

## Healthcare Signage Design: What do the users expect?

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### INTRODUCTION

The current work is focused on the importance of a well-designed signage system within Healthcare services, which can efficiently and easily help save crucial time for staff and patients. There is already enough body of evidence suggesting that a focus on a well-designed signage system can be beneficial for the Hospital users', since it can help reduce stress of both patients and staff, increase efficacy of care, improve their safety, and improve health outcomes and overall quality of care<sup>1</sup>. Furthermore, a good signage system can also help reduce the costs associated with wayfinding issues<sup>2</sup>, which means more money saved by the Hospitals and by the government.

There are some available regulations and standards through which the signage is developed and implemented on these settings, however, the users' experiences and preferences are not captured which results in settings that are not suited for their users. This ongoing research has the pioneering aim to collect the users' perceptions and preferences regarding the signage of four Portuguese Healthcare institutions, with the objective of gathering insights that could lead to a development of guidelines for designing healthcare signage that is user centred.

### EXPERIMENTAL METHODS

Four partnerships with national Hospitals were established and the following Hospitals were selected: Hospital de Santa Luzia (Viana do Castelo), Hospital Infante D. Pedro (Aveiro), Hospital de São João (Porto) and Hospital de Santo António (Porto). They differ in terms of dimension and population assisted, and the reason we choose them as our corpus of study, was to compare preferences of the users from different cultural backgrounds and literacy levels. Within these four Hospitals, we applied qualitative and quantitative methods to perform the study in progress.

The quantitative methods used were: Questionnaires that were applied to the users of the Hospitals (outpatient area); Grid of quick questions, applied to the people visiting the Inpatient area. The sample size for the questionnaires was based on the annual number of outpatient users, and was calculated with a 95% confidence level and 5% of sampling error, which resulted in 386 questionnaires to be filled in each Hospital. For the visitants, the sample was not defined since in some Hospitals the number of visitors was unknown. The selection of the participants, for both methods, was made to cover the maximum population possible.

The qualitative methods applied were: Unstructured Interviews (in paper) delivered to the Hospital volunteers and staff; Direct Observations to the users interacting with the signs from which some problems with the signage system were identified. No video or photographic equipment was allowed by the institutions, so the observations were performed by the investigator *in situ*, through written notes during the observation periods. Along with those methods, we made a photographic record of the areas analysed in each of the settings (which was only allowed when there were almost no users on the setting), to create a comparison grill of the four cases that will allows us to identify differences or similarities.

### RESULTS AND DISCUSSION

From this ongoing research, we can present results that were collected through the direct observations method performed at three of the four Hospitals (Hospital de Santa Luzia, Hospital Infante D. Pedro and Hospital de Santo António), since the statistical analysis is not finished yet and the study is not yet completed at Hospital de São João. Below, in **Figure 1**, some photographic records of the Institutions are presented, since they complement some of the observations performed by the researcher.



Figure 1 – 1&2. Lack of maintenance of the directory and signage obstructed by the Television (Hospital de Santa Luzia - Viana do Castelo)/3. Signage with small letters (Hospital Infante D. Pedro - Aveiro)/ 4. Paper sheets taped on doors to overcome lack of signage (Hospital de Santo António – Porto)

The problems, identified in all the institutions, are related with crucial signage not well located that ends up obstructed by other elements of the environment, a huge part of the signage needs repair and maintenance, the letters and colours used are not adequate to vision impaired people moreover, to overcome the lack of signage, the Hospitals use sheets of paper taped on doors and hallways.

Furthermore, the researcher also found that some users' behaviours towards the signage, were common among the analysed institutions. First time users of each setting, tend to ignore the signage (even when visible and well designed) and look for staff to ask for information. This behaviour seems to be common between all users, although the elderly seem to do it more often. For people visiting the setting in a regular basis, they ignore the signage when going to services that they already know, but when they have to look for an unknown place inside the building, they use the signage to get the directions they need. However, most of them end up asking someone for information because they got lost half way. These pre-results seem to indicate that there are common errors of signage design and implementation that occur on the three institutions analysed, which can indicate a tendency on the way the national institutions are implementing the signage systems and a tendency for human behaviour in this healthcare institutions. However, quantitative conclusions will be presented when the statistical analysis is complete and the hypothesis tested. The results are expected to be available within a month from now.

## CONCLUSION

Through the performed direct observations, it was possible to observe that some of the users' behaviours towards the signage system and some of the problems inherent to those signage systems are common in all the analysed institutions. Also, that most of the users' difficulties in finding their way around the buildings are resultant from deficiencies on the signage available. Further in the process of this research, the treatment of all the statistical data brought from the questionnaires and the grid of questions, will allow a deeper understanding of the perceptions of the users and their difficulties, and it will be possible to see if their opinions corroborate the observations made by the researcher.

It is not viable yet to state (with a quantitative ground), but the fact that most of the problems in the signage are common in the four analysed institutions, can demonstrate a trend at a national level resultant from regulations and standards defined without consulting the users' needs and preferences.

## REFERENCES

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