EVALUATION REPORT

South Wales Hospital-Based Violence Intervention Programmes

Implementation and Process Evaluation

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About the Evaluator

The evaluation was conducted as a collaboration between the Violence Research Group, the Centre for Development, Evaluation, Complexity and Implementation in Public Health Improvement (DECIPHer), Cardiff University, and the Swansea and Cardiff University Health Boards.

Executive Summary

The Project

Violence Prevention Teams (VPTs) are led by nurses in hospital emergency departments (EDs). They identify and support patients (including those aged 11 to 18) who attend hospitals with injuries associated with violence. The aim is to prevent patients' future involvement in violence. After identifying vulnerable patients, nurses provide advice and support and signpost them to other services. The VPT team will typically have one or two interactions with less vulnerable patients (in the ED or via a meeting, phone call or text message). More vulnerable patients can receive support for several weeks. In addition to the support provided directly to patients, VPTs also aim to raise awareness of their service across the hospital and train healthcare professionals to better identify patients at risk in EDs. Unlike ED Navigator programmes delivered elsewhere (that tend to use youth workers to support patients), VPTs use nurses. This project explored the delivery of VPTs in South Wales where the programme has been established in two hospitals (one in Cardiff at the University Hospital of Wales and a second in Swansea at Morriston Hospital).

The evidence for ED-based violence prevention is limited, and we lack a robust estimate of impact in a UK context. There is also limited guidance that can inform their current implementation and delivery. YEF and the Home Office, therefore, funded this implementation and process evaluation to explore the development and delivery of the VPTs. The evaluation aimed to explore a range of implementation questions, including how embedded VPTs have become in the two hospitals, to what extent delivery aligned with the desired model, to what extent patients engaged with the intervention and what strategies and practices are used to support good implementation. To explore these questions, the project conducted a scoping review of the literature before using documentary analysis, ED data (including data on patient demographics and engagement rates), and 49 interviews: VPT staff (n = 5), university health boards (n = 15), partnered third sector organisations (n = 17), local authorities (n = 7), South Wales Police (n = 2) and national organisations (n = 3). No interviews were undertaken with patients and service users. The National Institute for Health and Care Research (NIHR) has funded an accompanying effectiveness and cost-effectiveness evaluation that will be published in 2025.

Key conclusions
VPTs faced challenges embedding themselves into EDs. High hospital staff workload and turnover and the changing physical locations of VPTs made it difficult to keep hospital staff aware of them. Cardiff VPT addressed this by moving into a permanent safeguarding hub, a known location that ED staff could refer patients to.
Staff and stakeholders perceived that the model was largely implemented as intended. However, varying staffing levels, emergency department workload, and VPT staff work patterns (where staff mainly worked Monday to Friday, 8am to 5pm) hampered delivery.
Between November 2019 and December 2022, Cardiff VPT identified 2,312 patients who had experienced violence; 1780 of these patients engaged in the intervention. From January 2022 to September 2023, Swansea VPT identified 602 patients, of which 304 engaged with the intervention. An analysis of ED patient data suggests that VPTs improved the ability of hospitals to identify patients who had experienced violence.
VPTs across both sites were viewed by stakeholders to be acceptable, important and needed. VPT staff were seen as "violence prevention champions". Their nursing experience, skillset, personalities and abilities to work in an agile manner with varied and complex patient needs were praised.
VPT staff were trusted to make adaptations to the model to ensure effective delivery. For instance, Swansea VPT trialled evening and weekend staff shifts to improve engagement with the most in-need children.

Interpretation

VPTs faced challenges embedding themselves into EDs. High workloads reduced the opportunity for ED staff to engage with VPTs, and high ED staff turnover resulted in an influx of staff and trainees who were unaware of the VPTs. The physical location of VPTs could often change, meaning ED staff would be unaware of the new location and less able to consult with VPT nurses. Cardiff VPT addressed this challenge by moving into a permanent safeguarding hub, a known location that ED staff could refer patients to. However, this remained an ongoing

challenge in Swansea. Due to the short-term funding of VPTs, they were not perceived as a permanent service and were therefore not completely embedded into hospital standard operating procedures, operational policy documents or new-starter induction documents.

Documentary and interview data suggests that the theory of change underpinning the design of the VPT model was implemented as planned. VPT job descriptions, training and awareness-raising materials revealed expectations that patients would be contacted within 72 hours of their initial attendance. VPTs reported maintaining contact with patients for as long as needed to ensure continuity of care until patients could be transitioned into an appropriate source of support. When referring to third sector organisations or other in- or outpatient services, VPTs also provided the relevant patient information required for patients' support. VPT staff agreed that face-to-face interactions were most effective. However, they also emphasised that challenges with staff availability limited face-to-face interactions. VPT staff typically worked Monday to Friday, between 8am and 5pm, so they were not always able to reach patients face-to-face during evenings or weekends. Consequently, Swansea VPT trialled some evening and weekend shifts. Diverging from the initial theory of change, VPT staff reflected that the model should provide support at a "reachable" rather than a "teachable" moment. Rather than teaching specific knowledge to patients while they were in the ED, VPTs could focus on reaching young people and intervening in a more bespoke manner that accommodated a broader range of vulnerabilities and at a time when a patient was most in need.

Variable staffing levels were a barrier to fidelity and prevented some patients from being contacted within 72 hours. The initial formal referral process (requiring ED staff to complete referral forms) was also hampered by the ED workload. Over time, adaptations enabled a more informal approach. For instance, a single referral form was developed in Cardiff. In Swansea, a sticker would be attached to patient notes that alerted VPT staff that the patient was relevant to them. Once patients were referred to other services beyond the hospital, the waiting lists for those services could prove a barrier to delivering timely support.

Analysis of ED patient data suggests that VPTs improve the ability of hospitals to identify patients who have experienced violence. Between November 2019 and the end of 2022, the Cardiff VPT identified 2,312 patients attending healthcare who had experienced violence. Of those, 1,780 patients had engaged with the intervention, of whom 970 were referred on to other services. Analysis of the Cardiff ED Patient Management System alongside the Cardiff VPT data suggests that over 40% of all assault-related attendances identified by the VPT had not been identified in the ED Patient Management System, suggesting that the identification of patients who have been involved in violence is improved with VPT activity. Interviews suggested that VPTs could still improve their engagement, particularly of patients involved in the criminal justice system. It also proved difficult to engage patients involved in school-based violence.

Stakeholders across all participant groups viewed the VPTs in both sites as acceptable, important and, in most cases, needed. They were perceived to support the early identification of patients involved in violence and collect data and intelligence that informed the local multi-agency understanding of violence. VPT staff were identified in interviews as "violence prevention champions" – their nursing experience, skillset and personalities were perceived to be essential. The teams were also perceived to be agile, working with a range of patients with varying and complex needs (from children involved in child criminal and sexual exploitation to children engaged in potential terrorism). However, NHS, police and regional- and national-level participants believed there was a need to determine the effectiveness of VPTs in terms of measurable patient outcomes. Hospital staff further raised the importance of VPT acceptability to patients, particularly children and young people. This was considered a vital next step that should determine how and whether the service should continue. VPT staff were trusted to make adaptations to the model. For instance, the Swansea team made adaptations, including not requiring a referral form to onboard patients and asking NHS analysts to produce a regular report detailing patients affected by assault.

YEF will wait for the NIHR's accompanying effectiveness and cost-effectiveness evaluation before deciding whether to continue with further evaluation of VPTs.

Introduction

Background

Violence is a global public health concern (1). It has an enduring impact on individuals and communities, increasing the risk of behavioural, emotional and physical health problems (2). In the UK, violence presents a significant burden to the UK National Health Service (NHS) (3). Across England and Wales, it is estimated that there are over 30 attendances to emergency departments (EDs) for assault-related injuries per 100,000 population in a typical year, with over 3,000 attendances each year among young people under 18 years of age (3). In response, the UK Government has promoted a whole system multi-agency approaches to violence prevention (4). Through the 1998 Crime and Disorder Act and Serious Violence Strategy (5), requirements are placed on the police, local government and the NHS to collaborate on joint strategies, with additional guidance on effective partnership working included in the Serious Violence Duty (6). To promote the whole system multi-agency approach, the UK government allocated funds for the formation of Violence Reduction Units (VRUs) and, in Wales, a Violence Prevention Unit (VPU) (7, 8). This whole system multi-agency approach represents a move towards active population health management and is consistent with the NHS future plan (9), which further advocates for Integrated Care Systems in NHS England that facilitate greater involvement of healthcare in violence prevention. This builds on the current Information Sharing to Tackle Violence standard (10), which places requirements on healthcare providers to share anonymous data relating to violence-related injury to local community safety partnerships, including the police.

While policy expectations exist with respect to violence prevention practices, interventions and services remain limited in the NHS, and there is a growing need to identify and test their role in hospital settings. Hospital-based violence intervention programmes (HVIPs), typically based in EDs (11-13), are emerging as a means of supporting patients attending ED due to violence. HVIPs first emerged in the United States (US) (7) but are expanding with examples now found in Canada, New Zealand and the United Kingdom (UK). The evidence for HVIP effectiveness is, however, variable (7, 14). What evidence is available suggests that HVIPs in EDs may reduce revictimisation and patient involvement in the criminal justice system (7). The limited evidence is further compounded by most studies being undertaken in in the US, with little consideration of the acceptability and feasibility of generalising those models to jurisdictions with different population needs and healthcare systems (7, 14).

Uncertainty over the generalisability of HVIPs, their acceptability in the ED setting and the lack of guidance for their adaptation, implementation and delivery remains despite HVIPs being increasingly implemented in the UK. In Scotland, for example, the Scottish VRU has placed Navigators in EDs, volunteers who connect with patients aged 25 years and younger. They offer psychosocial support and refer patients to third sector organisations. In London, RedThread delivers a youth worker-led intervention. Current UK models use youth workers and are based on mentorship, but evidence for these in an ED context remains limited. The Violence Prevention Teams (VPTs) evaluated here represent a departure from other UK HVIPs, as they are nurse-led and, as such, have access to hospital and community patient records, consistent with safeguarding in ED more generally, which is also nurse-led.

Intervention

A Template for Intervention Description and Replication (TIDieR) (15) is presented in Appendix 1.

As part of the VPU's strategy to prevent violence in Wales, VPTs were established in November 2019 in Cardiff, South Wales, at the University of Wales Hospital, an urban hospital and major trauma centre. In January 2022, a second VPT was implemented in Swansea, South Wales, based on the 2019 model, in Morriston Hospital, an urban emergency hospital that includes orthoplastics and, therefore, the treatment of major trauma. Morriston ED covers a smaller population than UHW ED but is one of the larger EDs in Wales. The VPTs were funded by the UK Home Office and Youth Endowment Fund (YEF), with the funding administered by the VPU and the Office of the South Wales Police and Crime Commissioner.

The Welsh VPTs are unique in the UK; they are led and delivered by nurses, whereas other HVIPs are typically volunteer-led and delivered by youth workers. The VPTs were initially created to identify and support young people aged between 11 and 25 years who attend ED with injuries associated with violence. Case management of children under 11 years of age is typically undertaken in emergency paediatrics and involves multi-agency teams in local government; patients who are victims of domestic or sexual assault or abuse are supported by existing services, including Independent Domestic Violence Advocates (IDVAs) and Independent Sexual Violence Advocates (ISVAs).

An initial formative service evaluation of the Cardiff VPT was undertaken by the VPU and Public Health Wales (16). A theory of change was developed, and the evaluation framed activities as a complex interventions comprised of a core set of activities and functions that worked across multiple interacting levels.

Level I: Patient Level

- Identify patients and assess modifiable risks and vulnerabilities.
- Provide patients with advice and support.
- Signpost and support patients' engagement with other services that are appropriate to their vulnerabilities and modifiable risks.

Level II: Healthcare System Level

- Raise awareness of the VPT across clinical teams in ED and wider hospital settings and establish the VPT as an embedded component in emergency care.
- Train and upskill healthcare professionals to improve the ascertainment of patients attending ED because they have been exposed to violence, increase the confidence of staff in case reporting and data capture, strengthen safeguarding procedures and improve patient referral processes into the VPT.

Level III: Broader System Level

- Work in partnership with statutory services, including social services and the police, as well as third sector agencies, to ensure patients receive adequate support and their needs are appropriately assessed (16).

While the population for VPTs is primarily ED patients, the broader influence of VPTs means that their activities can influence the provision of care both within ED and in specialties across the healthcare estate (through upskilling clinical staff and improving referral processes for patients). They can also influence the broader violence prevention ecology through improving the ascertainment of violence hotspots, sharing anonymous data and intelligence, and referring patients into third sector agencies.

The formative process evaluation (16) was undertaken during the COVID-19 pandemic and was therefore limited, as the provision of emergency care had changed significantly during this time, and only the Cardiff VPT was operational. As a result, there is a need to understand how both VPT models operate and any adaptations that were required or may be required in future to implement the VPT model in other ED settings.

Rationale

Despite HVIPs having emerged as a public health response to violence (13, 17) and being increasingly implemented across the UK, published evaluations remain limited, with limited guidance to inform their implementation and delivery. This is notable given that the VPTs are situated in complex emergency healthcare systems – where change is hard to achieve – and interact with both the healthcare system and external organisations, including the criminal justice system and the third sector (18). To address the lack of guidance, we conducted a process evaluation. Process evaluations can be used to explore the implementation, causal mechanisms and contextual influences associated with complex intervention outcomes (18). The overarching aim being to contribute to understanding how VPTs function through examining their implementation, mechanisms of impact and the broader contextual factors associated with their design, delivery and fit within the ED, healthcare and wider violence ecology.

The process evaluation has taken place at the same time as a National Institute for Health Research (NIHR)-funded effectiveness and cost-effectiveness evaluation of the VPTs (due in 2025 and will be available at www.journalslibrary.nihr.ac.uk/phr). The effectiveness and cost-effectiveness study does not capture the operational context of VPTs, and therefore, the findings from the current process evaluation will complement this project.

Study Design

Aims

With reference to the Medical Research Council guidance for process evaluations (18, 19), this study aimed to understand the functioning of the existing VPT models by examining their implementation, mechanisms and context using qualitative methods, document analysis and secondary analysis of routine data. Understanding the adaptation of the intervention from Cardiff to Swansea was further informed by guidance for adapting interventions to new contexts (20).

Research Questions

The presentation of results is primarily grouped by themes emerging from the analysis. To inform data collection, primary and secondary research questions were co-produced between January and March 2022 with stakeholders (Appendix 2) and with additional input from Public Patient Involvement and Engagement undertaken with young people (Appendix 3). The research questions informed the methodological approach (Table 1,

Methods P11).

Table 1 – Research questions motivating data extraction and analysis.

	Primary research questions	Method
1	To what extent have VPTs become embedded within broader hospital systems?	DA, SSI
2	To what extent is the intended delivery model adhered to?	DA, SSI
3	How much of the intended intervention has been delivered?	DA, SSI
4	How well are the different components of the intervention being delivered?	DA, SSI
5	To what extent does the intervention reach increase the ascertainment of patients attending ED who were exposed to violence?	DA, RD, SSI
6	To what extent do patients engage with the intervention?	DA, RD, SSI
7	How were in-hospital referral pathways developed for patients, and to what extent were patients supported across institutional transitions (both within the NHS and to partners outside of the NHS)?	DA, SSI
8	What were the perceived needs for and benefits of the intervention among implementers and related stakeholders?	DA, SSI
9	What strategies and practices are used to support high-quality implementation?	SR, DA, SSI
	Secondary research questions	
10	What adaptations were undertaken to the original model when the second VPT in Swansea was established, and why?	DA, SSI
11	What were stakeholders' views on the types of settings to which the model can be transferred to?	SSI

Note:
SR: scoping review; DA: document analysis; RD: routine data analysis; SSI: semi-structured interviews

Ethical Review and Considerations

The study was considered and approved on 25 November 2022 by the Cardiff University School of Dentistry Research Ethics Committee (DSREC/2213a). The primary ethical issues associated with this research related to data management and anonymisation, which were addressed in a Data Management and Protection plan (Appendix 4).

Project Team

Chief investigator	Professor Simon C Moore[1]
Co-investigators	Professor Graham Moore[2], Jordan Van Godwin[2], Dr David O'Reilly[3]
Project manager	Jordan Van Godwin
Research assistants	Niamh Clift[3] and Megan Hamilton[1]

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Methods

Process Evaluation Design

The study protocol was pre-registered (ISRCTN: 15286575, 13 March 2023) and published on 25 October 2023 (21). To enhance the completeness of our understanding of the VPTs and address the research questions, the process evaluation consisted of multi-phased, mixed methods that combined primary research with stakeholders and secondary, desk-based analysis.

- A scoping review of peer-reviewed and published emergency care-based interventions for those who experience violence. The review focused on what emergency care interventions work for those experiencing violence as well as how they work and in what context, including what is required from an intervention implementation perspective.
- Documentary analysis (e.g. job descriptions and standard operating procedures) to determine the core set of VPT functions and how they are situated with and complement existing ED, hospital, safeguarding and wider violence prevention processes
- A descriptive analysis of routine ED data (anonymised and aggregated) described patient age, gender and other characteristics to assess the prescribed delivery models in Cardiff and Swansea and understand whether the model of delivery can be expected to account for all ED assault-related attendances (ARAs). The routine data analysis also sought to compare VPT ascertainment and engagement rates of ARAs with the number of ED unscheduled attendees with injuries due to an assault.
- Interviews with stakeholders and clinical staff involved in the violence prevention ecology
- Update of the formative logic model (16) for the VPT model

Patients and Service Users

The primary focus of this evaluation was the context and systems in which the intervention was being delivered. While including qualitative data from patients exposed to the intervention may have provided additional insights, the resources needed to undertake that work with vulnerable patients in the emergency care system were not available.

Data Collection and Analysis

Scoping Review

There is moderate evidence for the effectiveness of HVIPs (7), which is tempered by the heterogeneity across HVIPs in form and function. There are variations with regard to how violence-related ED attendances are ascertained and who assesses and undertakes discharge planning for patients exposed to violence. Capturing this variability informs evidence-based practice in EDs (22) with respect to patient case management and the involvement of the broader clinical team, as well as the community resources that could be made available to patients following discharge. Furthermore, there are likely geographic variations in patient needs and pre-existing prevention strategies to which HVIPs might be adapted (20, 23). Identifying the range of implementation characteristics of HVIPs provides an important context into which the findings presented here can be understood.

