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User Drafts for the Design of an mHealth Application for Equestrians

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Abstract. A study was conducted to find out user ideas for the design and workflow of an mHealth application supporting triage of horses by equestrians. Results focus on information input elements and also include some requirements for information.

Keywords. mHealth, telehealth, animal owners, veterinary medicine

1. Introduction

While veterinarians face psychological pressure due to the high workloads [1], the general public shows great interest in digital health applications [2]. One way to relieve veterinarians in their work can be to technically support animal owners in their decision regarding the need for veterinary care. To this, the design of the user interface is crucial [3]. A human-centered approach for the interface development could become beneficial. Involving all stakeholders can lead to a higher grade of integration and motivation, as a result of becoming more effective and efficient [4]. In the following, an initial exploratory study is described, aiming to get an impression of how equestrians imagine the functional look and feel of an mHealth application for the triage of horses.

2. Methods

Seven equestrians from two different stables (five | two) were asked to participate in the study on May 27th, 2023. While being at the stable, they were asked to brainstorm ideas for the look and feel of an application to provide meaningful support in a situation of finding a horse apparently feeling unwell, without any other person around for a second opinion. Printed task sheets with the task description and blank mobile device outlines were used. In addition to the sketches, participants were also asked to use additional keywords to describe their ideas if they deemed it necessary. Before task completion, participants were not provided with any additional information. After all task sheets were filled out, the results were analyzed and grouped with regard to the elements used.

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3. Results

Four participants provided three sketches, one provided two sketches, and two participants provided one sketch each. The elements used in the sketches are summarized and listed according to their number of occurrences in Table 1. One participant additionally mentioned in their descriptive keywords their need for guidance through the analysis, arguing that the situation was emotionally challenging and therefore stressful.

Table 1. Elements used in the participants' sketches (ordered by number of occurrences)

	Element (number of occurrences)
A	search for information in written form (7) (keyword search | full question search | no specification)
B	upload/ take pictures of the horse's health problem for evaluation (4)
C	contact opportunity with veterinarian from the app (4)
D	first recommendation to take care of the horse's health issue (4)
E	store horse information in a profile (2)
F	evaluate situation with provided scales (1)
G	have a set of guiding questions (1)

4. Discussion and Conclusion

The results provide a starting point for the first design phase of a user interface for an mHealth app, serving as a base for further research. This could be e.g. focus groups/ workshops, where initial drafts may be required for further discussion and should not solely depend on ideas of the authors, but on ideas of the main user group as well since those were hardly asked about their ideas so far. Due to the limited number of participants and sketches in this study, the results might be not as representative for other equestrians. The participants were asked to outline how they would imagine an application like the one described. Therefore, they presumably resorted to elements they are familiar with from other applications or websites. As a result, the items suggested may not be the best for the task at hand, but rather the items currently most commonly used for similar tasks. Additionally, those sketches come from equestrians who may have low veterinary health literacy [5]. Veterinarians and potential users need to further evaluate the listed elements regarding their grade of being useful or the risk of being misleading. This should be done in an iterative process aimed at agreeing on a set of elements that best support the task.

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