BUKTI KORESPONDENSI PENULIS DENGAN MALANG NEUROLOGY JOURNAL

1. Bukti Submit Artikel ke Malang Neurology Journal (MNJ) (5 Agustus 2019)

1.1. Acknowledge MNJ terhadap artikel yang disubmit

[MNJ] Submission Acknowledgement

Yahoo/Email M...

Malang Neurology Journal <mnj@ub.ac.id>
Kepada: Herpan Syafii Harahap

Sen, 5 Agu 2019 jam 21.00

Herpan Syafii Harahap:

Thank you for submitting the manuscript, "RELATIONSHIP BETWEEN LEVEL OF EDUCATION AND POST-STROKE COGNITIVE STATUS IN HOSPITAL-BASED ISCHEMIC STROKE SURVIVORS" to Malang Neurology Journal. With the online journal management system that we are using, you will be able to track its progress through the editorial process by logging in to the journal web site:

Manuscript URL: https://mnj.ub.ac.id/index.php/mnj/author/submission/423
Username: herpanharahap

If you have any questions, please contact me. Thank you for considering this journal as a venue for your work.

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1.2. Akun penulis di MNJ

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#423 Review

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Submission

Authors	Herpan Syafii Harahap, Yanna Indrayana, Setyawati Asih Putri
Title	RELATIONSHIP BETWEEN LEVEL OF EDUCATION AND POST-STROKE COGNITIVE STATUS IN HOSPITAL-BASED ISCHEMIC STROKE SURVIVORS
Section	Research Article
Editor	Setyo Wibowo

Peer Review

Round 1

Review Version	423-1787-1-RV.docx 2019-08-05
Initiated	2019-08-16
Last modified	2020-10-09
Uploaded file	Reviewer A 423-1806-1-RV.docx 2019-09-02
	Reviewer B 423-1996-1-RV.docx 2020-01-20
	Reviewer C 423-2071-1-RV.docx 2020-03-24

Editor Decision

Decision	Accept Submission 2020-09-29
Notify Editor	Editor/Author Email Record 2020-09-29
Editor Version	None
Author Version	423-2032-2-ED.docx 2020-03-27 Delete
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Information for Author

Author Guidelines (online version)

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2. Bukti Accepted dengan Revisi Artikel dari MNJ (24 Maret 2019)

2.1. Bukti accepted dengan revisi via Email

Herpan Syafii Harahap:

We have reached a decision regarding your submission to Malang Neurology Journal, "RELATIONSHIP BETWEEN LEVEL OF EDUCATION AND POST-STROKE COGNITIVE STATUS IN HOSPITAL-BASED ISCHEMIC STROKE SURVIVORS".

Our decision is to: Revisions Required

Please revise your manuscript according to our Reviewers' review. Send it back to us as soon as possible since we're going to publish your manuscript on the next issue. If you don't mind, please make two or three citations from our articles on the website related to your manuscript.

We look forward to hearing from you.

Setyo Wibowo
Brawijaya University
Phone 085790751470
tyowibowo1204@gmail.com
_____
Malang Neurology Journal
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2.2. Permintaan revisi dari Reviewer A

RELATIONSHIP BETWEEN LEVEL OF EDUCATION AND POST-STROKE COGNITIVE STATUS IN HOSPITAL-BASED ISCHEMIC STROKE SURVIVORS

September 02, 2019

September 02, 2019
OK, ADJUST WITH MNJ STYLE

Reply   Resolve

Herpan Syafii Harahap[1], Yanna Indrayana[2], Setyawati Asih Putri[3]

Correspondence: herpanharahap@yahoo.co.id
[1]Department of Neurology, Faculty of Medicine, Universitas Mataram, Mataram, Indonesia
[2]Department of Cardiology, Faculty of Medicine, Universitas Mataram, Mataram, Indonesia
[3]Department of Neurology Mataram General Hospital, Mataram, Indonesia

