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15 December 2019

Editor-in-Chief: World Journal of Clinical Cases

Re: Update of revised manuscript

Dear the Editor:

Please find attached the update of revised manuscript entitle “Prevalence and associated factors of suicide among hospitalized schizophrenic patients”

(Manuscript NO: 52152) in word format.

The answers and corrections according to the comments are listed as followed. Some editing according to the comments of reviewer #1 were later edited by the highly qualified native English-speaking editors at American Journal Experts (Verification code: DE0C-14E7-DE94-3BEE-BE0P). All revisions were highlighted in the updated version of the manuscript.

Files

- (1) 52152\_Revised Manuscript 15 Dec 2019
- (2) 52152\_Answering reviewers 15 Dec 2019
- (3) 52152\_Audio core tip 15 Dec 2019
- (4) 52152\_Biostatistics Review Certificate
- (5) 52152\_Conflict-of-Interest Disclosure Form
- (6) 52152\_Copyright License Agreement
- (7) 52152\_Funding Agency Copy
- (8) 52152\_Signed Informed Consent Forms
- (9) 52152\_Institutional Review Board Approval Form
- (10) 52152\_Editing certificate AJE 15 Dec 2019
- (13) 52152-STROBE Statement

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Thank you for your consideration. I am looking forward to hearing from you.

Sincerely yours,

Benchalak Maneeton, MD

## COMMENTS OF EDITOR

1. Please provide the revised the manuscript in word format.

**Answer** Please find attached the revised manuscript in word format.

2. The language should be re-edited. One reviewer indicate that there are many language polishing in the manuscript.

**Answer** This version of revised manuscript was re-edited according to the comments from editor and reviewers, and format for manuscript revision. It was also edited for proper English language, grammar, punctuation, spelling, and overall style by one or more of the highly qualified native English speaking editors at American Journal Experts (Verification code: DE0C-14E7-DE94-3BEE-BE0P). All the revisions were highlight in the updated manuscript of revision.

3. Please write the article highlights (Don't copy from the main text):

### ARTICLE HIGHLIGHTS

- Research background
- Research motivation
- Research objectives
- Research methods
- Research results
- Research conclusions
- Research perspectives

**Answer** I have added the article highlights in the manuscript accordingly.

### “ARTICLE HIGHLIGHTS

#### *Research background*

Various factors are related to suicidality in schizophrenia, including age, sex, level of education, past history of suicide attempt, psychotic symptoms, social factors, and substance use disorders.

#### *Research motivation*

Although some factors related to suicidality in schizophrenic patients have been identified, additional factors possibly associated with suicide attempts such as medication and treatment in those patients have not been identified. In addition, the influence of culture may modify the risk of suicidality. Hence, the present study may be beneficial for clinicians seeking to identify and monitor the factors related to suicidality in schizophrenic patients.

### ***Research objectives***

Our study focused on the prevalence of suicide attempts and investigated the factors associated with suicidality in hospitalized schizophrenic patients.

### ***Research methods***

This cross-sectional study assessed all outcomes and possible suicide risk factors in inpatient schizophrenic patients. The current suicide risk was evaluated using the MINI module for suicidality and categorized as none, mild, moderate, or severe. Ordinal logistic regression was used to assess the associations of potential risk factors with the current suicide risk.

### ***Research results***

The overall prevalence of a risk of suicide in the evaluated schizophrenic patients was 19.6%. Our study found that a younger age, a current major depressive episode, the use of fluoxetine or lithium carbonate in the previous month, or a relatively higher CCI score were all significantly and independently associated with a higher level of suicide risk.

### ***Research conclusions***

The prevalence rate of suicide attempts in hospitalized schizophrenic patients is high. Being young, having a current major depressive episode, receiving fluoxetine or lithium carbonate in the previous month, or having more medical illnesses may increase the risk of suicidality.

*Research prospective*

Our study suggests that routine clinical assessment, environmental manipulation and adequate treatment might prevent or decrease suicide in hospitalized schizophrenic patients.”

## COMMENTS OF REVIEWER #1

The paper is interesting but needs revision before being accepted for publication. I'm not a native English speaker, but the manuscript needs to be copyedited for a number of language errors

**Answer** Thank you for the comments. Some editing according to the comments of reviewer #1 were later edited by the highly qualified native English-speaking editors at American Journal Experts (Verification code: DE0C-14E7-DE94-3BEE-BE0P). All revisions were highlighted in the updated version of the manuscript.

