Author's response to reviews

Title: Role of the police in linking individuals experiencing mental health crises with mental health services

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Author's response to reviews: see over
Dear Prof Roe,

Thank you for your decision letter regarding our manuscript MS: 1731573811700744.

We have carefully addressed the comments made by yourself and the two reviewers. Below you find a point by point response to the comments.

Hereby we would like to re-submit the revised manuscript.

Sincerely,

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Comment 1

- Ethics: Experimental research that is reported in the manuscript must have been performed with the approval of an appropriate ethics committee. Research carried out on humans must be in compliance with the Helsinki Declaration (http://www.wma.net/e/policy/b3.htm), and any experimental research on animals must follow internationally recognized guidelines. A statement to this effect must appear in the Methods section of the manuscript, including the name of the body which gave approval, with a reference number where appropriate.

In the Netherlands approval of medical research by an accredited Medical Research Ethics Committee is covered by the Medical Research Involving Human Subjects Act (Dutch acronym WMO; see website of the Central Committee on Research involving Human Subjects; www.ccmo-online.nl/main.asp?pid=1&taal=1). Research is subject to the WMO if it meets the two following criteria: (1) it is being carried out for medical/scientific research, and (2) participants are subjected to procedures and/or are required to follow certain rules of behaviour. In our manuscript we report research based on police records and records of a psychiatric case register. With respect to this type of research it is explicitly stated on the above website that: “Records-based research is not covered by the WMO as the second criterion is not met. Retrospective research using data from patient records is covered only by the Medical Treatment Contracts Act (WGBO), and, of course, the Personal Data Protection Act (Wbp) where appropriate” (www.ccmo-online.nl/main.asp?pid=43&thid=57&catid=2#a1). In accordance with these latter acts, we asked approval for the study from the authority responsible for the personal data gathered by the police, which is the Public Prosecutor. We received approval for the study on September 23, 2005, in a letter on behalf of the Minister of Justice and the Counsel of Procurators-General. In addition, the Personal Data Protection Act requires that registers of personal data, such as the Psychiatric Case Register, are reported to the Data Protection Authority and that research data are anonymised.

Because our previous description of the study approval and data protection procedures raised questions, we changed it into: “The study was approved by the Ministry of Justice and the Psychiatric Case Register has been reported to the Data Protection Authority. Information that could identify an individual was excluded from the study database.” (last paragraph of Study Design section).

Comment 2

- Copyediting: After reading through your manuscript, we feel that the quality of written English needs to be improved before the manuscript can be considered further. We advise you to seek the assistance of a fluent English speaking colleague, or to have a professional editing service correct your language. Please ensure that particular attention is paid to the abstract. For authors who wish to have the language in their manuscript edited by a native-English speaker with scientific expertise, BioMed Central recommends Edanz (www.edanzediting.com/bmc).
The revised manuscript has been submitted to Edanz for professional editing. Several corrections were made in the text in accordance with their advice (see attached manuscript with all changes marked).

Comment 3

- Competing interests: Manuscripts should include a ‘Competing interests’ section. This should be placed after the Conclusions/Abbreviations.

A Competing interests section has been added to the manuscript, stating that the authors have no competing interests.
Reviewer 1

Comment 1

Generally, the methods are well-described; however, it should be clarified on page 6 (and described again as done in the current Analysis section) that there are two ways of studying mental health contacts: month before to month after and year before to month after. Page 6 was confusing as in the same paragraph discusses the two different comparison frames without indicating that there were two different analyses.

We clarified the different ways in which we studied mental health care contacts, as suggested by the reviewer. It now reads: “We sought to establish: (1) the number of individuals without regular care contact (i.e. contact other than for crisis intervention) in the year before the crisis, (2) the relationship between the police response to the crisis and any increase in number of regular care contacts from the month before to the month after the crisis, and (3) for those who did not have contact with care in the year before the crisis, the relationship between the police response and the likelihood of care contact in the month following the crisis, and in the subsequent year.” The last period was added in response to comment 1 of reviewer 2, and is clarified below.

Comment 2

Do you know which police officers had contact with which subjects and if there were differences in referral by officer? A more sophisticated analysis would be possible and contribute to the argument.