ABSTRACT

Background: Cognitive impairment is an important complication of ischemic stroke with the consequent of significant decrease in quality of life of its survivors. Its prevalence was about 7-41% which was mostly determined by the existing of vascular risk factors and cognitive reserve of the subjects. Level of education is one of the several factors recognized as the determinants of cognitive reserve.
Objective: To investigate the relationship between level of education and cognitive status among hospital-based ischemic stroke survivors.
Methods: This cross-sectional study involved 166 ischemic stroke outpatients (n=166) in two main hospitals. The data collected in this study were demographic (age, gender, and level of education) and clinical (stroke onset, location of lesion, hypertension, diabetes mellitus, dyslipidemia, and atrial fibrillation) data. The level of education was categorized into ≥12 years and <12 years groups. Cognitive status was assessed using Montreal Cognitive Assessment in Indonesia version (MoCA-Ina) and subjects with score of 26-30 were normal. The relationship between level of education as well as clinical data and cognitive status were analyzed using Chi-square test.
Results: The mean age of subjects was 58 years and 68.67% of them were male. Cognitive decline were found 80.12% (n=133). The level of education was significantly associated with cognitive status of the subjects and hypertension as well.
Conclusion: The level of education had significant relationship with cognitive decline in the hospital-based population of ischemic stroke survivors. In addition, hypertension was also having significant relationship with cognitive decline among those population.

Keywords: post-ischemic stroke cognitive decline, level of education, cognitive reserve

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Editor Decision

Decision	Accept Submission 2020-09-29
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Editor Version	None
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2.3. Permintaan revisi dari Reviewer B

RELATIONSHIP BETWEEN LEVEL OF EDUCATION AND POST-STROKE COGNITIVE STATUS IN HOSPITAL-BASED ISCHEMIC STROKE SURVIVORS

Herpan Syafii Harahap[1], Yanna Indrayana[2], Setyawati Asih Putri[3]

Correspondence: *herpanharahap@yahoo.co.id*
[1]*Department of Neurology, Faculty of Medicine, Universitas Mataram, Mataram, Indonesia*
[2]*Department of Cardiology, Faculty of Medicine, Universitas Mataram, Mataram, Indonesia*
[3]*Department of Neurology Mataram General Hospital, Mataram, Indonesia*

ABSTRACT

Background: Cognitive impairment is an important complication of ischemic stroke with the consequent of significant decrease in quality of life of its survivors. Its prevalence was about 7-41% which was mostly determined by the existing of vascular risk factors and cognitive reserve of the subjects. Level of education is one of the several factors recognized as the determinants of cognitive reserve.

Objective: To investigate the relationship between level of education and cognitive status among hospital-based ischemic stroke survivors.

Methods: This cross-sectional study involved 166 ischemic stroke outpatients (n=166) in two main hospitals. The data collected in this study were demographic (age, gender, and level of education) and clinical (stroke onset, location of lesion, hypertension, diabetes mellitus, dyslipidemia, and atrial fibrillation) data. The level of education was categorized into ≥12 years and <12 years groups. Cognitive status was assessed using Montreal Cognitive Assessment in Indonesia version (MoCA-Ina) and subjects with score of 26-30 were normal. The relationship between level of education as well as clinical data and cognitive status were analyzed using Chi-square test.

Results: The mean age of subjects was 58 years and 68.67% of them were male. Cognitive decline were found 80.12% (n=133). The level of education was significantly associated with cognitive status of the subjects and hypertension as well.

Conclusion: The level of education had significant relationship with cognitive decline in the hospital-based population of ischemic stroke survivors. In addition, hypertension was also having significant relationship with cognitive decline among those population.

Keywords: post-ischemic stroke cognitive decline, level of education, cognitive reserve

WU **Windows User** January 20, 2020
is it any reasons why this researh will do?
is it has impact for patient's treatment?
please add it..

↩ Reply ✓ Resolve

study conducted by Levine et al. in overall stroke survivors, both ischemic and haemorrhagic subtype of stroke, showed that low level of education was significantly decrease their cognitive status, prominently on executive domain.[12]

This was the first study conducted to investigate the significant relationship between level of education and cognitive status in ischemic stroke survivors. The ischemic stroke survivors included in this study represented hospital-based population rather than community-based population.

Methods

This was a cross-sectional study involving 166 ischemic stroke outpatients (n=166) in two main referral hospital in West Nusa Tenggara, Mataram General Hospital (n=114) and Mutiara Sukma Mental Hospital (n=52), recruited consecutively after fulfilling the inclusion and exclusion criteria. The inclusion criteria were subjects with prior history of ischemic stroke, literate, fully conscious, voluntary participated, and speaking in Indonesia Language. The exclusion criteria were previous diagnosis of pre-stroke cognitive impairment, the evidence of clinical depression, and aphasia and motor disfunctions that interfere cognitive assessment. Subjects were considered to have clinically significant depression if the results of screening test of depression using Beck Depression Inventory-II (BDI-II) showed score of 14-63.[13,14] This study was conducted in January – June 2019 after getting approvement from Komisi Etik Penelitian Kesehatan Universitas Mataram with the ethical clearance number 401/UN18.F7/ETIK/2018.

