La richiesta di competenza neurologica nel prossimo futuro - V Edizione

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SPECIALIZZAZIONE AL TEMPO DEL COVID: UN'OPPORTUNITÀ PER MIGLIORARE LA FORMAZIONE?

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Background

- The severe acute respiratory syndrome coronavirus 2 (SARSCoV-2) is causing an ongoing pandemic of coronavirus disease 2019 (COVID-19).

- The devastating breadth of this situation caused profound changes also in the routine practice of neurological patient care and residency training.

Background

- In Italy, the Residency program in neurology is active in 36 teaching hospitals, and the young section of the Italian Society of Neurology (SIgN) has a representative in each of the centers.

- As SIgN we aimed at investigating the effects of COVID-19 pandemics on the educational activity of Italian neurology residents from both a clinical and a research point of view.

Survey

- We canvassed Italian neurology residents using an online questionnaire.

- The survey was designed through Google survey and was sent on 30th April 2020, and was closed after 4 weeks.

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COVID-19

COVID-19 impact on neurology training program in Italy

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Abstract

The ongoing COVID-19 pandemic is having a huge impact on clinical activity of all hospitals, including the ones involved in training of residents. In addition, neurology residents underwent substantial modifications of their training program. Aim of our investigation was to evaluate the impact of COVID-19 pandemic on the educational activities of Italian neurology residents through an online questionnaire delivered to neurology residents. The results obtained showed that almost 30% of the respondents were redistributed to COVID-19 units. Neurology departments underwent substantial modifications of their organization influencing clinical educational activities; lessons and seminars were rescheduled online and research protocols were stopped and transferred to remote working, when feasible. There was a relevant use of telemedicine approach even if most of the respondents had never been trained before. Some of the changes had a North-South gradient, following the epidemiology of the pandemic. The data obtained from our survey highlight those points to address to be prepared for possible future emergencies.

Keywords COVID-19 · Italian resident · Neurology resident · Tele-health · Tele-neurology · SIgN · Neurology training · Psychological consequences

Demographic characteristics of neurology residents

- We received responses from 254 postgraduates (41% of response rate) from 36 schools.

No.	Sex (M/F)	Age	Distribution (North/Center/ South)	No. per year of residence (1st, 2nd, 3rd, 4th)
254	126/128	29.3 ± 2.3	110/66/78	36/68/94/56

