July Week 2 2019 (with 1980 & English language filter) – 3101

PILOT (1 January 1980–1 August 2019 & English language filter) – 702

CINAHL (January 1980–August 2019 & English language filter) – 1675

Total references: 18,176.

Total references after duplicates removed from EndNote: 12,347.

Total references after duplicates removed from Rayyan: 10,928.

### Updated screening 31 August 2021

- EMBASE (1980–2021 week 34) (limit 1 to (dc = 20190801–20210831) (01.08.2019–31.08.2021) (limit 2 to English language) = 484
- Ovid MEDLINE(R) (1946 to August week 3 2021) (limit 1 to (English language yr= “1980-current”) (limit 2 to (dt = 20190831–20210831) (01.08.2019–31.08.2021) = 176
- APA PsycInfo (1806 to July week 2 2019) (with 1980 & English language filter) (with limit 2019–August week 4 2021) = 209
- PTSDpubs (renamed from PILOTS) (from 1 August 2019–31 August 2021) = 129
- CINAHL (published date 1 August 2019–31 August 2021; English language) = 3

Total references: 1001.

Total references after duplicates removed from EndNote: 812.

Total references after duplicates removed from Rayyan: 691.

## Cochrane Central Register of Controlled Trials (CENTRAL)

Keyword search on 25 October 2021:

“older victim” – 101 trials matching keyword search – 0 additional studies not identified in previous searches found.

(NB: The VIP trial protocol paper (Serfaty *et al.*, 2020) otherwise meets criteria but no primary data yet available).

## ISRCTN registry

Keyword search on 25 October 2021

“older victim” – 5 results – 0 additional studies not identified in previous searches found.

“crime victim” – 8 results – 0 additional studies not identified in previous search found.

## Updated screening 19 April 2022

- EMBASE (1980-2022 week 15) (limit 2 to (English language and yr="2021-current") = 340
- Ovid MEDLINE (R) (1946-April week 2 2022) (limit 2 to (English language and yr="2021-Current") = 201
- APA PsycInfo (1806-April week 2 2022) (limit 1 to (English language and yr='2021-current) = 60
- PTSDpubs (Date: from 1 September 2021- 19 April 2022; Source type: Journal Article; Language:English) = 2
- CINAHL (Published date: 1 September 2021-31 April 2022; English language; peer reviewed)= 76

Total = 679.

Total references after duplicates removed from EndNote = 398.

Total references after duplicates removed from Rayyan = 361.

Excluded based on titles and abstracts = 351.

Full text review = 10.

Included = 1.

## Cochrane Central Register of Controlled Trials (CENTRAL)

Keyword search on 21 April 2022

46

“older victim” – 68 results returned – 0 new studies found  
“crime victim” – 33 results returned – 0 new studies found

## ISRCTN registry

Keyword search on 21 April 2022

“older victim” – 6 results – 0 new studies found.

“crime victim” – 8 results – 0 new studies found.

## Updated screening 26 October 2023

EMBASE (limit 2 to (English language and yr="2022-current")

- Ovid MEDLINE (R) (1946-April week 2 2022) (limit 2 to (English language and yr="2022-Current")
- APA PsycInfo (1806-April week 2 2022) (limit 1 to (English language and yr='2022-current)
- PTSDpubs (Date: from 1 January 2022- 26 October 2023; Source type: Journal Article; Language: English)
- CINAHL (published date: 1 January 2022- 26 October 2023; English language; peer reviewed)

Total = 3546.

Total references after duplicates removed from EndNote and Rayyan = 2960.

Excluded based on titles and abstracts = 2928.

Full text review = 29.

Included = 3.

## Cochrane Central Register of Controlled Trials (CENTRAL)

Keyword search on 2 November 2023

“older victim” – 5 results returned – 0 new studies found  
“crime victim” – 6 results returned – 0 new studies found

## ISRCTN registry

Keyword search on 2 November 2023

“older victim” – 7 results – 0 new studies found.

