IJoHS

International Journal of Healthcare Simulation

ESSAY

The California Simulation Alliance and the Victorian Simulation Alliance: a Trans-Pacific partnership

KT Waxman[1,2], Debra Kiegaldie[3], Leone English[4], Louise Shaw[5]

[1]*University of California, San Francisco, CA, USA*
[2]*California Simulation Alliance, Oakland, CA, USA*
[3]*Faculty of Medicine, Eastern Health Clinical School, Nursing & Health Sciences, Monash University, Clayton, VIC, Australia*
[4]*Faculty of Pain Medicine, Australian and New Zealand College of Anaesthetists, 630 St Kilda Road, Melbourne, VIC, Australia*
[5]*Centre for Digital Transformation of Health, University of Melbourne, Parkville, VIC, Australia*

Corresponding author: Louise Shaw, louise.shaw@unimelb.edu.au

https://ijohs.com/article/doi/10.54531/RQCM1726

ABSTRACT

With the rapid changes in health professional education internationally, various types of simulation have emerged, evolved and infiltrated health professional education [1]. Effective state-wide, national and international collaboration is integral to the ongoing development and implementation of sustainable simulation-based health professional education. The development of simulation-based education (SBE) within health professional education has been actively supported by the establishment of several professional societies and 'communities of practice'. This paper outlines the genesis of the 'Trans-Pacific Alliance', an international 'community of practice' developed through a partnership between the California Simulation Alliance, United States, and Victorian Simulation Alliance, Australia. The alliances provide a platform for faculty and programme development through resource creation, sharing and collaborative projects and research.

What this essay adds:

1. Describes the evolution of simulation alliances.
2. Describes the processes and benefits of communities of practice in simulation.
3. Provides insight into further directions for expansion of international simulation alliance.

Introduction

The role of professional societies in healthcare simulation research

Professional societies comprise individuals and groups who share common interests and serve to facilitate engagement between members that promotes the community's goals [2]. The first professional society dedicated to healthcare simulation was the Society in Europe for Simulation Applied to Medicine in 1994, closely followed by the Society for Simulation in Healthcare (SSH) in the United States [3]. Since then, multiple simulation professional societies have developed

that serve different simulation purposes, for example, different simulation modalities, simulation educators or specialist areas such as paediatrics [3]. Professional societies and associations play an important role in the dissemination of healthcare simulation research, for example, by holding annual events or research agendas [3]. Some simulation journals are specifically associated with simulation professional bodies, for example, *Clinical Simulation in Nursing* is the official journal of the International Nursing Association for Clinical Simulation and Learning (INACSL), and the journal *Simulation in Healthcare* is the official journal of the SSH. Simulation societies in health care can be single disciplinary aiming to advance their discipline's field of interest (e.g. INACSL) or multidisciplinary (e.g. the Australian Society of Simulation Healthcare or the SSH), facilitating innovation and advancing clinical practice of interprofessional teams [2].

Despite the existence of healthcare simulation professional societies, isolation from large simulation centres can limit professional development opportunities for educators [2]. Collaboration with simulation colleagues with similar knowledge, experience and enthusiasm, can therefore be a challenge [4]. Communities of practice (CoPs) are networks that share their interests, knowledge and skills on a particular topic [5]. Wenger et al. identified three main elements characterizing CoPs: community (collective learning through social interactions), domain (within a particular area of interest) and practice (developing, sharing and maintaining knowledge) [6]. Virtual communities of practice (VCoP) have become more prevalent in healthcare as internet use has grown globally [7, 8]. The relevance of VCoPs has also become more evident since the COVID-19 pandemic has limited interactions for meetings and sharing of knowledge [9]. In the field of simulation, geographical distribution has led to the formation of regional alliances. These groups serve a similar purpose to the national and international simulation organizations, but focus on the needs of the local community [2].

Benefits of collaborative networks in simulation

International collaborative networks in healthcare simulation have the potential to positively impact patient care processes and safety [10-12]. Hovancsek et al. cited the benefit of having 'another set of lenses' that could contribute valuable insights and richness to the National League for Nursing project which involved the development of web-based resources aimed at faculty development [13]. Collaboration on a global basis also provides opportunities for research teams to share resources, leverage individual research strengths and apply and test theories and ideas across a broad range of environments [10]. The International Network for Simulation-based Paediatric Innovation, Research and Education (INSPIRE) is a community of practice for paediatric simulation researchers developed from two previously existing simulation research networks, that was formed to facilitate multicentre, collaborative simulation-based research [14]. Since inception INSPIRE has completed and disseminated multiple collaborative simulation research projects.

