Author's response to reviews

Title: The Prevalence of Exposure to Domestic Violence and the Factors Associated with Co-occurrence of Psychological and Physical Violence Exposure: a Sample from Primary Care Patients

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Author's response to reviews: see over
Title
Authors omitted the use of the term “progression from psychological to physical violence” and changed the title accordingly:
The Prevalence of Exposure to Domestic Violence and the Factors Associated with Co-occurrence of Psychological and Physical Violence Exposure: a Sample from Primary Care Patients

Comment upon Major Compulsory Revisions

Throughout the manuscript authors tried to address the suggestions. However, we would like to make our point:
We were gender sensitive, bearing in mind that DV violence is a qualitatively different phenomenon for men and women, with different origin, development, and dynamics, which we tried to present and discuss throughout the manuscript. Some suggested analyses were not possible:
If the logistic regression model (Table 3) is calculated for men (n=26) and women (n=101) separately, the sample size for each group will be too small and statistical power will be compromised; therefore comparing the patterns of female and male experience is not feasible.

Realising that gender is a very important variable, Table 2 was reorganised to present clearly different associations for male and female participants, such as frequency of different types of violence, common perpetrators, factors associated with that experience, etc. We hope that these findings are now better presented.
We accept that the method we have used (a cross-sectional study, not a longitudinal one), the questions which were posed in order to retrieve information about exposure to both physical and psychological domestic violence (one single question for each, no scales), and an additional question on which type of violence came first, were not sufficient to conclude a “progression from psychological to physical violence”. Therefore, we strictly avoided this way of extrapolating the data and corrected the Results and Discussion according to these comments.

Abstract

Background
The sentence
Since many health problems are associated with abuse and neglect at all ages, domestic violence victims may be considered as a special group of primary care patients
was changed into:
Since many health problems are associated with abuse and neglect at all ages, domestic violence victims may be considered as a group of primary care patients in need of special attention.

Methods
The sentence:
The aim of this multi-centre study was to assess the prevalence of domestic violence in primary care patients, and to identify those factors which influence the progression from psychological to physical violence, including the consequences of exposure to domestic violence (physical, sexual and reproductive and psychological) as obtained from medical records.
was rephrased:
The aim of this multi-centre study was to assess the prevalence of domestic violence in primary care patients, and to identify those factors which influence the co-occurrence of
psychological and physical violence exposure and their consequences (physical, sexual and reproductive and psychological) as obtained from medical records.

**Methods**

The sentence:

*Multivariate binary logistic regression analysis was used to expose the risk factors which determine the progression from psychological violence to physical violence.*

was changed into:

Multivariate binary logistic regression analysis was used to determine the factors associated with exposure to both psychological and physical violence.

**Results**

In the Results section of the Abstract, the authors followed R#1’s instruction and used mostly percentages.

The sentence:

Domestic violence victims were mostly women (p<0.001) aged up to 35 years (p=0.001)

was added to emphasise the gender sensitivity.

The sentence:

*Of 506 women, 101 (20.0%) were exposed to either type of violence, compared to 26 (8.0%) out of 323 male participants. Amongst family members, partners were mostly reported to be the perpetrators of domestic violence.*

was broadened and only percents were used as suggested:

Exposure to psychological violence was more prevalent than exposure to physical violence. Of women, 20.0% were exposed to either type of violence, compared to 8.0% of male participants, who reported they were rarely exposed to physical violence, while woman reported often or constant exposure to physical violence.

The sentence:

*Amongst family members, partners were mostly reported to be the perpetrators of domestic violence.*
was clarified:
Partners were mostly the perpetrators of domestic violence towards women, while amongst men the perpetrators were mostly other family members.

The sentence:
Regression modelling, explaining 40% of the variance, extracted two risk factors affecting the progression from psychological violence to physical: the abuse of alcohol in the patient (OR 4.7; 95% CI 1.54-14.45) and their unemployment (OR 13.3; 95% CI 1.53-116.45).
was rewritten:
Regression modelling, explaining 40% of the variance, extracted two factors associated with psychological and physical violence exposure: the abuse of alcohol in the patient (OR 4.7; 95% CI 1.54-14.45) and their unemployment (OR 13.3; 95% CI 1.53-116.45).

Conclusions
The sentence:
As far as the study design permits, the identified risk factors could serve as valid guidance for family physicians exploring the prevalence of physical violence.
was rewritten:
As far as the study design permits, the identified factors associated with both psychological and physical violence exposure could serve as valid guidance for family physicians exploring the prevalence of domestic violence.

MAIN TEXT

Background
The sentence:
Murder is the most tragic outcome of domestic violence [10,11], but besides that, 60% of female domestic violence victims suffer direct (i.e. injuries: cuts, bruises, fractures) and
indirect health consequences (e.g. gastrointestinal disorders, chronic pain, gynaecological disorders) of the abuse.

Was rephrased:
Murder is the most tragic outcome of domestic violence [10,11], but besides femicide, 60% of female domestic violence victims suffer direct (i.e. injuries: cuts, bruises, fractures) and indirect health consequences (e.g. gastrointestinal disorders, chronic pain, gynaecological disorders) of the abuse.