The electronic databases PubMed, Web of Knowledge, Science Direct, EBSCOHost (PubMed, CINAHL with Full Text, MEDLINE), Google Scholar, BioMed Central and World Health Organization library were searched. Articles identified were also subject to a “cited by” search with reference sections in each article reviewed. Keyword searches were used, and two reviewers screened titles, abstracts and full articles. A thematic analysis was employed to present the narrative account of the review. A scoping review protocol was drafted (24), which detailed the full process for the review and the initial a priori themes developed based on the research questions and existing theory. A narrative summary of findings is presented without reference to the methodological quality of the studies (25).

Document Analysis

The document analysis (26) focused on job descriptions for VPT personnel, blank patient assessment forms, VPT referral forms and forms used by the VPT to refer patients into other agencies, materials used by VPTs to raise awareness of the interventions, and training materials. Job descriptions and business cases for the caseworkers were also included, as were hospital standard operating procedures, thereby enabling an understanding of the extent to which VPTs established a presence outside the ED and within the hospital, health board and wider agencies. Documents were subjected to a thematic and content analysis, with repeated reading of the data to construct codes and categories. Two researchers conducted the extraction and analysis, with regular discussion and refinement of codes. An initial framework was drafted by the research team and developed from the initial engagement with the interview transcripts, the research literature and the core concepts of process evaluation, as outlined in the MRC guidance.

Routine Data

The emergency department data set (EDDS) and VPT data were accessed and descriptively analysed to characterise the nature and incidence of ARAs at the two EDs. Police data concerning violence against the persons were also descriptively analysed to identify trends in crime data. All data were anonymised.

Semi-Structured Interviews

Semi-structured interviews were undertaken with stakeholders from statutory and non-statutory organisations who were either professionally associated with the VPTs or situated within the broader violence prevention ecology. They were recruited through existing professional networks, with additional snowball sampling. Interviews took place virtually by video call – with one in-person interview – between January and September 2023. Bespoke semi-structured interview guides were used during interviews to situate VPTs within the broader ecology of practice and describe the inter-relationships between partners. Initial research questions (P9) were adjusted and tailored depending on the group the participant represented, for example, the VPTs themselves, wider NHS professionals, regional or national stakeholders, as well as those in operational or strategic roles.

Thematic analysis (27) was conducted to identify, analyse and report patterns to enable both the structured and unstructured aspects of our evaluation while building on the formative VPT programme model and theory of change (16). An iterative coding framework was drafted by the research team, built upon initial reading of the transcripts, the literature and the core concepts of process evaluation, as outlined in the Medical Research Council guidance, as well as the emerging frameworks for adapting interventions in new contexts (20, 28). Two researchers analysed five transcripts that covered different participant groups using these initial codes, comparing and contrasting the applicability of the codes and subsequently making additions to the coding framework based on their own perspectives. The coding framework was shared with the wider research team, and consensus was reached on its use for the remaining coding process. Reflecting the nature of thematic analysis (27), throughout the data collection and coding phase, ideas, insights and themes were also generated within and between the codes. Following coding, two researchers discussed their perspectives on overarching and underpinning themes within the coding framework. One researcher brought this together into a Word document alongside illustrative quotes of these themes. The themes and exemplars were then shared with the wider team to gain their perspectives on the applicability of these themes to the data analysed. Given the volume of data recovered, and to address the research questions with clarity, the analysis of data is presented according to each of the core codes developed in the initial phase of data analysis. Interspersed within these sections, which were informed by the core tenets of process evaluation, were overarching themes across the data set. These are summarised in Appendix 3.

Participants

Eligible participants were professionals associated with the VPTs in Cardiff and Swansea, either within the health or police estates or non-statutory partners. Participants were recruited purposively across the violence ecology, stratified by sector (e.g. police, health, local authority) and responsibility (e.g. practitioner, decision maker, advisor, commissioner) from December 2022 to August 2023. The evaluation team followed best practices in ensuring informed consent, and all participants received study information in advance and, if they

chose to take part, provided informed consent. An initial email was sent to all relevant members of the VPTs informing them of the study. A participant information sheet and consent form were sent along with the email detailing the study and their proposed involvement. During the initial interviews, snowball sampling methods were adopted to identify other relevant professionals for the interviews. Recruitment continued until data saturation was reached.

Results

Scoping Review

The search returned 203 results, of which 35 were retained for a full-text review. We identified an additional 10 articles from the reference sections of the identified papers (7). Following a full-text review of these 45 papers, 38 were included. The studies were published over 23 years (1999-2022), with an even distribution over this time. Three reported on different aspects of the same randomised controlled trial (29-31). HVIPs do not typically support victims of domestic violence, intimate partner violence and sexual assault (7), and papers specific to these patient groups were, therefore, excluded, narrowing the review to 20 research papers.

Study Characteristics

Location

Eighteen studies were undertaken in the US, with two taking place in Canada. All studies reported on HVIPs that were entirely based or originated in EDs. The majority of HVIPs discussed in studies were implemented as a part of the research being undertaken rather than studies independently evaluating existing or planned services.

Design

Eight studies explored intervention effectiveness (29, 30, 32-37), and four focused on efficacy (38-41) (this is based on the terminology used by the authors, and the distinction between effectiveness and efficacy is unclear). Two papers considered acceptability, feasibility and effectiveness (42, 43), and two discussed feasibility and effectiveness (44, 45). There were also papers on acceptability and effectiveness (46), acceptability and feasibility (47), implementation (48) and intervention development (31).

Eligible Populations

Patient eligibility for the HVIPs was mostly (n = 16) restricted to young people aged up to 24 years of age. Five included patients from the age of 18 years, with no upper age limit (33, 34, 39, 40, 47, 49). None focused on perpetrators of violence. Eight focused on those attending with a violence-related injury, and two focused on patients with firearm injuries (34, 40). Four studies required two qualifying factors for patients to be eligible: either self-report alcohol use and violence exposure (37, 38, 42) or depression and violence (43). Two studies also included patients presenting with unintentional injury (34, 35). Populations were primarily recruited from the ED; only one study received referrals from other hospital departments (35). Nearly half of the studies reviewed described HVIPs where patients were eligible if they were English-speaking or patients and their families were literate (32, 34, 35, 39, 40, 42, 43, 47-49). The reasons for these criteria were not explained.

Ineligible Populations

Patients who were ineligible for the HVIPs included those attending with injuries sustained through intimate partner violence or sexual assault, injuries that were self-inflicted or sustained through child abuse, as well as those presenting with an altered mental status or suicidal ideation. The rationale given was that these patients would be subject to usual care pathways. It was not clear whether HVIPs increased the ascertainment of these patient groups. High acuity patients or patients living outside the ED catchment were also ineligible. Patients injured because of sibling fighting or those in custody were also ineligible.

Reach, Recruitment and Retention

Two studies reported barriers in recruiting patients who attended EDs and were discharged within 24 to 48 hours (36, 40). Others reported difficulties reaching high-risk populations, including patients who were geographically mobile (29-31). Reasons for patients declining participation included a belief that their experience of violence was unique or that they harboured a fear of exploitation (44). One study's eligibility

criterion was for patients who were able to demonstrate a motivation to change (45). One study reported that men were less likely to engage compared to women (41). Six studies incentivised patient engagement with the interventions using financial rewards but did not report on the effectiveness of doing so (37, 38, 41-43, 47). One study suggested that incentivisation was a limitation in that patients only engaged with the intervention for the financial reward rather than because they valued the intervention (43).

Intervention Characteristics

Age Groups

Interventions for younger cohorts included brief interventions or patient management, with one intervention delivering both (36). Other interventions included mentoring, motivational interviewing, web-based instruction, therapeutic counselling and text messaging. Four studies focused on younger patients (37, 38, 41, 42) and involved translating an intervention from an urban community setting to the ED environment (48). Other interventions that were restricted to patients aged 18 years and under involved a family-based approach and sought to address modifiable risks or promote protective attitudes or behaviours (32, 33, 44, 46). Several evaluations drew on developing guidance on HVIP delivery but recognised evidential limitations supporting that guidance (29-32).

Intervention Theory

The theory of change informing intervention content but not necessarily being reflected in how interventions were delivered identified “teachable moments” (32, 33, 46, 50). The rationale was that patients were susceptible to behavioural modification due to the circumstances of their ED attendance. However, studies did not consider the generalisability of the “teachable moment” across patient groups, such as patients with chronic conditions, with only one reflecting that they may not be relevant to all patients equally (34). This theory of change was generalised beyond the circumstances of ED attendance to include patients’ families and patients’ need for education (32), as well as patients’ need for adult mentors (32, 44). Some interventions were psychologically informed, drawing on motivational interviewing (42, 47) and Cognitive Behavioural Theory (36, 48) as inputs. Screening tools were also included in some interventions to provide a structured approach to conversations about violence and, therefore, the identification of modifiable risks and vulnerabilities (39). One study reported that patients who attended EDs due to violent injury would not typically engage with other services, including the criminal justice system (51). While this reinforced the need for HVIPs in EDs, similar constraints also existed in EDs. Patients needed to be well enough to engage with the intervention and accessible to the intervention team. Lower acuity patients can have limited time in the ED, which limits opportunities for face-to-face contact (36, 40).

Length of Intervention and Assessment Period

The duration of HVIP contact with patients varied from a single session involving a brief intervention or assessment to ongoing support of one week, three weeks and up to six months (32, 36). Typically, HVIPs involving Community Case Management, typically collaborative efforts across community-based services providing support and advocacy to individuals as they engage with various community-based services, were in contact with patients for longer periods, up to 12 months in one study (36). Continuous support, including multiple encounters, was believed to improve the rapport between patients and support workers (33, 36). One study suggested that positive outcomes were more likely as the time spent with patients increased (35).

Culturally Sensitive Interventions

Some studies described interventions that were culturally sensitive or involved a culturally competent team (33, 36, 45). In some cases, healthcare staff had received training on specific cultures and the experiences and needs of the target population (39).

Technological Adaptations

Clinical demands in the ED reduce the availability of staff to support patients (52). Accordingly, some HVIPs technologically innovated to overcome this barrier. This included texting patients (43), offering web-based interventions (47) and sending web-based questionnaires to assess patient needs (53).

Key Actors and Agents

Various staff roles were identified in HVIP implementation and delivery. A number relied on additionally provisioned research staff to recruit patients and to work with families (32, 39, 47, 49) or employed additional therapists (37, 38, 41, 42, 48). Some HVIPs developed collaborations across usual practice and, therefore, a multidisciplinary approach that involved social workers, case workers and medical professionals, including representatives from psychiatry, epidemiology, preventive medicine, trauma and critical care (33, 36, 44). One study included representatives with relevant lived experiences (36). Another study included a parole and probation officer alongside a social worker (33), although perpetrators of violence were not specifically identified as an eligible cohort. There was a preference for HVIPs that were delivered and supported by multi-disciplinary teams that contained elements of family engagement and support (33, 46) and that took a holistic and bespoke approach to patient needs (33, 44), combining brief interventions with ongoing community support (33). However, a brief motivational intervention could be suitable for vulnerable young people (37, 41).

Intervention Delivery

Across studies, HVIP delivery variously included research or clinical staff (36) and, on occasion, extended collaborations to community partnerships (36). Engagement with the broader ED clinical team played a role, as they were best placed to notify HVIPs about eligible patients (31). However, little detail was provided on the process of engaging and working with ED staff and what training and information was used to support this. When detail was provided, ED staff were educated about the HVIP policies, procedures and goals of the intervention, but not what training frontline staff receive to support their engagement with patients where there are suspicions of abuse or violence. Furthermore, limited staffing and changes to staff in EDs challenged implementation (29-31, 36, 48).

Contextual Influences

Most studies outlined the ED context within which the interventions were delivered from the perspective of annual patient attendance numbers and the lack of services available to support patients' psychosocial needs within the ED. Studies identified the importance of onward referral into appropriate services either through existing or bespoke referral processes involving community service providers. For example, one paper reported developing a linkage between an ED and a social service agency (31). The potential impact of EDs being based in high-risk communities was recognised in several studies, with some associating this as a potential limit on generalising their intervention to other contexts (29-33, 37, 46). Four studies reflected the absence of service providers offering long-term support in the community. This was most evident in relation to the provision of services for substance misuse and mental health (29-31, 37).

Outcomes

Patient Level

At the patient level, outcomes focused on violence recidivism, repeat hospitalisation, arrests, incarceration, re-injury, violence exposure and aggression. Studies also focused on vulnerability to violence and the wider determinants of poor health and violence, including unemployment (33, 36), lack of education (36), alcohol use (35, 38, 41, 42, 45), substance abuse (41, 45, 47), mental health (35, 37, 43), including PTSD (35), and attitudinal changes, such as increased self-efficacy (32).

At the broader system level, some studies reported on reductions in the use of, or more appropriate use of, health services (31, 36, 46) for HVIP patients receiving a Brief Violence Intervention or Community Case Management, thereby reducing the burden on healthcare within emergency care and wider healthcare (36).

One study indicated that the intervention was associated with lower resource utilisation in the criminal justice system, including arrest rates (33).

Patient Ascertainment

Eligible patients were identified in the ED by monitoring patient attendance data or reviewing patient management systems. Identification was usually undertaken by project-specific research assistants rather than routine monitoring by ED staff. The hours when identification was undertaken varied, with few offering a full 24-hour and seven-day-a-week service (41). In one case, ascertainment was achieved through an understanding of known patients' risks of repeat violence victimisation (33), including those with risks associated with unemployment, drug use, past or present involvement in the supply of illicit substances, low income, poor educational attainment and a history of incarceration (33).

Routine Data Analysis

The Cardiff VPT began in November 2019 and, up to the end of 2022, had identified 2,312 patients attending healthcare who had experienced violence (Figure 1). Of those, 1,780 patients had engaged with the intervention, of whom 970 were referred on to other services. An analysis of the Cardiff ED Patient Management System alongside the Cardiff VPT data suggests that over 40% of all ARAs identified by the VPT had not been identified in the ED Patient Management System, strongly suggesting that the ascertainment of violence is improved with VPT activity.

Data points greater than zero but less than ten are not shown. This is to reduce the risk of inadvertent disclosure. Referring to Figure 1, the first eight months of the intervention served as a bedding-in period, with the number of patients lower than in subsequent months. However, this might be partially attributable to the COVID-19 pandemic, which was associated with a reduction in ARAs from early 2020 (54). From January 2022 to September 2023, the Swansea VPT identified 602 patients, of which 304 had engaged with the team, with the first recorded patient attending in January 2022 (Figure 2).

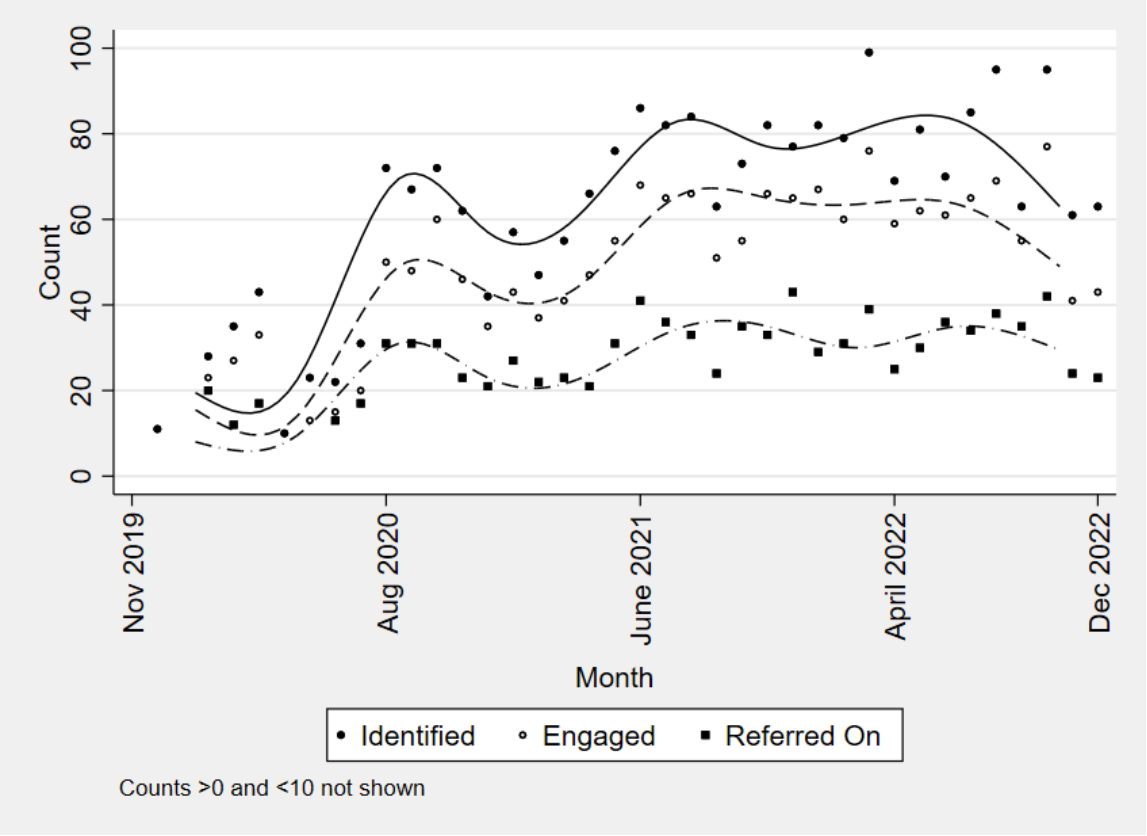

Figure 1 – Count of patients identified by the intervention team in Cardiff, engaged with and referred on by month.