Examples of simulation collaborations include the California Simulation Alliance (CSA) in the United States and the Victorian Simulation Alliance (VSA) in Victoria, Australia [3]. The CSA was formed in 2008 as a virtual alliance to benefit all simulation users in California and became a cohesive voice for simulation in healthcare education in the state. The VSA was established in 2010 and aimed to connect and support health professional educators and researchers across the state of Victoria. It provided a platform for communication, collaboration, and networking that was aimed at knowledge sharing and development, and reducing isolation, particularly for those in regional and remote areas. In 2012, the CSA and VSA formed a Trans-Pacific CoP, which provided the opportunity for members to stay informed, share ideas, resources and knowledge, access specialized knowledge, and enrich professional collaboration. The Trans-Pacific Alliance has provided a vehicle for connecting the Research Committees of the CSA and VSA and established a platform for the identification and coordination of international research activity and the lobbying of funding.

Development of the California Simulation Alliance

In the mid-2000s in response to all schools of nursing in California integrating simulation into their curricula and many of the hospitals utilizing simulation for training, the Bay Area Simulation Collaborative (BASC) was formed. It was led by the California Institute for Nursing & Health Care, now known as HealthImpact. Leveraging the work of the BASC, the CSA, was formed in 2008. The purpose of the CSA was to provide for inter-organizational research, disseminate information to stakeholders, and create a common language and common training curriculum for faculty. Integration into academic and service curricula serving multidisciplinary teams and transforming learning is essential to the success of simulation programmes.

CSA activities

Since launching the CSA in 2008, initial grant-funded investments have been leveraged to build on and expand the resources available. Significant progress has been made in setting up and providing key programmes as a foundation for simulation users in academic and service settings across California. A website was launched in 2011 and hosts a dedicated section for each of the seven regional collaboratives. The website includes the course calendar and provides links to key resources. The CSA has also created a virtual meeting space for anyone involved in simulation to gather and generate ideas to be put into action. Other key elements of the CSA are summarized in Table 1.

CSA organizational structure

The CSA is a programme of HealthImpact (California's nursing policy and workforce centre), which is governed by a board of directors. Since the CSA does not have its own board of directors, it has an advisory committee comprised of various stakeholders throughout the state of California including faculty and regional leads. The

Table 1: CSA activities and description

CSA activities	Description
Provision of training	>4000 faculty, clinical educators and providers have been trained through attending one or more of the novice-to-expert faculty development classes.
Training of specialist simulation educators	16 Certified Healthcare Simulation Educators (CHSE) or Certified Healthcare Simulation Operations Specialists (CHSOS) who deliver training across the state.
Dissemination of best practice models	For successful curriculum integration
Specialist knowledge for patient safety	Consultation to hospitals for the integration of simulation into patient safety programs to meet priority patient safety imperatives.
Evidence-based scenario development	>100 evidence-based simulation scenarios have been developed and are available for use as one of the CSA subscriber benefits.
Newsletter	Disseminated via email quarterly to over 4000 contacts on the CSA list serve
Website development	Launched in 2011 and hosts a dedicated section for each of the seven collaboratives. The website includes the simulation course calendar and provides links to key simulation resources.
Creation of a virtual meeting space	For anyone involved in simulation to gather and generate ideas to be put into action, open Zoom calls can be arranged.
Role in health policy	Provision of leadership, for example, Board of Registered Nursing regulations around the amount of simulation that can be utilized in schools of nursing in lieu of clinical hours. Two White papers have been written and are on the website.
Interprofessional advisory committee	Meets twice per year comprised of representatives from schools of nursing, hospitals and other key stakeholders

Director leads the programme and has two managers who share the operational work of the alliance. HealthImpact supplies administrative and accounting support, whilst all the CSA faculty are subcontractors. There are two existing committees: research and scenario development. The seven regional collaboratives around the state report to the CSA although informally. See Figure 1.

Achievements

The CSA has over 4000 members and of those, approximately 250 are subscribers. The 4000 members are comprised of schools of nursing, hospitals, health systems, medical schools and community members. They represent the seven regional simulation collaboratives in the state. Subscribers gain access to scenarios that have been developed, validated and tested by CSA subject matter experts. Active subscribers also receive benefits such as preferred pricing discounts, member access to the CSA website, and staying up to date through the list-serve and newsletters. Subscribers can be individuals, health systems or health professional training schools. The educational courses have been extremely popular since the COVID pandemic as all schools moved to virtual learning. Many schools of nursing received grant funding to provide professional development and the CSA was able to meet these needs through their online/Zoom programmes for nursing, medicine, pharmacy, allied health and operations specialists. There are also several partnerships with large organizations for regional subscriptions and partnerships with vendors who provide pricing agreements and discounts for subscribers. The CSA Director and faculty have consulted with other states regarding setting up their own alliances and have presented at numerous conferences on the topic.