The data collected in this study were demographic and clinical characteristics, level of education and cognitive status of the subjects. The demographic data of subjects consisted of age and gender. The clinical data of subjects consisted of stroke onset, location of lesion, hypertension, diabetes mellitus, dyslipidemia, and atrial fibrillation. The level of education was categorized into two groups, ≥12 years and <12 years respectively. The instrument used in the assessment of cognitive status was Montreal Cognitive Assessment in Indonesia version (MoCA-Ina) scores ranged between 0-30. Based on this instrument, subjects with score of 26-30 were considered to have normal cognitive status, while those with score of 0-25 were considered to have cognitive impairment.[15]

The stroke onset was graded into four categories of time, i.e ≤3 months, >3 to 12 months, >12 to 24 months, and >24 months. The location of lesion was determined by clinical examnation and head CT scan results and categorized into two location, right and left hemispheres respectively. All clinical data of subjects were obtained from questionnaire and their medical records.

The data were presented as mean (95%CI) unless otherwise stated. The relationship between level of education and cognitive status were analyzed using Chi-square test. The association between clinical data and cognitive status was also analyzed using chi-square test. Statistical significance was set to be p<0.05. All data was

In addition to the existing vascular risk factors, the vulnerability of ischemic stroke survivors to be suffered from cognitive decline is also determined by their cognitive reserve status. The concept of cognitive reserve explains how an ischemic stroke survivor is able to perform a certain cognitive task properly and in flexible manner even though there is some degree of stroke-related brain dysfunction in certain areas that carry out this cognitive function.[26] In this case, the concept of cognitive reserve can be proposed to explain the incompatibility of the relationship between the degree of ischemic stroke-related neuronal damage and the decline in cognitive status among ischemic stroke survivors.[27] In such condition there is a neural compensation in which ischemic stroke-related neuronal damage in certain brain areas that subserve specific cognitive functions will lead to recruitment as well as activation of compensatory networks that normally play an important role as a secondary area carrying out those specific cognitive functions.[28,29] This neural compensation can explain the differences in clinical outcomes of post-ischemic stroke cognitive impairment as well as the effectiveness in its recovery process among ischemic stroke survivors. The complexity of neural compensation itself, which describes the concept of cognitive reserve, is determined by the life experiences of a subject in working on a particular cognitive task which was obtained mainly through formal education, occupation, and daily physical as well as social activities prior ischemic stroke event.[7]

Recent studies have shown that level of education is a representation of the concept of cognitive reserve which has significant relationship with cognitive status in elderly population and Alzheimer's disease patients.[7,30,31,32] The study aimed to investigate the impact of low level of education to the decline of cognitive status among stroke survivors regardless to the stroke subtype are still very limited and have not been conducted specifically in ischemic stroke subtype patients. A cohort study conducted by Levine et al. have shown showed that low level of education was significantly decrease the cognitive status of both ischemic and haemorrhagic stroke survivors, prominently on executive domain.[12] This was the first study focused on investigating the relationship between level of education and cognitive status in ischemic stroke outpatients representing hospital-based population. The results of this study showed that there was a significant relationship between the level of education and cognitive status in those population. These results indicated that level of education, beside hypertension, was an important risk factor for the decline in the post-ischemic stroke cognitive status in those subjects. As noted earlier, level of education as one of the determinants of cognitive reserve also played an important role in determining the successful of neural compensation mechanism which favor either in maintaining the cognitive status to remain intact or in accelerating the healing process of cognitive status among ischemic stroke survivors.[28,29]

The limitation of this study was that it did not identify the relationship between cognitive reserve determinants other than level of education, including recent occupation as well as the intensity of daily physical and social activities. Therefore, the significance relationship of level of education and cognitive status in this study could only represent the role of cognitive reserve partially. The heterogeneity of the subjects and their recall of detailed process of the occupation as well as the intensity of actual daily physical and social activities prior ischemic stroke event which were poorly documented. So, it made an obstacle in the analysis of the relationship between cognitive reseve status as a whole and cognitive status among ischemic stroke survivors. Therefore, a

Peer Review

Round 1

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Editor Decision

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Editor Version	None
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2.4. Permintaan revisi dari Reviewer C

EVALUATION OF PAPER

Title of Paper : RELATIONSHIP BETWEEN LEVEL OF EDUCATION AND POST-STROKE COGNITIVE STATUS IN HOSPITAL-BASED ISCHEMIC STROKE SURVIVORS

