## 'Developing a tool for patient journey mapping'

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In the development of healthcare innovations, researchers often lack awareness of the added value of including patient experiences in the design process. Often, the focus lies on technology and process optimization rather than listening to the patient's voice. However, patient satisfaction is important as it has shown to be a predictor of survival rates; it is considered one of the most important aspects in assessing healthcare (Gupta et al., 2013).

This assignment focused on developing a digital tool to create patient journeys: visual models that map the generic health trajectory of patients, including their emotions and experiences (Bui et al., 2023). The tool developed in this assignment provides a standardized method to create these journeys, making the process more accessible for researchers, managers and other stakeholders in the health domain. The TechMed Centre was the client for this assignment and intends to use the tool in practice as part of research support and educational activities.

Although patient journey mapping is becoming more common in healthcare, no standard approach exists for creating patient journeys. Additionally, researchers often lack the time, resources or skills to create these visual models, resulting in the patient's perspective being overlooked during the development of healthcare innovations.

Therefore, this assignment focused on the development of a tool that standardizes the creation patient journeys. The focus was on identifying the best way to visualise patient's experiences and provide clear instructions. The target group includes research and development teams and project managers in the health domain. Other stakeholders include patients, healthcare professionals and organisations and students.

Throughout the project, an iterative design approach was used, consisting of analysis, ideation phase, concept phase, detailing and testing.

The analysis phase defined what a patient journey is and identified current challenges, such as a lack of standardized tools and limited awareness among researchers of the usefulness of patient journeys. This phase also included research on graphic design principles and medical guidelines, resulting in a list of requirements. During the ideation phase different ideas were explored and several design decisions were made. For example, it was decided to make the final tool in PowerPoint and to provide the user with three different templates, each with another level of detail. The essential elements and layouts for these templates were identified and refined. The concept phase focused on developing prototypes in PowerPoint and discussing these with potential end-users during co-design sessions.

During the detailing phase, the final tool was developed. The tool consists of different templates, accompanied by an instruction PDF. The PDF explains what a patient journey is, how to create them and provides tips for using PowerPoint. It also includes a chapter with a group activity, encouraging co-creation with people from different backgrounds. Figure 1 shows an example of a patient journey for bariatric surgery, made with the tool (Badorrek, Franklin, Devadas, & Williams, 2023; Coulman et al., 2020b).

The final tool was evaluated through a group test and online evaluation form shared with members of the research program. Multiple aspects of the tool were tested based on the list of requirements: functionality, graphic design, usability and understandability.

Participants of the group test created a patient journey for colorectal cancer by performing the group activity from the instruction PDF, and feedback was collected through observations and online forms. To evaluate the usefulness of the patient journey mapping tool for the research program, a separate online evaluation form was shared with them.

In general, the participants and members of the research program were satisfied with the tool. Participants expressed the need for more detailed instructions of the group activity, which were added to the PDF after the

evaluation. Other refinements included small adjustments to the PowerPoint files.

For future development, it is recommended to further test the tool with a larger and more diverse sample that better represents the entire target group. Another recommendation is to consider converting the tool into a website, with all features integrated into one platform.

For the TechMed Centre, it is advised to implement the tool, monitor its use in practice and report any limitations or challenges. If a significant number of challenges arise, it is recommended to further develop the tool, based on the given recommendations.

In conclusion, this project delivered a tool for researchers and other relevant stakeholders to create patient journeys. It provides the user with different templates and a corresponding instruction PDF. The tool supports the integration of patient experiences during healthcare innovation development, leading to outcomes that better meet patients' needs. If the TechMed Centre decides to further develop the tool, future recommendations include more extensive testing and exploring the development of a website.



Figure 1: Patient journey of Bariatric surgery, made with the tool

**References:** 

- Michael Bui, Kira Oberschmidt, and Christiane Grünloh. 2023. Patient Journey Value Mapping: Illustrating values and experiences along the patient journey to support eHealth design. In Mensch und Computer 2023 (MuC '23), September 03–06, 2023, Rapperswil, Switzerland. ACM, New York, NY, USA, 18 pages. https://doi.org/10.1145/3603555.3603558
- 2. Gupta D, Lis CG, Rodeghier M. Can patient experience with service quality predict survival in colorectal cancer? J Healthc Qual Off Publ Natl Assoc Healthc Qual. 2013;35:37–43.
- 3. Badorrek S, Franklin J, Devadas M, Williams K. Support needs of people undertaking bariatric surgery: A narrative review. Clinical Obesity. 2023; 13(4):e12605. doi:10.1111/cob.12605

4. Coulman, K. D., MacKichan, F., Blazeby, J. M., Donovan, J. L., & Owen-Smith, A. (2020). Patients' experiences of life after bariatric surgery and follow-up care: a qualitative study. BMJ Open, 10(2), e035013. https://doi.org/10.1136/bmjopen-2019-035013