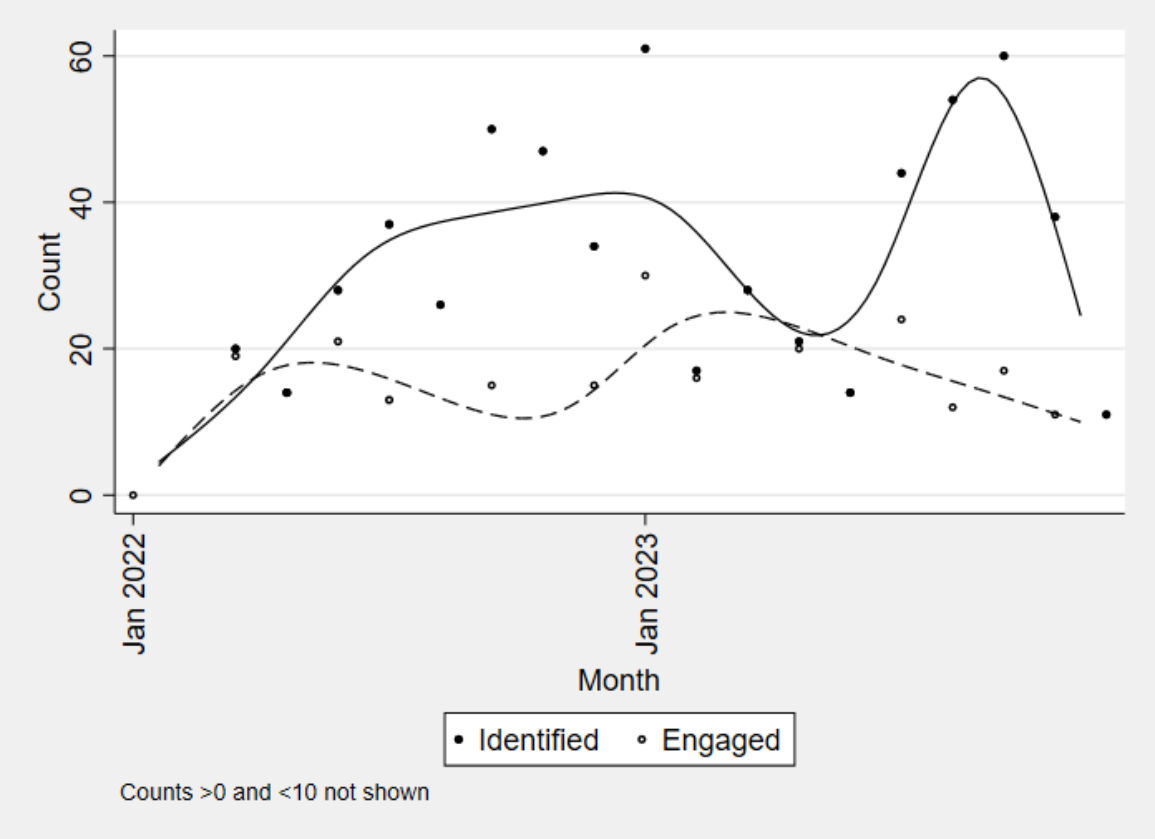

Figure 2 – Count of patients identified and engaged by the intervention team in Swansea by month.

The EDDS, which includes the patient management system data from all EDs in Wales, indicates that approximately 50% of all ARAs are over 20 years of age; 10.5% were aged 12 years or younger, and 29.5% were 13 to 19 years of age (Figure 3 and Figure 4).

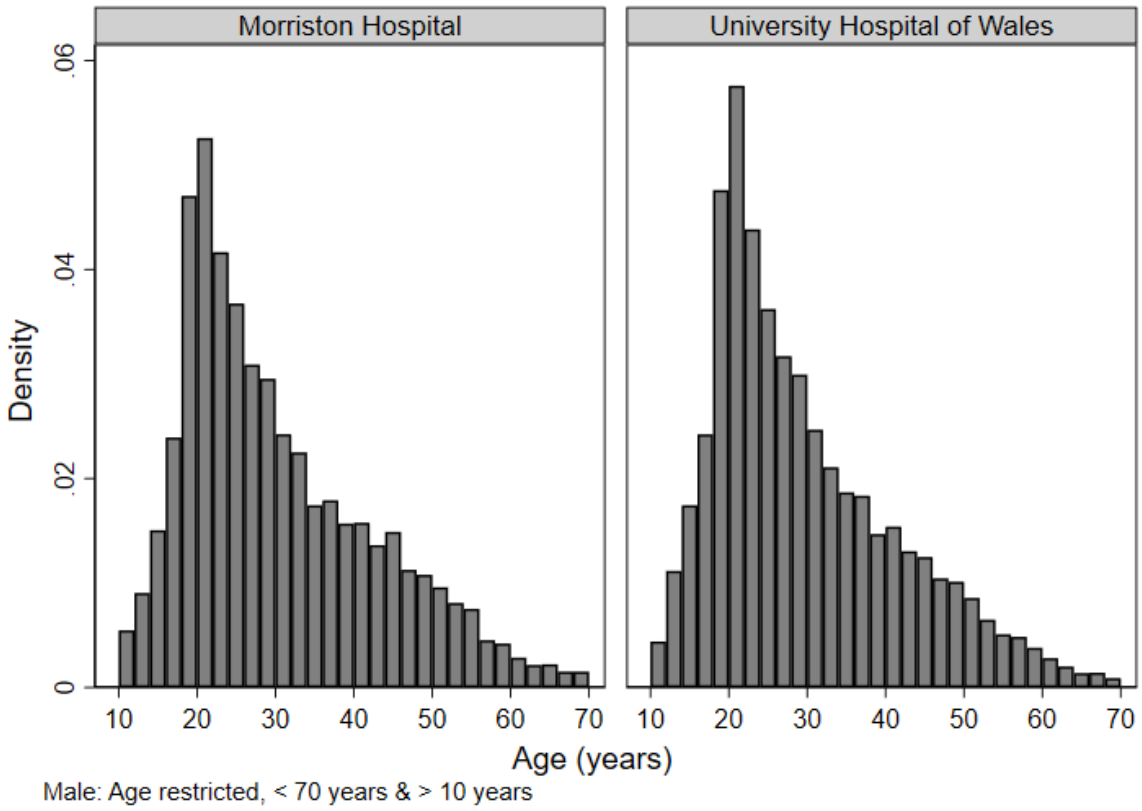

Figure 3 – Histogram of male patients' ages for the two EDs.

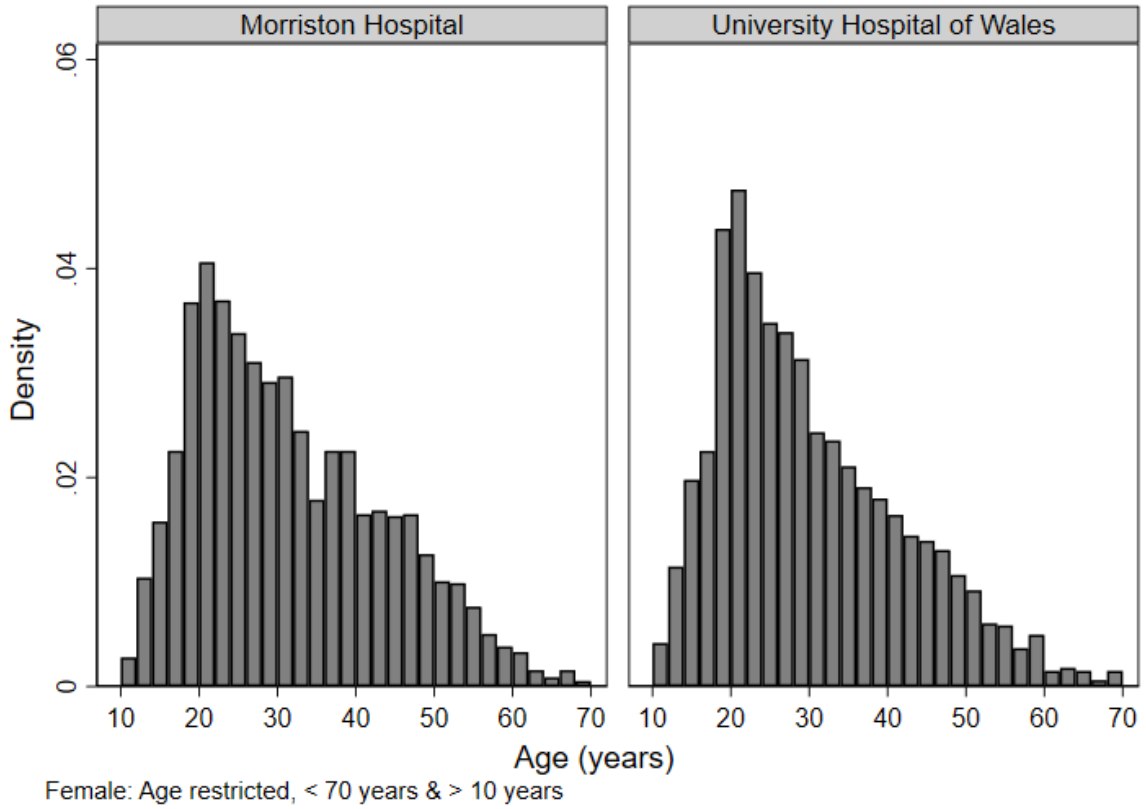

Figure 4 – Histogram of female patients' age for the two EDs.

The most dominant ethnic group recorded was "white". The majority of attendances arrive on Friday and Saturday nights (Figure 5). It was more likely that a patient would engage with the Cardiff VPT if they were met face-to-face (odds ratio [OR] 2.14, 95% confidence interval [CI] 1.61 to 2.67), and it was statistically more likely they would receive a referral if they engaged with the VPT (OR 3.11, 95% CI 2.71 to 3.51).

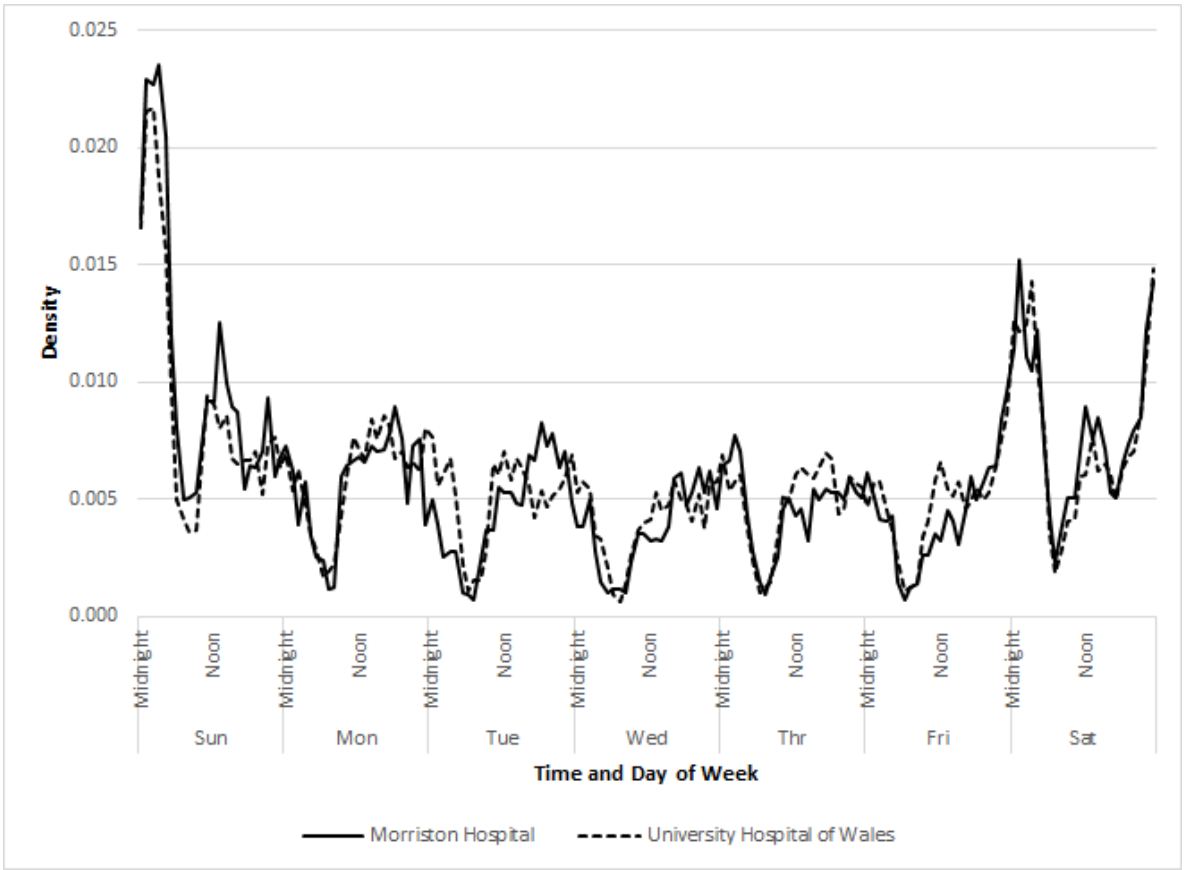

Figure 5 – Time distribution of ARAs identified in the EDDS, Cardiff and Swansea EDs.

The injuries sustained were mainly due to blunt force trauma, although a significant proportion – approximately 18% – sustained lacerations, and other modalities included bites, firearm-related injuries, burns and strangulation.

The vulnerabilities identified in patients engaging with the Cardiff VPT included alcohol and substance misuse, asylum seekers and refugees with limited English, chronic health conditions, homelessness, learning disabilities or neurodevelopmental conditions (including autism, attention deficit hyperactivity disorder), poor mental health, offenders released on probation and young offenders. Rare but significant vulnerabilities further included patients at risk of radicalisation and terrorism who were referred to the Prevent programme, the application of an Osman warning used for patients involved with gangs, as well as child criminal and sexual exploitation. The VPT informed social workers and school nurses of patients known to be involved with those organisations. Multi-agency referral forms were completed. VPT data further identified incidents that were reported to the police, and as the majority of these resulted in a formal statement being made, a record of the police incident number was included in the VPT data. The Cardiff VPT further engaged with and referred patients into a broad range of statutory and third sector organisations. These included Victim Focus, the Amber Project, Achieving for Children, Child and Adolescent Mental Health Services, St Giles, Drug and Alcohol Services, housing and homelessness support, and MIND. The broad range of links across statutory and third sector organisations and the large proportion of patients engaging with the VPTs suggest opportunities for VPTs to contribute intelligence relating to the causes of violence locally.

Document and Semi-Structured Interview Analysis

Documents Analysed

Table 2 provides a summary of the document types included in the analyses.

Table 2 – Document types.

Type	n
Awareness Raising and Training Materials	13
Referral and Pathway Forms	13
Job Descriptions and Associated Materials	8
Monitoring Reports	6
Patient Assessment and Contact Forms	3
ED and Hospital Level Documentation	3
Total	46

Participants Interviewed

Table 3 provides a breakdown of the participants interviewed. Of those who took part, an even split was achieved between the two sites being evaluated (Cardiff n = 22 and Swansea n = 19), with additional participants recruited from regional or national groups that had perspectives on both areas (n = 8). Interviews lasted between 36 and 96 minutes. Participants represented key groups and sectors targeted. Within their roles, additional coverage was achieved of both operational and strategic activities. Those interviewed included VPT staff, ED nurses, doctors and consultants, third sector caseworkers, senior staff in third sector organisations, local authority leads for safeguarding and violence prevention, and senior police officers from South Wales Police.

Table 3 – Interview participant breakdown.

Group	n
Violence Prevention Teams	
Cardiff	3
Swansea	2
University Health Boards	
Cardiff and Vale	9
Swansea Bay	6
Third Sector Organisations	
Cardiff	8
Swansea	9
Local Authorities	
Cardiff	2
Swansea	2
Both Cardiff and Swansea	3
South Wales Police	2
National Organisations	3
Total	49

Themes

The analysis of documentary and semi-structured interview data was driven by 11 research questions developed in consultation (Research Questions, P9). The interpretation of these data, consistent with qualitative approaches generally, departed from initial expectations and are, therefore, clustered according to themes that better accommodate insights unexpected in formative planning stages.

Violence Prevention Teams in the Violence Prevention Ecology

At the time of this evaluation, VPTs were maturing, with interview and documentary data highlighting the growing breadth and diversity of agencies and services they collaborated with. This included specialties and clinics within the NHS, local and regional community-based organisations, and statutory, non-statutory and third sector organisations. This diversity mainly reflected and responded to the range of support their patients required. Furthermore, VPTs increasingly played a central role in partnership and multi-agency work and contributed to wider violence prevention ecology.

Theory of Change

Documentary and interview data described initial expectations before the VPTs were implemented that they would exploit "teachable moments" as the primary method for changing patient behaviour. A "teachable moment" was described as a point of crisis. When patients attended the ED, they were likely to consider their situation, be more amenable to engaging with support and, therefore, reconsider their options.

> "So, they've come in for an assault, and we're there to explain to them, teach them, educate them, create awareness related to crime and violence and making sure that they don't come back in with the same kind of situation, they know better, and they know what to do to keep themselves safe and understand the implications of basically all of the actions. That age is kind of a prime age, so basically, it's trying to break that cycle, providing that specialist support and services, so that's the information that I've got so far why the team has been set up, and I think we're working really hard to achieve that objective basically" (P101).

However, following implementation, views diverged around the extent to which VPTs educated patients according to the precepts of the "teachable moment". Some participants suggested VPTs provided a less prescriptive and more holistic approach that exploited patients' "reachable moment". This need for a more holistic approach was discussed with reference to patients who were not otherwise engaged with services, and especially for patients involved with trafficking, county lines drug gangs, criminal and sexual exploitation, and knife crime. The rationale being that these patients require ongoing support beyond an unsophisticated brief behaviour change intervention during a "teachable moment".

Violence Prevention Champions

Interview data identified the VPT staff as "violence prevention champions", indicating that they were influential and credible advocates for the service, noting that their nursing experience, skillset and personalities were essential in establishing the VPTs.

> "I think [VPT staff name] sort of made it into something through their hard work; I think they thought, 'Right, what do we need to do? How do we need to do that?' You know, you've got somebody who was an Emergency Department nurse, and the Emergency Department she was working in, who obviously had some credibility amongst her colleagues. And could go to them and get themto refer patients, and they pushed, and they came to speak to people, and because of the efforts that they made" (P109).

The ED Environment

Interview data indicated how some NHS staff were interested in and passionate about violence prevention; however, participants highlighted their belief that others in the NHS did not believe that the NHS should have a role in violence prevention. Although there was an acceptance that the VPT had the potential to demonstrate how the NHS could support patients, with relevance to the requirements of the NHS under the Serious Violence Duty.

VPTs were located within EDs, working as part of the broader nurse safeguarding teams, which had experience in violence prevention activities, with expectations that VPTs would receive referrals from ED staff. Being situated within EDs, however, subjected the VPTs to conditions within these busy clinical environments. This included:

- The elevated workload on ED staff meant they had little opportunity to engage in additional activities, such as completing patient referral forms for the VPT.
- High staff turnover, resulting from either using agency staff to plug staffing gaps or from trainees rotating through ED, meant there was a continual need to engage with staff to ensure the needs of VPT were met.
- The physical location of the VPTs could often change, meaning ED staff would be unaware of their new location and less able to consult with VPT staff.

These situational factors presented challenges to the VPT staff that needed to be overcome. The high ED staff turnover meant that there was a continual influx of staff unaware of the VPT. VPTs, therefore, continually engaged with ED staff.