“crime victim” – 12 results – 0 new studies found.

after duplicates removed from Rayyan: 69

## Appendix 2 Mean resource use at baseline and follow-up time points per participant and baseline-adjusted mean difference between trial arms over 6 months (intention-to-treat and per-protocol analyses, complete case)

	ITT analysis		PP analysis		ITT analysis		PP analysis			
	VIP		VIP		TAU		VIP vs. TAU		VIP vs. TAU	
	N (n)	Mean (SD)	N (n)	Mean (SD)	N (n)	Mean (SD)	Adjusted MD (95% CI) <sup>a</sup>	p-value	Adjusted MD (95% CI) <sup>a</sup>	p-value
<b>A. Criminal justice services</b>										
Baseline	53 (41)	4.15 (3.49)	33 (24)	3.92 (3.72)	58 (46)	5.28 (7.41)				
3 months follow-up	38 (12)	2.58 (1.62)	26 (8)	2.88 (1.46)	45 (15)	5.87 (7.01)				
6 months' follow-up	37 (6)	6.17 (4.75)	23 (4)	7.75 (5.19)	37 (12)	2.42 (1.38)				
Over 6 months	62 (43)	5.53 (5.74)	39 (26)	5.69 (6.87)	63 (50)	7.20 (11.89)	-0.14 (-1.41 to 1.13)	0.829	0.41 (-1.11 to 1.94)	0.594
<b>B. Social and legal advice services</b>										
Baseline	53 (20)	15.95 (23.81)	34 (15)	15.73 (24.08)	57 (15)	15.80 (24.78)				
3 months follow-up	31 (8)	9.63 (3.62)	20 (6)	9.83 (3.82)	39 (8)	31.75 (65.17)				
6 months' follow-up	36 (15)	8.93 (7.68)	23 (12)	9.17 (8.22)	36 (15)	21.33 (41.11)				
Over 6 months	59 (27)	19.63 (26.09)	38 (21)	19.29 (24.38)	62 (25)	32.44 (81.01)	-5.56 (-21.21 to 10.09)	0.486	-5.32 (-24.55 to 13.92)	0.588
<b>C. Healthcare services</b>										
<i>Inpatient services</i>										
Baseline	54 (6)	13.67 (13.43)	35 (3)	15.67 (13.58)	58 (4)	2.50 (1.91)				
3 months' follow-up	37 (5)	7.60 (9.37)	25 (4)	4.25 (6.50)	45 (1)	4.00 (0.00)				
6 months' follow-up	36 (3)	8.33 (2.08)	23 (2)	9.50 (0.71)	37 (1)	1.00 (0.00)				
Over 6 months	62 (12)	12.08 (13.44)	39 (7)	11.86 (15.06)	63 (6)	2.50 (1.76)	0.41 (-0.27 to 1.08)	0.236	0.49 (-0.21 to 1.19)	0.169
<i>Outpatient services</i>										
Baseline	54 (36)	5.61 (7.22)	35 (24)	5.08 (5.69)	59 (33)	3.33 (3.17)				
3 months follow-up	38 (26)	4.04 (3.96)	26 (18)	4.22 (4.47)	45 (26)	3.46 (2.87)				
6 months' follow-up	34 (22)	5.45 (6.92)	23 (15)	4.53 (4.22)	34 (23)	2.83 (2.44)				
Over 6 months	60 (46)	9.28 (13.81)	39 (31)	8.58 (12.15)	62 (49)	5.41 (4.32)	0.50 (-1.36 to 2.37)	0.599	0.51 (-1.30 to 2.31)	0.583

This synopsis should be referenced as follows:  
 Saffery M, Satchell J, Kessel A, Brewin C, Burszewicz M, Billings J, et al. The Clinical and Cost-Effectiveness of a Victim Improvement Package (VIP) for the Reduction of Chronic Symptoms of Depression or Anxiety in Older Victims of Community-Crime: the VIP RCT Synopsis. *Public Health Res* 2026;14(8). <https://doi.org/10.3310/KGMR6521>