We agree with the reviewer that it would be interesting to study differences between police officers in their referral to mental health services, but unfortunately we do not know which officers responded to the calls. Furthermore, the power to study differences between officers would have been too low, because of the large number of officers involved.

Comment 3

The limitations in the Discussion are clear as well. I would suggest that the limitations be a paragraph by itself.

A separate paragraph on “Study strengths and limitations” has now been created in the Discussion section.
Comment 4

Are the discussion and conclusions well balanced and adequately supported by the data?
In general, though I suggest that there be a more complete discussion of Crisis Intervention Teams and referrals to mental health services, especially in light of the rather disturbing finding that more than half of the folks in mental health crisis who were not engaged in services were not brought by the police into contact with services at the time of crisis. I think including some of the findings would strengthen the argument that the police are important to the referral process and perhaps to averting additional crises by the same person.

We added two paragraphs to the Discussion section on findings of CIT studies on police referral to mental health services and the effect of CIT training on such referral (see below). With respect to the interesting question whether police referral to the services averts additional crises by the same person, we added this as a limitation of our study (see below).

Added to Discussion section:
“Several studies have examined the police response to mentally ill individuals [13,14]. These studies differ from the present report in the way police calls were selected for study. Nevertheless, the results are in accord with the current findings. Police contact mental health services in approximately half of all encounters with individuals experiencing mental health crises, and deal with the other half themselves.

Both Watson et al. [13] and Teller et al. [14] reported that police officers who were trained in recognising and dealing with persons with mental health problems, in accordance with the prevailing Crisis Intervention Team (CIT) model in the United States, directed a greater proportion of mentally ill persons to mental health services compared with their non-trained colleagues. However, this is not necessarily an effect of training, since officers volunteer to participate in CIT and are screened to determine their suitability [15,16]. CIT-officers may therefore already be more open to the notion of referring individuals to mental health services, and were found to be older and more experienced than their non-volunteering peers [13]. In addition, mental health calls may be allocated selectively to CIT-trained versus non-CIT trained officers. CIT therefore represents a potentially important model for the police handling of mental disturbance calls, alongside other models such as mobile crisis teams staffed by both police officers and mental health professionals [17,18], but the effect of CIT training on the referral of mentally ill individuals to mental health services remains uncertain.”

Added to new ‘Study strengths and limitations’ paragraph:
“Finally, although the results revealed that police referral to the services at the time of crisis was associated with increased and sustained utilisation of mental health care, the limited period of police data prevented us from determining whether this improved care also reduced the chance of new crisis contacts with the police.”

Comment 5

Do the authors clearly acknowledge any work upon which they are building, both published and unpublished? Yes. However, I suggest that work building on Lamb et al. 2002 paper be discussed in the background, discussion, and conclusions.
Lamb et al. (2002) provide a comprehensive review of the literature on police interactions with mentally ill persons, and offer multiple recommendations on how to optimize these interactions. Many researchers in this field will probably have been inspired by this landmark publication, including us and presumably the authors of the CIT-studies cited above. We acknowledged this influence by referring to Lamb et al. (2002) in the Background and Conclusions sections. A discussion of the CIT-studies is now added to the Discussion section (see the above reply to comment 4 of reviewer 1).

Comment 6

Do the title and abstract accurately convey what has been found? I suggest editing the title to something like “Individuals in mental health crisis and police referral to mental health services: Does type of referral increase system re-engagement?”

We agree that the title did not entirely convey the content of this paper. We therefore changed it into: “Role of the police in linking individuals experiencing mental health crises with mental health services”. This title more strongly emphasises the contribution of police officers in referring mentally ill persons to the services. We feel this emphasis is justified, in particular as the additional data we included in response to comment 1 of reviewer 2 (see below) show that the influence of police linking to the services is sustained beyond the first post-crisis month.

Comment 7

Is the writing acceptable? In general, however it needs to be more tightly edited and consistent (e.g., decide if using “percent” or “%” and stick with the choice throughout the text). I also have a note about use of SD or + .

And later: Quality of written English: Needs some language corrections before being published.

We checked the manuscript for consistency in the use of designations and submitted the revised manuscript for professional editing (see reply to comment 2 of the Editor).