I have revised the manuscript accordingly as followed:

1. Abstract – Methods, page 4: “This IS a cross-sectional study...”

**Answer** I have corrected the sentence in Abstract – Methods section accordingly: “This **is a** cross-sectional study of schizophrenic patients admitted to a psychiatric hospital **who were** 18 years of age or more.”

2. Other specific comments: Abstract, Results: I would delete the sentence starting with “There was no difference between males and females, nor in the median age...”. In fact, age is one of the predictive factors.

**Answer** I have corrected the sentence in Abstract – Methods section accordingly: “Of **the** 228 hospitalized schizophrenia patients, 214 (93.9%) were included in this study. **The majority (79.0%) of the patients were males. Females appeared to have a slightly higher suicidality risk than males, with borderline significance. With regard to the current suicide risk assessed with the MINI, 172 (80.4%) schizophrenic patients scored zero, 20 (9.4%) had a mild risk, 8 (3.7%) had a moderate risk, and 14 (6.5%) had a severe risk. The total prevalence of current suicide risk in those schizophrenic patients was 19.6%. ~~There was no difference between males and females, nor in the median age of patients in each suicidal risk level ( $P=0.059$  and  $P=0.051$ ).~~”**

3. Abstract, last sentence of Results: “... this study found younger age, a current ...” (delete “the schizophrenic patients with”)

**Answer** I have corrected the sentence in Abstract – Results section accordingly:  
“Based on multivariable ordinal logistic regression analysis with backward elimination, this study found ~~the schizophrenic patients with~~ **that** younger age, a current major depressive episode, receiving fluoxetine or lithium carbonate in the previous month, or a **relatively higher** Charlson comorbidity index **score** were all significantly and independently associated with a higher level of **suicide** risk.”

4. Abstract, Conclusion: I don't understand the second sentence (especially “being criticized by family members...”), consider to delete it Introduction

**Answer** Thank for the comment. I have corrected the sentence in Abstract – Conclusion section accordingly:

The format of **CONCLUSION** (no more than 30 words)  
I also deleted this word.

### **CONCLUSION**

The prevalence rate of suicide attempts in schizophrenia is high. **Considering risk factors in routine clinical assessments, environmental manipulations and adequate treatment might prevent or decrease suicide in those patients.**

5. Page 7, third sentence: “.... Hospitalized patients has a history of attempted...”  
(delete “who”)

**Answer** I have corrected the sentence in Introduction section accordingly:

(After editing the manuscript, the sentences from page 7 were moved to page 6)

### **“INTRODUCTION**

Suicide is common in schizophrenic patients. Previous studies have shown that the life-time risk of suicide in those patients is approximately 5%.<sup>[1]</sup> One survey found that 51.2% of hospitalized schizophrenia patients reported clear suicidal ideation<sup>[2]</sup>, and this may predict later suicide attempts **in** females.<sup>[3]</sup> Additionally, a prior study illustrated that 23% (43/187) of hospitalized **patients who had** a history of attempted suicide, **and** 15% of hospitalized patients (28/187) **and** 65% of attempters (28/43) attempted suicide during hospitalization.<sup>[4]</sup>”

6. Methods, page 9, treatment satisfaction: is there a missing reference about Likert scales?

**Answer** The references about Likert scales have been already cited in the Methods section (reference #9 and #10) in the end of paragraph. However, I have also added the citation at the end of the first sentence accordingly:

(After editing the manuscript, the sentences from page 9 were moved to page 7-8)

**“Treatment satisfaction:** Likert scales have become the most popular scale for measuring public opinion on any issue.<sup>[9, 10]</sup> While they offer the advantage of measuring the degree or strength of an opinion, items scored on a Likert scale are still subject to important and pervasive measurement liability due to the “agreement response set,” which is the tendency for survey respondents to agree with any statement to appear positive or agreeable. The study adopted a 10-item Likert-type scale, similar to other studies.<sup>[9, 10]</sup>”

#### **\*References**

9. **Likert R.** A technique for the measurement of attitudes. Archives of Psychology. 1932: 55

10. **Robinson J.** Likert Scale. In: Michalos AC, editor. Encyclopedia of Quality of Life and Well-Being Research. Dordrecht: Springer Netherlands; 2014. p. 3620-3621.

7. Methods, page 10, treatment satisfaction: rephrase as “The study adopted the Likert-type 10-item scale, similar to other studies...”