Figure 1: VSA strategic plan

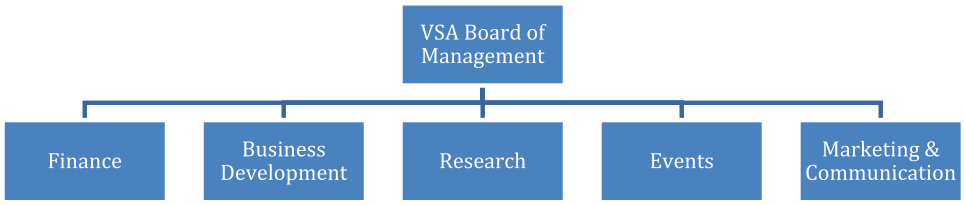
The Victorian Simulation Alliance

Leveraging the success of the CSA, and in direct collaboration, the VSA was established in 2010, applying the CSA model within an Australian context. The VSA's mission was to contribute actively to setting the strategic direction of simulation in Victoria, Australia. The VSA strategy was to bring together, and support educators involved in implementing simulation-based teaching and learning in undergraduate, post-graduate, vocational and ongoing health professional education. To secure the long-term sustainability of the VSA, it became an incorporated association in 2013 with a new Board of Management (the board) that provided governance of the alliance and a commitment to providing an active and supported community of practice.

VSA organizational structure

The VSA is governed by a voluntary working board with directors who are simulation experts in research, higher education, vocational education and health services

Figure 2: VSA organizational structure



education. There are also directors with marketing, business and financial expertise.

In 2021, the VSA, moved to a free membership model, and established sub-committees with new committee members for finance, business development, research, events, marketing and communication (Figure 2). The new committees were created to enhance the work of the alliance post the COVID-19 pandemic and to encourage new individuals to engage in simulation education.

Achievements

In response to a lack of coordination of simulation resources, access to educational opportunities, and the addition of new stakeholders in the community services area, government funding was sought and received in 2018. This enabled the VSA to build the capacity and capability of the Victorian health and human services workforce in simulation-based education (SBE). Key activities of these projects included:

- Completing a state-wide learning needs analysis of the simulation community in Victoria.
- Updating existing manuals on SBE (basic and advanced).
- Developing and delivering a range of professional development workshops for those working in health and community services including a series on simulation technician training.
- Redeveloping a VSA website to become a 'one-stop shop' for simulation information and resources.

The outcomes of the learning needs analysis revealed three groups of our simulation community: simulation users, new adopters and technically focused users [15]. The findings also informed the board about future directions to take, including the need for a new vision focused on empowering the simulation community, and to target current gaps in simulation research expertise to impact knowledge dissemination and engagement [15]. A new strategic plan was developed that was focused on People, Professional Practice, Profile and Sustainability. See Figure 1

In 2022, the website was redesigned to reflect the move to a free subscriber model and new committee structure. As a result, the subscriber base has grown and includes those working in all health professional groups (medicine, nursing and allied health), and individuals working or teaching in the community services sector.

Creation of the Trans-Pacific Simulation Alliance

In 2012, the 'Trans-Pacific Alliance' was formally launched. Advances in technology, communication and travel provided the ability for individuals and organizations to connect easily, despite geographical distance. Working cooperatively assisted in ensuring the sustainability of SBE, helping to mitigate the relatively high costs associated with this form of training through the sharing of resources and expertise. Through the Trans-Pacific Alliance, the CSA and VSA have gained direct access to the education resources within each Alliance, including a large range of validated scenarios. Both organizations describe similar initiatives: establishing effective and sustainable communication processes; the sourcing and provision of simulation education and training; and scenario development, validation and sharing, research and development. While there are aspects that are unique to each alliance, they share several common goals and from the beginning, both alliances worked towards the creation of a platform that would formally link and support their activities. International collaboration assists in health professional education keeping pace with changes in simulation technology by taking advantage of the collective knowledge of faculty from different countries and education contexts [10].

Future directions

The CSA is positioned in the next phase of development to leverage prior grant-funded programmes and resources by providing leadership in the coordination and extension of needed programme areas. This includes having specific objectives and activities identified as priorities for new funding. The recent focus has been on health policy, in particular, the Board of Registered Nursing regulations around the amount of simulation that can be utilized in schools of nursing in lieu of clinical hours. The CSA hopes to continue to be a cohesive voice for simulation in healthcare education, to provide for inter-organizational research on simulation, to disseminate information to stakeholders, to create a common language for simulation and facilitate state funding for simulation use and expansion. Additionally, the goals of the alliance include providing a home within HealthImpact for best practice identification, information sharing, faculty development, vendor pricing agreements and scenario development. Integration into both schools' and hospitals' curricula is critical to the success of a simulation programme. The alliance will share best practice models for successful curriculum integration, hold workshops on this process and, additionally, help hospitals with integrating simulation into their patient safety programmes to meet the national patient safety goals. The VSA has moved to a new business model that seeks to harness commercial and organizational partners that are willing to invest in the

community of practice and include free membership to all those who subscribe. The VSA has also actively sought strategic partnerships with the simulation industry to further the sustainability model.

