



Frictionless care experience

A three-dimensional perspective for healthcare: patient, consumer, human.

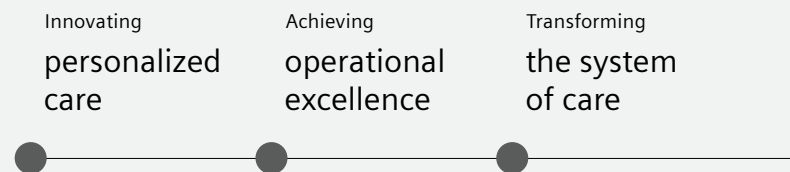
A thought leadership paper on “Achieving operational excellence” and “Transforming the system of care”

Preface

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Executive summary

Experiences with the healthcare system often create stress, anxiety, and frustration—for patients as well as for healthcare professionals. A term currently used to characterize these various points of annoyance is friction. In an ideal world, healthcare interactions would be frictionless, in other words, free of problems, delays, and needless anxiety and stress.

Three distinct perspectives help to illustrate the nature of these sources of friction, and help to point the way toward solutions. The first is the patient perspective: every patient desires a medical pathway that leads him or her to wellness, with clear steps, understandable information, and optimal convenience and comfort. The second perspective is that of a consumer: the goals and desires of patients extend beyond medical issues;

increasingly, they seek experiences that offer the same user-friendly flexibility, autonomy, and personalization they have come to expect from other service providers. Finally, there is a human perspective: healthcare users and their families are entitled to courtesy, cultural awareness, professionalism, and service that accommodates any unique needs they may have.

This paper identifies some of the factors that create friction for different types of patients. It then proposes an approach for overcoming these, offering practical insights for healthcare workers at all levels, as well as providers, insurers, and health systems, on how to develop a truly frictionless, human-centered healthcare experience.

The challenge

“Patient” is a homonym, a word with two meanings. It refers to a person receiving medical care; but the same word can also serve as an adjective, describing someone who “accepts or tolerates delays or problems without becoming annoyed or anxious.”

Both definitions have relevance in a healthcare context, where far too often patients are expected to be extremely *patient*. Those who work in the healthcare sector should seek to remove the obstacles, unnecessary delays, and problems that create stress for patients and test their patience. These obstacles and problems can be classified as sources of friction. Friction results from things not moving smoothly and effortlessly. Friction creates an abrasive reaction, it generates heat, it wastes energy.

In order to avoid such friction, it is important to first recognize that patients are not a homogeneous, unvarying group. They are individuals—each with their own expectations and health conditions, and each requiring his or her own individual care path. Developing this care path, in accordance with a patient’s needs and expectations, requires an understanding of what patients truly want. Here, there are some very clear consistencies amongst almost all patients.

The following five factors are essential to everyone.

1 Wellness

More than anything else, healthcare consumers want to stay healthy and not wait to be treated when they become sick. We must not only address public health and acute sickness, but also enable prevention and management of chronic diseases consistently. Everywhere, for everyone. This remains a challenge for healthcare providers and for the entire industry: keeping people well and preventing them from becoming sick in the first place.

2 Equal access to healthcare

This is priority for all citizens, whether they are sick or not. Yet it comes with its own challenges, including affordability, geographic proximity, and workforce availability, to name just a few. The last three years have highlighted the importance of equality of access to care across social determinants as well as personalized attention to the emotional needs of patients and their families.



pa·tient

noun; a person receiving or registered to receive medical treatment.

3 Convenience

Today's healthcare consumers expect a healthcare experience similar to what they have come to expect in other areas of their daily lives; things like paying bills online or accessing information in an easy and efficient way. In healthcare, convenience takes form of meeting the patients where they are, for instance, by moving care delivery closer to home. It has been proven in other industries, with Amazon, convenience attracts consumers, and a seamless, low-stress experience keeps them coming back. Technology and digitalization are the key enablers of this convenience.