> "They have a lot of agency staff here [...] I was working at the weekend and there was a lady in, and I said: 'Oh, I haven't seen you before.' And she said: 'Oh, yeah, I do some agency shifts here, but not very often.' So, I was explaining my role to her, and she was like: 'Oh, that's really interesting.'" (P102).

Interactions between VPTs and ED staff were often informal conversations in which specific patients were discussed. Opportunities for these informal interactions were undermined when VPTs continually changed offices. This was resolved in Cardiff when the VPT moved into a permanent facility dedicated to safeguarding, the "safeguarding hub". It meant that ED staff had a known location to refer patients and could approach VPT staff for advice. Being located in the safeguarding hub, alongside the IDVA, ISVA and related personnel, further promoted teamwork and provided opportunities for informal consultations across the team. However, this remained an ongoing challenge in Swansea.

> "I think the environment makes it more difficult. So, we're in our seventh office in three and a half years. So, Accident and Emergency is very much a fluid changing organism [...] we get moved around a lot..." (P103).

ED participants further identified a more general effect of VPTs in the wider hospital. They reduced the burden on ED staff, providing them with access to additional support for victims of violence, and further enabled ED staff to safeguard themselves in potentially harmful situations. VPTs implemented safeguarding measures in the ED and onwards for situations where patients, or those visiting patients, were considered dangerous or were at risk of harming staff. An example was also provided of how the Cardiff VPT had intervened to prevent members of the Red Cross in Cardiff ED from taking a patient home who had a history of sexual assault victimisation.

> "If they weren't there, I can categorically say that safeguarding ourselves would be really difficult" (P140).

Formative Stages of Implementation

The most notable aspect of the documentation that informed the implementation of the VPTs was its absence. The funders' (Home Office and YEF) expectations were narrowly defined: VPTs should "work with stab victims aged under 25 years of age", and they "should reduce re-attendance rates" and "violence-related homicides". Furthermore, the service commissioner (VPU) was not overly prescriptive on how the intervention should be developed. This enabled the VPTs themselves to develop and deliver patient-centred care and to determine how resources could be used to meet patient needs, an approach that was broadly consistent with the NHS ethos for person-centred care.

Documentation suggested that a nurse-led VPT was preferred, consistent with NHS nurse-led safeguarding. The reasoning was that nurses could better ascertain patient needs compared to volunteers, as they would have access to patient records.

> "I completely believe in the way we developed it, and not having a third sector organisation dictates what you can and can't do within the hospital because they don't know your patients, and I think it's always looking at your patients first and not at service criteria" (P103).

Pre-Implementation and Early Adaptation

The pre-implementation phase was identified as critical, as was the role of the nurse safeguarding lead in Cardiff, who had "loads of experience in managing that kind of work and having that engagement with the Sexual Assault Referral Clinic" (P106). The safeguarding lead designed the role profiles for VPT staff, which in turn informed the activities that the violence prevention nurse and violence prevention advocate would engage with. Once staff had been recruited, engagement with other hospital-based staff provided input on what would be effective. Learnings from other providers (e.g. Redthread) were also incorporated. This co-production shaped the model developed in Cardiff and subsequently informed the design of the Swansea VPT. Context-specific data had been considered, alongside engagement with hospital staff in Swansea. However, in Swansea, additional work was required to better provide context-specific knowledge concerning ED and hospital staff expectations, what would be required to enable staff buy-in and how to provide a better understanding of patient needs. As such, the VPT model was not seen as a one-size-fits-all: aspects of the intervention needed to be tailored to each setting so that patient needs, variations in ED processes and the availability of support for patients locally were accommodated.

Fidelity

Both documentary and interview data suggested that the formative theory of change (16) had been implemented. For example, VPT job descriptions, training and awareness-raising materials revealed expectations that patients would be contacted within 72 hours of their initial attendance and that patients would be recontacted three months later to ensure any discharge plans or referrals were taking place.

> "To contact victim within 72 hours of initial attendance at Emergency Department to offer advocacy and support, providing face to face and telephone support in the short and long term" [Violence Prevention Nurse Job Description].

While the core functions of the VPT were adhered to, variable staffing levels were a barrier to fidelity, notably to follow-up contact with patients.

> "[Staffing issues have] been one of those difficult things […]. [W]e want to [contact patients] three months after, so that we can [make certain] they've either been seen and they've started some work, or they've been seen and they've finished a piece of work. So, that is our plan, to do that" (P102).

During periods when VPTs were understaffed, they had been unable to reach patients within the initial 72-hour window following attendance. Periods of continued understaffing led to patient backlogs of up to three months. Despite initial expectations, the duration and frequency of support provided by VPTs to patients was delivered according to patient needs. This was further exacerbated by waiting lists in services that patients were referred to.

> "Some of them are really simple, and they're like, 'yes, I'm happy for a referral, I want help with the criminal justice system', so you deal with that, and you'll close them down, but we always send a text and have a chat. Well, if you see them in person, you say we'll keep in contact; if you need anything, then you can always give us a call, and we follow up with a text then with our details on, so we always have that open thing if they needed us. With the more complex ones, you keep them on your caseload a bit longer because sometimes you can't solve their problem within a week; you're waiting for other people to get back to you. You're waiting for social workers to get back to you, housing to get back to you, so you keep them on for a bit longer" (P117).

Reach

Patients attending ED can disclose to staff that their attendance is related to violence at any time between attendance and discharge. ED reception staff are required to ask whether patients' injuries are assault-related,

and there is an expectation that all patient-facing staff undertake safeguarding, according to the Welsh Government's policy "Ask and Act" (55), a policy aimed at "tackling violence against women, domestic abuse and sexual violence". However, there are several reasons why patients might be reluctant to disclose. This includes being accompanied by the abuser, or they may seek to avoid scrutiny due to involvement in illegal activities, and some may simply not accept that they are victims of violence. One aim of the VPTs recovered from both documentary and interview data analysis was that they sought to reach all patients exposed to violence and attending ED. In addition to receiving referrals from ED staff, they investigated patient management systems (including attendance data and patient notes) and sought to contact all patients suspected of an ARA. This likely increased patient ascertainment; interview data suggested that the VPTs increased the number of patients who were identified as attending ED due to violence.

> "Yes, so, for example, they had 23 assaults on young people over the bank holiday weekend, and they wouldn't have been picked up at all. There would have been some child protection that went in, but for the vast majority, there weren't. There were a couple of children, well, under 18s, they are still children, that they were still quite serious assaults, and nothing was done about it until the [VPT] went in on Tuesday morning and [had] a really good look over what the activity was over the weekend and picked up on things" (P118).

Extending their role beyond the original model, the VPT in Cardiff also supported patients who would usually be within the remit of the IDVA, but only when the IDVA was not available. This emerged due to the close working relationship established between the VPT and IDVA and as a result of their shared commitment to patient support. This mainly occurred when the dedicated staff for these groups were not available. Interview data suggests this was an extension of the nurses' duty of care.

> "I mean when [the VPT] first started [...] I was [..] working on my own. [I]t was nice to have [...] colleagues. [As an] IDVA [...] I work between sites [...] it is nice to have a presence down in ED that we're unable to fulfil." "[A]lthough we might not be down there all the time if someone can't contact us for whatever reason, you know [the VPT] is sort of a liaison [...] point [for] us. So, I think that [...] that is helpful. And, yeah, they might pick up [...] on referrals that might not have come to us initially" (P119).

VPTs sought to reach all patients exposed to violence, irrespective of age. This further included perpetrators of violence. Although, for VPTs, the distinction between victim and perpetrator was not always clear.

Short-Termism

While not specific to the ED, one barrier that influenced the extent to which the VPTs became embedded within the hospital environment concerned the funding available. VPTs were neither formally identified in hospital standard operating procedures, operational policy documents nor new-starter induction documents. Expectations were that this formal identification was related to their short-term funding.

> "I think, unfortunately, these programmes just have short-term funding [...], they're not funded as part of an NHS budget, and yeah, it's just very precarious; they're not seen as embedded in the wider NHS system at all" (P105).

Interview data indicated that participants believed the loss of the VPTs would detrimentally affect the communities served and ED staff. It would have negative consequences for the young people in the communities and specifically for patients exposed to violence who are not otherwise identified in ED.

> "[T]hey know that young people who would be missed aren't being missed now. So, we're kind of filling in a gap. It's a much bigger gap that needs to be filled, but we've started to fill that, and it'd be crazy to get rid of the funding" (P114).

Referrals into the VPT

Referral pathways into the VPTs were continually maturing, having expanded beyond the ED to the hospital generally, and they further received referrals from paramedics, community nurses, minor injury units (community-based outposts of EDs that supported low acuity patients), brain injury units, mental health teams

and outpatient clinics. The Swansea VPT also received referrals from other hospitals within the same health board and from schools; however, this expansion was limited by VPT staffing.

> "[VPT lead has] got some staffing issues at the moment [...], so [VPT attending the minor injury unit is] less frequent now. It's probably once a week at the moment, but I know they've had an advert, to try and recruit into that role. So, I'm sure we'll get back up to the two to three days a week cover that we saw previously" (P130).

ED Workload

Initial challenges to ED staff referring into VPTs concerned ED staff workloads. The process of referral was regarded as additional work, as, initially, VPTs had required ED staff to complete referral forms. Over time, adaptations enabled a more informal and opportunistic referral process. These adaptations were communicated by revising existing ED documentation concerning patient management and referral to include the VPTs, promulgating information concerning their activities through contributions to Level Three safeguarding training and specialist safeguarding training provided to ED staff. In addition to referral forms, VPT staff also considered routine patient records to pick up on patients that might have been missed.

> "We then looked at merging [...] some forms that are [...] statutory forms in every single patient so they'd be there, and then and they have to fill it in, but even they get missed because it's still an extra piece of paper for them to fill out when they're under significant pressure. So, we sort of decided that we would carry on comparing the data and picking up individuals that had been missed from the referrals and make contact regardless [...], but we didn't let staff know that because we didn't want them to not refer." (P111).

Both teams described the need to work with the grain of usual NHS practice in order that the work required to refer into the VPTs was not so cumbersome that it dissuaded staff from engaging. In Swansea, these referral pathways were particularly uncomplicated.

> " [Most of our clinical staff] don't have their own IT equipment, so they are sharing computers or laptops, and sometimes it is just impossible to get onto one [to] fill in a referral [form]. [A]lso, staff handwriting, as you can imagine, is awful. So, a handwritten referral is just [...] pointless" (P118).

In Swansea, a system was developed whereby a sticker would be attached to patient notes that alerted VPT staff that the patient was relevant to them. Other informal methods used at both sites included one-to-one conversations, text messages and phone calls. This typically occurred when the referrer had knowledge and interest in violence prevention and maintained a good working relationship with VPT staff. For out-of-hours referrals (when VPT staff were not available), a short form was developed for staff to use with patients when violence was suspected.

> "If they're not around, it is a form, and it's still a form if you make it a conversation as well. It's a really simple form [...] a document that goes in everyone's notes. And, then we just slide it under their door, if they're not in, or put it in [...] a box in the department" (P134).

When referral pathways were first set up in Cardiff, challenges arose relating to ED staff knowledge and awareness of violence types and which patients should be referred into which service (e.g. VPT, IDVA). VPT staff, therefore, sought to educate staff about appropriate referral processes.

> "The only thing that we had to really work on with staff recognising the difference between a domestic-related injury and [...] any other assault injury because we already had an established service in place for the domestic-related assaults. So, you know, if staff are really inundated, then we would distinguish ourselves, we said we'd rather get the referral [...] and ensure that patients are supported than not at all" (P111).

Ultimately, a single referral form was developed for all safeguarding services in Cardiff to reduce the burden on staff and to identify and reach patients at the earliest opportunity. This updated process was viewed positively by staff, with those interviewed expressing the view that the referral process in Cardiff was easy. In Swansea

ED, the referral book was the primary method, with the affiliated minor injury unit referring patients to the VPT using email. NHS staff viewed this flexibility as important. It ensured the referral process met the needs of professionals making referrals to the VPT. When staff were asked what they would want from a referral process, the dominant response was to use methods they were aware of (email and phone) that were consistent with existing practice in the ED.

> "I think there is a violence prevention team form to fill out; I tend to just send an email, send a text or something, so I'll go and find her, you know, but that's because I've got a personal relationship with those, or with the team because of my history and I've been here a long time, whereas the other people might not have that. And it's probably not the way to do it in lots of ways, but in terms of fitting in with your workflow and timing it out, it's sometimes easier to do that" (P109).

Not all eligible patients were referred into the VPT, however.

> "My day starts off with [...] going through our referrals from overnight and going through the Cardiff Model data that we get from the Accident and Emergency admissions. Sometimes, referrals are missed and so we follow up that way as well, and then it's linking in with patients if they've been admitted on the ward" (P103).

One primary source of data concerning patients' exposure to violence is the patient management system initially populated by receptionists in the ED. This system includes questions that prompt reception staff to enquire whether a patient's attendance was violence-related. However, reception staff will not see all patients attending EDs, such as high acuity patients who require immediate care.

> "Not all of our patients book in as an assault at the door. They might disclose an assault later, so we didn't want staff to completely rely on the [...] data we were getting from reception because it wasn't always correct, and we didn't want to miss those patients" (P111).

Any disclosure from patients might be captured across several different health data systems (e.g. inpatients, community) beyond the patient management system used in the ED. Regularly monitoring these systems was deemed essential but described as challenging. The different data systems have variable user-friendliness; there is no unified system across healthcare recording patient exposure to violence, and data quality varies with inconsistencies in the language and descriptions used.

Feedback

In addition to VPT's involvement in staff training, they provided staff with feedback about the patients they referred into the intervention and the positive outcomes from doing so. This positive reinforcement further encouraged ED staff engagement, developed positive working relationships and was perceived as increasing referrals. This was broadly a part of the informal relationship with the VPT that ED staff highlighted, characterised by frequent opportunistic meetings and conversations about patients and the intervention. This further promoted positive changes in staff attitude and increased staff knowledge about violence.

> "[W]e did like a band six [nurse] development day where [VPT staff member] came and spoke and told us about some of the cases that she's had and how they help support them and then the outcome of that and reiterated about the importance of the Ask and Act and always reporting like a stabbing and stuff like that" (P117).

Ongoing engagement with ED staff in both Cardiff and Swansea promoted positive staff attitudes, with the VPT diffusing a more empathic and patient-centred approach.

> "So, it is changing attitudes. I've never worked in an ED department, so going, finding out that people don't always call the police when somebody has come in with a stabbing, I was so shocked that didn't happen. I still can't get my head around it. But those little changes where they all know if that happens, you have to tell the police about it. I imagine there probably some that still don't, but [the number of those who do] has increased dramatically. I mean, without this service, that wouldn't be happening" (P118).

Location

The Cardiff VPT was physically located in the interdisciplinary and multi-specialty safeguarding hub in the ED. This contributed to closer working relationships with IDVAs, the frequent attenders nurse, the Child and Adolescent Mental Health Service Crisis Team, and the Psychiatry Liaison Service. This contributed to the formal relationship between the VPT and the ED, as the VPT was able to build on existing documented patient referral pathways that had already been established by the IDVAs.

Being physically located in the ED, along with the development of formal and informal relationships, led NHS staff both within the ED and the wider hospital to describe how the Cardiff VPT was increasingly viewed as a source of information and support for staff: nurses, junior doctors and consultants would increasingly approach the team rather than engagement being driven by VPT staff.

> "They're everywhere, they support the staff nurses, you see medics come in and out, people who want to speak to [Name's VPT staff], [...] having them in the department has embedded them in the department" (P136).

Ongoing ED Staff Engagement

Embedding VPTs into ED was an ongoing process, however. Time was needed to acclimatise staff to the VPT's work, especially as some staff were not engaged in violence prevention. This lack of engagement, when present, was partly associated with younger staff not having the knowledge or confidence to refer into the VPT. Some senior clinicians' individual perspectives and preferences, often influenced by professional pride and experience, may have also inadvertently impeded engagement and collaboration. Participants did not discuss these professional perspectives in depth, but they were associated with individual rather than systemic behaviour.

> "I think that there's some of my younger colleagues that just don't know how to [refer into the VPT]. So, again, more teaching would be useful, to remind them that [safeguarding] is something that it is our job to be doing, but then the colleagues, at the top end of the scale, you just have to think they're never [going to] integrate into what you want them to do" (P134).

VPTs promoted safeguarding across both EDs and were consequentially believed to have increased both the number of referrals and the speed with which they were made into the VPT. Training was undertaken continuously due to junior clinical staff rotating through EDs and, therefore, a constant stream of new staff. An NHS staff member outlined the influence the VPT in Swansea had on staff in relation to all aspects of safeguarding.

> "I think one of the by-products of this service is the awareness of staff to issues such as this, so it has a knock-on effect of improving their safeguarding knowledge for all areas of safeguarding, not just violence prevention with young people. So, we've noticed people are more likely to make referrals for other things or contact our team as well. So that's increased. And that's reassuring as well that people are having that safeguarding head on when people come into the department" (P118).

In Swansea, NHS staff described how efforts by VPT staff had changed attitudes in the ED and forged productive working relationships between the VPT and ED staff, particularly with staff members who had previously been harder to reach.

> "We've got a member of staff who thinks he knows everything. Just as an example, everything he does is always right, and he doesn't need to change anything. And I know [the VPT] has managed to change his outlook on quite a few things where I haven't been able to for quite a number of years. And [he] appreciated input on quite a few things. So it is changing attitudes" (P118).

The VPTs, therefore, adopted a pedagogical role, delivering training informally (raising awareness and distributing information about the VPTs) and formally (contributing to usual NHS safeguarding training). This pedagogical role was continuously delivered, mainly due to new junior clinical staff rotating through ED and occasional agency staff joining ED without prior experience.

Awareness Raising

Both interview and documentary data described how VPTs awareness-raising activities led to the teams working widely across the violence prevention ecology, including collaborations with local authorities in Cardiff and Swansea and the police. Both VPTs were further involved with multi-agency work and were viewed by some as playing a developing role in regional multi-agency response to violence. Awareness-raising activities included talks at relevant events within and external to healthcare.

> "They've spoken at quite a few conferences [...], the Royal College of Nursing Conference [...], Wales-wide Violence Prevention events. They've spoken at the National Independent Safeguarding Board, [and to the] National Safeguarding Team [...]. So, I think, and I've had, literally last week, I think, I got an email from the Matron of the ED in, one of the EDs, I'm not sure how many EDs there are in North Wales. But anyway, one of the EDs in [Health Board 3] said, 'Oh, we've heard about this. Can we have more information?'" (P105).

