



Correspondence

Virtual hybrid hotel care model for the surgical patient: New goal of global academic surgery to improve global outcomes

Dear Editor,

We have read with great interest the article published by Chadha et al. [1] titled “Surgical patient satisfaction with a virtual hybrid care hotel model: A retrospective cohort study”, where the authors developed a virtual hybrid model of hotel-type care for post-surgical patients, with the objective of improving the comfort and satisfaction of these individuals, considering aspects such as privacy, care provided, availability of care staff, information received, courtesy, logistical coordination, among others [1]. The authors found that 87% had a positive perception of the program and more than 90% recommended it. Mainly due to the fact that it does not generate burden in the home for patient care, low cost and the transition of care. This demonstrated the efficacy of the care model on the emotional stability and recovery of the post-surgical patient [1]. We thank Chadha et al. [1] for providing such valuable evidence. However, we consider relevant to expose the relevance of this new item on the objectives of global academic surgery, with the aim of improving global and functional outcomes during post-surgical care, as well as the need to design new trials on this intervention and expand the model.

With the approach of the objectives of global surgery for the year 2030, which go hand in hand with the sustainable development goals, there was a transition from traditional surgery to a movement with academic and research potential, for the design and replication of strategies that allow the achievement of these goals, the academic surgery [2–4]. This discipline is based on several pillars, such as surgical education, the development of technical skills to meet the demand for care, and research and scientific production. However, these pillars must finally achieve institutional transcendence and impact on society, improving indicators of disease burden and satisfaction [3,4]. With the advent of the COVID-19 pandemic, innovative ideas emerged to try to support the organizational modifications and not neglect the care of surgical patients [5,6]. From the above, many virtual models and programs have emerged, showing promising results, such as telemedicine and telematics in surgery [5,6].

Virtual care is a strategy that has proven to generate jobs for new branches of science and technology, reduce costs, improve outcomes, promote satisfaction, and, depending on logistics, can decrease the overload of health care workers [7]. Another point to note is that massive virtual coordination by the health system could reduce under-reporting of data and outcomes, and facilitate the timely management and analysis of epidemiological data. Similarly, strict follow-up programs for patients with comorbidities, who have received recent interventions and are undergoing rehabilitation, would be more easily implemented in order to monitor the prevention and recovery process [7]. Large-scale investment in technology and computing will allow the promotion of science in many regions where it is limited, and could

increase the quality of health care, especially in rural and marginalized areas [8]. Many models have been proposed recently. However, it has been proposed that to get the best out of them, they should have an academic component, for the utilization of data for research, evaluation and ongoing maintenance and quality and cost control in health care [8]. That is why the model proposed by Chadha et al. [1], a hybrid model of virtual care, seems to be the first to meet all these points, and moreover, to obtain results in a surgical science where the myths always seem to be on the side of presentality.

Some examples of recently reported evaluated models were related to the surveillance and management of COVID-19 patients [9,10]. One of the most prominent is the COVID Virtual Ward model [10], which was initially proposed and implemented in England, consists of granting early hospital discharge to those stable patients with a mild-moderate COVID-19 phenotype, who would be strictly monitored and given a home management kit. Gallier et al. [10] evaluated this model, showing that 13% were readmitted, 2% required intensive care management and 0.3% died (1 patient). This type of results, promoted the transformation of virtual care as a reality, so the nursing staff should be trained and redirect strategic directions to support this type of models [9]. In other branches such as cardiology, the applicability of virtual surveillance models in the management of heart failure has also shown positive and promising results, with reductions in the number of readmissions, mortality due to heart disease and any other cause [11]. However, there is still a lack of solid evidence to be certain about global outcomes.

In this order of ideas, the available evidence in surgery, although limited, supports the design and expansion of virtual hybrid models of health care. In order to accomplish the objectives of global surgery, these models should be replicated from the academic surgery, to review their operation in different contexts, and serve as a tool for advancing access to basic and high level of complexity surgical services, in areas where these services do not exist or are very difficult to access. Massive clinical trials and reports on costs, stability and performance of the model are needed to provide greater peace of mind to both patients and future providers.

Data statement

Data sharing is not applicable to this article as no new data were created or analysed in this study.

Ethical approval

Not applicable.

<https://doi.org/10.1016/j.amsu.2022.103529>

Received 7 February 2022; Received in revised form 10 March 2022; Accepted 26 March 2022

Available online 28 March 2022

2049-0801/© 2022 The Authors. Published by Elsevier Ltd on behalf of IJS Publishing Group Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Sources of funding

None.