4 Simplicity

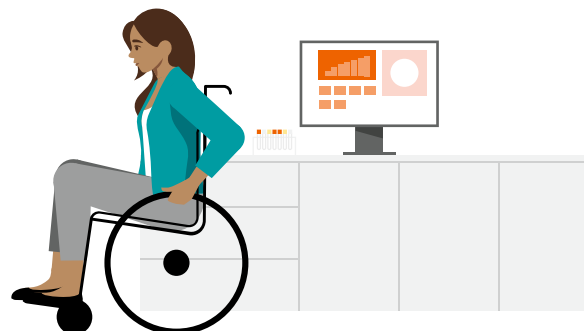
That's true for many products and services and it's also true for healthcare. Healthcare has become highly complex, which often results in a patient experience that is overwhelming and confusing. This experience needs to be simplified—in care delivery, in patient engagement, in technology, and in communication.

5 Humane care

All patients want courtesy and empathy, and they remain in short supply. There are many reasons for this, including competing demands on physicians' time and a lack of understanding from the healthcare system of the emotional distress and complexities from the patient perspective.

These five factors, Wellness, Equity of Access, Convenience, Simplicity, and Humane care,² need to be addressed to meet the demands of healthcare consumers and should be part of the key performance indicators (KPIs) and performance measurements for leaders and their institutions.³ Failure to address these patient expectations can result in points of friction along the entire patient pathway—from the booking of an initial appointment, during check-in, before a follow-up test, while filling prescriptions, waiting for referrals, and interacting with healthcare teams. This can be a result of language barriers, but there are many other possible causes.

Each person starts at a different place, has different friction points and expectations towards healthcare providers.



When assessing points of friction, an awareness of consumer stratification can provide valuable insights. Traditionally, care institutions tend to analyze their patient population based on their clinical condition. However, the geographical location of the healthcare user, socio-economic conditions, and their ease of access are often just as important. An overview of the geographical location from which patients access care is a way to stratify and then evaluate the reach a digital service, a clinic or hospital has. Regarding convenience and simplicity, Millennials and members of Generation X, Y, and Z each have different expectations. When it comes to their healthcare providers, 69% of Millennials and members of Generation Z choose their providers based on the availability of digital services, whereas more than 80% of baby boomers are hesitant to engage with digital clinical services.⁴

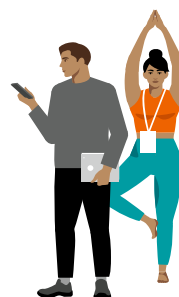
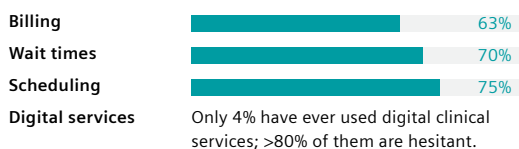
Cultural differences among healthcare users play an important role in regionalizing global services, for example in the adoption of technology. Asian populations may be more advanced to a certain extent, the U.S. and other regions less advanced, and Europe even less so. This can contribute to differing levels of friction on a regional level. Finally, the financial and environmental impact of friction is significant. Proactively having an overview of the financial reality of the healthcare users is needed. As patients become more demanding healthcare consumers, the more important it is to understand their expectations, their reality, and the resources needed to deliver care for our communities in a sustainable manner.

Friction in healthcare is not a uniform phenomenon. Every patient perceives it differently.



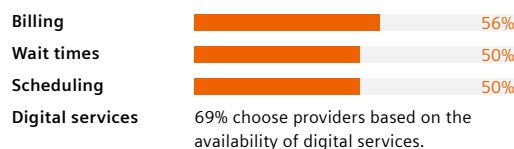
Baby Boomers

Expressed satisfaction with:



Millennials & Gen Z

Expressed satisfaction with:





Frictionless

adjective; not impeded by or creating friction; smooth. Achieved with or involving little difficulty; effortless.

The solution

In physics, friction is the force resisting relative motion. Frictionless, therefore, is the elimination of resistance. Frictionless liberates time and energy. Frictionless allows people to choose what to allocate their time to, for example decisions on cancer treatment. It also enables healthcare professionals and healthcare systems to deploy more resources and energy to provide care. This paper presents a concept to address this situation: a three-dimensional approach for improving the experience of care from each perspective.

The first of these dimensions is to view the experience through the eyes of a patient.

A. Patient perspective

Every patient is looking for a healthcare experience with a defined clinical pathway. They expect a clear medical path that leads from prevention to diagnosis to treatment, while also encompassing guidance on healthy behavior and lifestyle changes relevant for that patient's particular disease or condition. Ideally, patients expect to experience these steps in a linear progression along a pathway that also includes the various medical professionals. For patients, a "frictionless" experience means interacting with these medical professionals and with technology in a way that is transparent, comfortable, and convenient. Ideally, this experience would result in holistic healthcare information that integrates all medical, physical, mental health, and behavioral information relevant for that patient and his or her condition.