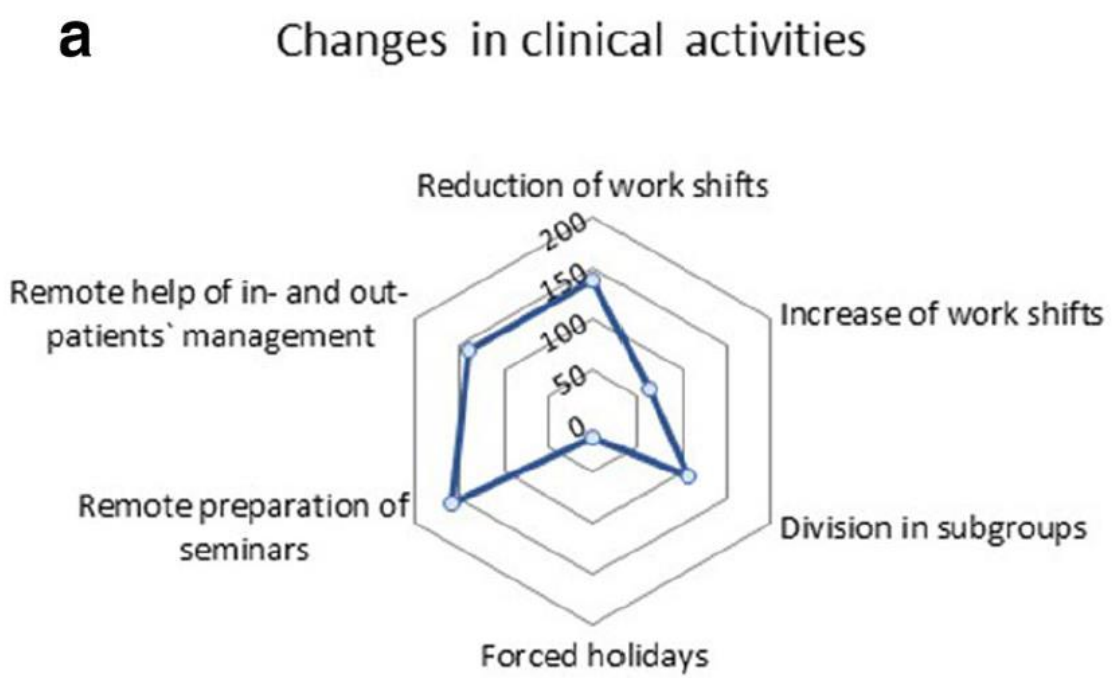
Lessons and seminars

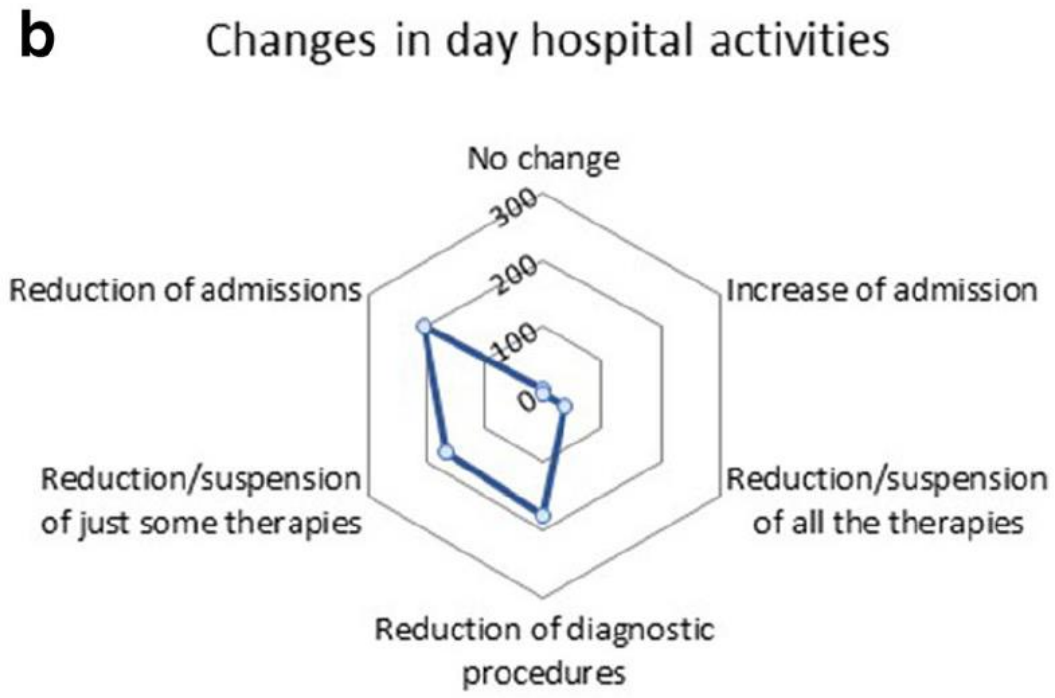
- All lessons, seminars, and conferences were suspended in all Italian universities.

- In 33 out of 36 centers (92%), lessons have been rescheduled on virtual platforms and in eight of them also seminars have been done online.