Comment 8

In the abstract and conclusions, it is stated that police see a “substantial” number of individuals. It appears that there is 1.35 mental health crises per day, which doesn’t appear substantial. However, it might strengthen the argument that it is substantial if, for instance, the number of total calls over that same period is reported.
We do not know the total number of calls to the police in the study period, as we only received data on calls that were classified in the specific ‘incident codes’ listed in the ‘Selection of calls for mental health crises’ section. The proportion of calls involving persons with mentally illness could be a good indicator of the size of the problem, although differences in recording policies between police services may influence this proportion. Similarly, the total number of calls per day, as mentioned by the reviewer, will depend on the size of the police district studied.

We tried to provide a proper and, and in particular, generalizable indicator of the size of the problem of mental health calls to the police. Therefore, we chose to present the number of mental health calls per year per 1000 inhabitants of the police district. The number we found, 2.5 calls per 1000 inhabitants per year (which in our police district indeed comes down to 1.35 calls per day) is ‘substantial’ in our view, but we realise that this qualification is subjective and arguable. However, readers have the opportunity to judge our qualification, exactly because we provided the simple indicator on which we based it.

Comment 9

I would also like to see the range of number of contacts between the 336 individuals and the 492 crises. How many of the individuals had more than one call?

We added this information to the Results paragraph ‘Persons seen by the for mental health crisis’.

Added is: “For 74 individuals there were multiple calls (range 2-11) within the study year”.

Comment 10

Also, please watch pronoun gender (e.g., somebody endangering his life) to make sure it is inclusive “people are endangering their lives” or “somebody is endangering his/her life.”

The first time “frontline professional” appears, should it be in quotes?

Person self is awkward. How about something like, In one-fifth of the calls it was the people in the mental health crisis themselves who contact police.

You do not need a comma before “that.”

Corrections have been made in accordance with the above suggestions. Furthermore, the revised manuscript was submitted for professional editing (see reply to comment 2 of the Editor).
What was the process of coding “the characteristics of mental health calls?” Were there any checks? These should be reported in order to reproducible.

Most characteristics of the mental health calls listed in Table 1 - namely ‘Caller’, ‘Time of call’, ‘Location where person was found’, and ‘Police incident code’ - were obtained directly from the police report. If information on the characteristic was missing or vague, the characteristic was classified as ‘Unclear or missing’, as shown in Table 1. Only the characteristic ‘Nature of mental health crisis’ had to be judged from the report. This was done by an experienced research assistant, who consulted the first author of the manuscript if necessary. However, there was no formal procedure to test the reliability of this assessment. We consider this acceptable, because the characteristics of the mental health calls were meant for descriptive purposes (in Table 1), and were not used in the study analyses.

Comment 12

Please arrange Tables in descending order. It will make the tables more clear.

This suggestion of the reviewer was followed for Tables 1 and 3, with the exception of the category ‘Unclear or missing’, which remained last. For Table 2 there are two competing orders for the categories, and the categories have an intrinsic order (Axis I before Axis II disorders; ‘Bipolar disorder’ before ‘Other mood disorder’). We therefore maintained the original order for this table.

Comment 13

Table 3 column headings need to be clarified. I’m not sure the difference between “increase in number of contacts per month for response” and “proportion with contacts after crisis for response,” what these terms mean, and why % are reported for “proportions.”

The column headings have been changed to: ‘Increase in number of contacts per month’ (with an extra note clarifying: “Increase in care contacts from month before to month after crisis”), and ‘Persons with contact in month after crisis’. Percentages are reported, and the word ‘proportion’ has been omitted from the column headings.

Comment 14

I would be interested in knowing more about the individuals who had more than one crisis: How frequently and time between crises.

We did not specifically study the individuals with more than one crisis in the study year, but in reaction to comment 9 of the reviewer we added that: “For 74 individuals there were multiple calls (range 2-11) within the study year”.

Reviewer 2

Comment 1

Major Compulsory Revision: The major limitation of the design is the short timeframe the authors use for the follow-up to the police intervention. While there is a nice symmetry to comparing the amount of contact with the mental health system in the month before and the month after the police intervention, this result is almost meaningless unless the short-term increase in contact with the mental health system leads to some sustained contact. Since the study reported was for the year from April 2003 to April 2004, this information may well be available. Some indication about whether increased contact was sustained at three or six months would elevate the value of this report substantially.

