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EXPERIENCE IN USING THE SERVICE DESIGN IN THE DEVELOPMENT OF NURSING SERVICES IN THE REPUBLIC OF KAZAKHSTAN

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ABSTRACT

Background. Service design is the activity of planning and implementing changes in medical organizations to improve the quality of medical services. In Europe and the USA, service design is widespread in many large multidisciplinary medical centers.

Study design. This article is a description of the experience.

Methods. The authors described their own experience of using service design in the field of nursing in a private medical center in Astana.

Results. The team from the Astana Medical University chose the topic: "increasing the level of satisfaction of patients with chronic diseases with the quality of nursing care in the organization of primary health care." We used ready-made tools, reflecting their ideas on paper, flipcharts, posters and stickers. Direct data collection (interviewing and observation) by our team was carried out within one month. The planned number of patients and nurses was 10 people each. The interview focused on the subjective experience of the interviewed patients and nurses, revealing their beliefs, attitudes, level of trust and quality of communication with each other. Then the facilitators collected the completed forms and summed up the results. Thus, the focus of attention was shifted towards the low level of communication skills of nurses, taking into account the repeated complaints of patients about the lack of information about upcoming manipulations (tests, operations, diet, etc.), diseases in general, methods of self-care; lack of empathy and medical ethics. The new goal was aimed at increasing patient satisfaction with the communication skills of polyclinic nurses. To solve this problem, it was decided to conduct a two-hour express training among the nurses of the polyclinic to improve the communication skills of nurses by implementing the NURSE protocol.

Conclusions. Service design has been applied for the first time in the healthcare industry of Kazakhstan as an innovative tool for improving patient-centered nursing care.

KEYWORDS: user-centered design, nursing, education, communication, Kazakhstan

INTRODUCTION.

Service design is the activity of planning and implementing changes in medical organizations to improve the quality of medical services. Service design is a client-oriented approach focusing on a

holistic practical experience of patient care in order to fully understand the target group, users of medical services to identify current problems and improve services [Fry KR. 2019].

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In Europe and the USA, service design is widespread in many large multidisciplinary medical centers. For the first time, the service design was presented at the Maggie Cancer Center in the UK in 1996, the purpose of the presentation was to create comfortable conditions for patients in the hospital. Since then, service design has been actively used to improve the quality of patient care in the field of public health. [Caulliraux AA, Meiriño MJ. 2015; Martin D et al., 2019]. The proposed model of medical services design helps organizations to achieve an excellent level of service quality by comprehensive creating the value of the service for the patient, taking into account his personal experience [Lee DH. 2019]. For example, thanks to the service design in the radiology department, researchers managed to reduce the waiting period for examinations from 2.6 to 1.5 days and increase the number of examinations from 21,078 to 22,236, as well as reduce the number of repeated visits to the hospital [Park KA, Chung KH., 2019]. Some studies report a decrease in the frequency of repeated hospitalizations and an improvement in the quality of life of patients after the implementation of service design into the healthcare system [Ding X. 2017; Elsbernd A et al., 2018; Foley SM. 2018].

Thus, service design is an effective approach to improve the quality of services in medical organizations.

Roberts JP. and the co-authors describe service design as a systematic innovation process in which the main priority is deep empathy for the desires and needs of end-users in order to fully understand their problem for further development of complex and effective solutions [Roberts JP et al., 2016].

Service design allows medical staff to be in constant contact with the patient and have feedback from him, because service design begins from the street, when the patient is

just going to the hospital. The rude attitude of the medical staff, an unpleasant medicinal smell, the lack of exhaustive answers to questions – all this can cause the patient's unwillingness to return to the hospital again. Service design helps to present a realistic way of the client in order to better feel and understand his thoughts and feelings [Jarrett C et al., 2022].

The first introductory Master Class «Service design approach in the development of nursing services».

For the first time in Kazakhstan, service design in nursing was presented by international experts within the framework of the AccelEd project («Accelerating Master and PhD level Nursing Education Development in the Higher Education System in Kazakhstan»). This project is co-financed by the European Union through Erasmus+ and is aimed at reforming nursing science and research in the higher education system of Kazakhstan, modernizing the governance, management and functioning of healthcare and physical-sciences-related higher education practices in Kazakhstan.

So, in the period from 6 to 10 December 2021, the first introductory Master Class «Service design approach in the development of nursing services» was at the Karaganda Medical University, which was organized under the leadership of the JAMK University of Applied Sciences for the academic staff of medical universities nursing faculty and their university hospital clinics staff and Master and PhD students. The purpose of the Master Class was to gain understanding of contemporary methodology for the development of nursing services based on the patient's point of view in close cooperation with practicing nurses.