Stakeholders across all participant groups viewed the VPTs in both sites as acceptable, important and, in most cases, needed. However, NHS, police, regional and national-level participants believed there was a need to determine the effectiveness of the VPT model in terms of measurable patient outcomes for their role to be consolidated. Hospital staff further raised the importance of VPT acceptability to patients, particularly children and young people. This was considered a vital next step that should determine how and whether the service should continue.

ED Staff Knowledge

The Swansea VPT was at an earlier stage of development compared to Cardiff, where the impact of the VPT on staff training was beginning to emerge but was more mixed. Some NHS staff, mostly consultants, were unaware of the training delivered by the VPT, and some stakeholders noted that the VPT had not yet delivered training to them.

In Swansea, the IDVA and nursing staff described formal and informal working relationships with the VPT but indicated that other ED staff did not have the same level of knowledge or relationship with the VPT that was described in Cardiff. There appeared to be a significant discrepancy between ED nurses and consultants regarding their level of knowledge of and working relationship with the VPT. Some ED consultants described little knowledge of the service, its aims, methods and operational procedures, with little or no established working relationship.

> "I don't think we had very much of a heads up from a clinician point of view. It may well be that organisationally, we had a heads up, but I'm here one day, who's that? Oh, it's the violence prevention team. Okay, what do they do?" (P135).

In response, ED consultants themselves sought to raise awareness of the VPT in Swansea, suggesting that VPT staff meet with key ED personnel and that VPT staff join ward rounds and seeking to include information on the VPT in staff induction documents and ED handbooks.

Regional and Third Sector Agencies

Those in regional (e.g. local authority, police) and third sector agencies demonstrated a greater understanding of VPTs compared to those at a national level. Although participants from third sector agencies were not always confident in defining the day-to-day role of the VPTs, they did have sufficient working knowledge to enable collaboration.

> "[Organisation] was incredible to begin with, they made contact with [the VPT], and they were really pleased to have our referrals, [...] I think if they increase their numbers [...], then it benefits them and their funding as well. So, we developed a direct referral process with them, and we were having like two monthly reports off them on their outcomes and stuff like that" (P111).

Data and Intelligence

Greater ascertainment of patients exposed to violence not only benefitted the patients themselves but also contributed to a greater understanding of violence locally and identified gaps in existing NHS data systems.

> "[Partners] get the all-Wales kind of assault data [...] which is recorded upon entry into the Emergency Department. That is shared with partners, which tells partners this is the level of violence and that is pretty much shared across all ED departments in South Wales because we've got that agreement in place. But still, having the VPT in the hospital, we know that there are more people being treated for violence-related injuries than are actually appearing on this kind of monthly download" (P106).

Further meetings were planned in Swansea between the VPT and regional partners to strengthen working relationships, and most participants believed that relationships would further develop in response to the new Serious Violence Duty, legislation that requires local authorities, the police and the NHS to share data and develop plans to address serious violence. Accordingly, VPT activity was not limited to individual and organisational relationships. The VPTs also provided data and intelligence that informed activities across the violence prevention ecology, although there was still some way to go to develop data sharing and ensure data shared by the VPTs provided the information required by partners to inform their activities.

Although there were limits on what identifiable patient data could be shared, participants described notable opportunities for anonymised health data to inform broader activities. Furthermore, barriers to data sharing arose from within the NHS. For example, during the data collection period, VPT and NHS staff were informed that they were no longer allowed to complete police intelligence forms. These standardised forms protect the identity of any source and are the basis of shared initiatives between the police and partners. They contribute to police violence prevention activities. Despite these challenges and a need to further integrate VPT insights into the broader violence prevention ecology, an additional advantage of VPT perspectives concerned the more qualitative aspects of the information VPTs had access to, which could be legitimately shared with partners.

> "When you're in Accident and Emergency, and someone's been injured, you really do see what the family dynamic is, it's not the sugar-coated stuff which is in their house. So, I think they offer something different in terms of understanding the family relationship, understanding the individual" (P112).

In Cardiff, as awareness of the VPT increased, they started to be approached by professionals from outside of healthcare, who had questions on the intelligence and data the VPT collected. In supporting patients, VPTs collected unique intelligence, including, for example, information on county lines drug gang activity and information relevant to the counter-terrorism Prevent programme. Furthermore, VPTs were able to identify schools where pupils were exposed to violence of relevance to education services and school nurses. In Swansea, this resulted in the VPT engaging with head teachers alongside the caseworker from Media Academy Cymru, with plans to further expand this engagement.

Multi-Agency Work

Cardiff VPT faced challenges in developing partnership working and information sharing due to the absence of violence prevention partnership groups. In Swansea, partnerships had been established prior to the VPT being introduced, and they were, therefore, better positioned to catch up with the level of multi-agency engagement eventually achieved in Cardiff.

> "It was difficult for them in Cardiff because they were coming into a space where there wasn't much work going around in that kind of prevention [work]. But in Swansea, because they developed that contextual safeguarding approach and through [the Contextual, Missing, Exploited and Trafficked] panel, when we introduced the Violence Prevention Team there, just over a year ago, they were coming into a space that was already established, and they were adding to it rather than trying to find and navigate their way through a complicated or an unknown space" (P106).

At the time of data collection, there was evidence that both Swansea and Cardiff teams were actively engaged in multi-agency work. In Cardiff, the VPT was involved with Safeguarding Adolescents from Exploitation.

Swansea was further involved with contextual safeguarding across two local authorities, Swansea and Neath Port Talbot.

> "[The VPT] works closely with the Safeguarding Adolescents from Exploitation partnership. [They are included in] a massive meeting where you have people from the local authority, third sector organisations, police and all that kind [of] stuff [...]. I've got a meeting with them on Friday, and we have a, it's a professional interest networking group. So, we go into those meetings [...] where we highlight new developments in our service, we learn about different services" (P103).

The Cardiff VPT further participated in an informal and fledging nurse-led violence prevention network that supported shared practice between nurses and broadened the violence prevention ecology nationally.

> "[W]e're part of a violence prevention network [...] it's run by some nurses in London, and if there's anyone that's involved in violence in different hospitals, we link in with them [...] we all work together as in like a national way of doing it [...] it was never formalised, this is just something that we've come together to do and it's about linking in and they can help me" (P103).

Patient Engagement and Referral

Engagement

Face-to-face patient contact was preferred and more likely when VPT staff were present in the ED. Interview data suggests that face-to-face contact was more likely to result in patients accepting VPT support, building upon findings from the Routine Data (P18).

> "Face-to-face is much better because [...] they're at their vulnerable state, and they're more open to referral to other services for support. And I think when you can have that face-to-face, they can see you, and they can see that you're genuinely listening, you're genuinely interested. Whereas over the phone, you can't do that" (P103)

VPT staff agreed that speaking with patients in person was the most effective means of engaging with them and that doing so improved patient outcomes. However, some emphasised that there were challenges attributable to availability, which limited face-to-face interactions. In response, VPTs worked with other ED staff to find the best time to meet patients in person. They were keen, however, that patients were not asked for information repeatedly, as this risked re-traumatising them and could be averted by meeting patients in person.

> "It's not just about all the severe cases as well, some of the moderate cases or the low cases and the patient is emotional at that point, we don't go in to speak to them, but we get the information, and we wait until the patient is stable enough to speak to us. We want them to be at their full capacity; we're trying to avoid re-traumatising them" (P101).

More generally, the approach taken by the VPTs and affiliated caseworkers aligned with what many third sector stakeholders considered to be best practice: that the services and subsequent support offered were patient-led, patient-centred and bespoke, with the agility to adapt to patient needs. Patient assessment and referral forms demonstrated the holistic approach the VPTs took to patient needs, with consideration given to numerous modifiable risk factors and vulnerabilities.

VPTs maintained contact with patients for as long as needed to ensure continuity of care until patients could be transitioned into an appropriate source of support. Some patients needed long-term support mainly to ensure they did not fall into the gaps between services or to support them when services had long waiting lists.

> "I know that the VPT health team will continue to engage with the young person [...] for as long as they can, [and] until [a service they have been referred into] is able to pick them up. And we've managed to do that, but that is hard, so it means that they are caseworker for longer than what would be the expected time" (P110).

Across both sites, patients were told that the door to the VPT was always open if they needed additional future support.

Patient Support

VPTs required patients to consent to receive support and for any referral into organisations outside of the NHS. Various strategies were considered over time. Initially, written consent was required, but this was ultimately replaced with verbal consent.

> "We used to do like a signed consent form, but we found that that actually lowered our engagement than just getting a verbal consent because they just didn't like the formality of it, and obviously you've [got to] discuss consent to share and all that [kind of] stuff" (P103).

Case reports included in documentation outlined how patients received one-to-one bespoke support and how they were referred into appropriate NHS and external support (including case workers, third sector agencies and other statutory partners). These case reports further described how the VPTs adhered to statutory requirements and NHS policies concerning safeguarding to enhance patient support and protection. VPTs would attend risk management meetings if a young person were involved with social services, bail support or youth justice. VPTs were further provisioned additional support for young people approaching their 18th birthday, as this cohort was regarded as being at greater risk of criminal exploitation. This patient-centred approach to engagement, support and referral were areas in which the VPTs' reputation was established.

> "It's just getting what the patient needs, really. We do a patient-centred approach, so we talk to them about their home lives, their education, what they do in their days, their friendships and then we [...] build a support package from there" (P103).

Building Rapport

NHS staff described how the VPT was able to build rapport with children and young people and empathise with their situation rather than being judgemental. They also outlined how the VPT supported both young people and ED staff.

> "So when they've had children and young people in [to ED] who are distressed and reacting maybe a little violently, and the staff just don't know what to do, I know that they [ED staff] have knocked on [the VPT] door and it's been dealt with in minutes. You know, they've literally gone and just spoken to the child with respect and with a sort of trauma-informed approach and knowing that all the sort of fight, flight, things that are going on and they've calmed that child right down" (P104).

Family Support and Referral

Documentary and interview data described the support both VPTs provided to families, including the education of next of kin, that enabled them to meet the needs of patients. For those under 18 years of age, VPTs engaged with the family or next of kin in the ED or following discharge. The family or next of kin had to provide consent for young people to receive support from the VPT and for their referral into other agencies. Documentary and interview data further revealed that when families were also involved in the violence, the VPT would support and refer the entire family into services able to provide support. This was not included as a core component of the VPT in the formative theory of change.

> "Especially with young people, if they've had an injury, they've been assaulted, it impacts on all the family. So, we use a holistic approach, so that [...] If siblings are affected by it [...] Because we've had one where a young male had got really nasty facial injuries, and the siblings were upset by it. So, we can refer for them as well, but also the parents. Some of the parents have asked for some support because they're struggling with it [the impact of their family member being a victim of violence]" (P102).

Agility

Interview and documentary data indicated that both VPTs worked with a range of patients of varying acuity and complexity. This included the identification of child criminal and sexual exploitation, and they also referred patients into the counter-terrorism Prevent programme. VPTs were agile, adapting provisions to patients' characteristics. One notable increase concerned the age of those attending ED with assault-related injuries, with an increase in younger patients. The changes that the VPTs discovered informed some parallel but limited expansion of capacity in the third sector.

> "So, initially, when we started the project, the age range for our knife-related injuries was quite high, so they were late twenties, thirties, forties, even sixties at the time, and we were like, oh, I can't not talk to them as well, I need to talk to everyone. So, that's why we changed the age range, and I think COVID had a massive impact on our patient demographics; since COVID, that's all changed. We now get a lot of younger people in with knife-related injuries; they're now late teens, early twenties, and a lot more school-related violence as opposed to our night-time economy and violence" (P103).

Trust, Culture and Engagement

Participants' beliefs about why some patients do not engage included a lack of trust in services and staff. Participants from the third sector suggested that children and young people might have had previous negative experiences with, or negative perception of, hospital workers, the police or social services, making them less likely to accept support from the VPTs. Data further suggested older males may simply not believe that a female nurse could help them.

> "I do generally get engagement, but it's just with those, there's certain males who don't like speaking to women and do not regard me as someone who can help them at all" (P103).

Patients who feared reprisals were also considered particularly challenging to engage with, and further challenges were identified for those experiencing homelessness.

> "It's quite tricky sometimes getting in contact with them because [...] if they're homeless or they've been mugged, they haven't got a mobile phone, you can't get through to them. I've had difficulty with some of the hostels trying to get through to them, so I don't know if we can have more info about where they're currently residing because some of them you just can't get in contact with, and the hostels don't answer the phone" (P117).

Women, children, young people under the age of 18 years of age and older adults with existing vulnerabilities were identified as groups more likely to engage with the VPTs. Although a need to better accommodate patients' cultural needs was suggested to ensure appropriate support was available, and particularly for those with limited English or Welsh, such as refugees. Engagement was, however, identified as an area requiring further development, especially for those involved with the criminal justice system.

> "What is there for the people that don't want to be referred, that don't want to engage? What do we do, and how do we understand that? That's a gap for me" (P112).

VPTs sought to repeatedly engage with patients who were initially reluctant to receive their support. The reasoning was that doing so would build rapport and trust and, therefore, increase the likelihood of engagement. Doing so also provided a deeper understanding of these reluctant patients and their circumstances and improved intelligence on criminal networks and gangs.

> "[The VPTs] do tend to know the people that they work with very, very well, and it seems like they're all [...] connected. So, if there's one person, they'll say we know that person because we work with so and so and there seems within some of the, when they work with some young people it seems that it's not just by working with one young person. So, they know about all those connections, especially with drug running or gangs, they've got their list of gangs, and they really, really know their stuff" (P104).

Patients who declined any support would be given VPT contact details, told they could contact the VPT at any time for support, and informed about the services available to patients. In Cardiff, examples were described where patients attended ED on multiple occasions, were approached each time but refused support, but eventually accepted support on the second or third attendance.

> "By the second week, we were [...] engaging, and by the third week, we couldn't shut him up, [...] he was great. But he only trusted me, and it took time then to transition him to the youth worker. Even though he said he was happy for that referral, I could tell he was reluctant to engage. So, in that case, we [...] try and casework, so I've been on visits with the youth worker, or [the youth worker and I have met the patient] in a communal area, a coffee shop, or we've met in the hospital even. If we know that [the patient will be in hospital] for a while, [and] I feel that [the patient] is ready to meet the youth worker, they've come and met [the patient] a few times in the hospital. So, again, it's [...] it's on a case-by-case basis. If the appropriate service is available and it doesn't have a waiting list, then we'll refer and close" (P111).

Systemic Barriers to Engagement

Barriers to engagement included patients involved with school-based violence. Some children and young people were described as unwilling to receive support, and it was believed that schools would discourage children and families from reporting incidents to the police, stating it would be a matter for the school to manage internally. Participants regarded this as problematic, given the frequency and severity of some school-based incidents. It further obstructed legislated obligations. When the VPT had concerns about a child's health or wellbeing, or if a patient had sustained a stab-related injury, they were obliged to report to safeguarding teams or the police, irrespective of whether the patient consented or not. In relation to child protection and patient consent, the VPT's role and what they were expected to do was clear to VPT staff, with both teams required to complete multi-agency referral forms (MARFs) and submit them to the Multi-Agency Safeguarding Hub (MASH), should they have any concerns about a child's health or wellbeing.

> "[With] regards to child protection, obviously we would always do a Multi-Agency Referral Form if we had concerns, and in Cardiff that would go to a Multi-Agency Safeguarding Hub, so then that would be shared with police, probation, housing and all that [kind of] thing" (P103).

Interview data outlined challenges with patients with knife-related injuries. Some would not want the incident reported to the police, but both legislation and NHS policy required that these injuries should be reported to the police. It resulted in a dissonance between delivering patient-centred care and statutory requirements. Where injuries were not knife-related, and patients refused support but the nature of injuries still raised significant concern, VPT staff made anonymous reports to Fearless and Crimestoppers, two organisations that receive and act on anonymous crime intelligence.

> "It's always something that we try and engage them in; if we think that there's a significant risk, we can submit anonymous intelligence to the police; we have that process setup, so we can always do that if we think that there's a concerning factor" (P128).

EDs seek to see, treat and discharge patients (e.g. to home or into hospital) as quickly as possible. This means some patients would spend only a limited amount of time in the ED, reducing the opportunity for the VPTs to engage with them. Furthermore, the limited funding meant VPTs were not available 24 hours a day, seven days a week, meaning that face-to-face engagement was unlikely if patients attended outside of VPT working shifts. Patients who were first contacted by the VPT after they had been discharged from the ED would not have been met face-to-face; caseworkers would, therefore, need to contact the patient again to arrange to meet them.

The initial design of the VPT model and operational hours being Monday to Friday, 8am to 4pm, meant that VPTs were not able to reach patients face-to-face during evenings or on weekends. ED, hospital, third sector and regional-level participants saw this as a significant gap in the VPT's capacity to reach and support patients, with many patients who would be eligible for VPT support attending EDs at times when the VPTs were not available. In response, and deviating from the model in Cardiff, Swansea advocated for and eventually trialled expanded operational hours to cover both weekday evenings (up to 8pm) and weekends (7am to 3pm). This resulted in more patients being reached during their point of crisis.

> "[The trial of expanded operational hours] worked out really well, it was, they were able to see more people so at that point of crisis, and we know if they are seen when they are in they are more likely to take up the service because they've got somebody to risk-assess them when it's happened rather than having a phone call a couple of days later [...] I think it does make a difference" (P118).

Patient Referral by the VPT

Third sector participants described how the VPTs completed referral forms specific to their service and provided the relevant information they needed to support patients. Comparing pre- and post-VPT implementation, participants reported that safeguarding had improved, including in areas associated with violence among children and young people and exploitation.

Patient referrals from the VPT to other in-hospital services were undertaken either face-to-face or over the phone and usually followed up by an email or text. Patient information (with patient consent) was also shared to ensure patients were not repeatedly asked the same questions.

For both VPTs, establishing patient referral pathways to agencies outside of the NHS was driven by the knowledge and awareness of VPT staff. The easiest to set-ups were those built on pre-existing relationships. When there was no pre-existing relationship, VPTs would consult with colleagues, personnel in partner agencies and community caseworkers to expand their knowledge and, therefore, broaden patient referral opportunities. Referral processes were then formalised by implementing tailored referral forms, which included the information each service required.

Not all patients attending EDs will reside in that hospital's catchment area. This is especially so for Cardiff, as the University Hospital Wales' status is a major trauma centre.

> "We also had to expand [...] our knowledge of the community and [available] resources. [W]e get patients from West Wales, we get them from North Wales, [...] we've had patients from London. [W]e can't just send them back with nothing, so then you'll have to then reach out to services in their local area to make sure that they're [going to] get the same support as if they lived in Cardiff" (P103).