Methods

Procedure

The sentence:
We hoped to identify the factors influencing the progression of violence by including the patients’ responses to the question Which occurred first? (see Additional File 1) addressed to those who said yes to more than one question about exposure to either type of violence.

Was omitted since R#1 advised against conclusions about the progression from psychological to physical violence based on the one affirmative answer to the question: “Which appeared first?”

Data Analysis

The sentence:
Multivariate binary logistic regression analysis was used to determine the risk factors for the shift from psychological violence to physical violence.

was rephrased:
Multivariate binary logistic regression analysis was used to determine the factors associated with exposure to both psychological and physical violence.

The sentence:
The progression from psychological to physical violence was identified in patients who were exposed to psychological and physical violence and who explained that, during the last five years, the psychological violence occurred first.

was deleted.

**Results**

The sentence:

*Out of 829 participants, 127 (15.3%) reported some type of domestic violence experienced during the studied period; 49 reported physical and 78 psychological violence.*

was deleted since the gender structure was described earlier on the page 11:

Of these, 15(19.2%) males and 63(80.8%) females had been exposed to psychological violence, while 11(22.4%) men and 38(77.6%) women had been exposed to physical violence. The domestic violence victims were mostly women (p<0.001) and aged up to 35 years (p=0.001).

The sentence:

*The frequency of physical and psychological domestic violence exposure and its perpetrators is presented in Table 2.*

was rephrased to emphasize gender sensitivity:

The frequency of co-occurring physical and psychological domestic violence exposure in male and female participants and its perpetrators is presented in Table 2.

Table 2 was reorganised and the section:

*Participants were exposed to either type of violence rarely (once or twice a year; 26.8%, n=34), occasionally (once a month; 29.9%, n=38) or constantly (up to two times a week; 26.0%, n=33). The lowest number of domestic violence victims (17.3%, n=22) were often (once or twice a week) exposed to either psychological or physical violence. Those who experienced physical violence were more frequently exposed than those who experienced psychological violence; the difference is statistically significant (p=0.031).*
The perpetrators of psychological violence were: partner in 52.6% (n=41) of cases, other family members in 39.7% (n=31), and both (i.e. partner and other family member, multiple perpetrators) in 7.7% (n=6); while the partner was involved in 55.1% (n=27) of physically violent behaviour, other family members in 36.7% (n=18), and multiple perpetrators in 8.2% (n=4); there was no significant difference between the three groups (p=0.944).

was rewritten to emphasize the gender sensitivity:
All participants who were exposed to physical violence were also exposed to psychological violence. Female participants were exposed to both types of violence in greater proportion; the exposure was often or constant (p=0.002) and perpetrators were intimate partners (p=0.005), while male participants reported rare exposure to co-occurring psychological and physical violence, and the perpetrators were mostly other family members. There were no significant differences according to gender, frequency or perpetrators in psychological violence exposure.

The wording in the section:

Factors Influencing the Progression from Psychological Violence to Physical Violence: A Multivariate Regression Model

Table 3 shows the characteristics of victims exposed to psychological and physical violence within a family, emphasizing those factors which affect the progression from psychological violence to physical violence.

was rewritten following the R#1 suggestions:

Factors Associated with Exposure to Psychological and Physical Violence: A Multivariate Regression Model

Table 3 shows the characteristics of victims exposed to both psychological and physical violence within a family.

The section:
The results of the modelling procedure explained nearly 40% of the variance (Nagelkerke R Square = 0.399), with alcohol abuse in the patient (OR 4.7; 95% CI 1.54-14.45) and
their unemployment (OR 13.3; 95% CI 1.53-116.45) being the only obvious risk factors identified for psychological violence to cross over into physical violence. Low income, which also increased the risk, was close to the level of significance, as was living in an intimate partnership, which reduced the risk of psychological violence developing into physically violent behaviour.

The results of the modelling procedure explained nearly 40% of the variance (Nagelkerke R Square = 0.399), with alcohol abuse in the patient (OR 4.7; 95% CI 1.54-14.45) and their unemployment (OR 13.3; 95% CI 1.53-116.45) being the only obvious factors associated with both psychological and physical violence exposure. Low income, which was associated with exposure to both types of domestic violence, was close to the level of significance, as was living in an intimate partnership, which reduced the risk of psychological violence and physically violent behaviour.

The section:

**The Strongest Predictors of Progression from Psychological to Physical Violence**

There were 14 people with a history of unemployment, and in 12 of these cases, psychological violence had progressed into physical violence. The percentage of cases in which psychological violence had progressed into physical violence was almost equal whether alcohol abuse was present in the patient or not. Alcohol abuse was shown to be a stronger predictor than a history of unemployment due to its prevalence (n=34). Figure 1 shows the percentage of physical violence cases versus psychological violence cases according to the strongest predictors, i.e. unemployment and alcohol abuse in the patient.

The Factors Strongly Associated with Exposure to both Psychological and Physical Violence

There were 14 people with a history of unemployment, and in 12 of these cases, psychological violence appeared together with physical violence. The percentage of cases in which exposure to both types of violence was identified was almost equal whether
alcohol abuse was present in the patient or not. Alcohol abuse was shown to be in a stronger association with psychological and physical violence exposure than a history of unemployment due to its prevalence (n=34).