Comments to the Author :

1. Please give short explanation about cognitive reserves in abstract
2. Why was the level of education categorized into two groups, ≥12 and <12 years ?
3. How was the sample size determined?
4. In results section, please give flow of participants using a diagram

Round 1

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Editor Decision

Decision	Accept Submission 2020-09-29
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Editor Version	None
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3. Revisi yang telah dilakukan oleh penulis sesuai dengan permintaan Reviewer A, B, dan C (27 Maret 2020)

RELATIONSHIP BETWEEN LEVEL OF EDUCATION AND POST-STROKE COGNITIVE STATUS IN HOSPITAL-BASED ISCHEMIC STROKE SURVIVORS

Herpan Syafii Harahap[1], Yanna Indrayana[2], Setyawati Asih Putri[3]

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[1]*Department of Neurology, Faculty of Medicine, Universitas Mataram, Mataram, Indonesia*
[2]*Department of Cardiology, Faculty of Medicine, Universitas Mataram, Mataram, Indonesia*
[3]*Department of Neurology Mataram General Hospital, Mataram, Indonesia*

ABSTRACT

Background: Post-ischemic stroke cognitive decline is significantly affecting the quality of life of its survivors. Its prevalence was about 7-41% which was mostly determined by the existing of vascular risk factors and cognitive reserve of the subjects. Level of education is one of determinants of cognitive reserve, a factor that affect the susceptibility of subjects to cognitive decline after experiencing ischemic stroke-related neuronal damage. Since level of education is protective for cognitive function, the intervention on it can reduce the occurrence of cognitive decline.
Objective: To investigate the relationship between level of education and cognitive status among hospital-based ischemic stroke survivors.
**Methods:** This cross-sectional study involved post-ischemic stroke outpatients in two hospitals. The data collected in this study were demographic data, including level of education, and clinical data as well. The level of education was categorized into ≥12 years and <12 years groups. Cognitive status was assessed using Montreal Cognitive Assessment in Indonesia version (MoCA-Ina) and subjects with score of 26-30 were normal. The relationship between level of education as well as clinical data and cognitive status were analyzed using Chi-square test.
Results: There were 166 subjects eligible for this study (n=166). The mean age of subjects was 58 years and 68.67% of them were male. Cognitive decline were found 80.12% of subjects (n=133). The level of education was significantly associated with cognitive status of the subjects and hypertension as well.
Conclusion: The level of education had significant relationship with cognitive decline in the hospital-based population of ischemic stroke survivors.

Keywords: post-ischemic stroke cognitive decline, level of education, cognitive reserve

Customer March 26, 2020
Dear Reviewer, here we add a sentence that briefly explain about cognitive reserve in abstract, as requested by Reviewer C
↩ Reply 🗨 Resolve

Customer March 26, 2020
Dear Reviewer, here we add a brief sentence that emphasize the of this study, as requested by Reviewer B
↩ Reply 🗨 Resolve

Methods

This was a cross-sectional study involving all of ischemic stroke outpatients attending to two main referral hospital in West Nusa Tenggara, Mataram General Hospital and Mutiara Sukma Mental Hospital during period of January – June 2019 after fulfilling the inclusion but not exclusion criteria. The inclusion criteria were subjects with prior history of ischemic stroke, literate, fully conscious, voluntary participated, and speaking in Indonesia Language. The exclusion criteria were previous diagnosis of pre-stroke cognitive impairment, the evidence of clinically significant depression, and aphasia and motor dysfunctions that interfere cognitive assessment. Subjects were considered to have clinically significant depression if the results of screening test of depression using Beck Depression Inventory-II (BDI-II) showed score of 14-63.[13,14] This study was conducted in January – June 2019. Written informed consent was obtained from all of the subjects. This study was conducted after getting approvement from Komisi Etik Penelitian Kesehatan Universitas Mataram with the ethical clearance number 401/UN18.F7/ETIK/2018.