**Answer** I have rephrased the sentence in Method section accordingly:

(After editing the manuscript, the sentences from page 10 were moved to page 7-8)

**“Treatment satisfaction:** Likert scales have become the most popular scale for measuring public opinion on any issue.<sup>[9, 10]</sup> While they offer the advantage of measuring the degree or strength of an opinion, items scored on a Likert scale are still subject to important and pervasive measurement liability due to the



“agreement response set,” which is the tendency for survey respondents to agree with any statement **to appear** positive or agreeable. ~~This study use “the Likert-type 10-item scale” which composed of similar pattern with the other study~~ The study adopted a 10-item Likert-type scale, similar to other studies.<sup>[9, 10]</sup> ”

8. Methods, page 10, last sentence on comorbidity: delete the sentence “The summation of the CCI provided...”

**Answer** I have deleted the sentence as in Method section accordingly:

(After editing the manuscript, the sentences from page 10 were moved to page 8)

**“Comorbid physical illness:** To determine the severity of physical illness, the Charlson Comorbidity Index (CCI) was **evaluated** in all patients who were enrolled in the study.<sup>[11]</sup> Medical conditions **included in** the Charlson Index were considered as a measure of comorbidity. This assessment tool predicts the one-year mortality for a patient who **has a certain number of** comorbid conditions. Each condition is assigned a score of 1, 2, 3, or 6, depending on the **associated risk of dying**. We summed the scores to provide a total score to predict mortality. **The** clinical conditions and associated scores are as follows: **1 point was assigned for** cerebrovascular disease, chronic pulmonary disease, congestive heart failure, connective tissue disease, dementia, myocardial **infarction**, peripheral vascular disease, peptic ulcer, uncomplicated diabetes mellitus and chronic liver disease; **2 points were assigned for** hemiplegia, leukemia, lymphoma, diabetes with end-stage organ damage, moderate or severe kidney disease, **and** nonmetastatic malignant solid tumor; and **3 points were assigned** for moderate or severe liver disease. Patients received **a score of 6** if they had a malignant solid tumor or AIDS. ~~The summation of the CCI provided the risk of suicide between groups.”~~

9. Methods, page 11, suicidal risk: there should be only 7 items, C8 is identical to C7 (Did you ever make a suicide attempt?)

**Answer** Q7 is an item to evaluate a suicide attempt in preceding month, while Q8 is an item for lifetime suicide attempt. Their definitions were already stated in the prior sentences. I have also rephrased the clarification of each item to be cleared as followed:

(After editing the manuscript, the sentences from page 11 were moved to page 8-9)

**“Suicide risk:** The suicide risk was evaluated using the suicidality module of the MINI, Thai version 5.0.0, which is administered in a short structured diagnostic interview.<sup>[8]</sup> The suicidality module consists of eight items designed to evaluate the risk of suicide via a number of questions divided into two aspects (in the past one month and in one’s lifetime). The seven items designated for the evaluation of suicide risk in the preceding month were as follows: Q1: Have you thought that you would be better off dead or wished you were dead? (yes=1, no=0), Q2: Have you wanted to harm yourself? (yes=2, no=0), Q3: Have you thought about suicide? (yes=6, no=0), Q4: Have you had a suicide plan? (yes=8, no=0), Q5: Have you had a feasible suicide plan? (yes=9, no=0), Q6: Did you ever self-harm? (yes=4, no=0), and Q7: Did you make a suicide attempt? (yes=10, no=0). Only one item evaluates the lifetime suicide risk; Q8: Have you ever made a suicide attempt? The suicidal ideation, planning, and attempts in the previous month and the history of lifetime suicidal attempt are evaluated based on these items. The individual scores are summed, and the total score is categorized as no risk (0 points), low risk (1-8 points), medium risk (9-16 points), and high risk (17 or more points).<sup>[12]</sup> The prevalence of suicidality was reported.”

10. Methods, page 11, first sentence of psychosocial scores: should be “a patient’s perception”, not a patients’

**Answer** I have corrected the sentence in Method section accordingly:

(After editing the manuscript, the sentences from page 11 were moved to page 9)

**“The psychosocial scores and the accessibility of weapons and toxic chemicals scores:**

The psychosocial aspects were the patient’s perception of what was happening in their life.”

11. Results, page 13: it is stated that there was no difference by gender; however females appear to have a tendency towards a higher suicidality risk of borderline significance, please rephrase.

**Answer** I have rephrased the sentence in Results section accordingly:

(After editing the manuscript, the sentences from page 13 were moved to page 10)

***“Sociodemographic and clinical characteristics***

Table 1 illustrates the descriptive and comparative baseline characteristics of the patients. The majority (79.0%) of the patients were males. Females appeared to have a slightly higher suicidality risk than males, with borderline significance.”