Case study: Tennessee Oncology, U.S.

At Tennessee Oncology, some 600 healthcare professionals use an electronic Patient Reported Outcome tool (ePRO) across the 32-site network to manage patient symptoms and capture a holistic overview. As one of the largest community-based cancer care groups in the U.S., Tennessee Oncology treats more cancer patients than any other group in the state, reaching approximately 25,000 patients per year. More than 20% of Tennessee residents reside in a rural setting where patients typically have more restricted access to quality care than their urban counterparts. This ePRO solution has elevated the voices of 10,000 patients directly, managed 31,000 through the telephone triage workflow automation, and empowered care teams with real-time patient reported data. It encourages patients to better communicate symptoms and other relevant clinical information to their care teams, with minimal barriers to adoption, regardless of whether patients are three minutes away, in the heart of Nashville, or three hours away in a rural farming community. Patient adoption has steadily increased by about 1,000 new patients a month since the beginning of the pandemic. The benefits of such a solution are equally applicable to other public networks throughout the world.⁵



“We have a remote care management program to deal with heart failure problems and the instability of the disease before we call the patient in for aortic valve implantation. After the procedure, we monitor their electrocardiogram and work to get them back home very quickly.”

Prof. Lino Patrício,

Director of Cardiovascular Dept., Hospital Espírito Santo de Évora, Portugal

Frictionless also means ensuring access to care, for example making cancer stewardship available for remote populations or cardiovascular care for senior heart patients who are not mobile. Alentejo occupies a third of the area of Portugal, but just 700,000 people live there. Intercity buses only run to Évora, the main city, twice a day. “And a taxi for the return trip would have cost me €70 each time,” says Constança Pires, a patient receiving a catheter-based heart valve implantation. As a former plantation worker, she does not have a large pension and for her remote monitoring is a blessing—both in health and financial terms.⁶ Remote monitoring of patients in their homes has significantly improved the quality of medical care, especially in a sparsely populated region like the Alentejo, explains Sandra Nunes, a radiology technician with responsibility for data analysis. “We are in constant contact with them via the exchange of data and we call them as soon as we notice changes in the parameters,” says Nunes.⁷

Easing patient interaction with medical technology for special populations such as people with accessibility issues, disabilities or young children is also an aspect to consider when developing patient-centered solutions and eliminating friction points. People who are unable to use their hands, for example due to physical disabilities, sickness or degenerative diseases, may be unable to fill out paperwork on-site and can instead fill out forms using their voice. An innovative set of co-ideation sessions between UnitedSpinal and Siemens Healthineers has made it possible to pinpoint where there is a stigma of disability and to remove barriers to include mobility-impaired and wheelchair users. Their perspective has helped to identify opportunities to change the usability of digital services, for example when patient forms and patient portals have functionalities for disability included in their design, or the design of facilities, or the design of diagnostic equipment with adaptable heights.

Furthermore, during other co-ideation sessions with children, senior innovation key experts, psychologists, engineers and designers envisioned an anxiety-free diagnostic experience. The children’s input in these design thinking sessions was critical in the development of material, not only to distract, but to reduce anxiety in a way personalized for these children aged three to five.

Success in implementing solutions which are patient-centered, and at the same time reducing the burden on clinicians and interactions across care teams, depends on various factors. Experience shows co-ideating, collaborative clinical workflow clarification, testing, engagement of stakeholders at all levels, and the need for customization by disease group are critical points to consider for effective sustainable adoption.⁸

B. Healthcare consumer perspective

In addition to being patients with specific medical needs, those interacting with healthcare providers can also be seen as healthcare consumers, i.e. users who expect a healthcare experience similar to their experiences in other aspects of their lives. This includes an expectation of flexibility and convenience, independence, autonomy in decision-making, personalization, and ease of financial transactions. Any point of friction during the consumer experience can compromise patient loyalty. Therefore, to attract and retain healthcare consumers, a healthcare provider should offer a smooth path of interactions—onsite and online. Complex admissions processes and traditional in-person experiences can be transformed into frictionless experiences, meeting patients where they are. Here again, technology and digitalization can help, making care more affordable, bringing it closer to those who need it, and helping to maximize resource availability.

