



AFRICA  
HEALTH  
ExCon

Your Gate  
To Innovation and Trade

UNDER THE AUSPICES OF H.E.  
**ABDEL FATTAH EL-SISI**  
PRESIDENT OF THE ARAB REPUBLIC OF EGYPT

# The Future of Global Telenursing

**Dr/ Zainab Attia Abdallah**

**Lecturer of Community Health Nursing, MTI**



Endorsed by Scientific Material by:



[WWW.AFRICAHEALTHEXCON.COM](http://WWW.AFRICAHEALTHEXCON.COM)

Organized by

**06 - 09 JUNE 2023**

EGYPT INTERNATIONAL EXHIBITION  
CENTER - EIEC, CAIRO - EGYPT .



## Introduction:

Although there are 28 million nurses worldwide, it isn't enough to meet patient needs. So we face a future with too much work, with too few workers. Telenursing can help in solving this issue by utilizing the technology in providing distance healthcare and health education to patients/clients with lower costs, effective services and proper clients' satisfaction.

# Facts Around Nursing Global Workforce:

*The American Telemedicine Association (2020) reported that, to cover the needs of healthcare systems and to achieve the balance between the health team workforce and the quality of care all over the world:*

- We will reach 18 million health workers short by 2030 and this represents a gap to care.
- We need to 1.1 million new RN at least.
- 50% of health services could be provided by telehealth.

# Historical Background of Telehealth & Telenursing:

- In 1912, Australian Inland Mission applied nursing care for nurses in remote areas.
- In 1929, The first telenursing service was through the radio processing services communication between outpost nurses and flying doctors.
- In 1960, (NASA) applied a telemedicine to monitor astronauts' health.
- During 1970's, some health organizations used nurses to give advices through telephone.
- In 1997, the Indian Apollo group of hospitals carried out telemedicine via the first outreach use of communication technology.



- In 2003, a telehealth certificated course was started by Apollo group of hospitals with cooperation with Annamalai University by training of 30 students.
- In 2005, International Council for Nurses (ICN) reported that nearly 719 tele-nurses responded positively.
- After 2005 and all over the world, telenursing became to be applied more, and nurses and patients' tele-interaction become more noticed and advanced gradually.
- By spreading of COVID 19 pandemic in the end of 2019, different countries have directed to use innovative methods for fighting against COVID 19 virus.

## Telenursing:

- Telenursing means providing nursing services through electronic platforms, which includes phone calls, video conferences and remote patients' monitoring through different electronic devices in different nursing fields.
- Telenursing also can decrease the work burden on nurses and direct contacts with patients with negative related health consequences specially after COVID 19 pandemic.

## **There are many examples of applying telenursing technology as a tool of providing care as the following:**

- Patient education and/or remote patient monitoring.
- Primary care, health promotion, assessment, diagnosis, treatment of and care providing for quarantined patients.
- Tele-nurses can provide support/assist providers in remote areas.
- Telenursing in applying school health care.
- Telenursing to eliminate of direct exposure during epidemics and pandemics as COVID-19.

# Types of Telenursing Models in Nursing Practice:

- **First model** is for transferring of diagnostic imaging and physiologic data stored then transferred as needed, without necessary of patient's presence. For example, vital signs, lab results, diagnostic tests such as MRI, CT, ultrasound and x-rays.
- **Second model** is live videoconferencing which is carried out by using of advanced technologies such as virtual two-way, real-time using computers, microphones, audio and video transfer. It can be used for live visits specially for mental health, urgent care, patient education and other care management.



- **Third model (Remote monitoring)**, using remotely for monitoring patients through digital technology to collect medial information then transmitting it to other specified healthcare providers at another location which named as Center for Connected Health Practice [CCHP].
- **Fourth model (Mobile health/MHealth)** by using of smart phones or mobile devices in healthcare provision. It is a combination of all or some of the other telehealth types. For example, using of mobile devices in patients' home which can transmit daily vitals, lab results for more frequent access to care, as diabetes and cardiac diseases.

# Role of Telenursing services in decreasing global nursing shortage:

- **Home care:** One of the most distinctive applications of telenursing is home care. The most intended target is elderly patients and others with special needs. For example, immobilized patients, or live in remote areas or difficult to reach services.
- **Telephone triage:** Telephone triage requirement is to **evaluate symptoms and provide health guidance and advice** which guides patients to advanced level of care, (emergent, urgent, or non-urgent) according to their general condition and symptoms.

- **Case management:** by managed care organizations, by well-trained registered nurses who act the role of case managers and counseling.
- **Chronic disease management:** A telenursing applications are widely beneficial through the patients with chronic illnesses. As parameters of patients (e.g., checking and/or reading patient's blood pressure and/or blood glucose level).
- **Pregnancy and newborn monitoring and care:** Through video communication, nurses can provide mothers with professional advice and guidance about pregnancy, conduct preparation courses about childbirth, monitor women and newborns' vitals.

- **Pre-postoperative patient care:** Nurses can track patients' vital signs by connecting some medical devices then communicate with patients through video calls to prepare them pre-surgical by guidance them.
- **Mental health:** Telenursing applications have also been utilized by psychiatric nurses in mental health. Tele-psychiatry is useful at many settings or environments within limited access to care.
- **Nursing informatics**, as a main branch of health informatics, has happened delineated by Judith Rae Graves and Sheila Corcoran as "a mixture of computer and information science, and nursing sciences created to assist in the administration and processing of data, news, and information to support the practice of acting as a nurse and the transfer of care".