	ITT analysis		PP analysis		ITT analysis		PP analysis			
	VIP		VIP		TAU		VIP vs. TAU		VIP vs. TAU	
	N (n)	Mean (SD)	N (n)	Mean (SD)	N (n)	Mean (SD)	Adjusted MD (95% CI) <sup>a</sup>	p-value	Adjusted MD (95% CI) <sup>a</sup>	p-value
<i>Primary care services</i>										
Distress associated with crime										
Baseline	55 (10)	1.30 (0.48)	35 (5)	1.20 (0.45)	59 (14)	3.14 (3.42)				
3 months' follow-up	38 (1)	1.00 (0.00)	26 (1)	1.00 (0.00)	45 (4)	1.50 (0.58)				
6 months' follow-up	37 (0)	0.00 (0.00)	23 (0)	0.00 (0.00)	37 (2)	2.00 (0.00)				
Over 6 months	62 (10)	1.40 (0.52)	39 (5)	1.40 (0.55)	63 (15)	3.60 (3.31)	-0.12 (-0.34 to 0.09)	0.265	-0.12 (-0.38 to 0.14)	0.355
Psychological reason										
Baseline	55 (4)	2.50 (1.73)	36 (3)	2.67 (2.08)	59 (7)	4.00 (5.07)				
3 months' follow-up	38 (4)	1.25 (0.50)	26 (3)	1.00 (0.00)	45 (8)	1.75 (0.89)				
6 months' follow-up	37 (1)	1.00 (0.00)	23 (1)	1.00 (0.00)	37 (5)	1.60 (0.89)				
Over 6 months	61 (8)	2.00 (1.31)	39 (6)	2.00 (1.55)	63 (17)	2.94 (3.77)	-0.25 (-0.48 to -0.02)	<b>0.032</b>	-0.23 (-0.56 to 0.09)	0.162
Physical reason										
Baseline	54 (42)	3.67 (6.11)	35 (26)	2.19 (1.60)	58 (39)	2.74 (2.67)				
3 months' follow-up	38 (25)	1.92 (1.22)	26 (18)	2.11 (1.37)	45 (34)	3.09 (4.07)				
6 months' follow-up	36 (25)	2.48 (2.00)	23 (15)	2.80 (2.51)	35 (29)	2.21 (1.42)				
Over 6 months	61 (53)	4.98 (6.18)	39 (33)	4.15 (4.24)	62 (54)	5.11 (4.62)	-0.89 (-2.07 to 0.29)	0.141	-0.48 (-1.85 to 0.88)	0.489
Community nurses										
Baseline	54 (13)	9.38 (13.08)	34 (8)	3.38 (2.83)	59 (13)	4.08 (6.46)				
3 months' follow-up	38 (9)	4.67 (5.72)	26 (6)	3.33 (2.25)	45 (11)	2.36 (2.66)				
6 months' follow-up	36 (11)	3.00 (3.35)	22 (7)	3.86 (3.98)	36 (10)	3.60 (4.55)				
Over 6 months	62 (21)	9.38 (11.97)	39 (14)	5.29 (5.11)	63 (22)	5.23 (8.56)	0.40 (-0.64 to 1.45)	0.449	0.65 (-0.15 to 1.46)	0.113

	ITT analysis		PP analysis			ITT analysis		PP analysis		
	VIP		VIP		TAU	VIP vs. TAU		VIP vs. TAU		
	N (n)	Mean (SD)	N (n)	Mean (SD)	N (n)	Mean (SD)	Adjusted MD (95% CI) <sup>a</sup>	p-value	Adjusted MD (95% CI) <sup>a</sup>	p-value
<i>Other psychology/mental services</i>										
Baseline	55 (9)	1.89 (1.27)	36 (4)	2.50 (1.73)	57 (4)	2.25 (1.89)				
3 months' follow-up	37 (4)	4.00 (0.82)	25 (4)	4.00 (0.82)	45 (3)	3.67 (2.08)				
6 months' follow-up	36 (3)	1.00 (0.00)	22 (2)	1.00 (0.00)	36 (1)	3.00 (0.00)				
Over 6 months	62 (14)	2.57 (1.91)	39 (8)	3.50 (2.07)	62 (8)	2.88 (1.81)	0.12 (-0.28 to 0.51)	0.569	0.27 (-0.22 to 0.75)	0.281
<b>D. Unpaid/informal care (hours)</b>										
Baseline	56 (14)	39.86 (33.68)	36 (10)	39.00 (40.17)	59 (14)	25.79 (47.88)				
3 months' follow-up	38 (6)	21.50 (8.38)	26 (5)	18.80 (5.76)	44 (10)	30.30 (50.06)				
6 months' follow-up	37 (12)	12.71 (12.82)	23 (9)	8.61 (8.33)	37 (6)	49.67 (60.26)				
Over 6 months	62 (17)	49.38 (37.95)	39 (13)	43.19 (39.36)	63 (17)	56.59 (110.77)	-8.92 (-19.46 to 1.62)	0.097	-9.51 (-22.29 to 3.28)	0.145
<b>E. State benefits</b>										
Baseline	56 (39)	1.74 (0.68)	36 (23)	1.70 (0.63)	58 (38)	1.74 (0.76)				
3 months' follow-up	37 (18)	1.50 (0.62)	25 (13)	1.54 (0.66)	44 (32)	1.53 (0.62)				
6 months' follow-up	37 (17)	1.53 (0.80)	23 (12)	1.58 (0.90)	36 (22)	1.41 (0.73)				
Over 6 months	62 (50)	2.42 (1.75)	39 (32)	2.44 (1.90)	63 (54)	2.70 (1.79)	-0.40 (-0.89 to 0.09)	0.112	-0.17 (-0.75 to 0.41)	0.561
<b>F. Prescriptions</b>										
Baseline	51 (12)	1.50 (0.80)	33 (7)	1.29 (0.76)	56 (17)	1.24 (0.56)				
3 months' follow-up	37 (6)	1.33 (0.52)	25 (3)	1.33 (0.58)	45 (13)	1.08 (0.28)				
6 months' follow-up	34 (7)	1.29 (0.49)	21 (4)	1.25 (0.50)	39 (13)	1.08 (0.28)				
Over 6 months	60 (15)	2.33 (1.63)	38 (9)	2.00 (1.41)	63 (21)	2.33 (1.32)	-0.20 (-0.50 to 0.10)	0.192	-0.17 (-0.50 to 0.17)	0.323