Healthcare facilities, apart from emergency cases, often operate on a 9:00–5:00 timetable, especially for chronic conditions. The moment a patient begins looking for an available appointment, the first signs of friction often appear. Booking an appointment via phone, for example, often means repeated phone calls, which can already be a friction point for some patients, for example those with hearing problems. Then, patients must often wait on hold, only to find out that there is no appointment available on the day they have free time themselves. A digital solution that allows patients to find physicians, see available appointments, and schedule them online easily themselves is highly valued. Patients could even be offered help proactively, for example with intelligent systems coordinated with insurance providers which automatically search for the appropriate appointment and let the patient know when and where to be. Further case studies on self-service, contactless and digital geo-mapping of facilities have been implemented already in healthcare systems which are described in detail in the insights issue 28: Frictionless Healthcare.¹

C. Human perspective

The entire process must also be viewed from a human perspective. This means addressing psychosocial aspects which may become friction points during the interactions with the healthcare system and with healthcare teams. Courtesy and respect impact even the facility design, for instance today many healthcare facilities are planned and built based on space and sometimes workflow requirements. However, to be truly human-centered the facility design must include additional—until now unwritten—rules of etiquette and respect. For example, in a fluoroscopy room where gastrointestinal examinations are performed the bathroom should be placed directly next to the room to avoid patients having to cross a hallway in a hospital gown.



Case study: Fresenius Group, Germany

Today many healthcare providers only analyze the geographical location of patients when building a hospital, and limit their annual review to the analysis of the mix of clinical conditions. For true consumer-centered services, a recurrent annual analysis of the geographical location and access to digital services of healthcare consumers is essential to ensure that services are reaching the target populations. At Helios, part of Fresenius Group, expansion is focused on consumer-oriented medicine, whether that be through the addition of prevention centers, apps for patient interaction, or entry into outpatient medicine. Most recently, the group unveiled plans for asset-light medical satellite outposts for rural areas across the globe. Fresenius is connecting patient experience to another major topic in healthcare, value-based care. The new platforms they have implemented connect patients to the entire care team and all data points around the patient, in a way not done before.

Otherwise, there is a possibility that the patient will remember such an uncomfortable experience and avoid returning to the facility. Planning for the installation of new systems or the construction of healthcare facilities should include expert architects who are also knowledgeable about the patient pathway and the experience of care.⁹

Healthcare professionals who interact with patients need the appropriate training and support to offer a positive service experience through adverse events¹⁰ or even patient aggression. Today, many institutions still have a persistent blame culture, a lack of awareness of available programs for healthcare professionals' well-being, or a lack of financial resources and time invested in their teams. However, leading healthcare providers already recognize the importance of implementing programs for their personnel to manage patient aggression, adverse events, and safety, and strive for high quality care.¹¹

In Indonesia, Bali International Medical Centre is leading such a change. They have implemented a second victim support program, sustainably increasing patient safety culture¹². Another example is the stressful patient-related events program (RISE) implemented at Johns Hopkins Hospital in the U.S., which has been evolving over the years to even manage incidents of workplace violence. Touchpoints with clinicians, radiographers, interventional radiologists, staff and healthcare professionals who are stressed, busy or undertrained to manage diverse populations—for example people with particular age, gender preferences,¹³ mental conditions or physical disabilities¹⁴—may trigger emotional distress and create friction with care teams. These may be removed or reduced with training, for example in word selection to induce comfort, reduce pain perception¹⁵ and promote empathy,¹⁶ or language etiquette or even specialized on purposeful communications with children,^{17,18} all of which have already been successfully implemented in pioneering healthcare institutions.



Case study from Latin America

Fundación Clínica Infantil Club Noel, a non-for-profit healthcare provider, has the mission to serve and cover the needs of children in the southwest of Colombia. Serving about 180,000 patients annually, from Cali and remote communities of the nearby valleys, the Eje Cafetero (an area of coffee plantations) and the Atlantic coast. Many are from indigenous communities, about sixty 60% are subsidized, 35% have healthcare coverage, and 8% have other health plan coverage. Jaime Domínguez Navia, director for many years, innovates and focuses on