The data collected in this study were demographic and clinical characteristics, level of education and cognitive status of the subjects. The demographic data of subjects consisted of age and gender. The clinical data of subjects consisted of stroke onset, location of lesion, hypertension, diabetes mellitus, dyslipidemia, and atrial fibrillation. The level of education was categorized into two groups, i.e ≥12 years and <12 years according to previous studies.[15,16] This categorization of level education was aimed to distinguish subjects with higher level of education (≥12 years) and those with lower level of education (<12 years), so that the relationship between level of education and cognitive status of these subjects could be analyzed. The instrument used in the assessment of cognitive status was Montreal Cognitive Assessment in Indonesia version (MoCA-Ina) scores ranged between 0-30. Based on this instrument, subjects with score of 26-30 were considered to have normal cognitive status, while those with score of 0-25 were considered to have cognitive impairment.[17]

The stroke onset was graded into four categories of time, i.e ≤3 months, >3 to 12 months, >12 to 24 months, and >24 months. The location of lesion was determined by clinical examination and head CT scan results and categorized into two location, right and left hemispheres respectively. All clinical data of subjects were obtained from questionnaire and their medical records.

The data were presented as mean (95%CI) unless otherwise stated. The relationship between level of education and cognitive status were analyzed using Chi-square test. The association between clinical data and cognitive status was also analyzed using chi-square test. Statistical significance was set to be p<0.05. All data was analyzed using a computer program.

Results

Characteristics of the Subjects

There were 191 ischemic stroke outpatients recruited at the baseline survey during January – July 2019 and 166 of them fulfilled the inclusion but not exclusion criteria (n=166), as shown in Figure 1. These eligible subjects were obtained from Mataram General Hospital (n=114) and Mutiara Sukma Mental Hospital (n=52). The mean age of the subjects was 58 years and 68.7% of them were male. The demographic and clinical data as well as level of education is presented in Table 1.
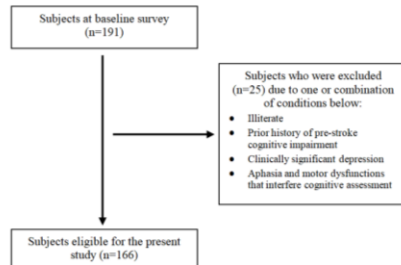
Figure 1. Diagram of subjects recruitment in the present study

Table 1. Demographic and Clinical Characteristics of the Subjects

Variables	Mean (95%CI), unless otherwise stated (n=166)
Age, years	58,67 (57.22 – 60.17)
Male, n (%)	114 (68.7)
Level of education, n (%)	
<12 years	74 (44.6)
≥12 years	92 (55.4)
Stroke onset, n (%)	
≤3 months	36 (21.7)
>3 – 12 months	74 (44.6)
>12 – 24 months	32 (19.3)
>24 months	24 (14.4)
Location of lesion, n (%)	
Right hemisphere	85 (51.2)
Left hemisphere	81 (48.8)
Hypertension, n (%)	128 (77.1)
Diabetes mellitus, n (%)	37 (22.3)
Dyslipidemia, n (%)	85 (51.2)
Atrial fibrillation, n (%)	19 (11.4)
MoCA-Ina score, n (%)	
Normal (0-25)	33 (19.88)
Cognitive decline (26-30)	133 (80.1)

MoCA-Ina=Montreal Cognitive Assessment in Indonesia version.

4. Bukti Permintaan Revisi pertama dari Editor MNJ (19 Mei 2020)

4.1. Permintaan revisi melalui email

4.2. Permintaan revisi pada draft artikel

explain the incompatibility of the relationship between the degree of ischemic stroke-related neuronal damage and the decline in cognitive status among ischemic stroke survivors.[32] In such condition there is a neural compensation in which ischemic stroke-related neuronal damage in certain brain areas that serve specific cognitive functions will lead to recruitment as well as activation of compensatory networks that normally play an important role as a secondary area carrying out those specific cognitive functions.[33,34] This neural compensation can explain the differences in clinical outcomes of post-ischemic stroke cognitive decline as well as the effectiveness in its recovery process among ischemic stroke survivors. The complexity of neural compensation itself, which describes the concept of cognitive reserve, is determined by the life experiences of a subject in working on a particular cognitive task which was obtained mainly through formal education, occupation, and daily physical as well as social activities prior ischemic stroke event.[7]

Recent studies have shown that level of education is a representation of the concept of cognitive reserve which has significant relationship with cognitive status in elderly population and Alzheimer's disease patients.[7,35,36,37] The study aimed to investigate the impact of low level of education to the decline of cognitive status among stroke survivors regardless to the stroke subtype are still very limited and have not been conducted specifically in ischemic stroke subtype patients. A cohort study conducted by Levine et al. have shown showed that low level of education was significantly decrease the cognitive status of both ischemic and haemorrhagic stroke survivors, prominently on executive domain.[12] This was the first study focused on investigating the relationship between level of education and cognitive status in ischemic stroke outpatients representing hospital-based population. The results of this study showed that there was a significant relationship between the level of education and cognitive status in those population. These results indicated that level

process of the occupation as well as the intensity of actual daily physical and social activities prior ischemic stroke event which were poorly documented. So, it made an obstacle in the analysis of the relationship between cognitive reserve status as a whole and cognitive status among ischemic stroke survivors. Therefore, a cohort study with systematic recording of the intensity of the occupation as well as the intensity of actual daily physical and social activities in those subjects in order to generalize their relationship to cognitive status is mandatory.