Additionality

VPTs filled gaps in provision across both sites. The violence prevention ecology, without VPTs, was fragmented, lacked capacity and was reactive rather than proactive in nature. Interview data suggested that VPTs were able to intervene earlier with patients, particularly in the early identification of young people at risk. VPTs were also able to identify and address vulnerabilities in the most at-risk groups, with little previous capacity across the violence prevention ecology to support these groups. For less frequent patient groups, such as cases involving modern-day slavery, it was suggested that professionals generally were less able to identify some at-risk groups and that they were "not asking the right questions" (P115) compared to VPT staff.

Data and Intelligence

The data and intelligence recovered by the VPTs informed preventative work – the work of third sector agencies – and was evidenced as facilitating adaptations across services to better align with patient needs. Participants in the local authority described their working relationship with the Cardiff VPT, emphasising the novel and insightful information they were able to provide.

> "I mean, literally just doing their job is probably enough, isn't it? I mean, they're amazing; they do come to all of our meetings, and they come along to anything else, and if I'm asking, if we need information and we need data, then I can always go to them, and they will always come back, and they're brilliant at gathering that, and actually we struggle with some people. We struggle with education to get statistics, whereas we always get that from [Name's VPT Staff]. I mean. Yeah, we get a really clear idea of what's going on and where it's going on" (P126).

VPTs sought to build a rapport with patients and, therefore, had opportunities to collect unique data and intelligence, including the location of violence (e.g. neighbourhoods, licensed premises, schools) and the conditions contributing to violence (e.g. drug gangs, modern-day slavery, criminal and sexual exploitation).

> "I started to get [...] an understanding of how [VPTs] could drive activity, that was a bit more preventative but also provided an intelligence opportunity and a violence surveillance opportunity that we couldn't really get elsewhere. [...] [patients] talked to the VPT, they don't talk to police, nursing generally" (P148).

In consequence, the Cardiff VPT became seen as a key partner in working for health, a partner that had not been available previously and was the only partner to offer this type of relationship. This was further reflected in third sector participants highlighting how VPT data allowed organisations to understand and adapt to patient needs. In Swansea, participants outlined how intelligence collected by the VPT influenced violence prevention initiatives for schools.

> "Some of the data that they've provided around things like the violence within schools, we were able to then take that data to create a working group for other professionals within schools to understand this isn't just a one-off, this is actually an issue we've got, and we can see that that's got to be responded to on a broader scale. So, that data was able to help us in making changes" (P147).

Across both sites, however, circumstances reduced staff capacity to gather and report data, for example, when a greater number of patients were attending the ED than usual or there were a greater number of high acuity patients who required more VPT staff time in their management and support.

The data and intelligence VPTs made available went beyond their growing networks. Participants with limited knowledge of the VPTs or those with no existing relationship with the services, third sector and police participants in particular, described how their contribution of intelligence and information helped inform targeted operational policing in areas with high levels of violence in both Cardiff and Swansea.

> "[They] feed into the narrative thematic and understanding of [...] hotspot policing. So again, that provides us with opportunities to understand the issue [and] better problem-solve, albeit you might have picked up the trend in a hospital. The actual delivery and prevention of a crime might be taking place X amount of miles away in a [different] locality" (P113).

Sustainability

Interview data identified a need for long-term funding. Some participants emphasised the need to strengthen what was already in place rather than expanding or changing the remit of VPTs.

> "I don't think we could be without them, to be honest; they're so embedded now in the work in Emergency Department, and I think it's more about strengthening ... strengthening that role. I don't think they could take on anymore; I think they've got enough to do at the moment anyway, and, you know, we're seeing high numbers coming through anyway. So, you know, it would be more about strengthening rather than pulling back" (P110).

However, both VPTs consistently emphasised their desire to expand and improve the service within the ED, the wider hospital and externally, as well as to further engage in more preventative work by, for example, more closely working with schools.

Additional changes were being considered to the VPT and wider hospital processes that would better communicate the availability of multi-agency support to patients. The VPT in Cardiff was collaborating with colleagues in the safeguarding hub to create a digital leaflet with embedded QR codes that would provide all relevant information for patients in one place rather than multiple leaflets or pieces of information.

Third sector participants and some NHS staff also suggested expanding the team but with an eye to increasing their socio-cultural diversity through adding youth workers, therapeutically trained professionals, peers for young people, those with lived experience and people from different genders, ethnicities and ages. The desire

to expand the operations of the VPT in relation to engaging in more community-level engagement and work was also highlighted.

Adaptation

Adaptations to the VPT model were led by the VPT staff at each site, with oversight provided by the nurse safeguarding leads. However, VPT staff were trusted and had the autonomy to adjust aspects of the VPT model in response to their experience. This process of adaptation was continual.

From Cardiff to Swansea

The VPT model was initially developed in Cardiff, and a second VPT was subsequently implemented in Swansea. Interview data revealed some of the contextual differences between the two areas. Swansea was described as having a lower, albeit increasing, proportion of violence-related ED attendances. In terms of the nature of the attendances, Swansea was believed to have a more significant drug problem and, therefore, a more dominant role of county lines and associated gang culture, compared to Cardiff. Other demographic differences existed, with Cardiff having a larger and more multicultural population. Despite these differences, documentary and interview data suggested that this neither impacted upon nor influenced the VPTs' operational model. As well as these external contexts, the two hospital sites' internal contexts varied. Cardiff had a history of violence prevention work and, therefore, greater buy-in at key levels within the ED and the wider hospital compared to Swansea.

Despite contextual differences between the two VPTs, adaptations were mainly limited to the adaptation of operational processes to align with the resources available in different hospital systems and the pilot of new practices, such as extended working hours. No adaptations were identified during the pre-implementation phase, and few adaptations were needed in response to differences in the populations served or the nature of the violence. Adaptations instead emerged over the course of the delivery of the VPT model and in response to patient needs.

In terms of core team members, the Swansea VPT was initially staffed by one nurse, recruited from outside of the ED, and one advocate (who left after two months). Although there was no advocate, one of the nurses had extensive experience working with community-based partners, and, as in Cardiff, this was a core feature of the advocate's role. Over time, differences emerged in relation to the governance structure and structure of the teams across both sites. Both VPTs were situated in the ED and aligned to safeguarding, and in Swansea, an additional band seven role was temporarily created to manage the two nurses in recognition of the increasingly strategic role the VPT contributed. This new role was funded by a departmental underspend in the NHS and was created in recognition of the strategic role the VPT staff played.

> "I think it's been good because they've been able to mould it themselves, and they had that freedom to do that as well, so they've been able to adapt it to the needs of the services. And that is constantly changing. I think, you know, if there was, I think they should be a higher band than they are for the work they are doing because they are quite strategic as well. Although they are operational and running around in ED and the minor injuries unit, they are also going to quite strategic groups as well, and they are making decisions and developing a service which I think sits a little bit more than they are getting paid, but that comes down to money again" (P118).

The staff involved with developing the VPT in Cardiff advised on the development and implementation of the Swansea VPT. However, the Swansea VPT staff were allowed to adapt materials and processes, for example, for referrals into the VPT, and in response to differences in operational practice between health boards and hospitals.

> "Basically, it was a bit of a blank canvas, really. We went down to [Cardiff] to see what they were doing down there. We spent a day with them down there so that we could see how they were working, but then it was okay to come back and see how it worked here [...]. Their Accident and Emergency [is] very different to ours, and that just wasn't going to work here. It was made quite clear that people didn't need extra referral forms to fill in" (P102).

In Cardiff, ED staff referring a patient into the VPT were originally required to complete a short form detailing patient information and concerns. The consensus in Swansea ED was that this would be an additional burden, and corporate safeguarding agreed that the Swansea VPT could operate like other hospital-based services, such as the physiotherapists or occupational therapists, allowing them to approach patients without having had a referral form that included patient consent to contact. However, it was acknowledged that this was not working completely, and some patients were missed. To combat missing referrals, the VPT in Swansea established an additional practice that is not present in Cardiff. They asked NHS analysts to produce a regular report detailing patients affected by assault who were aged 10 to 25 years.

A significant and short-term adaptation that took place in Swansea related to their operational hours. In response to perceived patient need and timing of relevant attendances (particularly school-aged children), the Swansea VPT temporarily expanded their operational hours to cover weekday evenings (up to 8pm) and weekends (7am to 3pm). This adaptation, driven by the VPT staff, also helped address the challenges they faced regarding office space, as greater space was available outside of the daytime shift. While VPT staff and the deputy safeguarding lead in Swansea were keen to continue using these expanded hours, the required funding was not available. At the time of the evaluation, the Swansea VPT operated on a Monday to Friday, 8am to 8pm rota.

The Cardiff VPT remained on a Monday to Friday, 9am to 5pm shift, which limited opportunities to meet patients face-to-face. Although these challenges were considered part of working in an ED, there was an eagerness to understand whether expanded working hours improved patient reach and ascertainment.

> "Yes, I think the hours in Cardiff have been a challenge because we kind of set our stall out on a 9-5 basis, Monday to Friday, put them in a team, and violence doesn't work 9 'til 5, it operates at different times. So, the argument is that those patients who are being seriously hurt will be there when they are back in work, and they can go and pick them up. But the reality is that can't always be the case because people will get discharged; hospitals are busy; they want to get them out of the hospital as quickly as possible. So, Swansea have learned from that, and they've started testing working at different times, so it'll be interesting to see how that works going forward" (P106).

During periods when the Swansea VPT was fully staffed, they were able to expand their practice, having nurses work shifts in the affiliated minor injury unit. The Cardiff VPT did take referrals from their affiliated minor injury unit, but staff did not work shifts there. The reason for this adaptation in Swansea, placing staff in the minor injury unit, was in response to a perceived need; they aimed to reach these patients directly.

> "Definitely having more of a presence there, or they were able just to leave and travel over there if that was [...] needed. Because it's really busy [in] the minor injuries [unit], and people tend to go there because there's not as much as of a wait as there is in the busy ED. [T]hey can, you know, patch them up, and they can be x-rayed, and they can do an awful lot there, and they are waiting half the time. So, there's a lot of people that turn up there from all over" (P118).

Some differences also existed in relation to data collection processes and information sharing, largely related to the different services and local and regional partnerships that do or do not exist in each area. However, at the time of the evaluation, participants highlighted how data-sharing processes had not been established between the VPU and Swansea VPT. This was considered a work in progress, given the early stage of set-up that the Swansea VPT was in, rather than a planned deviation in reporting processes.

Overall, these adaptations were viewed by participants as ensuring that the VPT's functions operated as intended, with the grain of ED usual practice rather than a deviation from the VPT's core functions.

Generalisability

Interview data revealed that some participants felt the VPT should remain an ED-based service and should be expanded to other Welsh and English EDs.

> "But I think ED is the right place. Everybody gets triaged, so they have several opportunities. Unless they're discharged against advice, they get several opportunities to disclose something to a medical

> professional. They're usually there for a while. Unfortunately, that's the nature of ED. It's not quick in and out; you're usually there for a while" (P107).

Other participants thought that the VPT model could be used in other NHS settings, particularly GPs and outpatients, with maternity and oncology also viewed as opportunities. Some patients attending the ED with injuries are expected to receive follow-up appointments in outpatients, and low-acuity patients can seek support from their GP without attending the ED.

> "I think that [the] outpatient appointment, in the [one or two weeks] following the injury, is a good opportunity. You know, if it's left any longer than that, then people begin to forget what's happened, you know, get on with life" (P124).

While an expansion of VPTs across Wales was encouraged, participants emphasised the need for the NHS to take a more active role in violence prevention so that the services could be maintained and expanded.

> "I just can't imagine an Accident and Emergency department without it, to be honest; I think it should be rolled into every Accident and Emergency" (P117).

Reflecting on the replication of the VPT model in other settings, participants emphasised the importance of conducting exploratory work to better understand population needs first, before designing and commissioning the service. VPTs should be intelligence- and evidence-led.

> "I think you could definitely replicate it in other services, but I think it's really important to look at the demographics that you're getting into those areas first without having it tailored to a service" (P103).

Furthermore, some participants suggested a formative period to map local systems and to align the service with operational processes and the needs of the local community. Participants also stressed the importance of recruiting personnel as champions of the VPT model, who were willing and able to work across diverse organisations and had an understanding of the violence prevention ecology.

"You've always got to ensure you're getting the same kind of staff [...]. Because [...] the problem is like anything, when you make something big and improve it, you've got to have the same kind of staff [...]. It's just making sure it's just done right and in the same kind of way. Basically, building on what [Name] and her team have done" (P113).

Discussion

The international research literature recognises the potential of ED-based HVIPs (11-13). Originating in Cardiff in 2019 and expanding to Swansea in 2022, the VPTs are unique, nurse-led, ED-based services that aim to identify, assess, support and refer patients who have been exposed to violence. VPTs further offer a pedagogical role, teaching and training ED staff to improve their understanding and support of patients. Moreover, VPTs collect patient data relating to their experience of violence, their modifiable risks and their vulnerabilities. This data supports VPTs' involvement in the violence prevention ecology more generally and are shared with partners, such as local authorities and the police, where they inform violence prevention activities. Embedding VPTs in the hospital and wider violence prevention ecology takes time and requires a willingness of VPT staff to engage with partners. However, formal integration is curtailed by short-term funding. This may change given the legislated need under the Serious Violence Duty for the NHS to engage in violence prevention.

Adapting, developing, implementing and evaluating HVIPs in new contexts requires attention to the circumstances in which each HVIP is located (20). Routine data suggests that VPTs take time to bed in. VPTs had to develop the service within each ED, tailor activities to the needs of ED staff, develop and deliver training and awareness-raising materials, and develop referral options for patients. There was no guidance on how such activities should be undertaken, but VPT staff were afforded the freedom to develop the service to best accommodate local circumstances and patient needs. The VPTs did, however, benefit from some pre-implementation activities, including face-to-face meetings, communication and engagement with ED staff to inform them of the service, which also extended to VPT staff joining ward rounds. This early engagement was tailored to the needs of the ED and resulted in the development of efficient and least resource-intensive methods to support patient referral. These activities were continued once VPTs had been implemented, both to meet the changing needs of patients and to maintain engagement with staff new to the ED.

Those interacting with VPTs described staff as violence prevention champions, highlighting their enthusiasm and credibility as features important in implementing the service. ED staff found VPT staff to be approachable, leading to opportunistic consultations. This was assisted in Cardiff by situating the VPT in a safeguarding hub in the ED, providing ED staff with an accessible presence where they could seek advice. The successful implementation of a VPT is likely predicated on the extent to which it is embedded in the ED clinical team, can access community and hospital patient management systems, and is, therefore, able to work with the grain of usual practice in that environment. The VPT should not only encourage the referral of patients into the VPT but also support clinical staff in their discharge of safeguarding duties.

In addition to bedding into EDs, VPTs also sought to develop collaborative relationships with providers within the NHS and in the community so that bespoke person-centred care could be provided to patients. This was a continuous process; as the needs of patients changed, VPTs would respond with bespoke support and, therefore, collaborations with services able to support their patients.

Likely due to the time-limited funding, neither VPT had been formally included in either hospital or ED standard operating policies. Less formally, however, a visible presence in ED together with the recruitment of VPT staff experienced in working across ED and community services increased opportunities to develop formal and informal relationships within and external to the ED, although less evident in Swansea, as the VPT had not been running as long as the Cardiff VPT. The Cardiff team was increasingly seen as a hub of expertise and was consulted by both staff in the ED and across the violence prevention ecology more generally. As such, the VPTs were exemplars of the whole system multi-agency violence prevention approach described in UK Government guidance, one that further discharged violence prevention obligations on NHS under the Serious Violence Duty (5, 6, 8) and consistent with the multi-disciplinary approach seen with some other HVIPs (56, 57).

In summary, factors that either enabled or constrained successful VPT implementation were identified.

- Facilitators
    - VPT staff personality, skillset and personal and professional qualities.
    - VPT contributions to the safeguarding agenda and being situated within the safeguarding team.
    - Formal and informal support, engagement and training to ED and hospital staff.
    - Responsiveness to staff and patient needs, including their safety.

    - Visibility as a physical presence in the ED.
    - A willingness to provide support to patients and staff across the hospital.
    - Continuously engaging with staff in the ED and elsewhere to raise awareness, promote engagement and encourage referrals.
    - Access to hospital and community patient records to better determine patient needs.

- Barriers
    - Low staffing levels and high staff turnover in the VPTs, EDs, the wider hospital and key partners (e.g. police, third sector partners).
    - A lack of dedicated facilities and office space within the ED.
    - High patient demand for ED care, compounded by the additional work required from staff to refer patients into VPTs.
    - Limited hours of operation and, therefore, limited availability to staff or patients requiring support.

Participants perceived that patients' level of trust in healthcare determined the extent to which they were willing to engage with the VPTs. The interpersonal skills of VPT staff, their ability to build rapport, a hospital setting that was described as a "safe place" and patient perceptions that nurses were there to help patients increased trust. Conversely, there were suggestions that VPTs could also be perceived by patients as part of a broader system or service that patients distrusted and that they might have concerns that the VPTs could share information with less trusted organisations, such as the police and social services. For patients under 16 years of age, engagement was further informed by parental and family members' level of trust. However, and more generally, HVIP acceptability to patients was rarely discussed in the literature reviewed and is a limitation of the current evaluation.

More generally, and across the violence prevention ecology, shared or divergent goals could further facilitate or constrain VPT activity. Other services' organisational goals were often dictated by the resources they had available. Resource limitation across health, police, social services and third sector groups limited the extent to which organisations could provide support, which in turn constrained the support available to VPT patients.

VPTs' effectiveness is influenced by ED and VPT staff being able to identify patients attending due to violence. VPTs are an exception to most HVIPs in that the VPTs partly rely on ED staff to routinely monitor and refer patients who might be attending due to violence, an approach that was consistent with safeguarding policies for all NHS patient-facing staff (55). As patients can disclose to ED staff at any time from initial attendance through to their discharge, this requires ED staff to have the confidence and skills necessary to enquire about patients' reasons for attendance. This required VPTs to promulgate the availability of the VPTs to staff coupled with the provision of safeguarding training to staff. This was a continuous effort due to new agency staff and trainees rotating through EDs and likely had a notable impact on the number and nature of patients who were identified. First, more patients exposed to violence are likely identified, and second, those identified included young people exposed to criminal and sexual exploitation, patients involved with drug gangs and other significant groups. It is feasible that many of these patients would not have been identified and offered support without the establishment and intervention of the VPTs.