Every day international experts-teachers from Finland, the Netherlands and Lithuania presented lecture material to participants about various phases of service design (Discover, Define, Develop, Deliver). Besides, in addition to the theoretical part of the Master Class, the participants were given the opportunity to be in the role of facilitators and service design executors at the occupational health clinic of the Karaganda Medical University. Pre-organized teams of five or six people were sent to



To overcome it is possible, due to the uniting the knowledge and will of all doctors in the world

various departments of the clinic to interview patients and nurses, as well as conduct user shadowing to identify real problems in this medical organization. Then, using the empathy map, the participants summarized the words, actions, thoughts and feelings of the patients, analyzed the qualitative data obtained during the interview and user shadowing, and made up a grid of solutions.

Based on the experience gained during the week-long Master Class and having received a package of materials with lectures, examples, tools and step-by-step instructions, participants from each Kazakh medical university were assigned until September 2022 to apply the service design procedure in any medical organization in order to improve the quality of patient care.

Experience in applying the service design by the team of Astana Medical University.

Due to the fact that increasing patient satisfaction with medical care, including nursing care, is one of the top priorities for healthcare, the purpose of our study was to increase the level of satisfaction of patients with chronic diseases (arterial hypertension and bronchial asthma) with the quality of nursing care in the primary health care organization (PHC). One of the city's private medical center which serves the population within the guaranteed volume of free medical care was chosen as a research base. We have selected the persons who will be part of the team. So, the leaders and facilitators of the project were selected from the academic staff of the Department of General Medical Practice with the course of evidence-based Medicine of Astana Medical University, while Master and PhD students performed the role of executors. In addition to academic staff, two practicing nurses of this medical organization were involved in the project to achieve the most effective end results after the implementation of the project.

The first stage of the work was devoted to drawing up a schedule of meetings, agreed with all participants of the multiprofessional group. During the first and second working meetings, team members filled out ready-made tools, reflecting their ideas on paper, flipcharts, posters and stickers. As

a result, we identified the goals and objectives of the project (1A Define the development challenge), the intended route of the patient before, during and after visiting the medical center (1B The customer's service pathway), analyzed the most effective tools (1C Select your tools and design your study), presented the likely feelings, words, thoughts, emotions of the patient (1D See your service by the customer's eye). Having thought through research questions for patients and nurses (1E Framing - research questions tool) and possible problems that require observation (1F User Journey Plan Observation), we formulated interview questions and compiled a patient/nurse informed consent form (1G informed consent form).

As medical universities carried out their own service design projects, several planned online conferences were held via the Zoom platform, where each group of executors presented brief reports on the work done to European partners. These meetings were important, since the group discussions facilitated the exchange of information, the adjustment of the main goals and objectives, a deep understanding of the essence of service design, its role in each individual project.

Direct data collection by our team was carried out within one month. Taking into account the quantitative method of collecting information (interviewing and user shadowing), the planned number of patients and nurses was 10 people each. Before starting the user shadowing, patients and nurses were asked to carefully read the informed consent form and sign it in two copies, one of which must remain with the observed respondent. Then a semi-structured interview was conducted using open-ended questions. The interview focused on the subjective experience of the interviewed patients and nurses, revealing their beliefs, attitudes, level of trust and quality of communication with each other. All team members documented the responses of patients and nurses received during the interview, as well as observation data.

Then the facilitators collected the completed forms and summed up the results, summarizing the results with the team. So, by visualizing nursing

service through the eyes of the customer (1D Service on the eyes of the customer) we have compiled an empathy map (2A Empathy map) on a flipchart as a future reference point. After a detailed analysis of the data, we tried to reflect the true point of view of the patient (2B The customer point of view), as a result of which it was decided to change the original goal of our project and formulate new tasks based on the collected data. Thus, the focus of attention was shifted towards the low level of communication skills of nurses, taking into account the repeated complaints of patients about the lack of information about upcoming manipulations (patient tests, operations, diet, etc.), diseases in general, methods of self-care; lack of empathy and medical ethics. The new goal was aimed at increasing patient satisfaction with the communication skills of nurses.

The concept of a «Double Diamond» in service design is conditioned by the creation of a number of possible ideas in all creative processes, and inventive and unusual ideas lead to better solutions [Banbury A et al., 2021]. All members of our team wrote down as many ideas as possible on empty paper, which were subsequently used to compile a mental map (2C a mind map) and choose the optimal solution to the identified problem (2D Solve).