Author contribution

All authors equally contributed to the analysis and writing of the manuscript.

Research registration Unique Identifying number (UIN)

1. Name of the registry: Not applicable.
2. Unique Identifying number or registration ID: Not applicable.
3. Hyperlink to your specific registration (must be publicly accessible and will be checked): Not applicable.

Guarantor

Rubaya Rashid, School of Health & Life Sciences, Northsouth University, Dhaka, Bangladesh. E-mail address: rubaya.rashid@northsouth.edu.

Provenance and peer review

Commentary, internally reviewed.

Declaration of competing interest

All authors declare that there exist no commercial or financial relationships that could, in any way, lead to a potential conflict of interest.

Acknowledgements

None.

References

- [1] R.M. Chadha, M.R. Paulson, F.R. Avila, R.A. Torres-Guzman, K. Maita, J.P. Garcia, et al., Surgical patient satisfaction with a virtual hybrid care hotel model: a retrospective cohort study, *Ann. Med. Surg. (Lond)*. 74 (2022) 103251.
- [2] C.R. Scoggins, R.E. Pollock, T.M. Pawlik, *Surgical Mentorship and Leadership: Building for Success in Academic Surgery*, first ed., Springer International Publishing, USA, 2018.

- [3] L. Roa, D.T. Jumbam, E. Makasa, J.G. Meara, Global surgery and the sustainable development goals, *Br. J. Surg.* 106 (2) (2019) e44–e52.
- [4] T.M. Quene, L. Bust, J. Louw, M. Mwandri, K.M. Chu, Global surgery is an essential component of global health, *Surgeon* 20 (1) (2022) 9–15.
- [5] J.A. Nuñez-Gamez, P.A. Medina-Bravo, N.F. Piñeros-López, G.A. Contreras, M. E. Rosero-Burgos, I.D. Lozada-Martínez, et al., Global outcomes, surgical teams and COVID-19 pandemic: will the same objectives of global surgery persist? *Ann. Med. Surg. (Lond)*. 71 (2021) 103002.
- [6] M.G. Quintero-Arias, K. Serrano-Mesa, I. Lozada-Martínez, G.A. Domínguez-Alvarado, Comentario “Telemedicina, telementorización y evaluación telemática en cirugía. ¿Es su memento después de la COVID-19?”, in: *Cir Esp (Engl Ed)*, Spanish, 2021.
- [7] S.D. Dorn, Backslide or forward progress? Virtual care at U.S. healthcare systems beyond the COVID-19 pandemic, *npj Digit Med.* 4 (2021) 6.
- [8] D.M. Zulman, A. Verghese, Virtual care, telemedicine visits, and real connection in the era of COVID-19: unforeseen opportunity in the face of adversity, *JAMA* 325 (5) (2021) 437–438.
- [9] R.G. Booth, G. Strudwick, Preparing nursing for the virtual care realities of a post-pandemic future, *Nurs Leadersh (Tor Ont)* 34 (4) (2021) 86–96.
- [10] S. Gallier, C. Atkin, V. Reddy-Kolanu, D. Parekh, X. Zou, F. Evison, et al., Applying a COVID Virtual Ward model, assessing patient outcomes and staff workload, *Acute Med.* 20 (4) (2021) 266–275.
- [11] J. Kobulnik, I.Y. Wang, C. Bell, Y. Moayedi, N. Truong, S. Sinha, Management of frail and older homebound patients with heart failure: a contemporary virtual ambulatory model, *CJC Open* 4 (1) (2021) 47–55.

Ivan David Lozada-Martínez
 Medical and Surgical Research Center, Future Surgeons Chapter, Colombian
 Surgery Association, Bogotá, Colombia
 E-mail address: ilozadam@unicartagena.edu.co.

Samir Xavier González-De La Hoz
 Department of Critical Care, Hospital Clínico Doctor Félix Bulnes Cerda,
 Santiago de Chile, Chile
 E-mail address: samirxaviergonzalezdelahoz@gmail.com.

Daniel Montaña-Socarras, Fernando Jose Ovalle-Mulford
 Department of Medicine, Clínica Colonial, Santiago de Chile, Chile
 E-mail addresses: Danielsab@gmail.com (D. Montaña-Socarras),
Fernaovalle25@gmail.com (F.J. Ovalle-Mulford).

Rubaya Rashid*
 School of Health & Life Sciences, Northsouth University, Dhaka, Bangladesh

* Corresponding author. School of Health & Life Sciences, Northsouth
 University, Dhaka, Bangladesh.
 E-mail address: rubaya.rashid@northsouth.edu (R. Rashid).