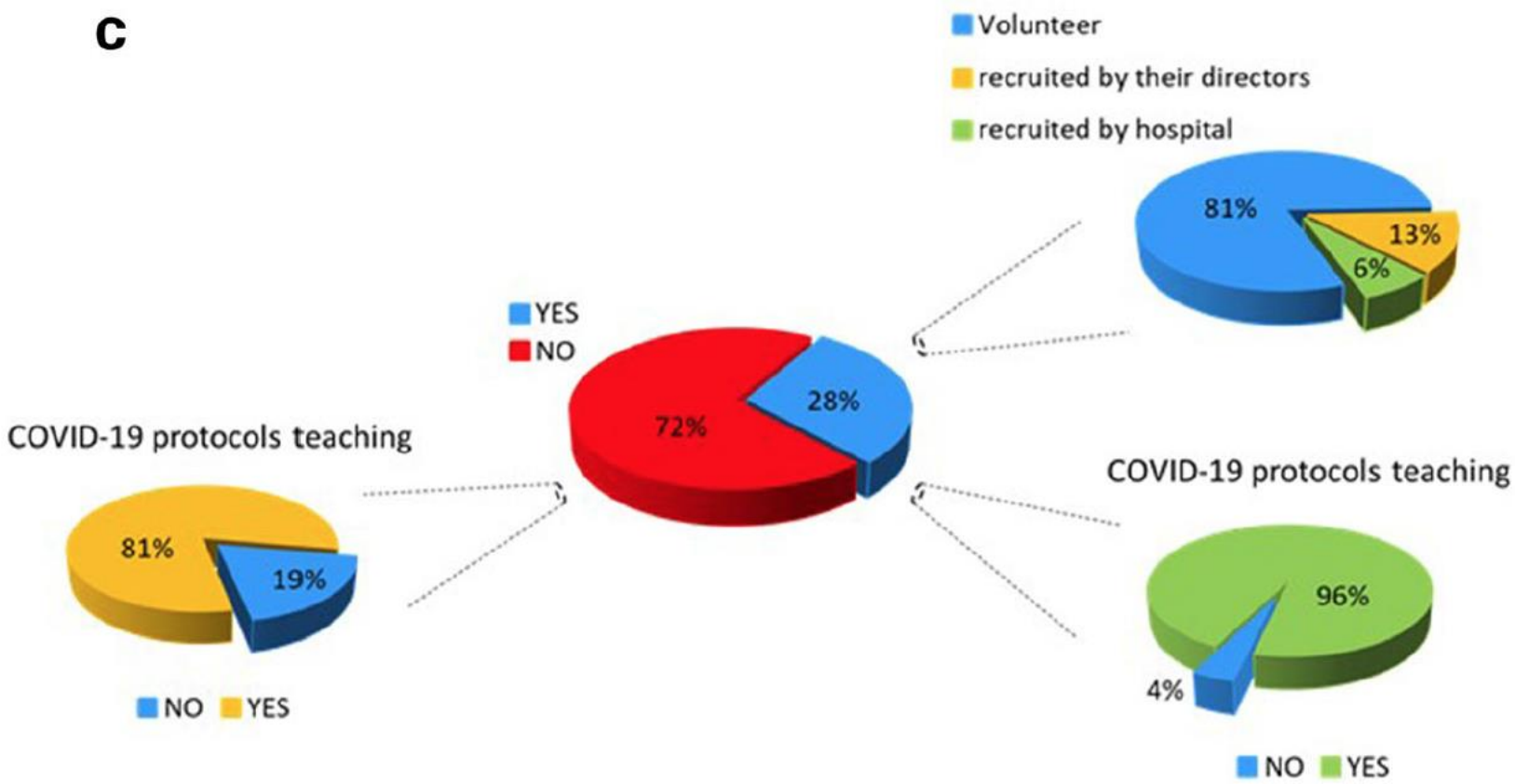
Clinical activities

- Neurological wards underwent important changes in all Italian centers: most of the university neurological wards (86%) interrupted the programmed admission, while the remaining (14%) reduced its rate.