Routine data showed peaks in eligible patients attending both Cardiff and Swansea EDs on Friday and Saturday evenings, although violence was not exclusive to those times. Across the literature, and like the VPTs, few HVIPs offered a 24/7 service (41); therefore, opportunities to meet patients face-to-face are limited temporally. This is noteworthy, as patients were more likely to engage with VPT support if they were met face-to-face (58) rather than the initial contact being by phone at a later point. Nevertheless, over three-quarters of the patients contacted by the VPTs engaged with the support offered to them.

Building upon a previous systematic review (7), our scoping review found that HVIPs often have restricted eligibility criteria, and therefore, not all patients attending due to violence would receive support. For VPTs, this is dissonant with the NHS ethos of equitable and inclusive care and nurses' duty of care. Violence is not unique to certain demographics, and it is notable that this was recognised by the VPTs early. They dropped the requirement to only focus on young people and subsequently sought to include all patients attending EDs due to violence. All patients attending the NHS should expect to receive person-centred care, something that the VPTs facilitated. However, patients attending EDs will be more generally diverse (33, 36, 45), and exploring how

diversity should be accommodated could provide insights that enhance the effectiveness of the VPT intervention as well as inform the wider body of evidence and literature on HVIPs.

The presumed mechanisms of change rely on the notion that patients in ED are in "teachable moments" (32, 33, 46, 50) and, therefore, are more willing to consider lifestyle changes that would reduce their exposure to violence in the future. There were exceptions; some HVIPs extend support networks from the ED into the community, providing support beyond patients' time in the ED. Although not explicit in the research literature, it is likely that the support some patients require would go beyond a brief intervention in a teachable moment (42, 47). Some associated with the VPTs instead referred to the primary mechanism of change being predicated on a "reachable moment". The rationale being that many VPT patients may not have previously had opportunities to receive support and that, therefore, the VPT based in ED offered a unique opportunity to identify needs and provide support. Further evidence of the impracticality of the "teachable moment" was evident in the routine data describing the services to which patients had been referred. These included support for vulnerabilities that included homelessness, mental health, drug and alcohol dependence, and criminal and sexual exploitation: vulnerabilities that are unlikely amenable to a brief intervention. VPTs, therefore, identified need and scheduled referral and support, but there remains a need for HVIPs and VPTs to better consider what works for who and in what circumstances.

VPTs recognised that patients could be re-traumatised if they were required to repeatedly explain their circumstances as they transition across services. VPTs, therefore, often remained in contact with patients, and as they transitioned across services, offered support and, with patients' consent, they also shared information about their patients with other organisations to further improve continuity of care. This was aligned with key NHS patient-centred care objectives, as without support, patients transitioning across services can feel confused, depersonalised and stressed (59). This was exacerbated by fragmented violence prevention ecologies in which the VPTs were situated. There were barriers to sharing data and intelligence, operational limitations on who services could support, long waiting lists for some services and gaps in service provision. VPTs help fill gaps in service provision by supporting patients beyond EDs, and they contribute novel data and intelligence to inform a broad range of violence prevention activities. In response, a broad range of interview participants across the violence prevention ecology accepted the VPTs, regarding them as a needed addition that is able to contribute a unique health perspective. This was coupled with the emergence of a fledgling nurse-led national violence prevention network that brought violence prevention nurses from around the UK together to share their experiences and resources. However, within and external to the NHS, there was no coherent mechanism to identify those exposed to violence and provision support according to need. Several organisations worked in isolation. VPTs, therefore, helped to fill gaps locally, regionally (the local authority, health board and policing area) and nationally. They brought additional resourcing and capacity to better reach, support and refer patients. They supported clinicians, collated information and intelligence, and provided the unique insights necessary for multi-agency partnerships.

Logic Model

The formative theory of change presented by the VPU and Public Health Wales (16) was revised based on the findings of this evaluation.

<table>
<tr><td colspan="4">Principles of the VPT model:
Patient-centred and trauma-informed; nurse and advocate-led; tailored to local need; responsive and adaptable; multi-agency/partnership working; whole system, public health approach; violence a public health and health issue.</td></tr>
<tr><td>Inputs</td><td>Activities</td><td>Mechanisms</td><td>Outcomes</td></tr>
<tr><td>Commissioners:
Funding.
Team Structure:
ED-experienced nurse, third sector and patient support experienced staff.
NHS:
Local assessment of need.
Systems to support VPT embeddedness.
Early and ongoing engagement and support from operational and strategic leads.
System:
Early and ongoing engagement and support from key partners.</td><td>Patient Level:
Identify and assess patients and, if indicated, their families in a patient-centred and trauma-informed approach.
Provide advice, support, and guidance to patients and their families. Promote movement away from circumstances and lifestyles promoting violence.
Encourage and facilitate victim engagement with partner agencies and relevant interventions.
Provide advice, support, education, and guidance to families of patients with violence-related injuries.
ED Level (including staff):
Ongoing assessment of needs and systems.
Informal and formalised training and upskilling of healthcare professionals.
Establish and maintain the presence of the VPT within the ED.
Support staff who are victims of violence and protect staff from unsafe situations.
System Level (hospital and wider):
Establish and maintain the presence of the VPT within the wider hospital, the health board, wider agencies (e.g. police, third sector, local authorities), and multi-agency partnerships.
Collect data and intelligence on violence, anonymise, and share with partners (including for evaluation purposes).</td><td>Patient–VPT Staff Interaction:
Increased ascertainment of patients with violence-related injuries in ED and wider hospital.
Engage with patients with violence-related injuries, undertake risk and needs-based assessments and develop patient-centred strategies to mitigate risk for patients and staff.
Engage with the families of those with violence-related injuries if indicated and provide them with support or refer, as necessary.
Knowledge and Awareness Generation:
Ongoing awareness raising and engagement with staff.
Internal processes and pathways: A referral mechanism into the VPT tailored to local level ED staff needs; Multiple approaches to patient identification: monitoring ED data systems; ED books.
ED staff (with gradual expansion to wider health colleagues) are trained and educated on: safeguarding, the nature and prevalence of violence, injuries to be aware of, interacting with patients with violence-related injuries (trauma-informed), and adverse childhood experiences.
Evidence Generation and Provision:
Generating and providing evidence/intelligence on frontline violence and sharing with colleagues and wider services through multi-agency working and a network of partner agencies and established pathways of support from the hospital.</td><td>Patient/Family Level:
Patient level (engagement with family, services, disrupted cycle of violence/crime, education, employment)
Families better equipped to support themselves and the young person in their care
ED Level (including staff):
Improved VPT implementation, buy-in, acceptability and sustainability.
Improved and earlier patient identification, reach and engagement.
Reduction in frequent users of the ED and re-injury/re-attendance > reduced cost on the healthcare and wider systems.
Improved ED safeguarding practice.
Community and System Level:
Reduction in violence-related injuries; prevalence of incidents of serious violence, including exploitation; perpetrators/victims of violent crimes/homicides and ‘hidden harm’.
Change in NHS organisational culture on violence.
Changing practice: Future reactive and preventative violence-related work informed by greater knowledge of violence.</td></tr>
<tr><td colspan="4">Multi-Level Contextual Influences (emerging and dynamic):
Staffing, ED resources and burden, local area and region, and complexity of partnership landscape.
Unintended consequences and mechanisms: ED as a safe space, increased staff/wider service burden, operational hours creating disparity in patient support.</td></tr>
</table>

Limitations

As with all process evaluations, we collected data over a limited time. VPTs continually adapted, and it is possible that further changes have since taken place. Furthermore, the ethical and resource implications of collecting data from patients exposed to violence meant this aspect of the VPT evaluation could not be undertaken. Some of the most vulnerable patients that EDs manage present notable barriers to interviewing them in their time of crisis.

In response to a request by one organisation, one group interview occurred. This involved a frontline hospital-based worker, their line manager and the chief executive. The potential hierarchical and power differences may have impacted the data and what participants felt able to share. The interviewer sought to address this by building rapport and creating an open environment, seeking views and opinions on each question from each participant.

Future Research

An essential next step for understanding the acceptability and effectiveness of these interventions is to conduct bespoke and targeted research with patient populations to make explicit their experiences and perspectives on the intervention. This would generate further insights into whom the VPT intervention may or may not be most appropriate for and allow us to understand why patients engage or do not engage with the service. This would further facilitate the development of theories of change more suitable to the diversity of patient groups. The notion of "teachable moments" is certainly not applicable across all patient groups. Longitudinal studies are currently being undertaken and funded by the NIHR (NIHR134055), which will determine the effectiveness and cost-effectiveness of the intervention.

More generally, research should be undertaken to better understand the applicability of the "teachable moment" within emergency care contexts. It is unlikely this concept is equally applicable across all patient groups.

Future work might consider workforce modelling to appreciate the extent to which whole system multi-agency collaborations are able to provide continuity of care and support those who are exposed to violence.

Conclusion

There is broad consensus that the NHS, and EDs, in particular, can play a greater role in violence prevention. The VPTs considered in this implementation and process evaluation make a substantial contribution to NHS violence prevention initiatives.

First, as part of the ED clinical team, they can work directly with patients and clinical staff, and they have access to patient records. Doing so improves access to the support patients require, providing them with opportunities to move on from the circumstances that contributed to their attendance due to violence. This patient-centred approach to violence prevention is novel and offers the prospect of reducing patients' likelihood that they will further experience violence.

Second, the support available to patients exposed to violence is fragmented, and there are gaps between services. The education system was identified as one area that was difficult to get involved in, with some schools actively resisting involvement with violence prevention initiatives. A broad range of organisations began to coalesce around the VPTs, resulting in better support for patients as they transitioned across services; the health data and intelligence made available by VPTs impacted resource allocation decisions in other services, and the VPTs increasingly became seen as a source of knowledge and support both for NHS staff and further afield.

The VPT staff were described as effective champions of violence prevention. This served to encourage ED and other staff to engage with the service and better identify eligible patients, and it further broadened reach to patients otherwise reluctant to engage. There remained, however, some unwilling patients, for example, patients seeking to avoid scrutiny, suggesting that work is still required to better understand how they can be best supported.

VPTs had access to ED, hospital and community patient records, which they used to identify patients and better understand their circumstances. While ED patient management systems include information describing ARAs across the siloed specialities within healthcare, there is a lack of a cohesive means of capturing patients' exposure to violence and, therefore, eligibility for VPT support. ED attendance is typically required for serious injury, and therefore, the risks for serious injury contained in non-ED records are unlikely to be identified early or acted on. This is notable as the VPTs identified patients attending ED with vulnerabilities, including neurodevelopmental conditions and disability.

VPTs provide an opportunity to collect and communicate unique data and intelligence on the causes and consequences of violence and to inform prevention locally and regionally. This includes patients exposed to child criminal and sexual exploitation, those involved in gang-related activity and other significant and high-risk groups. Multi-agency awareness of evolving risks provides opportunities for coordinated activities that reduce the likelihood of harm. However, the visibility of HVIPs declined in interview data as the focus of the research moved from local ED teams to regional and national actors, suggesting that local innovation is not strategically aligned with broader policies of prevention.

The accumulating density of collaborating services internal and external to healthcare and the opportunity to provide ongoing flexible support to patients provided opportunities to support patient transitions across services and to provide continuity of care. Formal policies and practices were supplemented by informal, flexible and bespoke arrangements that brought agility and openness across the ED clinical team, further facilitated by VPTs being co-located in safeguarding hubs. The expectation being that this approach would further improve relationships with staff who were less engaged.

The agility demonstrated by VPTs was partly hampered by provisions available to support patients beyond EDs. Waiting lists for services impaired referral, and third sector organisations were occasionally limited by their articles of association and, therefore, who they were able to support. This is notable, given the continual monitoring undertaken by VPTs and, therefore, opportunities to identify and respond to new patient groups, as this might be impeded by a lack of agility elsewhere.

A plurality of services and the fragmented nature of the violence prevention ecology risks inefficiency and suboptimal patient care. Patients moving across services experience stress and confusion. Given the vulnerabilities associated with violence, a patient-centred approach that emphasises continuity should be preferred (60). VPTs partly address this. They represent a shift away from siloed provision, instead emphasising a delivery model based on patient need. While not always explicit or formalised, there is evidence for continued monitoring of performance and, therefore, opportunities to identify value beyond key performance indicators, capturing outcomes across several patient, community, and institutional levels. Their unique location in EDs and alignment with safeguarding provide opportunities to identify and support patients who are not routinely engaged. Their reach, however, might broaden to encompass other locations in the health estate and beyond. Further opportunities are complicated by dysfunctional information systems. Within the NHS, patient management systems are not integrated, and across the broader violence prevention ecology, information flow is disjointed. While the VPTs worked to overcome this barrier, a lack of knowledge of VPTs at strategic levels suggests that innovation will continue from the ground up.

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Appendices

Appendix 1 – Intervention Description

The Template for Intervention Description and Replication (TIDieR). This TIDieR is based on a formative evaluation by Newbury [1].

Item	Description
Brief name	Provide the name or a phrase that describes the intervention. Hospital-based, nurse-led Violence Prevention Team (VPT)
Voice	"Who was involved in the preparation of TIDieR, how they were involved in the intervention/their perspective (e.g., researcher, service deliverer, patient, etc. Research and evaluation team: Wales Violence Prevention Unit (VPU) evidenced the need for the VPT and funded early implementation. University evaluation team – Cardiff University (Violence Research Group and DECIPHer), Swansea University (SAIL Databank team), and York University contributed to the TIDieR. Youth Endowment Fund (YEF) part-funded the intervention and funded the process and implementation evaluation. The National Institute for Health Research (NIHR134055) funded the effectiveness and cost-effectiveness evaluation. An expert advisory group provides oversight to the evaluations, including experts from Public Health Wales, Trauma Network, South Wales Police, Office of the Police and Crime Commissioner (OPCC), and third sector organisations including Welsh Women's Aid, The Wallich and Black Association of Women Step Out (BAWSO). Service Delivery VPT staff (nurse, nurse advocate), who implemented and continually develop the service. Clinical teams in the two Emergency Departments (EDs) in which the interventions are situated provide clinical governance. Commissioners Wales VPU (partner agencies including South Wales Police OPCC, and Public Health Wales), provided the bulk of the funding for the interventions and have on-going dialogues regarding the service development, implementation, and delivery at both implementation sites. The UK Home Office provided initial funding to the VPU and YEF
Why	Describe any rationale, theory, or goal of the elements essential to the intervention. EDs receive for treatment patients who have been exposed to violence. There are numerous reasons why some people are exposed to violence, including their alcohol use, illicit drug use, unstable or chaotic homelife, amongst other reasons. These vulnerabilities will also be associated with increased utilisation of Emergency Care generally. EDs therefore have a unique opportunity to offer these patients additional support, beyond treatment for acute health needs, either directly or through referral to other healthcare services, or in discharge planning signposting third-sector

	organisations, for example. If this support is successful, then the expectation is that patients will exhibit a reduced use of emergency care services in general, not just for violence-related injury. The primary objectives of the hospital-based service provision are to (i) identify patients attending EDs whose attendance is predicated on their exposure to violence, (ii) work with patients to understand any circumstances or vulnerabilities that increase their exposure to violence, and (iii) to either support their referral into secondary or third-sector care or to provide ongoing case-management alongside third-sector support. All patient-facing clinical staff in emergency care, and elsewhere, have a duty of care and will have received training necessary to undertake patient safeguarding. However, the additional resources involved with the VPT afford (i) greater time working with patients to determine need, (ii) deepen links with primary, secondary, and tertiary care, and third sector organisations, for improved referral processes, (iii) work across clinical teams to support colleagues with their safeguarding needs and referral into the intervention, and (iv) through direct contact with patients, support opportunities for disclosure and therefore increase ascertainment of assault-related attendances. While the VPT can and will refer to any community service provider based on patient need, specific funding has been dedicated to two different organisations where the VPTs are located. The community-based provision provides intensive support to high-risk children and young people (aged 11-24 years) involved in serious organised crime, drug-related activity, and showing signs of exploitation. The objective is to build resilience to enable these young people to be diverted away from further involvement in serious violence and organised crime.
What – material	Describe any physical or informational materials used in the intervention, including those provided to participants or used in intervention delivery or in training of intervention providers. Provide information on where the materials can be accessed (e.g., online appendix, URL). The VPT have made resources available to patients and their families, including leaflets providing details of the service, and information packs to inform them of key issues (e.g., county lines and exploitation). The VPT has available physical and informational materials usually available to ED staff. This includes access to patient records, both specific to the ED and community healthcare generally. This information facilitates risk assessment and safeguarding practices (e.g., identify patterns of attendance at health care settings for violent-related injury), as well as allowing the VPT ensure their engagement with patients is appropriate at that time (with consideration to the patient's clinical needs). In addition, the VPT have strong links with South Wales Police, and receive information and intelligence relating to violence related incidents and community problems. The provision of this information and intelligence to the intervention teams can help inform their interactions with patients and ensure the safety of the hospital and patients (e.g., in cases of youth violence where further attempts to harm a patient may occur). Training and support for staff by VPT The VPT provide training to a wide range of clinical and non-clinical staff within the hospital, including: Clinical hospital staff, on violence (e.g., youth violence) and vulnerability, identifying violence-related injury and engaging with patients, implementing safeguarding procedures for violence-related injuries (e.g., completing multi-agency referral forms, MARFs).

	Reception staff, on data entry and patient coding, to improve the quality of routine clinical data. The nature of medical education entails short-term postgraduate and speciality training, and therefore a steady flow of clinical staff new to the ED environment. The VPT provides education and training, and impromptu advice and support through one-on-one interactions, to hospital staff. This includes providing consultation on patients and facilitating patient interactions for more challenging cases.
What – procedures	Describe each of the procedures, activities, and/or processes used in the intervention, including any enabling or support activities. The VPT engages with patients at different stages of their journey, depending on the type and severity of their injuries, the time and day they attend the ED, and the longevity of their hospital stay. They are embedded in the ED clinical team, and have the same resources (e.g., access to electronic patient management systems) as other ED staff. Referral The VPT can receive patient referrals through multiple channels, including email, phone, and face-to-face contact. During their shift, VPT staff can be notified of eligible patients through a set of questions asked during patient registration, triage or by monitoring the ED patient management system. When the VPT is not on shift, paper-based referral forms are available, and staff can still use formats to refer patients and the VPT will retrospectively review the ED patient management system to identify any additional patients that may have been missed by clinical staff. Process The VPT provides individualised support to patients based on their needs and collaborates with primary, secondary and tertiary care, third sector organisations and other statutory organisations (e.g., local government safeguarding teams, the police, and school nurses). They establish a relationship with the patient and, where appropriate, their family. They provide emotional and practical support. They also manage vulnerabilities and risks to patients by gathering information and through collaborative multiagency work. This can be through existing resources, such as the Domestic Abuse, Stalking, Harassment and Honour Based Violence Assessment (DASH) tool, and referrals into the Multi Agency Risk Assessment Committee (MARAC). The VPT will either discharge patients to receive support elsewhere, or, in the case of high risk, high need children exposed to criminal or sexual exploitation, continue their support of the patient alongside third sector organisations specifically funded to support the VPT in this area. Access to information The VPT has access to usual healthcare patient management systems, both ED specific and community-based, that can be accessed to inform patient assessments and safeguarding decisions. Furthermore, the VPT access information on patients to inform risk assessment and management. For example, following incidents of serious violence (e.g., stabbings and shootings), they will gather information on risks and known associations through the police, VPU team (i.e. police and probation), hospital staff, and through the safeguarding team (who routinely meet to discuss patients).