sustainable management.¹⁹ Recently Club Noel redesigned their facilities and services: emergency, registration, diagnosis and treatment areas, surgery and hospitalization. In an inclusive approach, patients and families, as well as healthcare professionals and management co-defined the core elements of the new design. Offering a holistic experience was key. Specific interior design elements give ambiance to the areas for waiting and medical procedures, characters accompany the children and families throughout each area in the institution, and highly involved healthcare professionals are trained to co-design stories for a seamless on-site experience. There was a common decision to include tropical jungle and underwater

scenery, as well as other elements of nature like parrots—elements present in everyday life. Furthermore, a "Leave your footprint program to humanize healthcare"²⁰ has been part of the transformation. "A beautiful place! I find it perfect and special how they treat the patients and the companions of the patients," said the grandmother of an 11-year-old boy about the newly designed services. "It is a very appealing environment, which helps the children to concentrate on the colors and illustrations and lose their fear of the machine," said a mother of a 4-month-old girl, "[and] it motivates me that my daughter can have access to this level of technology. It covers the need not only for us but for many patients in the region."²¹

“The aim is a frictionless care experience along the patient pathway, the consumer experience, and the emotional and psychosocial dimensions. For the patient and the care teams.”

Dr. Christina Triantafyllou,
Head of Improving patient experience at Siemens Healthineers

Studies of implementation in three MRI centers, for example, have shown an increase from 55% to 70% of patient satisfaction and even a reduction of incompleteness rates from 2.3% to 1.4%.¹⁶ An empathetic, trustful, frictionless relation with healthcare professionals is a must to minimize the anxiety and distress related to the process or the illness and improve care outcomes. The patient is part of a social network that includes friends, partners, family members, parents or children, and co-workers, all of whom seek guidance on how to

offer appropriate support. From a human perspective, this guidance on how to support needs to be part of the healthcare system culture and design.

A truly frictionless experience would take into account this three-dimensional perspective, looking at the medical pathway, considering the consumer experience, and factoring in the human, psychosocial and emotional aspects for patients, care teams, and their social network.

Highly specialized human-centered education to induce comfort, reduce pain perception and promote empathy during healthcare procedures.

~1%

reduction of incompleteness rate, from 2.3% to 1.4% in three MRI centers.¹⁶



15%

increase from 55% to 70% of patient satisfaction in three MRI centers.¹⁶

*"We are coming to the consumer,
rather than the consumer coming to us."*

Wolfgang Hofmann, MD,
Head of Fresenius Group Strategy and Corporate M&A-BD, Germany

A frictionless patient experience: 3-dimensional concept

Human

Frictionless in emotional and
psychosocial dimensions



- Empathetic and trustful relations with healthcare professionals
- Respectful interactions
- Anxiety-free
- Personal
- Social connection



Patient

Frictionless along the
clinical pathway



- Defined type of disease/patient pathway
- Clear processes (e.g., diagnostic procedures needed)
- Easy interaction with technology
- Physical and mental wellbeing with support for new healthy behaviors
- Holistic real-time health information

Consumer

Frictionless during the
consumer experience



- Flexibility and convenience (e.g., appointments, registr.)
- Access and autonomy
- Easy payment/transactions
- Loyalty/attract and retain
- Data driven predictive behavior

Every voice matters



Ease

"For me it is the opposite as with other patients. I have a doctor's office that helps with all the points for transportation or scheduling the appointments. Probably because where I live has different laws. Here every doctor's office has a social worker. In Atlanta it is not like that. The difference is just astounding. This service should be in every healthcare system. Care should be the same everywhere. It needs to be holistic care and it needs to be patient focused."

*Mobility-impaired healthcare user,
35 years old*



Convenience

"[With remote monitoring] I didn't have to constantly go to my cardiologist or even to the hospital to check my health status. To begin with I needed the help of my son, Nuno, but the devices and app are very easy and intuitive to use. Whenever there was a deterioration in some key parameters, he [my husband] received a call from a telehealth coordinator or his physician. That gave me confidence and security."

*Wife of patient for aortic valve implantation,
84 years old.⁶*



Wellness and Access

"It has been a very long clinical process—four years. [And] in the past, I have been waiting for more than a month to have a diagnostic exam, therefore I am very grateful this service [child-friendly MRI] is offered here now."

*Mother of child with a disability,
14 year-old daughter.*



Simplicity

"Why isn't the medical industry more like there's a concierge? They should navigate and help you each step of the way. Why don't hospitals offer transportation? Why do I have to fight [with] my doctor to get a lab result?"