Volunteers

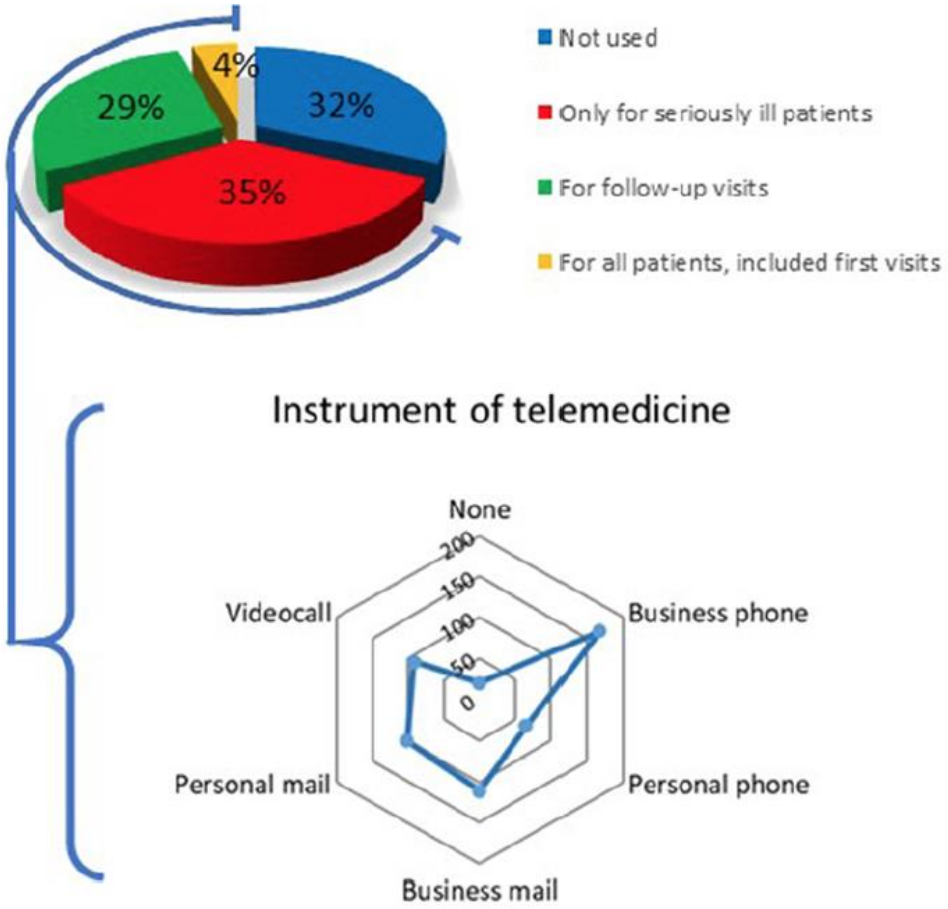

c
Volunteer
recruited by their directors
recruited by hospital
81%
13%
6%
YES
NO
72%
28%
COVID-19 protocols teaching
81%
19%
NO
YES
COVID-19 protocols teaching
96%
4%
NO
YES

Research

- In 59% of the cases research activities were interrupted or reduced.
- 14% of residents reported an increase of research activities due to reduction of clinical activities.
- 25% of cases had difficulties to access scientific journals, while 11% of the residents did not have adequate statistical software at home to run analyses and 21% of the participants did not have other tools fundamental for their research.

Telemedicine

- Before the COVID-19 outbreak, tele-neurology was adopted only 14% by of the residents and this was just once a month or less.