	Assessment The VPT completes a risk- and needs-based assessment in collaboration with patients if they agree to engage and, where appropriate, their families. This will also include information obtained through patient records (e.g., PARIS and clinical portal) on previous hospital visit.
5. Who provided	For each category of intervention provider (e.g., psychologist, nursing assistant), describe their expertise, background and any specific training given. VPT staff will be trained to Level 2 or Level 3 Safeguarding, available through continuing professional development to all frontline staff in the NHS. VPT staff are typically seconded from the broader ED team and will typically be nurse-led. Additional third-sector support is funded to provide support to high risk, high need children.
6. How	Describe the modes of delivery (e.g., face-to-face or by some other mechanism, such as internet or telephone) of the intervention and whether it was provided individually or in a group. The VPT team meets with patients face-to-face in the ED if they are on shift, or on hospital wards if the patient is admitted. If the team is not on shift, or receive referrals from Minor Injury Units, they will follow-up with a phone call and conduct an assessment. All contact is done an individual basis, or in collaboration with the family (for under 16-year-olds, or in cases the patient consents to family involvement). Under usual safeguarding processes, the clinician who first receives any disclosure is expected to lead on the subsequent referral to the VPT, so that patients are not required to repeatedly describe circumstances they might find distressing. In this latter case, the VPT will support the patient's referral.
7. Where	Describe the type(s) of location(s) where the intervention occurred, including any necessary infrastructure or relevant features. The VPT are physically based in the ED. However, they can accept referrals from Minor Injury Units, and also provide support to patients on the wards if they are admitted following serious injury. The VPT also work with patients that are transferred from other health care facilities- which is particularly pertinent when the hospital is a major trauma centre, or trauma unit, and therefore accepts out-of-area patients. The VPT engage with other health care settings to facilitate transfers (e.g., provide information on known risks and vulnerabilities), and inform care planning.
8. When and how much	Describe the number of times the intervention was delivered and over what period of time including the number of sessions, their schedule, and their duration, intensity, or dose. Patients will either engage with the VPT or will refuse support. If the latter, they will have been in contact with the VPT once. For patients who engage with the VPT, the frequency and duration of engagement with patients will be determined through the patient's age, clinical need, and any underlying vulnerability. Hospital based VPT The VPT typically have one or two interactions with most patients, such as a phone call or text message. However, patients with greater needs may have more frequent contact and remain on the caseload for several weeks. Inpatients are supported until they are discharged. The VPT can only maintain a small caseload of patients who require longer-term support, typically those on waiting lists or who are too vulnerable to disengage

	with. Patients referred to the caseworker have minimal involvement with hospital-based services. Caseworker The caseworker offers high-intensity support for high-risk, high-need young people and engages with them two to three times a week. To maintain this level of contact, the caseload is limited to five young people at a time. Some service users may be on the caseload for an extended period if they resist engagement. However, for patients referred to hospital-based services, the caseworker has minimal involvement or contact.
9. Tailoring	"If the intervention was planned to be personalised, titrated or adapted, then describe what, why, when, and how. Level of harm The VPT engages with patients attending ED in consequence of their exposure to violence. All patients are eligible and initial assessment will determine how patients are managed. In the case of domestic abuse, the patient will be handed over to an Independent Domestic Violence Advocate (IDVA). In the case of sexual abuse, the patient will be handed over to the Independent Sexual Abuse Advocate or the Sexual Assault Referral Clinic. In the case of self-harm, the patients will be handed over Mental Health Services. The VPT will therefore typically engage with patients attending with non-domestic violence-related injuries, of varying acuity. The team offers immediate support to patients with non-life-threatening injuries, while for high acuity patients, they wait until the patient is stable before offering their services. The VPT team conducts assessments for patients admitted into the hospital, which allows them to provide more intensive support. Caseworker The caseworker engages with patients either in the hospital or in community settings and maintains a caseload of up to five young people at a time for high intensity support.
Stage of Implementation	(i) What stage of implementation does the TIDieR checklist cover? (ii) Is this a revision of an earlier TIDieR checklist This is an initial TIDieR, generic to two sites at which the VPT model has been implemented. The VPTs at the two sites are at different stages of implementation with one having a significantly longer operational period.
How well – planned	“If intervention adherence or fidelity was assessed, describe how and by whom, and if any strategies were used to maintain or improve fidelity, describe them. The VPT model is subject to a formal evaluation, and a process and implementation evaluation, which this TIDieR informs. The outcome from these evaluations will be a revised logic model, an understanding of the adaptations made to the intervention based on locality, and a formal effectiveness and cost-effectiveness evaluation.
How well – actual	"If intervention adherence or fidelity was assessed, describe the extent to which the intervention was delivered as planned. Describe the extent to which the intervention was delivered as planned and outline the factors which had an impact on actual delivery. Delivery of the intervention has been impacted by staffing changes in both sites, with both sites operating with reduced staff during periods of their operation. As a result, this has led to delays engaging with and referring some patients for further support.

Reference

1. Newbury A. A service evaluation of the delivery and implementation of a hospital-based Violence Prevention Team within the University Hospital of Wales. Cardiff: Public Health Wales; 2021.

Appendix 2 – Stakeholder Reference Group

The Stakeholder Reference Group included representatives from the following groups:

- The South Wales Violence Prevention Unit.
- The Violence Prevention Teams.
- Cardiff and Vale University Health Board.
- Swansea Bay University Health Board.
- The Youth Endowment Fund.
- The Home Office.

The aim and role of the Stakeholder Reference Group was to ensure that the overall approach of the project was useful to those who might use any outputs, to advise on new and interesting avenues of enquiry, and to identify opportunities to put findings into practice. Other aspects of the Stakeholder Reference Group included:

- Early engagement and involvement in the direction of the project.
- To advise the evaluation team of activities that might influence the project direction.
- Provide a forum to facilitate full engagement and active debate among stakeholders.
- Represent stakeholders who have an interest in, and whose own roles and activities may be impacted by the project outputs.

Appendix 3 – Public Patient Involvement and Engagement

Public and Patient Involvement

We conducted two Public Patient Involvement sessions with young people. One group were from the Advice Leading to Public Health Advancement cohort, based at Cardiff University. The second group was recruited from the Peer Action Collective, based with Media Academy Cymru. Two sessions took place in late January and early February 2023.

Peer Action Collective already worked with the VPU and were aware of the VPT through Media Academy Cymru. Media Academy Cymru have hospital workers in Swansea who support young people in hospital, and also have a caseworker in Cardiff who provides support if one of their young people attend hospital. They also undertake work with young people who have been victims of knife crime in Swansea.

Seven 13 to 25 year olds, took part in two sessions. The format for the Public and Patient Involvement sessions were developed in consultation with those managing ALPHA and Peer Action Collective to ensure delivery met participants' needs. This resulted in one online session with Advice Leading to Public Health Advancement using a combination of discussion and short surveys using online software. The second session with Peer Action Collective took place in-person and was structured as a group discussion. Given the content and focus on violence, young people were given detailed information on the content before deciding whether to participate. The researcher delivering the sessions also checked in with the young people throughout the session regarding their overall experience, offering breaks and ensuring they were aware they did not have to engage if they did not wish to.
The two aims of the first session were to:

1. Explore the views of young people on the VPT model and its approach.
2. Explore the views of young people on the approach of the evaluation and the questions that should be asked of staff and professionals working in this area.

Having been provided with an overview of the VPTs, six questions served as the basis for each session:

- What do you think about the VPT and why?
- Where do you think young people feel safe and comfortable to share their experience of violence?
- Who do you think are the best people to approach young people in EDs are?
- What do you think of the evaluation approach?
- If you were interviewing the staff involved in the VPTs what would you ask them?
- What other groups should we speak to about young people and violence and why?

Participants identified key themes that informed the subsequent process evaluation:

- Continuity of support would be important, especially when roles remain fixed but personnel change, how this support is communicated to patients when services may not continue in the long term.
- How engagement might be tailored to need and what efforts are made to avoid stereotyping patients.
- What staff do with young people and whether young people are willing and able to share their experiences. What happens when someone deemed at risk refuses treatment.
- The physical location where young people were engaged with was of interest, whether this was undertaken in a suitable safe space and whether practitioners were aware of possible power dynamics between adults and young people. It was noted that sometimes the spaces available to young people can be overly "childish."
- Whether staff of different genders and from different ethnic backgrounds were available to ensure there is someone relatable for the young person.
- The impact of the work on VPT staff was raised, and whether talking to these young people had an emotional impact on practitioners.

Appendix 4 – Data Anonymisation and Management Plan

All processes for data collection, storage and processing were compliant with the Data Protection Act (2018) and the General Data Protection Regulation (2016). Any paper records were kept in lockable storage units in lockable offices, accessible only to members of the research team. Potentially identifiable data were stored separately and were password protected. Qualitative data was transcribed verbatim and analysed using NVivo 12 software. All data were securely stored on Cardiff University's internal server with secure transfer between team members. Anonymised quotations are used in reporting results.

The information sheet explained that participation in the interviews was voluntary and that participants did not need to answer any questions they did not wish to, and that they could stop participating at any point during the interview. It was also explained that interviews would be recorded for later transcribing and that during transcribing and subsequent quality checking by the evaluation Team any identifiable information would be anonymised, and that data would be securely stored for at least five years. Participants were informed that they were able to withdraw from the study up until publication of the results, and that once they had withdrawn no further data would be collected from them. However, our default position was to retain already collected data unless participants explicitly asked for this to be destroyed. Consent forms included participants' names which are stored in a password protected database alongside the unique participant identification number. Within interviews with professional stakeholders, we collected descriptive information such as job role, time in role and professional background. Descriptive data were not linked to quotes or included in the results to protect individual identity; collection of this information took place only to inform our analysis. As most consent forms were returned with electronic signatures, researchers asked participants to confirm their consent on the audio recording.

All interviews were conducted via video call and were recorded. Audio recordings on a Dictaphone were uploaded immediately to the Cardiff University shared drive and then deleted from the Dictaphone. No recordings were kept on personal networks. All recordings were sent to an approved transcription company with an existing confidentiality agreement with Cardiff University, who transcribed the recordings verbatim. The transcriptions were quality checked and anonymised by the research team.

Interview data were stored on the University network on password-protected University computers, accessible only by authorised individuals. All data were only collected and stored on the University network and accessed via password-protected computers and laptops, accessible only to authorized individuals in the research team. No personal data were stored on personal computers or networks.

Anonymisation

Another key ethical consideration of this work was the ability to anonymise individuals, given the small group from which participants are drawn and their specialist roles (particularly the VPT and VPU), there will be a risk in some cases of professional stakeholders being identified through identifiable features in interviews (including descriptions of job titles, role(s) as well as their working practices). We recognised how the discussion of certain contextual factors may make a person identifiable and we engaged transparently with participants to discuss this possibility and agreed a plan of action regarding participant and role descriptions. We ensured that any use of direct quotes in reporting or dissemination materials does not include an anonymised ID that could potentially be linked to the individuals job role.

We also recognised that professional stakeholders and members of target groups might be concerned about discussing the nature of their profession and employment when talking about some elements of their work, some aspects of which might not be in the public domain. Confidentiality of target group members data will be maintained via our data processing and storage procedures. All participants will be advised of the nature and content of the research prior to participation and will be informed of their right to withdraw at any point prior to publication. The interview question prompts did not focus on the nature of their employment but more generally on their experience and observation of working as part of the interventions and the wider violence ecology. As stated above, participants were able to withdraw their data although our default position will be to

retain any data collected. Participants were assigned identification numbers to replace their names. Participant names are stored in a password protected database alongside their participant identification number, in a separate folder to interview data on the University network only. No personal data was stored on personal computers/networks, and only the research team have access to the study folders.

Appendix 5 – Glossary

Term	Definition
ACEs – Adverse Childhood Experiences	Defined as highly stressful, and potentially traumatic, events or situations taking place during childhood or adolescence. These can be a single event, or prolonged threats to, and breaches of, the young person's safety, security, trust, or bodily integrity.
A&E - Accident and Emergency	Area of the hospital that is for urgent and immediate care (see also ED).
ADHD - attention deficit hyperactivity disorder	A neurodevelopmental disorder that affects concentration, focus, hyperactivity, and impulses.
AfC - Action for Children	UK children's charity. They work with vulnerable children and young people (CYP) and their families to ensure CYP have a safe and happy upbringing.
ALPHA - Advice Leading to Public Health Advancement	ALPHA is DECIPHer's research advisory group made up of young people, aged 14 to 25 years of age. They take part in discussions on research and public health.
ARA - Assault Related Attendances	A patient that attends a hospital with injuries derived from an assault.
BVI - Brief Violence Intervention	A short-term intervention to prevent the person becoming involved with further violence.
CAMHS - Child and Adolescent Mental Health Services.	An NHS service that treats CYP for mental, emotional, and behavioural health issues.
CCMS - Community Case Management System	CCMS aid the delivery of health interventions in community settings.
CMET - Contextual, Missing, Exploited and Trafficked	A multi-disciplinary forum based in Swansea. Based on contextual safeguarding, it aims to discuss and support CYP and families with extra-familial harm, for example, exploitation and county lines.
CYP – Children and Young People	Usually refers to those aged 0 to 25 years of age.
ED - Emergency Department	Area of the hospital that is for urgent and immediate care.
EDDS - Emergency Department Data Set	A national data set of ED data. It includes information on why a patient has attended the ED and what treatment the patient received.
EM – Emergency Medicine	The medical specialty in ED.
DECIPHer – Centre for Development, Evaluation, Complexity and Implementation in Public Health Improvement.	A Cardiff University research centre that focuses on improving public health.
FGM - Female Genital Mutilation	Female circumcision without a medical basis for the procedure.
GDPR – General Data Protection Regulation	Information privacy regulation by the European Union. The UK implemented GDPR via the Data Protection Act 2018.
HVIP - Hospital-Based Violence Intervention Programme	Hospital based violence prevention that is trauma informed. They ensure support for those involved in violence who have attended a

	hospital with a violence-based injury. The VPTs are a type of HVIP.
IDVA - Independent Domestic Violence Advisor	Work with those who have been impacted by domestic violence. They provide support, such as criminal justice support, and can represent the victim at a multi-agency risk assessment conference.
ISTV - Information Sharing to Tackle Violence	Data that has been collected by the NHS ED departments, which is shared in Community Safety Partnerships.
ISVA - Independent Sexual Violence Advisor	ISVA works with and provides support to victims who have been impacted by sexual violence.
MAC - Media Academy Cymru	Supporting CYP in Wales with the aim to divert CYP away from the criminal justice system. They use media to engage CYP and work with the CYP and their families.
MARF - Multi-agency Referral Form	Referral form to report a serious concern about a child at risk.
MIU - Minor Injuries Unit	Walk in hospital service for minor injuries. They treat injuries such as cuts, sprains, and stomach issues.
MRC- Medical Research Council	MRC funds medical based research in the UK. They fund research that can improve health, such as research for the prevention of illness.
MTC – Major Trauma Centre	Centre in a hospital that provides specialist aid to major trauma patients, usually defined as that can cause permanent disability or death.
NHS – National Health Service	UK Government funded health care.
NIHR - National Institute for Health and Social Care Research	NIHR fund health and social care research in the UK. They fund research that can improve health and wellbeing and provide details on cost effectiveness.
NRM - National Referral Mechanism	The NRM was set up by the UK Government to focus on trafficking. The NRM allows potential victims of trafficking to be identified and referred so that victims could receive appropriate support.
PAC - Peer Action Collective	PAC is funded by YEF. They are a group aiming to tackle violence. The group consists of CYP aged 10 to 25 years of age. They provide opinions on violence from CYPs perspectives.
PCC – Police and Crime Commissioner	Elected police official responsible for police forces in their police force area.
PHW – Public Health Wales	An NHS institution aiming to improve the lives and health of those in Wales.
PMS – Patient Management System	An online system that can be used to look at patient records, book appointments and treatments. It can only be accessed by health professionals.
PPI – Public and Patient Involvement	The inclusion of people into a research topic. People can be involved in research and can provide an opinion of users.

RCN - Royal College of Nursing	Nursing union in the UK. Representing those across the UK who are nurses, including midwives and students.
RCT - Randomised Control Trial	RCTs randomly assign participants to different groups; one group will receive a 'treatment', one group will not.
SARC – Sexual Assault Referral Centre	SARCs provide support, including medical support, for victims of sexual assault or rape.
SBUHB - Swansea Bay University Health Board	Health board covering Swansea and Neath Port Talbot.
SOP - Standard Operating Procedures	Step-by-step procedures on how to carry out a process.
ToC- Theory of change	A method of mapping out changes and longer-term goals.
UHW – University Hospital Wales	Cardiff's University Hospital Wales.
VPA – Violence Prevention Advocate	A violence prevention team staff member. Advocating for those involved in violence. Identifying and providing support to those who have been exposed to violence.
VPN – Violence Prevention Nurse	Similarly, the VPNs provide and identify patients who have been exposed to violence but have been medically trained.
VPT – Violence Prevention Teams	Violence Prevention Teams are hospital-based violence intervention programmes situated in two South Wales EDs. They include the roles of VPN and VPA.
VPU – Violence Prevention Unit (Wales)	Funded by the Home Office. Comprises of a multi-disciplinary team that focuses on violence through looking at evidence. Their aim is to reduce violence in Wales and the rest of the UK.
VRU – Violence Reduction Unit (England and Scotland)	The VRUs are like the VPU but are situated in England and Scotland and thus aim to reduce violence in England, Scotland, and the rest of the UK.
WSMA – Whole System Multi-Agency	An approach that includes different agencies. An example of this is the VRUs and the VPU.
YEF – Youth Endowment Fund	YEF fund research in England and Wales. Their aim is to prevent CYP becoming involved in violence and thus, fund research that can assist this cause.