Reviewer's report

Title: Females don't have more injury road accidents on Friday the 13th

Version: Date: 1 August 2004

Reviewer: Bahman S Roudsari

Reviewer's report:

General
1. The writing style needs fundamental improvements. It is not publishable in the current format.
2. I prefer to use the word “Crash” instead of “Accident”. Injury experts believe that these crashes are not the results of bad luck and do not happen haphazardly. Therefore they are not “accidents”.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

Methods:
1. What are the advantages of your study compared to the previous study? You have considered shorter period of time (13y vs. 26 years), smaller number of Fridays (21 vs. 43) and smaller sample size.
2. None of the problems that you have mentioned in regards to the weaknesses of the previous study has been addressed in your study. You have probably adjusted for the same variables that the previous study has done.
3. You have not mentioned in the methodology that what type of motor vehicle crash victims are included in your study, although you have mentioned in Table 1.
4. I do not quite understand that why you have excluded other victims (according to you, “non-active participants”). If your hypothesis is right, a superstitious mother might endanger or protect her kids from crash. No matter kids are superstitious or not they are (or are not) at risk of traffic crashes. Personally I prefer to evaluate the effects of superstitious attitude on the risk of traffic crashes in the general population and not only those with this attitude.
5. As it has been shown by the authors, there is no difference between Fridays the 6th and the 20th in any evaluated item. Your data shows that you can easily combine other Fridays. What has happened to the last Friday?
6. “To control for traffic, season…”. You should not control for traffic, because it is the dependent variable of your study. In other words superstitious attitude affects the traffic situation (if the hypothesis is true).

Superstitious attitude -->using anxiolytic/anxiety (you have mentioned as one hypothesis) --> change in traffic behavior (increase or decrease in high risk behavior, --> increase or decrease in driving mileage) --> increase or decrease risk of traffic crashes --> increase or decrease crash incidence

7. Page 4, line 14: “… mean values gathered from Fridays…”. Why this surrogate? What is the rationale behind it?

8. Why using matched analysis? Wasn’t Poisson regression a better statistical approach? The Friedman Analysis of Variance is the non-parametric version of repeated measures ANOVA. If you combine Fridays the 6th and 20th (and probably add the last Friday of the month) you can use non-parametric tests for paired ttest analysis (Wilcoxon signed ranks test).
(this paper will benefit from consulting with a biostatistician)

Conclusion:
1. Vague

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Abstract:

“… using MORE numerous and MORE specific…” More compare to what? If authors are determined to mention this, they should mention, “more compare to … (e.g. another study)” and it should be mentioned in the methodology section and not in the background.

Methods:
“Road accidents … were compared”. What aspects of “road accidents”?

Results:
“… any aspects…” : have you evaluated all aspects of traffic crashes?

Background:
Page 3, par 2, last 3 lines: “If the female… accidents”. Why? What are the expected and the observed numbers?

Results:
1. What does “active participants” mean?
2. “ Chi Square test … between responsibility and gender …”: How the responsibility has been defined? Is it equivalent of “active participants”?

Conclusion:
Page 5, line11: “… less numerous deaths…”: they have included longer period of time (26y vs. 13y), all type of “accidents” (“motor vehicle crashes, in roads, in water and in air”), and all types of “victims”, but they had smaller number of dead cases in their analysis? Am I right? What has happened between 1997 and 2002 that can explain such a prominent change in the number of fatal crashes that you have observed in your study, if there is any?

Page 5, line 21: random variation of what?

Discretionary Revisions (which the author can choose to ignore)

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of limited interest
Quality of written English: Not suitable for publication unless extensively edited

Statistical review: Yes

Declaration of competing interests:

None