Figure 1 shows the percentage of physical violence cases versus psychological violence cases according to the factors strongly associated with both psychological and physical violence exposure, i.e. unemployment and alcohol abuse in the patient.

The Figure 1 description was also changed into:

Figure 1 - The Factors Strongly Associated with Exposure to both Psychological and Physical Violence

The percentage of psychological and physical violence cases versus psychological violence cases alone, according to: 1) unemployment 2) history of alcohol abuse.

**Discussion**

The sentence:

*This study determined the prevalence of violence in family practice patients during the period from 2004-2008, and identified the perpetrators and the factors associated with the progression from psychological to physical violence in patients who were exposed to both and who said that psychological violence appeared first.*

was rewritten:

This study determined the prevalence of violence in family practice patients during the period from 2004-2008, and identified the perpetrators and the factors associated with co-occurring exposure to psychological and physical violence in primary care patients.

The sentence:

*In univariate analysis we were able to confirm that female gender was a greater risk for domestic violence exposure, but later in the second part of data analysis, when the progression from psychological to physical violence was calculated in the regression model, female gender was not shown to be a significant risk factor.*

was rewritten:
In univariate analysis we were able to confirm that female gender was a greater risk for domestic violence exposure, but later in the second part of data analysis, when the co-occurrence of psychological and physical violence exposure was evaluated in the regression model, female gender was not shown to be a significant risk factor.

To emphasize gender sensitivity, the sentence (p 19):

*Significantly more women than men had personally experienced domestic violence as adults.*

was broadened:

Significantly more women than men had personally experienced domestic violence as adults, which is concordant with our findings that the domestic violence victims were mostly women (p<0.001; Table 1).

To emphasize gender sensitivity, the sentence (p 19):

*Most cases of domestic violence were reported in the younger age group (up to 35 years), while the fewest were reported in the age group 65 years or above.*

was rephrased:

Most cases of domestic violence were reported in women of a younger age (up to 35 years; p<0.001; Table 1), while the fewest were reported in the age group 65 years or above.

The section (p 20):

*The main aim of this research was to determine those risk factors associated with the progression from psychological violence to physical violence. The regression modelling explained nearly 40% of the variance, and extracted two risk factors which affect the progression from psychological violence to physical violence, i.e. alcohol abuse and a history of unemployment in the victim (Table 3). Alcoholism and other substance abuse too often go unrecognized. As Slovenia is known for a high rate of alcohol dependence [31], we may assume that unemployment increases the risk of exposure to physical violence in association with a history of alcohol abuse in the victim, which was identified by our study as the most important risk factor for psychological violence to progress to*
physical violence (Figure 1). Poverty is associated with unemployment [32] (Figure 1) and linked to violence and abuse. Gender, for example, known as one of the main risk factors for domestic violence incidents, was not a significant determinant in the shift from psychological to physical violence, but it was shown to be a risk factor in the univariate analysis.

The main aim of this research was to determine those risk factors associated with co-occurring exposure to psychological and physical violence. The regression modelling explained nearly 40% of the variance, and extracted two factors, i.e. alcohol abuse and a history of unemployment in the victim (Table 3). Alcoholism and other substance abuse too often go unrecognized. As Slovenia is known for a high rate of alcohol dependence [31], we may assume that unemployment increases the risk of exposure to both psychological and physical violence in association with a history of alcohol abuse in the victim, which was identified by our study as the most important risk factor for co-occurring exposure to psychological and physical violence (Figure 1). Poverty is associated with unemployment [32] (Figure 1) and is linked to violence and abuse. Gender, for example, known as one of the main risk factors for domestic violence incidents, was not a significant determinant of exposure to both psychological and physical violence, since exposure to psychological violence alone was totally equivalent.

The sentence (p 22):

It is an advantage that our findings are based on a randomised sample of family practice attendees in Slovenia, so the identified risk factors which are associated with the progression from psychological to physical violence could serve as a relatively valid guidance for family physicians.

was rewritten:

It is an advantage that our findings are based on a randomised sample of family practice attendees in Slovenia, so the identified risk factors which are associated with co-occurring exposure to psychological and physical violence could serve as relatively valid guidance for family physicians.
The sentence: (p 22):

*The assessment of the family situation, with a small number of targeted questions to all patients, not just women, would potentially help reveal the perpetrators of violence.*

Was deleted to omit the gender bias.

**Conclusions**

The sentence:

*The two risk factors affecting the progression from psychological violence to physical violence, i.e. the abuse of alcohol in the patient and the patient’s unemployment, should be accepted as relatively valid guidance for family physicians while exploring the possibility of domestic violence exposure in patients, especially its progression from psychological to physical abuse.*

was rewritten:

The two risk factors associated with exposure to both psychological and physical violence, i.e. the abuse of alcohol in the patient and the patient’s unemployment, should be accepted as relatively valid guidance for family physicians while exploring the possibility of domestic violence exposure in patients.

Language corrections were performed by Justi Carey B.Sc. B.A.