Subsequent working meetings involved the creation of four patient profiles (3A Customer profiles) based on polar personality traits. Based on the obtained data, the following polarities were selected by voting: “harmonious personality – neurotic” and “apathetic psychotype – hypochondriac”, then common “names” of each of them were given. We have developed a new improved patient route (3C Blueprint), specifying each of their actions that will be performed before, during and after the service in the clinic.

At the next stage, the team was tasked with improving the communication skills of nurses when interacting with patients, taking into account the characteristics of the four profiles that will continue to use nursing services. To solve this problem, it was decided to conduct a two-hour express training among polyclinic nurses to improve nurses’ communication skills by implementing the

NURSE protocol (Name, Understand, Respect, Support, Explore). The NURSE protocol is a mnemonic scheme for expressing empathy, which helps to establish contact, ensure trusting relationships, stimulate motivation, increase compliance and reduce emotional stress [Epstein R et al., 2007; Khursandi DS. 2011].

The express training began with lectures on the rules of effective communication between the nurse and the patient/his family. Mini-lectures included basic topics: «verbal and nonverbal communication», «communication barriers», «effective tools (algorithms) in communicating with the patient». During the training, nurses received the NURSE protocol, printed out in the format of a pocket brochure, to ensure the convenience of its use. The lecturers tried to convey the essence of the above-mentioned tool by using interactive learning, which promotes constant, active interaction of all participants in the educational process. Role-playing games conducted as the final stage of express training contributed to the best memorization of the protocol sequence. We have prepared cases in advance describing situations where it is necessary to apply the knowledge acquired during the training. To do this, the listeners were randomly divided into «nurse-patient» pairs, where the nurse should solve the problem situation by building an effective dialogue with the patient. Feedback showed that this express training helped nurses to comprehend the importance of communication skills, understand their own strengths and weaknesses, and form a plan for the future.

Final Master Class «Applying service design in the development of nursing services in Kazakhstan».

The Master Class on service design was organized by Karaganda Medical University and JAMK University of Applied Sciences and took place from September 26 to 30, 2022 in the city of Astana at Astana Medical University. The Master Class is organized for the academic staff of medical universities, employees of medical organizations, chief nurses, head nurses, Master and PhD students, as well as for teachers of nursing at higher medical colleges.

The Master Class was aimed at sharing the re-

sults of service design projects implemented in medical universities of Kazakhstan, as well as sharing experience in implementing changes that contribute to improving nursing services.

All medical universities-partners from Kazakhstan that took part in previous Master Classes on service design received a single template for preparing a presentation, where they reflected the stages of their project with its results. Each university has a special day for presentation according to the Master Class program.

An additional goal of the organizers is to train specialists from Kazakhstan who are not familiar with the methodology of service design by actively involving them in the analysis of presentations of each university. So, every day two universities performed in front of an audience, where any participant of the Master Class could ask questions about each phase of the project, clarifying the key points for themselves. In the afternoon, the participants were randomly divided into teams to generalize, consolidate the acquired knowledge, discuss common processes and patterns of service design, improve the skill of interpreting qualitative data. In the course of group work, the participants carried out the adjustment of tools and algorithms, their adaptation to the conditions of the healthcare system of Kazakhstan for further dissemination and wider application in practice.

CONCLUSION.

Service design has been applied for the first time in the healthcare system of Kazakhstan as an innovative tool for improving patient-centered nursing care. This method is used by us as an effective tool for solving the identified problem that arises at the point of interaction between the patient and the nurse. Service design is not just patient orientation, it is a methodology that helps to improve the interaction of medical professionals with patients [Holdford DA. 2019; An S et al., 2020].

Satisfaction with medical care is assessed by the patient, relying on his subjective feelings, and the medical staff – on their own. These estimates often do not coincide and the reasons for such discrepancies are diverse [Lorusso L et al., 2021]. At the same time, many authors note that the level of emotional burnout of nurses in the workplace and high staff turnover also affect patients [Patel RS et al., 2019; Belyatko AV et al., 2020; Batarbekova SK, Belyatko AV., 2021]. In this regard, there is a need for constant qualitative analysis of the patient's route before, during and after the receiving medical services, using the service design method, to take concrete measures to improve the quality of healthcare in the Republic of Kazakhstan [Bekbergenova ZB et al., 2020].

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