# Benefits of Telenursing:

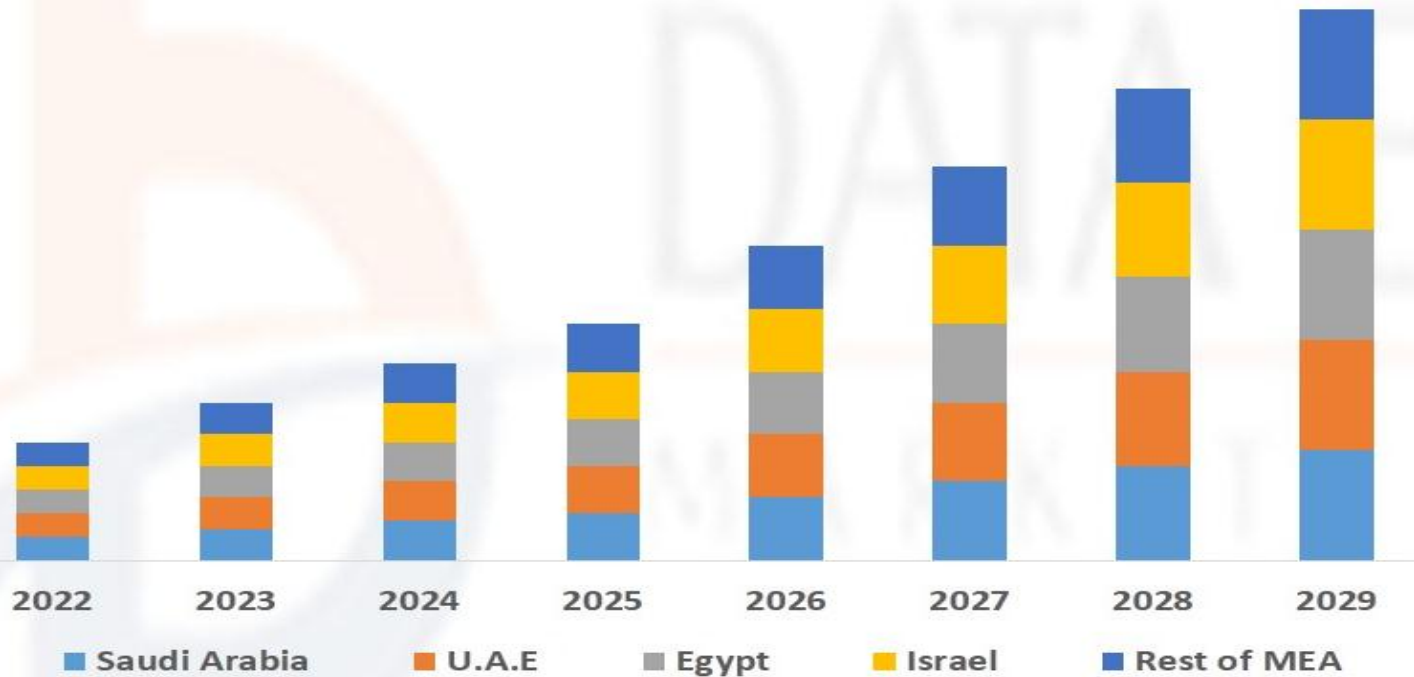
- **Remote Service Delivery:**
- **Financial Savings:**
- **Improved Bed Allocation:**
- **Patient Comfort:**
- **Increased Opportunities of Healthcare Employment:**
- **Remote Areas Accessibility by Patients:**



# Telenursing in Nursing Education:

- When the global society was in need to embrace telehealth and telenursing to face COVID-19 consequences, healthcare professionals, especially nurses, obliged to apply them without needed training.
- Nursing education can adopt the telenursing training both in care providing and in nursing education which will be a worldwide trend in nursing science and can definitely help in decrease the gap of nursing shortage.

Middle East and Africa Telehealth Market is Expected to Account for USD 380.17 Million by 2029



Middle East and Africa Telehealth Market, By 2029



DATA BRIDGE MARKET RESEARCH

## Middle East and Africa Telehealth Market, 2022

## Disadvantages of Telenursing:

- Telenursing faces photoelectric errors:
- Telenursing faces the issue of incompetent amount:
- The adulthood of the more experienced cases has an issue accompanying integrity concerning this new design:
- Telenursing faces the issue of material opposition:

# Core competencies through telenursing skills:

*The main competencies, individual or more center competencies necessary for telenursing in major categories of :*

- coaching and ideas abilities,
- ability to connect clinical information,
- moral awareness,
- auxiliary attitude,
- comprehensive abilities such as examining, and
- implementation abilities.

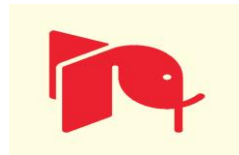
# Telenursing Future in Solving the Nursing Global Workforce Gap (Book Chapter)

Zainab Attia Abdallah, Faculty of Nursing-Modern University for Technology and Information  
(MTI), Cairo, Egypt. [Z.attia30@gmail.com](mailto:Z.attia30@gmail.com)

## Nursing – Trends and Developments, 1<sup>st</sup> Edition, 2023

**LONDON – UNITED KINGDOM (ESTD, 2005)**

**IntechOpen**





# THANK YOU

 [WWW.AFRICAHEALTHEXCON.COM](http://WWW.AFRICAHEALTHEXCON.COM)

Endorsed by Scientific Material by:



Organized by