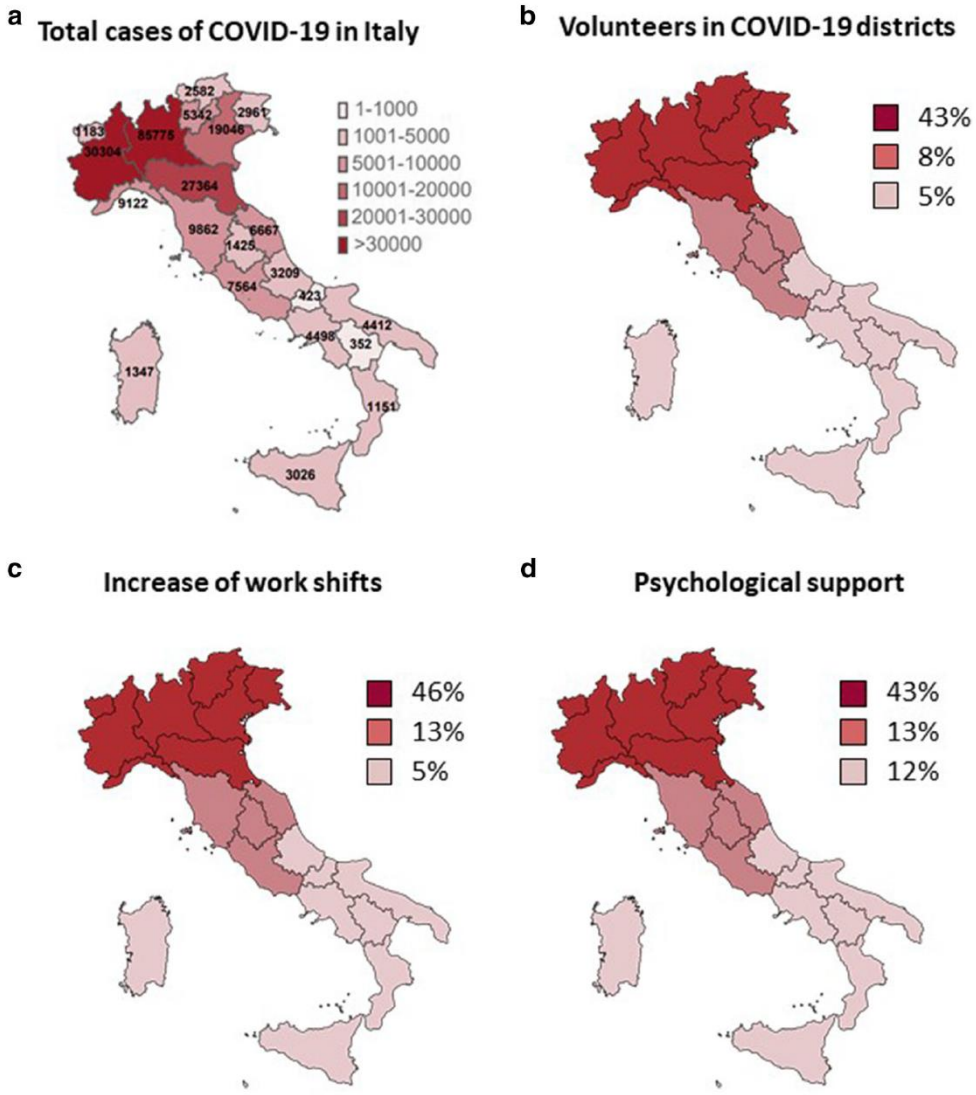
Psychological implications

- 94% of respondents reported a worsening of psycho-physical conditions of neurological patients.

- Only 14% reported to be self-confident enough to guarantee an appropriate psychological support.

- A psychological support for residents working during the pandemic outbreak was offered to 26% of neurology residents.

Correlation between COVID-19 pandemic spreading through Italy and changes during COVID-19 pandemic



Considerations

- The ongoing COVID-19 pandemic induced **many changes of the routine activities** among neurology residents.

- The reduction of hospital beds in neurological wards and of elective hospitalization of patients along with reduction of admissions to day hospital and suspension of some therapies or diagnostic procedures, deprived residents from an important source of clinical educational activity such as **bedside teaching**.

Considerations

- Even if it is possible to work remotely on research projects, the **lack of proper tools** has limited the productivity of residents in accomplishing their research objectives.

- Another lesson we have learned is that more space should be given during the training program to the **acquisition of communication and psychological skills** to reduce the burden of afflicted patients.

Considerations

- We identified several critical issues and we would conclude that neurology training should be improved in such points:

i. training telemedicine and the new digital technologies;