12. Results, page 15, first two sentences on suicide risk: please write, “lifetime prevalence of suicide attempts” (not suicide)

**Answer** I have corrected the sentence in Results section accordingly:

(After editing the manuscript, the sentences from page 15 were moved to page 11)

***“Prevalence of lifetime suicide attempts and distribution of current suicide risk***

The lifetime prevalence of suicide attempts in schizophrenic patients was 15.6%, and it was not different between males and females (13.7% vs 22.7%,  $P=0.162$ ).”

13. “the current prevalence of suicidality risk” (not rate of suicide)

**Answer** I have corrected the sentence in Results section accordingly:

(After editing the manuscript, the sentences from page 15 were moved to page 11)

*“Prevalence of lifetime suicide attempts and distribution of current suicide risk*

The lifetime prevalence of suicide attempts in schizophrenic patients was 15.6%, and it was not different between males and females (13.7% vs 22.7%,  $P=0.162$ ). The current prevalence of suicidality rate of suicide in schizophrenic patients was 19.6%, and it was classified as mild, moderate, or severe (9.4%, 3.7% and 6.5%, respectively).”

14. Results, page 16, second para: please delete from “Patients with each years of increase age had...” to “... or having more scores on the Charlson comorbidity index.” All these findings are already reported in the previous sentences.

**Answer** I have deleted the sentences in Results section accordingly:

(After editing the manuscript, the sentences from page 16 were moved to page 12)

*“Associations between potential risk factors and current suicide risk*

Based on the univariable ordinal logistic regression analyses (Table 2), .....The results of multivariable ordinal logistic regression analysis with backward elimination showed that a younger age, a current major depressive episode, the use of fluoxetine or lithium carbonate in the previous month, or a relatively higher CCI score were significantly independently associated with a higher level of suicide risk (Table 3).

~~Patients with each year of increased age had a reduced risk of suicidality at the higher level. Suicidal risk increased with having a current major depressive episode, or receiving fluoxetine or lithium carbonate in the previous month, or having more scores on the Charlson comorbidity index.~~ The global Wald test for the final model consisted of all risk factors and indicated that the final model does not violate the proportional odds assumption ( $P=0.656$ ). There was no interaction between factors in the final model. The following equations predicted the probability of each level of suicide risk:”

15. Discussion, first sentence: please not prevalence rate of suicide, but prevalence of suicidal risk or suicidality

**Answer** I have corrected the sentence in Discussion section accordingly (in blue highlight):

(After editing the manuscript, the sentences were moved to page 13)

## **“DISCUSSION**

In this hospital-based sample **population who received** a diagnosis of schizophrenia from **a** psychiatric hospital, the findings substantiate that the current ~~prevalence rate of suicide~~ **prevalence of suicidality** in schizophrenic patients is 19.6%. The factors associated with **the suicide** risk in such patients **include** younger age, a current major depressive episode, **the use of** fluoxetine or lithium carbonate in the previous month, or **a relatively higher CCI score.**”

16. Discussion, page 18: “Higher Charlson scores can increase suicidality..” (delete “of worse symptoms”)

**Answer** I have corrected the sentence in Discussion section accordingly:

(After editing the manuscript, the sentences were moved from page 18 to page 14)

## **“DISCUSSION**

In this hospital-based sample **population who received** a diagnosis of schizophrenia from **a** psychiatric hospital, the findings substantiate that the current prevalence **of suicidality** in schizophrenic patients is 19.6%.....

.....  
Higher Charlson scores ~~of worse symptoms~~ can increase suicidality **owing to a higher incidence of depression, greater despair associated with disability, more cognitive impairment and worse coping skills** **owing to** severe physical illness.”

17. Discussion, first sentence of page 19: please change “adapted the management model should be considered “ to “customization in the management model should be considered”

**Answer** I have corrected the sentence in Discussion section accordingly:

(After editing the manuscript, the sentences were moved from page 19 to page 14)

## “DISCUSSION

In this hospital-based sample population who received a diagnosis of schizophrenia from a psychiatric hospital, the findings substantiate that the current prevalence of suicidality in schizophrenic patients is 19.6%.....

.....

If the management of schizophrenic patients with medical illness is complicated, customization in adapted the management model should be considered.<sup>[25]</sup> “

18. Lastly, I cannot read well Table 1 due to formatting issues (combined horizontal/vertical layout)

**Answer** I have adjusted the format of table 1 at the end of manuscript accordingly.