We thank the reviewer for this valuable suggestion. It was possible to obtain additional information from the Psychiatric Case Register on the care the subjects received during an additional one year follow-up period (from 1 to 13 months after the crisis). We added this information to the manuscript, and tested – for those who did not have care contacts in the year before the crisis - whether the relationship we found between the police response and the increased likelihood of having care contact in the first month after the crisis, persisted into the extra follow-up year. This led to the following additions to the manuscript:

Abstract: “The influence of police referral to the services was still present the following year”

Background (last paragraph): “, and whether this effect is long-lasting.”

Study design: “We sought to establish: .... (3) for those who did not have contact with care in the year before the crisis, the relationship between the police response and the likelihood of care contact in the month following the crisis, and in the subsequent year..”

Method, section ‘Clients’ contact with care services’: “In addition, we established the numbers of regular care contacts for three periods: the month before the crisis, the month after the crisis, and the subsequent year (i.e. 1 to 13 month after the crisis).”

Analysis: “Finally we tested whether this linking to services resulted in lasting care relationships that persisted into the following year.”

Results, section ‘Linking individuals to services’: “Finally, we examined whether individuals who were newly linked to mental health services in the month after the crisis developed a lasting care relationship with the services that continued into the subsequent year. The right panel of Table 3 shows the number of individuals who had regular care contact with mental health services in the period from 1 to 13 months after the crisis. For all persons who were disengaged from the services before the crisis, this number increased from 34 (21%) in the first month after the crisis to 55 (34%) in the subsequent year. Again, this number was related to the police response to the crisis ($\chi^2=21.91$, df=3, p<.01). When police contacted mental health services at the time of crisis, either directly or by taking the person to the crisis drop-off centre, individuals were more likely to develop a lasting care relationship with services, compared with individuals whose crisis was dealt with by the police themselves without contacting service providers ($\chi^2=15.79$ and 13.19, respectively, both df=1, p<.01). Furthermore, this relationship more often consisted of frequent care contacts (i.e. three or more inpatient days or ten or more
outpatient contacts) for individuals referred to mental health services directly or indirectly, compared with individuals dealt with by the police only (39% versus 12%; χ²=14.24, df=1, p<.01, data not shown). For only five of the 34 individuals who were newly linked to mental health services in the first month after the crisis, the care relationship did not persist into the subsequent year, and this was not related to the police response to the crisis (χ²=0.65, df=3, p=.89).”

Table 3: Two columns were added to table 3, which show the number and percentage of persons with contact during the extra follow-up year, for each police response to the crisis.

Discussion (first paragraph): “Furthermore, the likelihood of mental health care contact after the crisis and of sustained utilisation of mental health care are related to whether or not the police contact mental health services at the time of crisis “

Discussion, section ‘Study strengths and limitations’: “Finally, although the results revealed that police referral to the services at the time of crisis was associated with increased and sustained utilisation of mental health care, the limited period of police data prevented us from determining whether this improved care also reduced the chance of new crisis contacts with the police”

Comment 2

Abstract: Results: “The police was...” should be “were.” Later in same section, it is unclear what “21% of those disengaged from the service” refers to. It is also not clear what the “49%” refers to later in the same sentence.

Results: 1st paragraph, 4th sentence: The sentence is awkward and not grammatically correct because of the phrase “...the person self...” It should either be “the person him- or herself who contacted...” or “…the mentally ill person who contacted...” In the next sentence, after the parenthesis, the word “rather” or the word “more” should be inserted before the word “than.” And in that same sentence the problematic “person self” phrase is used again; it should be “…the person him- or her-self...”

Results: 2nd paragraph, last sentence: The verb is incorrect. It should read, “Sixty per cent were male and 18% were homeless.”

Results: Police response to mental health crises subheading: 2nd sentence: The word “crisis” at the end of the sentence should be plural (“crises”).

Quality of written English: Needs some language corrections before being published

The above noted errors have been corrected, and in the Abstract it was clarified what is meant by ‘individuals disengaged from mental health services’. Furthermore, in reply to comment 2 of the Editor, the revised manuscript has been submitted to Edanz for professional editing. Additional corrections in the text were made in accordance with their advice.