a Baseline-adjusted differences calculated using bias-corrected and accelerated bootstrapped regression.

**Note**

Bold text indicates significance.

### Appendix 3 Mean service costs (£) at baseline and follow-up time points per participant and baseline-adjusted mean difference between trial arms over 6 months (intention-to-treat and per-protocol analyses, complete case)

	ITT analysis		PP analysis		TAU	ITT analysis		PP analysis	
	VIP		VIP			VIP vs. TAU		VIP vs. TAU	
	N (n)	Mean (SD)	N (n)	Mean (SD)		Adjusted MD (95% CI) <sup>a</sup>	p-value	Adjusted MD (95% CI) <sup>a</sup>	p-value
<b>Criminal justice services</b>									
Baseline	53 (41)	1458.78 (2329.62)	33 (24)	1505.17 (2498.66)	58 (46)	1865.69 (3692.85)			
3 months' follow-up	38 (11)	520.24 (629.39)	26 (8)	578.89 (694.47)	45 (15)	1512.95 (1342.10)			
6 months' follow-up	37 (6)	407.88 (293.26)	23 (4)	350.43 (344.24)	37 (12)	893.52 (964.12)			
Over 6 months	30 (8)	548.73 (867.9)	20 (6)	639.73 (996.84)	32 (15)	1972.70 (1652.75)	-325.40 (-823.15 to 172.34)	0.200	-273.21 (-849.81 to 303.38) 0.353
<b>Social and legal advice services</b>									
Baseline	56 (11)	259.57 (405.51)	36 (7)	313.90 (493.56)	58 (11)	246.35 (359.64)			
3 months follow-up	34 (2)	280.00 (192.33)	23 (2)	280.00 (192.33)	41 (3)	1491.67 (2371.54)			
6 months' follow-up	36 (6)	94.09 (69.44)	23 (5)	84.70 (73.27)	37 (10)	832.10 (1018.91)			
Over 6 months	26 (4)	157.75 (179.20)	17 (3)	163.33 (219.04)	29 (8)	1574.50 (2354.13)	-496.81 (-884.19 to -109.44)	<b>0.012</b>	-487.59 (-908.26 to -66.91) <b>0.023</b>
<b>Out-of-pocket</b>									
Baseline	55 (10)	31.50 (8.83)	35 (7)	30.71 (10.18)	57 (7)	911.00 (1927.87)			
3 months' follow-up	36 (7)	26.43 (6.90)	25 (5)	25.00 (7.91)	43 (9)	146.22 (333.96)			
6 months' follow-up	36 (8)	27.56 (6.42)	22 (6)	26.74 (7.39)	36 (7)	170.00 (366.12)			
Over 6 months	27 (8)	46.93 (18.00)	18 (6)	42.57 (19.04)	30 (6)	393.50 (804.87)	-11.59 (-23.68 to 0.50)	0.060	-13.12 (-27.21 to 0.98) 0.068