As we look to the future, there is now renewed energy to continue the accomplishments to date and forge a revitalized Trans-Pacific alliance with new partnerships from the Pacific regions including Hawaii and Canada. In 2023, the goal was to strengthen the Trans-Pacific Alliance, reconnect with peers and hold an inaugural in-person international meeting in Hawaii titled, 'SimHuddle'. This was a co-convened event by the CSA, VSA and the Hawaii State Simulation Collaborative that took place in October 2023. The conference provided an opportunity to review collective goals and design a new strategy for ongoing relationships. Operating within a paradigm of 'inclusiveness', the Trans-Pacific Alliance has the potential to link other existing state, national and international alliances to create a practical community of practice that meets the needs of those working in the simulation field regardless of location.

Declarations

Authors' contributions

None declared.

Funding

None declared.

Availability of data and materials

None declared.

Ethics approval and consent to participate

None declared.

Competing interests

None declared.

References

1. Waxman K, Nichols AA, O'Leary-Kelley C, Miller M. The evolution of a statewide network: the Bay Area Simulation Collaborative. Simulation in Healthcare. 2011;6(6):345–351.
2. Andreatta PB, Freeman KJ, MacKinnon RJ. The value of professional societies to the healthcare simulation community of practice. In: Nestel D, Kelly M, Jolly B, Watson M, editors. Healthcare simulation education: evidence, theory and practice. Hoboken, NJ: Wiley-Blackwell; 2017:90–104.
3. Nestel D, Scerbo MW, Kardong-Edgren SE. A contemporary history of healthcare simulation research. In: Nestel D, Hui J, Kunkler K, Scerbo M, Calhoun A, editors. Healthcare Simulation Research. Cham: Springer; 2019:9–14.
4. Thoma B, Brazil V, Spurr J, Palaganas J, Eppich W, Grant V, et al. Establishing a virtual community of practice in simulation: the value of social media. Simulation in Healthcare. 2018;13(2):124–130.
5. Wenger E. Communities of practice: a brief introduction. 2004. Available from: https://wenger-trayner.com/introduction-to-communities-of-practice/. [Accessed 27 July 2023]
6. Wenger E, McDermott RA, Snyder W. Cultivating communities of practice: a guide to managing knowledge. Boston MA: Harvard Business Press; 2002.
7. Barnett S, Jones SC, Bennett S, Iverson D, Robinson L. A virtual community of practice for general practice training: a preimplementation survey. JMIR Medical Education. 2016;2(2):e13.
8. Fragou O. A design framework for building a virtual community of practice. In: Auer M, Tsiatsos T, editors. The challenges of the digital transformation in education. ICL 2018. Advances in Intelligent Systems and Computing, vol 916. Cham: Springer; 2020.
9. Mills J, Li C, Fullerton S, Chapman M, Jap J, Sinclair C, et al. Staying connected and informed: online resources and virtual communities of practice supporting palliative care during the novel coronavirus pandemic. Progress in Palliative Care. 2020;28(4):251–253.
10. Cheng A, Auerbach M, Calhoun A, Mackinnon R, Chang TP, Nadkarni V, et al. Building a community of practice for researchers: the international network for simulation-based pediatric innovation, research and education. Simulation in Healthcare. 2018;13(3S):S28–S34.
11. Cheng A, Kessler D, Mackinnon R, Chang TP, Nadkarni VM, Hunt EA, et al. Conducting multicenter research in healthcare simulation: lessons learned from the INSPIRE network. Advances in Simulation. 2017;2(1):1–14.
12. Schwartz A, Young R, Hicks PJ, APPD LEARN F. Medical education practice-based research networks: facilitating collaborative research. Medical Teacher. 2016;38(1):64–74.
13. Hovancsek M, Jeffries PR, Escudero E, Foulds BJ, Husebø SE, Iwamoto Y, et al. Creating simulation communities of practice: an international perspective. Nursing Education Perspectives. 2009;30(2):121–125.
14. Hunt EA, Duval-Arnould J, Chime NO, Auerbach M, Kessler D, Duff JP, et al. Building consensus for the future of paediatric simulation: a novel 'KJ Reverse-Merlin' methodology. BMJ Simulation & Technology Enhanced Learning. 2016;2(2):35.
15. Peddle M, Livesay K, Marshall S. Preliminary report of a simulation community of practice needs analysis. Advances in Simulation. 2020;5(1):1–13.