*Healthcare female user with multiple sclerosis,
40 years old*



Social support

"Maybe AI can help to save information from experienced individuals or patient advisors, so that future patients can call them or maybe through a social worker that is in the building for important information. The patients [and relatives] need somebody they can go up to get advice and information."

*Healthcare user single-household,
42 years old*

A look ahead

What could a frictionless, human-centered experience look like in the future? Here are a few perspectives:

From the patient perspective:

1. Positive care experiences would be the focus of all healthcare institutions. In the future, the care experience could be real-time data-driven on a global scale and implemented across digital services, team operations and leadership performance evaluations.
2. Complex diseases such as cardiovascular diseases, dementia and cancer would be treated more successfully in complex schemes. Instead of explaining patients' health conditions every time during every encounter, continuity of care could be supported consistently along the entire pathway. Many aspects of healthcare today are not well integrated. In the future, healthcare could integrate complete medical information and behavior patterns aiming for holistic treatment approaches.
3. Much of today's medical jargon is not understandable to non-professionals. In the future, medical reports should be understandable to those at any level of literacy and be even made more comprehensible with technology such as VR or AR.

From the consumer perspective:

1. In the future, care would be available 24/7, whether patients are at home, outside, or even when traveling. Service should be simple for the healthcare user and their family as well as for the healthcare professional providing it.
2. In the future, care teams and diagnostic machines would know in advance the preferences and condition of the patient who is arriving next and plan accordingly. For example, if a disabled patient is the next appointment, the doctor or technician would know in advance and prepare the facility accordingly. They could plan for enough time to get around, on or off equipment, plan the appropriate lift or adjust the height of the machine proactively. Such solutions would make each visit easy, in addition to keeping appointments short and effective.
3. Today, the onsite and the online experience is often broken through various interactions in the care pathway. In the future, such encounters would be comparatively seamless, both onsite and in digital environments, offering one holistic experience. Self-service, contactless and experience with insurers, hospitals, clinics, or health kiosks will be perceived as one.

From the perspective of healthcare professionals:

1. In a future frictionless scenario, not only would patients benefit from efficiency and accessibility but also care teams. Care teams would not need to struggle through organizing their schedules and work locations. For example, by incorporating AI-optimized scheduling systems could relieve effort and stress. A future system would also be intelligent and adaptable for healthcare professionals depending on their job profile.
2. Healthcare professionals including technologists, radiographers, radiologists, nurses, physicians, and surgeons would have a manageable workload, specific scheduled time to recharge their energy, as well as areas to rest, practice mindfulness, and find internal balance.

This would serve to improve their overall well-being. Here too, technology including AI can help to free physicians from time-consuming tasks, or even analyze facility design to improve spaces where they can focus more on patients or on their personal wellness. This would aid them in delivering high quality care with appropriate time and more empathy.

3. Today, few healthcare professionals have the skills needed to deal with any kind of patient. In the future, care teams would be supported with intelligent virtual advisors. In this future scenario, emotionally agile teams will foster relaxed, calm, and empathetic interactions, whether digitally, in-person and even during interventional procedures.

A future frictionless care experience



“Millennials need more information, they are good at verbalizing their worries and co-creating, they feel empowered. They want to know what is done with their data, for example how is Artificial Intelligence brought into the diagnostic process?”²³

Dr. Christina Malamateniou,

Chair of the Artificial Intelligence Working & Advisory Group at the Society and College of Radiographers and Director of AI postgraduate programme in Radiography at City University of London, UK

Finally, from the human perspective:

1. Much of today's healthcare technology causes anxiety and fear for patients—young and old. In the future, medical technology and facilities would be focused on human-centered design. This inclusive co-ideation and co-implementation of a human-centered approach would be the norm in the future.
2. In many of today's hospitals the atmosphere is not perceived as “caring.” In the future, environments that are meant to enhance health, wellbeing and trigger emotional states which promote healing would be the norm. Instead of patients circling around technology and the facilities, technology and the environment will be developed to co-construct around patients.
3. Today, families, caregivers, even colleagues, employers or guardians are either seen as fully responsible or not considered at all in the care process. In future, there would be a more balanced and purposeful involvement and guidance for patients and for their social support systems. Imagine a future situation where family distress is minimized; the patient receives the support on how to communicate with their loved ones about their illness, and the family and trusted circle of people around a patient receive regular notifications and updates on the status of care—in whatever country they may be and in their own language. They may even receive personalized guidance on how to deal with the emotional burden of the disease.

