

| Characteristics of Personalized Care Service | Gaps/problems identified in literature | Contributions | | Gains |
|--|---|---|--|--|
| | | Mobile Companion | Omnichannel Interaction | |
| Data-driven decision making. Patient-centered approach. Continuous follow-up and monitoring. Preventive and predictive care. Flexible and adaptable care service. Feedback and evaluation. Privacy and security. | Fragmented communication channels. Incoherent patient data presentation in different channels. Lack of systems integration and interoperability. Poor data access in real-time for timely decision-making. Overloaded health professionals. | Enable better communication capabilities between patients and health professionals. Interactive user interface to engage patients in their healthcare journey. Health tracking through features for monitoring and tracking health metrics. Dynamic updates to reflect changes in treatment plans or care requirements. Provide feedback on their experiences, enabling continuous improvement of personalized care services. Secure platforms with robust security measures to protect sensitive health information. | Enable real-time communications across multiple channels supporting collaborative decision-making. Consistent patient’s user experience regardless the channel they use. Cross-channel coordination with smooth and seamless transitions between different channels, ensuring the continuity of care. Analytics integration tools to provide insights into preventive and predictive care by leveraging data from multiple channels to identify potential health issues early. Dynamic information updates with real time updates and changes in care plans, ensuring that services remain flexible and adaptable. Feedback mechanisms to collect patient input and experiences across multiple channels, allowing continuous evaluation and monitoring. Unified security standards with robust security measures across all channels to ensure the privacy and confidentiality of sensitive health information. | Improved patient care treatment. Enhanced patient-centered approach. Efficient resource allocation & data-driven decision. Global health collaboration for continuity of care Ethical and transparent healthcare service. Smooth and seamless access to health information. Better systems and channels interoperability and data integration. Enhanced patient engagement Integrated and Unified health records data. Enhanced patient engagement through mobile companion. Personalized patient education resources and alerts. Focus on proactive and preventive health monitoring. More efficient data analytics and real-time insights. Increased accessibility and convenience with mobile companions. Increase privacy and security issues. |
| | | OpenEHR | | |
| | | Interoperability standards facilitate collaborative decision-making by ensuring that health data can be shared and accessed across different systems. Unified and comprehensive health records patient supported by international community. Standardized health information exchange across multiple channels of interaction Easily data integration with analytical platforms for data analyze. OpenEHR's dynamic data modeling capabilities support the flexible representation of health data. OpenEHR standard follows the rules and guidelines recognized by an international community to ensure the privacy and security of health data. | | |

The Table above outlines a cross-mapping analysis of identified gaps in healthcare services, particularly within the domain of personalized medicine. It establishes a correlation with the key characteristics inherent to personalized care services and elucidates how a mobile companion can strategically address these identified gaps within an omnichannel interaction environment. Besides, the table encapsulates the discerned characteristics of the openEHR specification that underpins the formulated omnichannel interaction architecture proposed for a personalized mobile companion. Thus, the table articulates the discerned gains associated with this approach in the context of personalized medicine.

Gains

| Gains | OIAP |
|--|---|
| Integrated and Unified health records data | OpenEHR specifications promote the standardized representation of electronic health records, ensuring that information from multiple channels is integrated smoothly and seamlessly |
| Enhanced patient engagement through mobile companion | Mobile companions with built-in openEHR specifications provide dynamic and user-friendly interfaces and personalized features, thus enhancing patient engagement across multiple channels |
| Flexible and adaptable care service delivery | The dynamic data modeling capabilities of openEHR support flexible and adaptive care delivery, complemented by accessibility and real-time updates across all channels |
| Smooth and seamless communication and collaboration | The use of mobile companions in an omnichannel environment promotes seamless communication and collaboration among healthcare providers, patients, and caregivers. |
| Personalized patient education resources and alerts | Enable the delivery of personalized educational resources and alerts to patients based on their healthcare conditions and preferences to better understand and promote patient's adherence to personalized care plans |
| Proactive and preventive health monitoring | Integration of multiple sources of data to have real-time data from these sources to promote continuous monitoring, early detection of health changes, and personalized interventions, contributing to preventive and predictive care strategies. |
| More efficient data analytics and real-time insights | The use of standardized data based on openEHR across all channels makes it easier and more efficient to analyze patient data from different channels as these data are collected in a standardized format. |
| Increased accessibility and convenience with mobile companions | The use of mobile companions in an omnichannel environment enhance the accessibility to personalized medicine services by allowing patients to engage with healthcare provider conveniently from their devices |
| Increase privacy and security issues | Implementation of security measures to ensure privacy and data security in an omnichannel environment across multiple channels of interaction |