Supplementary material

Appendix A: Operationalising the DVA main outcome

To detect patients who were a victim of DVA we used an iterative structured screening protocol, similar to the screening protocol used for systematic literature reviews ¹. First, an anonymized database was created including all text field entries from the electronic patient files of all patients treated by the included CMH teams during the 24-month study period. Additionally, information entered through DVA forms – completed after the detection of DVA- was extracted from the electronic patient files and included in the database. Next, an automated search query was performed consisting of (combinations of) words, stemmed words (such as victim*), acronyms, abbreviations, misspelled words and synonyms related to the concept of 'domestic violence and abuse'. Terms containing more than one word strongly related to DVA were also included in the search (supplementary table A).

Secondly, we listed all found terms for each patient. This resulted in a total of 14037 hits (see supplementary figure A). A hit is every term found in our predetermined database. One patient can generate multiple hits. We excluded all patients with only five or less not specific terms such as blood, hospital, sister, brother or alcohol. After the exclusion of not specific terms, our database consisted of all terms found per patient which we called a potential case (8490 cases). A potential case is every patient per time frame in which very specific terms regarding DVA were found such as DVA, rape, assault, Veilig Thuis (DVA service). This anonymized database included a context of 10 words before and 10 words after each hit and was stored in a separate database. All cases were categorized per anonymized patient, per anonymized team, and per assessment period (12 and 6 months before baseline and 6 and 12 months after baseline).

All potential cases were screened by two independent researchers (RR and HG). Non-DVA cases were removed from the database. Finally, all inconclusive cases were screened a second time by the same two researchers, this time including 50 context words. Raters were blind to the intervention condition. In case of disagreement, consensus was reached in discussion with a third researcher. The kappa of the interrater reliability was 0.86 with a 95% confidence interval of 0.79-0.97. In addition, a set of detected

DVA cases per team per period was created, DVA cases were labelled according to perpetrator/victim, type (emotional, physical, sexual, material), and follow up yes or no, if yes which actions taken (referred to DVA expert, externally discussed, internally discussed), and lastly to type of residency (sheltered living yes or no). During the whole screening process all researchers were blind to the condition to which teams belonged. Researchers were unblinded after screening was completed.

Supplementary table A.

 $Search\ terms\ used\ to\ extract\ the\ number\ of\ detected\ cases\ of\ DVA\ from\ electronic\ patient\ files.$

| | Main term (in Dutch) | Subheadings (OR) (in Dutch) |
|-----------|-------------------------------|--|
| Main term | Huiselijk geweld/mishandeling | Huis, ruzie, vechten, slaan, sloegen, geslagen, schoppen, bijt, beet, gevallen, val, trap, dreigen, slachtoffer, HG, vluchten, mishandeling, darmproblemen, gynaecoloog, agressie, klap, zonnebril, letsel, schelden, vloeken, schreeuwen, gillen, krijsen, scheuren, knuppel, duwen, trekken, klemmen, verstikken, wurg, trauma, impulsregulatie, exploderen, ontploffen, drift, huiselijk geweld, hersenschudding, brand |
| | Verwondingen | Eerste hulp, ziekenhuis, blauwe plek, tandarts, gebit, afgebroken, gebroken, SOA, seksueel overdraagbare aandoening, herpes, druiper, chlamydia, gonorroe, infectie, schaamluis, candida, schimmel, blessure, blaasontsteking, litteken, slaap probleem, angst, zelfverminking, zelfverwonding, fractuur, botbreuk, pijn, blauw oog, wond, snee, bloed, krassen, breuk, kneuzing, kneus, schaafwond, schaaf, bult, zwelling, hechting, gips, verband, gezwollen, bewusteloos, verwonding, alarmsysteem |
| | Seksueel geweld | verkracht, aanranden, prostitutie, loverboy, misbruik, handel, hoer, tippelen, dwingen, pooier, betalen, afpakken, betaald, sekswerker, jeugd en zeden, seksueel geweld, sugardaddy, zichzelf aanbieden prostitueren |
| | Mentaal geweld/geestelijk | schelden, dreigen, isolatie, opsluiten, kleineren, pistool, vuurwapen, mes, knuppel, wapen, controle, dwingen, tegen eigen wil, uitvaren, tekeergaan, schimpen, nachtmerrie, vastbinden, uitbuiting, manipulatie, eisen, negeren, straf, kwellen, liegen, bedriegen, chanteren, chantage, afpersen, stalk, treineren, intimideren, intimidatie, jaloezie, jaloers, kwaadspreken, splitsen, tegen elkaar opzetten, bekrassen, vandalisme, geheim, slot vervangen, machteloos |

