KareXpert

Innovating connected lifestyle

Whitepaper

Care Continuity in Patient Centric Healthcare

Executive Summary

In recent years there has been a surge of interest in healthcare industry regarding the potential of patient centric care. The challenges of healthcare delivery vary widely in India, yet health systems across the country have similar objectives: to ensure the highest accessibility & availability of quality care to the most people possible at affordable cost.

In response, KareXpert is aiming to bring a radical transformation in Indian healthcare industry, by offering a public cloud platform which is patient centric and promises to redefine the patient care by promoting patient continuity. KareXpert Services are driven by the rising social expectation among the general population for a healthcare sector that is people-centric, affordable and efficient.

Why the shift? Patient Centricity is the need of the hour to ensure continuity of care:

At present, healthcare system in India is unstructured and has several problem areas like infrastructure gaps, system inefficiencies, poor management, lack of transparency, and poor delivery services to the patients. This generates utter patient dissatisfaction and demands for an urgent reformation. This can be achieved by using primary healthcare approach which provides continuity of care to the patients and can extend throughout the lifespan.[1]

FIGURE 1: CONTINUITY OF CARE MODEL

Continuity of care means that all the separate and discrete entities of care are connected via an efficient and well maintained infrastructure/technology, and these entities of care are maintained and supported over time.[2] It is the process which allows the patient and the respective physician-led care team to co-operatively participate in a cost-effective, high quality healthcare management over a period of time.[3] It aims at maintaining continuity of information, relationships, and clinical management among patients and healthcare providers (Figure 1).[2]

- **Information Availability-**complete and detailed patient information available at anytime
- **Clinical Management -**Fast, accessible and secured digital management of patient's records
- **Patient-Provider Relationship-**improved communication between patients and healthcare providers

Patient continuity promises *better clinical outcomes along with a greater treatment satisfaction*.[2] A recent study published in the *British Journal of General Practice* provides evidence that continuity of care is associated with a lower mortality rate.[4] Similarly, various other studies have shown that pediatrics, elderly, patients with chronic diseases or psychological problems show better treatment response, increased satisfaction, improved relationship with their doctor along with improved efficiency of the system when there is continuity of care. Patient continuity eventually reduces the fragmentation in the healthcare sector with improved patient care and safety.[5,6]

Current status of patient care in India

Currently in India, only 8% of the healthcare sector comprises of the specialized care centers (equipped with integrated care system) while the remaining 92% healthcare delivery is via the stand-alone clinics.[7] Moreover, *patient care is fragmented* with no coherence, and poor infrastructure and resource availability in the rural areas.

Moreover, most of the patient records are maintained on paper and there is *no centralized method* to share them amongst the healthcare providers.[1,7] As a result, there is no coherence in the healthcare sector and thus, homogeneity across the sector is lacking.[1]

Reasons for patient discontinuity and its effects

There is a grave problem of patient discontinuity due to:[1,8,9,10,11]

❖ *Lack of an integrated*, consistent, coordinated and longitudinal healthcare system

❖ *No concept of primary physician* to guide the patient throughout the treatment cycle

❖ *Word-of-mouth recommendations* from friends/families which act as a decisive factor for choosing a new or an alternate healthcare service provider

With this current approach, the different, unrelated healthcare service providers do not have access to the patient's complete health record leading to new treatment solutions every time. This negatively affects the patient in terms of:[12]

❖ Lower quality of care for patients
❖ Poor interpersonal communication between patient and physician
❖ Segregated health information of the patient with doctor
❖ Poor care coordination

Ways to bring in patient continuity:

Patient continuity can be achieved via a patient-centric healthcare approach where the information and interactions are governed by the patient himself (Figure 2).
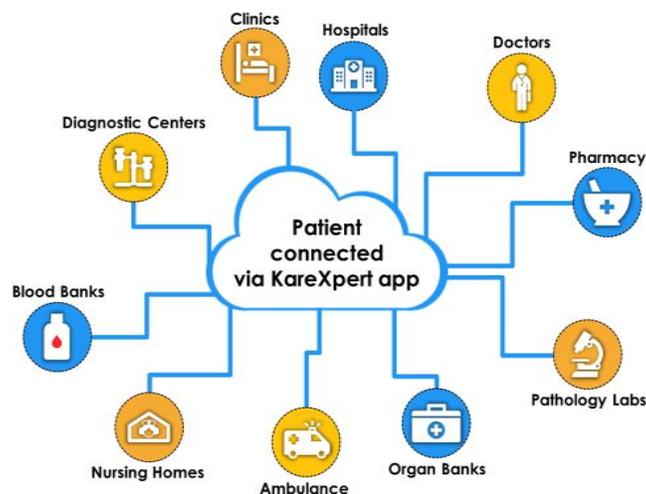

FIGURE 2: PATIENT CENTRIC PLATFORM

> *Patient centricity denotes the patient as the decision-maker at the center of a hub of healthcare services*. It means that the patient is more empowered and active, has access to his data, is engaged in his own care, and is in a participatory and collaborative relationship with the healthcare providers[13]

This can be achieved via healthcare digitization (based on wireless technologies) which can provide solutions for accomplishing this patient-centric transformation where a patient is more empowered, active and participatory.[13]

This can be achieved via:[14]