	ITT analysis		PP analysis		TAU	ITT analysis		PP analysis		
	VIP		VIP			VIP vs. TAU		VIP vs. TAU		
	N (n)	Mean (SD)	N (n)	Mean (SD)		Adjusted MD (95% CI) <sup>a</sup>	p-value	Adjusted MD (95% CI) <sup>a</sup>	p-value	
<b>Primary care and community services</b>										
Baseline	56 (6)	153.5 (88.53)	36 (4)	128.00 (48.19)	59 (3)	152.00 (214.77)				
3 months' follow-up	38 (2)	22.00 (0.00)	26 (1)	22.00 (0.00)	45 (0)	0.00 (0.00)				
6 months' follow-up	37 (3)	112.67 (75.69)	23 (2)	136.00 (90.51)	37 (1)	142.00 (0.00)				
Over 6 months	30 (5)	76.40 (73.01)	20 (3)	98.00 (91.80)	32 (1)	142.00 (0.00)	7.61 (-12.15 to 27.38)	0.450	5.74 (-14.52 to 26.00)	0.579
<b>Other healthcare services</b>										
Baseline	56 (5)	473.00 (473.65)	36 (3)	535.00 (652.54)	59 (2)	1216.20 (1312.67)				
3 months' follow-up	38 (3)	472.67 (567.05)	26 (2)	154.00 (183.85)	45 (2)	400.00 (282.84)				
6 months follow-up	37 (3)	412.23 (342.17)	23 (3)	412.23 (342.17)	37 (5)	213.60 (231.92)				
Over 6 months	30 (5)	530.94 (449.76)	20 (4)	386.17 (360.55)	32 (5)	253.60 (245.82)	51.54 (-55.13 to 158.21)	0.344	29.44 (-64.07 to 122.95)	0.537
<b>Healthcare services (primary/community/other)</b>										
Baseline	48 (42)	3579.32 (10,228.85)	32 (29)	3010.54 (8569.17)	55 (47)	979.52 (1665.83)				
3 months' follow-up	34 (30)	2450.71 (6335.72)	22 (21)	1786.20 (4423.49)	44 (40)	690.76 (1127.41)				
6 months' follow-up	32 (27)	2117.67 (3848.12)	21 (17)	2615.48 (4444.69)	31 (29)	606.65 (615.99)				
Over 6 months	24 (24)	3762.89 (6239.66)	16 (16)	4741.21 (7217.85)	27 (27)	943.12 (933.66)	2075.82 (-154.08 to 4305.71)	0.068	2546.79 (-47.51 to 5141.09)	0.054

This synopsis should be referenced as follows:  
 Serraty M, Satchell J, Kessel A, Brewin C, Burszewicz M, Billings J, et al. The Clinical and Cost-Effectiveness of a Victim Improvement Package (VIP) for the Reduction of Chronic Symptoms of Depression or Anxiety in Older Victims of Community-Crime: the VIP RCT Synopsis. *Public Health Res* 2026;14(8). <https://doi.org/10.3310/KGMR6521>