| | Namen/organisaties | Huisartsenpost, eerste hulp, wijkteam, wijkagent, agent, politie, ambulance, 112, huisarts, maatschappelijk werk, Sil Hol, Veilig Thuis, Arosa, DOK, school maatschappelijk werk, SISA, veiligheidshuis, vertrouwensarts, begeleid wonen, jeugdzorg, consultatiebureau, CJG, gezinscoach, systeem, aandachtsfunctionaris, aangifte, stek, kijvelanden, kindcheck, kind check, meldcode, reclassering, opgepakt, timeout, huis uitgezet, bak, bajes, gevangenis, politiebureau, moeders voor rotterdam, wijkverpleegkundige, case manager, WMO namen aandachtfunctionarissen strafrecht, blijf van mijn lijf, crisisdienst, Anita Berkens, BW Drugs, drugshandel, mensenhandel, verslaafd, dealer, dealen, overdosis |
|----------------|--|--|
| Combination | | Narcisme, persoonlijkheidsstoornis, borderline, kort lontje, agressie, aangebrand, boos, kwaad, schaamte, politiebureau, de koepel, forensisch psychiatrische kliniek, FPK, TBS, dader, advocaat, PGA team, justitie, neergestoken, neersteken, doodmaken, woede, stelen, afpakken, specifieke onderzoeken |
| of terms (AND) | | |
| | familie, zus, broer, vader, moeder, oom, tante, oma, opa, buren, kennis, loverboy, relatie, partner, man, vrouw, ex, zoon, dochter, zs, br, huisgenoot, vriend, vriendin, ouders, afhankelijk, collega, medebewonder, nicht, neef, oom, tante, kinderen, kindertijd, jeugd. Kindermishandeling | Verwaarlozing, jeugdzorg, spoed, jeugdhulp, uithuisplaatsing, voogd, pleegzorg, pleeggezin, strafzaak |

Supplementary table A.1.

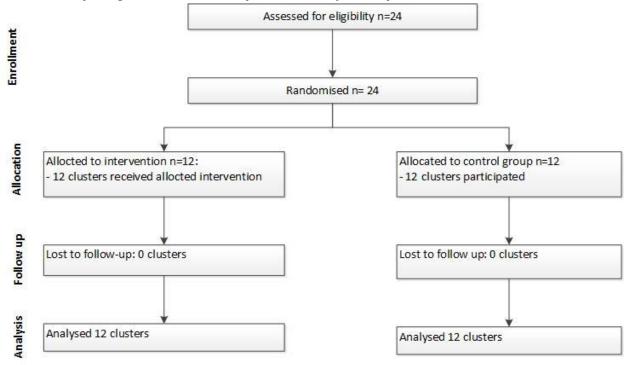
Search terms used to extract the number of detected cases of DVA from electronic patient files translated from Dutch to English.

| | Main term (in Dutch) | Subheadings (OR) (in Dutch) |
|-----------|-------------------------|--|
| Main term | Domestic violence/abuse | House, fight, argument, fighting, hitting, beating, kicking, bitting, fell down, fell, stairs, threat, victim, HG, fleeing, abuse, intestinal problems, gynecologist, aggression, punch, slap, sun glasses, injury, calling names, cursing, screaming, shouting, ripping, baseball bat, shoving, pulling, choking, trauma, impulse-regulation, exploded, outburst, temper, domestic violence, concussion, fire |
| | Injuries | First aid, ER, hospital, bruise, dentist, teeth, broken, STD, sexual transmitted disease, herpes, gonorrhea, chlamydia, candida, crabs, infection, UTI, scar, sleeping problem, fear, self-mutilation, self-harm, fracture, pain, blue eye, wound, cut, blood, scratches, broken bone, sprain, swelling, stitches, cast, bandages, swollen, unconscious, alarm system. |
| | Sexual abuse | Raped, assaulted, prostitution, lover boy, whore, tricks, trade, pimp, force, paid, seks worker, sexual violence, sexual abuse, sugar daddy, selling him/herself |
| | Psychological abuse | Calling names, threatening, isolation, locked up, degrade, pistol, fire weapon, knife, bat, weapon, control, force, against sb. Will, nightmares, manipulation, tight up, extortion, demand, ignore, torture, punishment, lie, cheat, blackmail, stalking, intimidate, jealous, gossip, pitting against each other, vandalism, secret, change locks, powerless, desperate. |
| | Names/organizations | ER, municipality team, local police officer, police, ambulance, general practitioner, emergency number, social worker, Sil Hol, Veilig Thuis, Arosa, DOK, school, SISA, safety huis, confidentiality doctor, youth work, consultation bureau, school doctor, domestic violence advocate, pressing charges, stek, kijvelanden, kind check, kindcheck, reporting code, time-out, restraining order, jail, prison, locked up, |

| | | precinct, Moeder voor Rotterdam, community nurse, case manager, WMO, law, women's shelter, emergency services. Ania Berkens. Sheltered living, drugs, drug dealer, over dosed. |
|----------------------------|---|---|
| | | Narcissism, personality disorder, borderline, short fuse, aggression, anger, upset, shame, precinct, de Koepel, forensic psychiatric unit, FPK, TBS, perpetrator, lawyer, stabbed, stabbing, kill, anger, steal, take away. |
| Combination of terms (AND) | | |
| | | Neglect, social services, emergency, foster home, foster care, guardian, criminal case. |
| | Family, sister, brother, father, mother, uncle, aunt, grandmother, grandfather, neighbours, acquaintance, loverboy, relationship, partner, husband, wife, ex, son, daughter, roommate, friend, girlfriend, parents, dependent, colleague, fellow inhabitant, niece, nephew, cousin, childhood,, youth, child abuse. | |

Supplementary figure A.