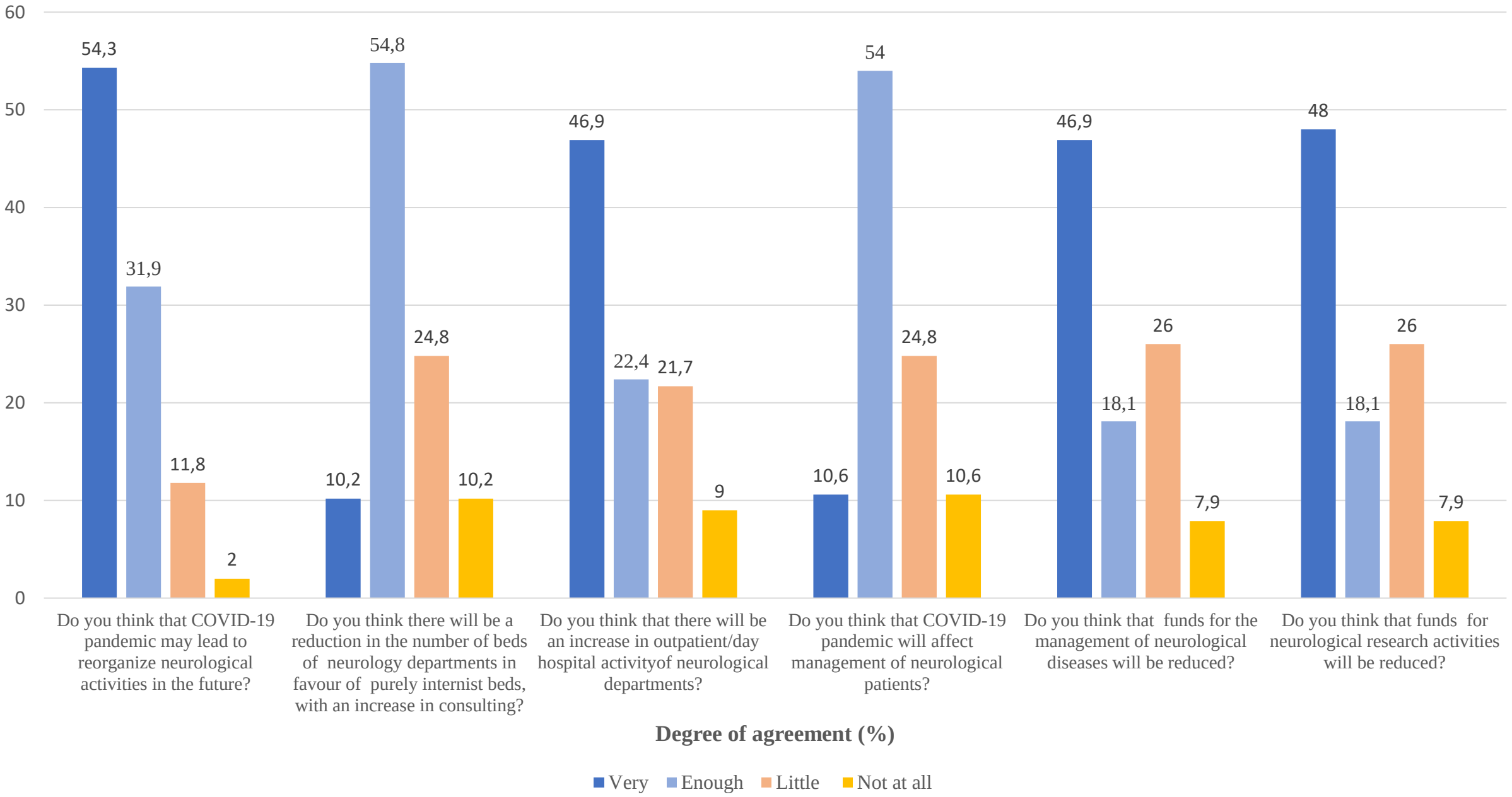
ii. strengthen psychological education, for a better management of patients in need;

iii. improvement of the research tools (i.e., remotely papers access, statistical software, etc.).

The future of Neurology after COVID-19 pandemic: a residents' perspective

work in progress ..

Figure 1


60
50
40
30
20
10
0
54,3
31,9
11,8
2
10,2
54,8
24,8
10,2
46,9
22,4
21,7
9
10,6
54
24,8
10,6
46,9
18,1
26
7,9
48
18,1
26
7,9
Do you think that COVID-19 pandemic may lead to reorganize neurological activities in the future?
Do you think there will be a reduction in the number of beds of neurology departments in favour of purely internist beds, with an increase in consulting?
Do you think that there will be an increase in outpatient/day hospital activityof neurological departments?
Do you think that COVID-19 pandemic will affect management of neurological patients?
Do you think that funds for the management of neurological diseases will be reduced?
Do you think that funds for neurological research activities will be reduced?
Degree of agreement (%)
Very
Enough
Little
Not at all

Considerations

- Participants forecasted an impairment of neurological activity in all the three aspects explored by the study:

I. organization of neurology services,

II. patient care,

III. allocation of economic resources for neurological diseases.

Considerations

- A significant proportion of neurological patients were forced to postpone their follow up visits and hospitalization due to COVID-19 pandemic.

- In the European Union, neurological diseases are the third most frequent source of disability and premature death.

- In addition, we cannot exclude, to date, the possibility that COVID-19 disease will carry neurological and neuropsychiatric sequelae, as already reported in other settings.

Considerations

- Our survey provides the point of view of future neurologists about the destiny of neurology after COVID-19 emergency, a reflection that highlights the needs for future strategies to **safeguard the essential role of neurology** in the management and prevention of chronic degenerative illnesses and emergencies.

Grazie per l’attenzione