Conclusion

The conclusion of this of this study, the level of education as a representation of cognitive reserve had a significant relationship with the decline of post-ischemic stroke cognitive status in the hospital-based population of ischemic stroke survivors. A cohort study is mandatory to identify the role of education, occupation and the intensity of routine physical and social activities on cognitive status among ischemic stroke survivors so that the role of cognitive reserve as a whole can be generalized in compensating the decline of cognitive status in those population. In addition, hypertension was consistently still having significant relationship with the decline of cognitive status among those population, regarding to previous studies.

Acknowledgement

It contains the article's support or sponsorship, written using Times New Roman 10 with single space and each new paragraph indents in 3 pt.

References

1. Melkas S, Jokinen H, Hietanen M, Erkinjuntti T. Poststroke cognitive impairment and dementia : prevalence, diagnosis, and treatment. Degener Neurol

5. Revisi yang dilakukan oleh penulis sesuai dengan permintaan editor (19 Mei 2020)

from cognitive decline is also determined by their cognitive reserve status. The concept of cognitive reserve explains how an ischemic stroke survivor is able to perform a certain cognitive task properly and in flexible manner even though there is some degree of stroke-related brain dysfunction in certain areas that carry out this cognitive function.[31] In this case, the concept of cognitive reserve can be proposed to explain the incompatibility of the relationship between the degree of ischemic stroke-related neuronal damage and the decline in cognitive status among ischemic stroke survivors.[32] In such condition there is a neural compensation in which ischemic stroke-related neuronal damage in certain brain areas that serve specific cognitive functions will lead to recruitment as well as activation of compensatory networks that normally play an important role as a secondary area carrying out those specific cognitive functions.[33,34] This neural compensation can explain the differences in clinical outcomes of post-ischemic stroke cognitive decline as well as the effectiveness in its recovery process among ischemic stroke survivors. The complexity of neural compensation itself, which describes the concept of cognitive reserve, is determined by the life experiences of a subject in working on a particular cognitive task which was obtained mainly through formal education, occupation, and daily physical as well as social activities prior ischemic stroke event.[7]

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Acknowledgement

We would like to acknowledge the contribution of Made Rika Anastasia Pratiwi and Hardinata.

Customer May 19, 2020
The acknowledgement has been added

Reply   Resolve

References

1. Melkas S, Jokinen H, Hietanen M, Erkinjuntti T. Poststroke cognitive impairment and dementia : prevalence, diagnosis, and treatment. Degener Neurol

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Round 1

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Editor Decision

Decision	Accept Submission 2020-09-29
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6. Bukti Permintaan Revisi kedua dari Editor MNJ (19 Mei 2020)

6.1. Permintaan revisi melalui email

6.2. Permintaan revisi pada draft artikel

focused on investigating the relationship between level of education and cognitive status in ischemic stroke outpatients representing hospital-based population. The results of this study showed that there was a significant relationship between the level of education and cognitive status in those population. These results indicated that level of education, beside hypertension, was an important risk factor for the decline in the post-ischemic stroke cognitive status in those subjects. As noted earlier, level of education

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7. Revisi yang dilakukan oleh penulis sesuai dengan permintaan editor (29 Juli 2020)

cognitive status of both ischemic and haemorrhagic stroke survivors, prominently on executive domain.[10] This was the first study focused on investigating the relationship between level of education and cognitive status in ischemic stroke outpatients representing hospital-based population. This study revealed that there was a significant relationship between the level of education and cognitive status in those population. This result indicated that level of education, beside hypertension, was an important risk factor for the

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Customer July 29, 2020
The required revision had been done. The references published more than 10 years have been either replaced by latest references or being excluded

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Peer Review

Round 1

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Editor Decision

Decision	Accept Submission 2020-09-29
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8. Bukti Accepted Submission (29 September 2020)

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Sel, 29 Sep 2020 jam 10.53

Herpan Syafii Harahap:

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