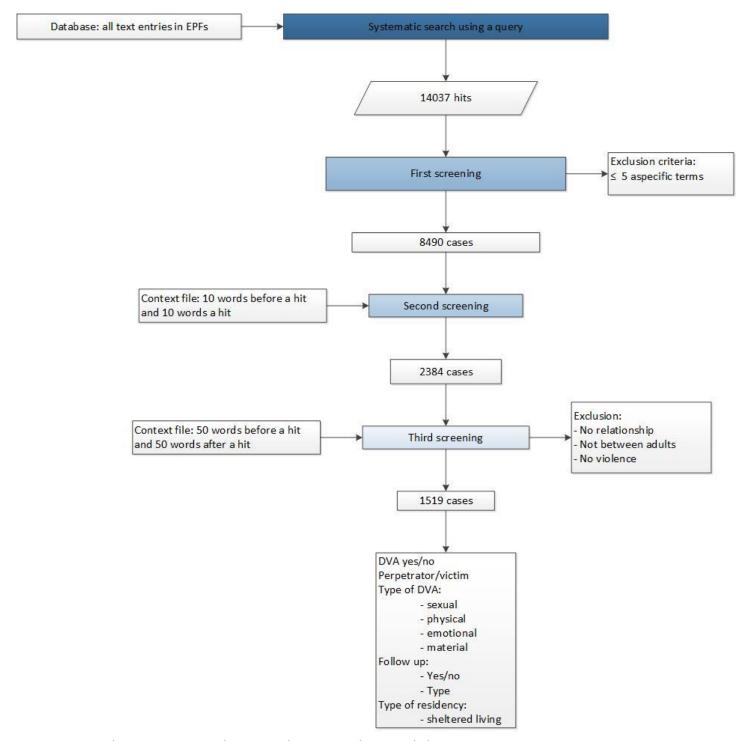
Flow chart depicting the randomization procedure and follow up.



Note. N= number of clusters.

Supplementary figure B.

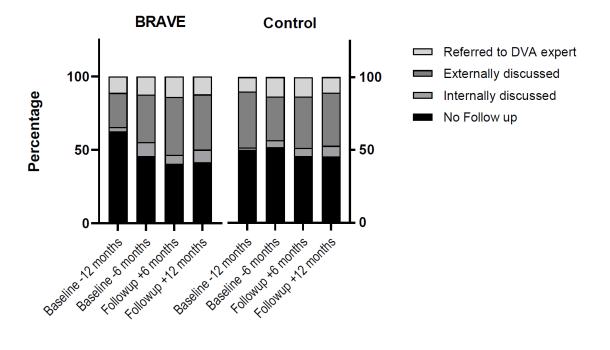
Flowchart of the operationalizing the main outcome of domestic violence and abuse



Note. EPFs= Electronic Patient Files. DVA= domestic violence and abuse.

Supplementary figure C.

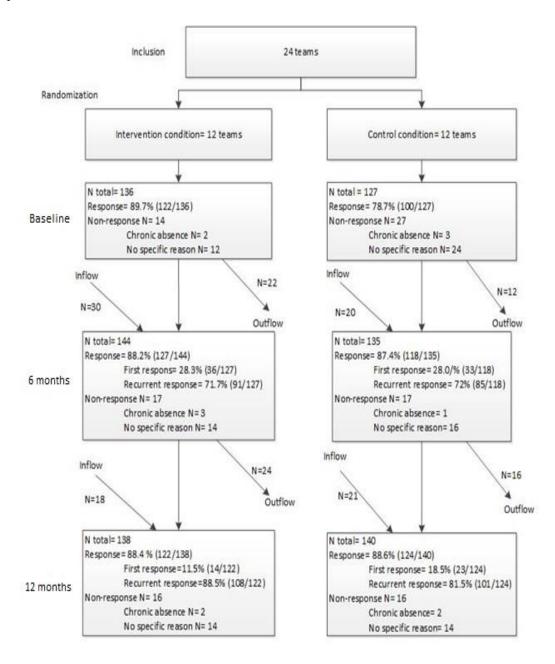
Exploratory analysis on how DVA cases were followed-up on



Note. DVA= Domestic Violence and Abuse.

Supplementary figure D.

The in-flow and out-flow and response rate to the BRAVE survey of CMH clinicians during the intervention period



Note. N= number of respondents.