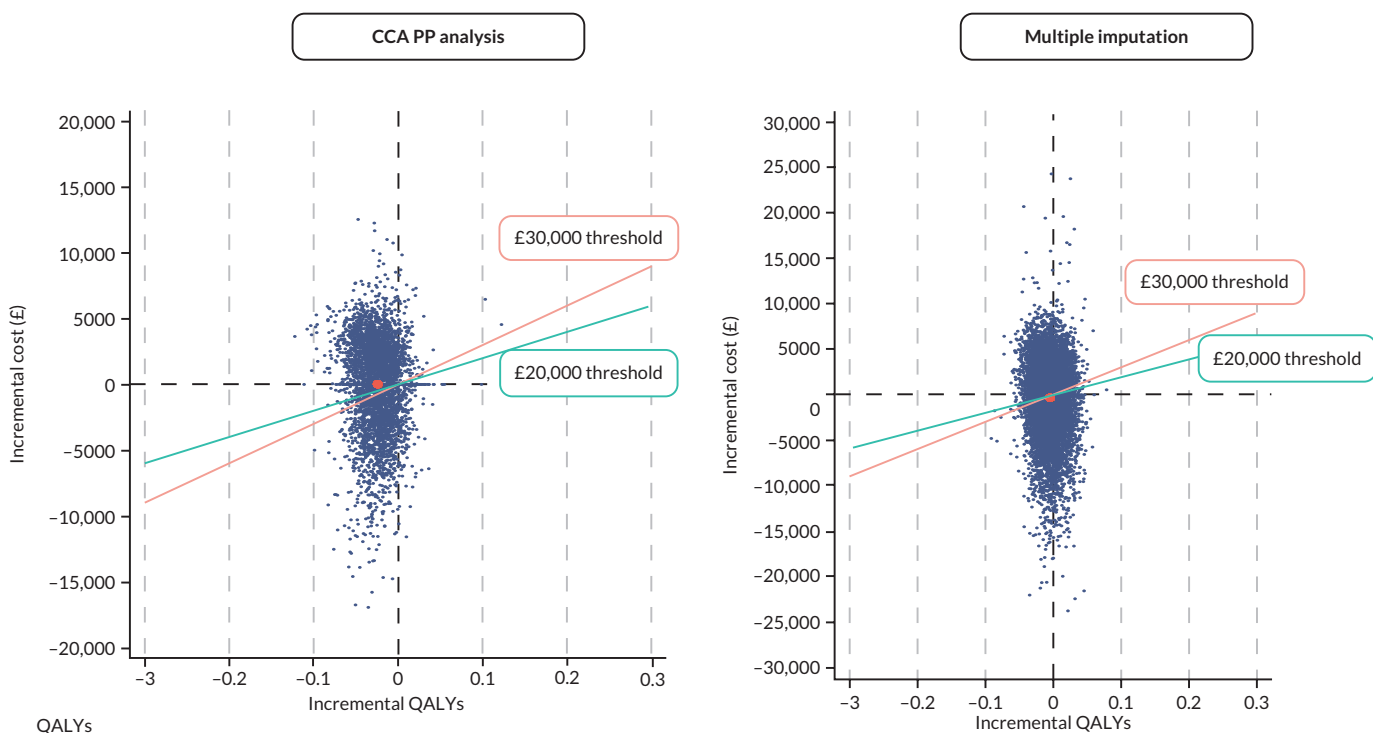
	ITT analysis		PP analysis		TAU		ITT analysis		PP analysis	
	VIP		VIP				VIP vs. TAU		VIP vs. TAU	
	N (n)	Mean (SD)	N (n)	Mean (SD)	N (n)	Mean (SD)	Adjusted MD (95% CI) <sup>a</sup>	p-value	Adjusted MD (95% CI) <sup>a</sup>	p-value
<b>Support provided by unpaid (informal) carers</b>										
Baseline	56 (14)	7064.28 (5968.89)	36 (10)	6912.36 (7119.08)	59 (14)	4570.26 (8486.53)				
3 months' follow-up	38 (6)	7621.32 (2972.14)	26 (5)	6664.22 (2042.49)	44 (10)	10,740.74 (17,743.72)				
6 months' follow-up	37 (12)	4504.85 (4546.13)	23 (9)	3052.47 (2952.23)	37 (6)	17,605.84 (21,360.37)				
Over 6 months	30 (10)	8241.66 (8302.89)	20 (9)	6203.40 (5551.32)	32 (6)	27,649.44 (45,340.20)	-6643.49 (-13,058.54 to -228.43)	<b>0.042</b>	-7919.60 (-15,329.26 to -509.93)	<b>0.036</b>
<b>Prescriptions</b>										
Baseline	51 (8)	45.92 (47.73)	33 (5)	38.36 (52.89)	54 (12)	10.56 (20.83)				
3 months' follow-up	37 (4)	40.38 (44.84)	25 (2)	41.10 (53.88)	45 (10)	26.74 (47.47)				
6 months' follow-up	34 (4)	40.38 (44.84)	21 (2)	41.10 (53.88)	39 (6)	6.67 (7.23)				
Over 6 months	60 (9)	76.71 (83.07)	38 (6)	59.37 (67.17)	62 (15)	28.94 (50.26)	-1.93 (-11.84 to 7.97)	0.702	-1.56 (-12.08 to 8.96)	0.771

a Baseline-adjusted differences calculated using bias-corrected and accelerated bootstrapped regressions.