4. Empathy, trust, and emotional connection are today not given the right space and time. In the future healthcare interactions would not only focus on efficiency but will also consider time affluence, which means the sense that there is ample time available to heal. This is key for well-being of people seeking care and of people providing care.

As first steps to make this vision a reality, partnerships are needed across healthcare. For example, joint set-up of innovation boards where management and creative teams from all healthcare stakeholders explore and plan innovative future ways to realize the changes needed in healthcare.

Healthcare providers, medical technology manufacturers, healthcare insurance organizations, patient advisory boards, and clinician associations would build models of human-centered care including the patient and the healthcare consumer perspective.

Patients, healthcare professionals and healthcare leaders across Europe and other countries worldwide have already pledged for future healthcare developments: “Nothing for me [the patient, healthcare consumer, healthcare provider, and human] without me”. In addition, leading organizations such as The Beryl Institute have issued a Declaration for Human Experience, enhancing their commitment to “collaborate through shared learning within and between organizations, systems and the broader healthcare continuum to forge a bold new path to a more human-centered, equitable and effective healthcare system.”²²

Conclusion

Achieving a more frictionless healthcare experience means following certain strategies to implement with impact:

1. Purposefully providing access to care and integrating the perspective and priorities of patients, personalized towards the health condition and including people with disabilities, various gender orientations and age groups as advisors.
2. Plan services with the healthcare consumer in mind and distribute the workload along the pathway, including all stakeholders and healthcare professionals from each area: emergency, reception, nursing, physicians, etc.
3. Building a healthcare ecosystem together, which offers equitable and human-centered care striving for healthy and resilient communities.

Patient experience has become a big differentiator. In order to remain sustainable long-term, healthcare providers, insurances, and organizations in healthcare need to proactively aim for a frictionless human-centered experience. For the patient with the patient. For the care staff with the care staff.



Suggested follow-up on

siemens-healthineers.com/patient-experience

- Insights Series, issue 28: Frictionless healthcare: Why it matters and how to get there. Available at: siemens-healthineers.com/insights/news/frictionless-healthcare
- Insights Series, issue 27: Reframing the patient experience. Available at: siemens-healthineers.com/insights/news/reframing-patient-experience
- Insights Series, issue 22: Strengthening patient trust: a priority for healthcare sustainability. Available at: siemens-healthineers.com/insights/news/patient-trust-a-priority-forhealthcare-sustainability



Information:

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Christina Triantafyllou, Ph.D. is Siemens Healthineers' Global Head of Improving Patient Experience, where she explores ways in which this field can be enhanced and made more accessible to healthcare providers. She develops strategic approaches to deliver high value care, by providing patient experience focused solutions, best practices and thought leadership content. Christina began her healthcare career at Harvard Medical School, Boston, where she worked as a medical physicist developing imaging technology for the study of brain anatomy and function in disease. At Siemens Healthineers, she served as the Director of Global Ultra High Field MR Solutions, focusing on business strategy, KOL-based collaborations in innovation/clinical translation, and product management for the first worldwide clinical 7T MR system. Christina holds a Ph.D. in Medical Physics from Kings College, University of London, UK. Prior to joining Siemens Healthineers, she held appointments at Harvard Medical School, and at Massachusetts Institute of Technology in Boston.



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Isabel Nieto Alvarez, MSc. is passionate about innovating and transforming the experience of care to be human centered. She is an expert of the Siemens Healthineers Global Innovation Network on mental and physical stressors in the experience of care. Isabel leads cross-functional teams in innovative projects on patient and staff experience. Prior to her current role, she has served as a marketing manager and business developer for the company, and as Professor at the Universidad Anáhuac, México focused on sustainability in healthcare for medical students and psychology. Passionate about improving the patient and care team experience, she presents and writes globally on the subject. She is a biomedical engineer from Universidad Iberoamericana in Mexico, holds a Master in Science on Mind and Body Medicine from Saybrook University in California, U.S. and Certifications on Leadership in Healthcare without Harm and Design Thinking. Her scientific background on mind and body health and neuroscience, combined with experience in medical technology innovation are cornerstones of her expertise and passion.

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