Tarapoto. An exponential growth in training activity is revealed over each year.

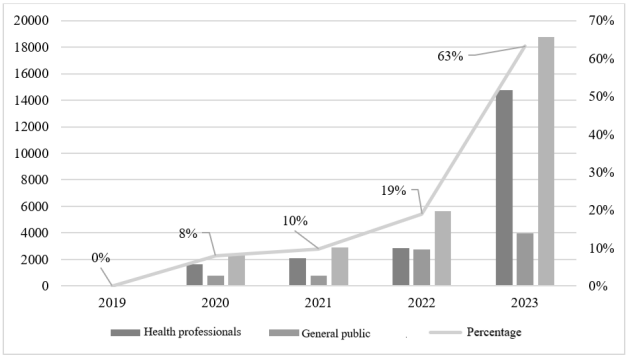

Figure 3. Timeline of Teletraining-TeleIEC (2020-August 2023)

We infer that the increase in virtual training can be attributed to the following factors:

1. The wide range of opportunities offered by the digital era to improve health provides the opportunity to reach everyone; however, it has also exposed threats, especially regarding information security. Therefore, the development of electronic processes that improve both quality and technological security in this area is required. According to Mezarina et al. [19], there has been a steady growth in the creation of mobile health applications, known as mHealth; however, this trend raises issues related to the quality of the information these applications share, data security and privacy, ease of use, and effectiveness. Therefore, it is necessary to establish a regulatory framework based on existing medical devices and health information systems to effectively address these challenges.
2. The ability to share information and connect through technology so accessible for imparting knowledge and information. In this context, the crucial challenge arises of finding the right balance of how to maximize the benefits of this digital revolution [20].
3. A variety of topics flexible to people's needs, as shown in the study conducted by de Ponti et al. [21] on pre-graduation medical education during the COVID-19 pandemic to 115 medical students, where 90% positively valued training in virtual reality and 93% valued the format in which online training was structured as adequate. Most participants considered the virtual reality training platform realistic for initial clinical assessment (77%), diagnostic activity (94%), and treatment options (81%). Additionally, 84% considered the future use of this virtual reality training useful.
4. Reduction in the cost of Teletraining; usually, virtual training has benefits such as eliminating the need for healthcare workers to travel to a training location, and it also reduces costs related to physical materials. In traditional training, manuals, books, and printed brochures are distributed, which incurs expenses in printing, storage, and shipping [14]. In contrast, virtual training offers the advantage of providing material in digital format, reducing these costs. Similarly, it saves on space and logistics. Healthcare organizations do not need to reserve training rooms or specific classrooms. Another benefit lies in reducing downtime. With virtual training, healthcare personnel do not have to be away from their jobs for long periods to receive in-person training [22].
5. Connectivity from personal space; this provides greater flexibility in when and how training is conducted, minimizing interruptions in the institution's normal operations [23]. Scalability and reusability are other key elements. Virtual training courses and materials are easier to adapt and reuse. Once created, they can be used to train an unlimited number of employees [24].

Now, Table 1 on Teletraining according to professional group of the Office of Health Management and Services (OGESS) specialized reveals the level of involvement of healthcare professionals, with results showing 119 physicians, 46 psychologists, 30 nutritionists, and 29 nurses, among other professions, between 2020 and August 2023.

Table 1. Teletraining and TeleIEC by professional group

Professionals	2020	%	2021	%	2022	%	2023	%
Doctors	25	51%	25	46%	25	38%	44	44%
Nurses	5	10%	6	11%	5	8%	13	13%
Psychologists	10	20%	9	17%	11	17%	16	16%
Nutritionists	3	6%	6	11%	10	15%	11	11%
Dentists	2	4%	1	2%	3	5%	2	2%
Obstetricians	0	0%	3	6%	4	6%	1	1%
Pharmacists	2	4%	1	2%	2	3%	2	2%
Administrative staff	0	0%	1	2%	2	3%	3	3%
Lawyers	0	0%	0	0%	1	2%		0%
Engineering	0	0%	0	0%	1	2%	1	1%
Microbiologists	0	0%	0	0%	1	2%	4	4%
Medical technology	0	0%	0	0%		0%	1	1%
Social workers	0	0%	0	0%	1	2%	1	1%
Others (guests)	2	4%	2	4%	0	0%	2	2%
Total	**49**	**100%**	**54**	**100%**	**66**	**100%**	**101**	**100%**

As referenced by Goh and Sandars [25], it is a fact that medicine has experienced a revolution in its concepts, paradigms, and processes thanks to the incorporation of informatics. This innovation has led medical professionals to utilize the advantages of informatics, at least in terms of

patient assessment, monitoring, and competency strengthening. This trend reveals the active participation of these professionals, considering informatics as a modern means to address health- and disease-related concerns in our community.

Furthermore, to understand the perception of the degree of learning imparted in Teletraining and TeleIEC, a virtual questionnaire was conducted with 4,293 beneficiary individuals, of which 31% were healthcare personnel, 35% were healthcare students, and 34% were the general public. To categorize the level of learning, the first three levels of Bloom's taxonomy were considered.

As observed in Figure 4, the general public has indicated that they have learned at level 2 with 58%. This level implies an understanding of the topics that enables them to explain them in their own words. Additionally, at level 3, which implies knowledge that can be applied to solve problems, students stand out with an 85% perception at this level of learning [26].

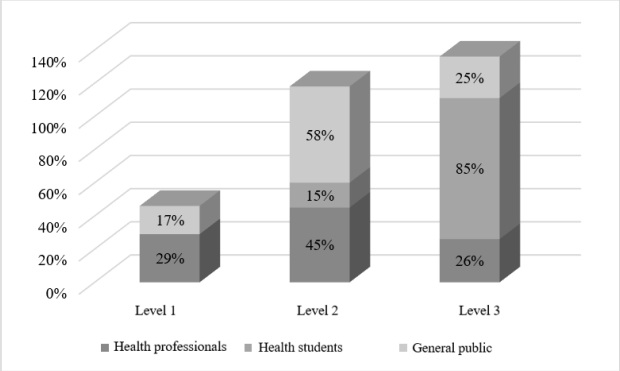

Figure 4. Perception of learning in Teletraining and TeleIEC

Similarly, we find healthcare personnel at 29%, indicating that they have only familiarized themselves with and acquired knowledge about the topics presented in Teletraining, being at the first level of learning based on Bloom's taxonomy. It is known that positive emotions influence learning; however, attention, memory, and motivation are factors that will generate brain mechanisms between cognition and emotions, making it relevant to create more positive learning environments to achieve a higher level of benefit [27,28].

Finally, the trend of the use of information technologies through teletraining and teleIEC must be constantly promoted in the various health establishments regardless of their levels with the objective of improving the informative scope of relevant health topics that can be used by a general public. broader in order to improve their quality of life.

4. Conclusions

The implementation of virtual training in healthcare services through Teletraining and TeleIEC has a positive impact by strengthening competencies in professionals, students, and the general public, with levels of learning at the second and third levels, namely comprehension and application. Therefore, the annual programming of Teletraining and TeleIEC is a way to achieve sustainability of continuous education in healthcare services by using technology, creating an academic culture of training and information on health topics.

The results highlight the need to develop and implement competency strengthening programs in the use of ICT to promote greater participation of specialized healthcare professionals, which would help meet the growing demand from healthcare students and the general public. Additionally, it would contribute to reducing the gap in access to timely information in the healthcare sector.

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