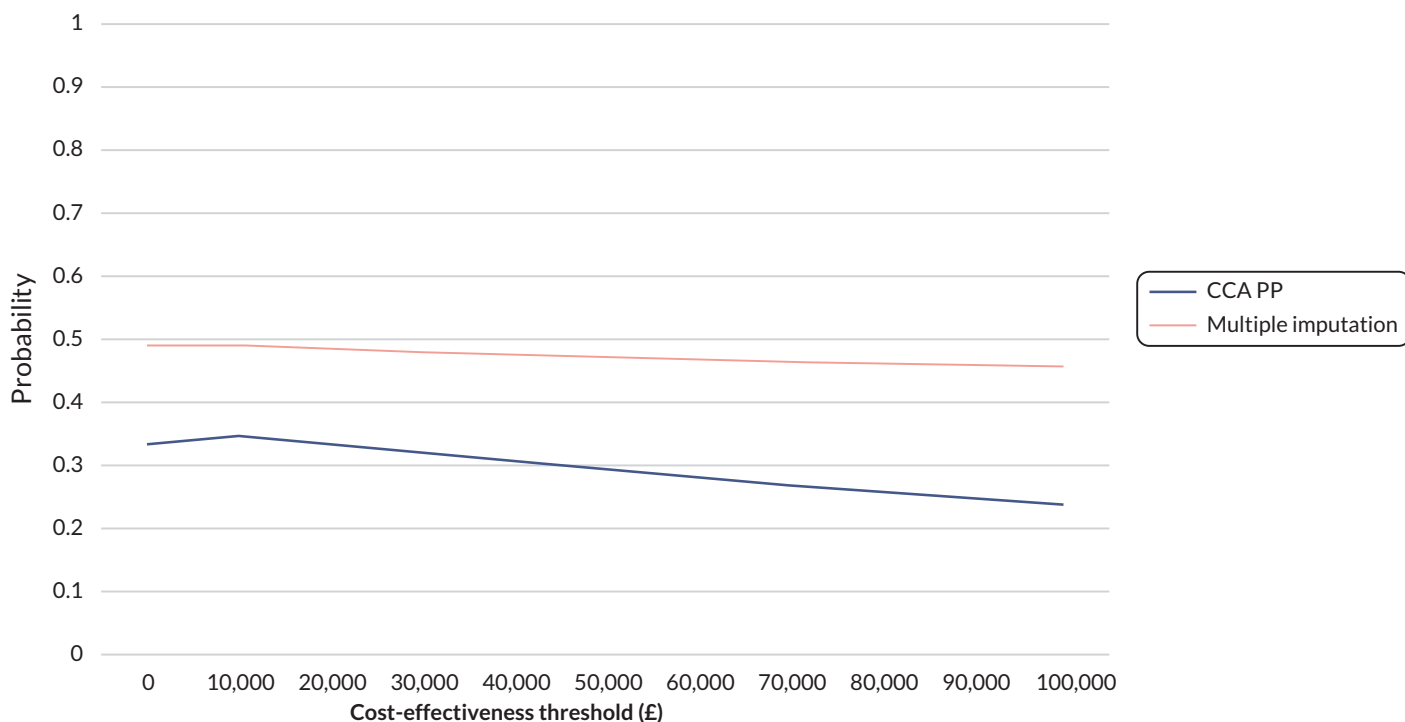
**Note**

Bold text indicates significance.

### Appendix 4 Cost-effectiveness plane of Victim Improvement Package intervention compared to treatment as usual from a societal cost perspective over 6 months; complete data per protocol and multiple imputation



### Appendix 5 Cost-effectiveness acceptability curve of Victim Improvement Package intervention compared to treatment as usual from a societal cost perspective over 6 months; complete data per protocol and multiple imputation



This synopsis should be referenced as follows:  
 Serfaty M, Satchell J, Kessel A, Brewin C, Buszewicz M, Billings J, et al. The Clinical and Cost-Effectiveness of a Victim Improvement Package (VIP) for the Reduction of Chronic Symptoms of Depression or Anxiety in Older Victims of Community-Crime: the VIP RCT Synopsis. *Public Health Res* 2026;14(8). <https://doi.org/10.3310/KGMR6521>