❖ Digitizing the *patient health records* (electronic medical records [EMRs] and electronic health records [EHRs])
❖ *Online-prescription*
❖ Storing and managing diagnostic images centrally using *PACS* (picture archiving and communication system).
❖ Enabling remote consulting and home care via *virtual health* (telemedicine and m-Health)

EMRs and EHRs can be leveraged to improve healthcare delivery and extend the reach of health services in India providing continuity of care for its 1.2 billion citizens[15]. These in turn can support the physicians in real-time data analytics for predictive diagnosis and personalized treatment for patients.[14]

From a patient's perspective, he can use these digital health records to keep a track of his doctor visits, health-related information, thereby, making him much more aware and participate in his own healthcare.[16]

Also, telemedicine and m-health[14] (e-health) depends largely on these forms of integrated, unified and digitally sharable heath-information carriers which serve as service touch points when connected via digital-healthcare cloud computing.

Mobile health—using smartphones and other mobile devices in the health care setting—will be an important factor as we move toward patient-centric care. Mobile health promises to enhance care and improve efficiency.

Mobile devices are becoming as prevalent in the health care setting as they are in the rest of our lives.

Patients can use mobile technology to track health records, communicate with their providers, and search for health information.

How KareXpert can help achieve Patient Continuity with digitized patient-centric approach

KareXpert understands the distributed healthcare ecosystem of India and aims to connect it via public cloud of digital healthcare, thereby offering a patient-centric and centralized healthcare system (Figure 3).

Once the patient connects to KareXpert Health cloud, his continuity can be maintained for all the services as this cloud can connect all the unorganized healthcare providers electronically thereby extending the reach of physicians, improving patient access to care, and decreasing costs. All the medical records can remain at one place using this technology. This platform aims to bring '*Health Inclusion*' for everyone. It is designed considering the ease of use for both the patients as well as doctors, and can be accessed via web or mobile.

FIGURE 3: ROLE OF KAREXPERT'S PATIENT CENTRIC CLOUD PLATFORM

This platform allows patients to

- ✓ Connect with all service entities such as hospitals, nursing homes, clinics, doctors, pharmacies, pathology labs, imaging centers, blood banks, and ambulances on the public cloud
- ✓ Digitize health reports
- ✓ Manage and securely share complete health profile online
- ✓ Access remote patient department (RPD): online consultation live audio/video visits & secure chat
- ✓ Access outpatient department (OPD) digitally: physical consultation
- ✓ Obtain e-prescription
- ✓ Store, review and exchange health information via this platform
- ✓ Customize reminders for follow-up visits

Advantages of digitized patient-centric approach and patient continuity

Digitized patient-centric approach can change the paradigm of current healthcare sector in the following ways:

Promoting a digitized vertically integrated care system: A vertically integrated health care system is the one which offers a broad range of patient care and support services (either directly or through other healthcare providers) via integration, coordination, and share of information among various healthcare providers.[17,18] A completely automated healthcare system with all segments digitized: from diagnostics to treatment, reminders for physicians and patients, online patient-physician interaction, remote monitoring of patients, access to information like lab tests, pharmacies etc. promotes the development of such healthcare system; and helps in improving individual experience and bringing patient continuity. This can ultimately lead to a more focused and timely continuum of care for patients, and ensure complete support to patients.[19]

Prime positioning of primary care system: Increase in ageing population and prevalence of chronic conditions like heart disease, diabetes, asthma, stroke, and cancer demands for a continuous and long-term quality care among patients. World Health Organization (WHO) recommends *primary care system* for an improved healthcare sector.[1] An Indian study published in the *Journal of Family Medicine*

and Primary Care has also shown that around 85 % of the patients were satisfied with the treatment and care provided by the primary care system.[20]

However, primary care physicians, physician assistants, and nurse practitioners face a major challenge in managing patients, especially while operating independently or in small groups.[21,22] Use of technology-based digital health interventions (like digital health records ,RPD, public cloud, ePrescription) can provide cost-effective management solutions in this scenario.[22,23,24]

KareXpert promises to ensure patient continuity by bringing better healthcare for all the patients. This cost-effective, digitized public cloud platform (Figure 4):

FIGURE 4: ADVANTAGES OF KAREXPERT'S CLOUD PLATFORM

❖   *Promotes patient continuity* within both the organized and unorganized healthcare sectors
❖   *Provides better access of patient's records* to doctors, irrespective of geographic boundaries
❖   *Provides better access to quality care* for all the patients
❖   *Improves patient's healthcare experience* with improved satisfaction
❖   *Ensures smart engagement* among patients which will encourage them towards a healthier lifestyle
❖   *Ensures reduced costs* *among patients with the help of RPD & digital records*

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For more information

To learn more about smart patient centric healthcare, please visit www.karexpert.com

About KareXpert

KareXpert is Pioneer in designing technology platform with a Patient centric approach to make "Patient Continuity" a reality in Indian Healthcare.

We are the only technology Company to design "Advanced Health Cloud Technology Stack" which connects Patients with all care Providers -Hospitals, Nursing homes, Clinics, Doctors, Pharmacy shops, Diagnostic labs, Imaging Center, Blood Bank, Organ Bank, and Ambulance. Our Innovative Solutions are compatible to run on any Smart device-Mobile, Tablet, Laptop, Desktop via Mobile App & Web App.

Our Cloud platform is designed to transform 1.6 Billion People lives by bringing "Health Inclusion" for everyone.