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 Contemporary Arts Practice and Outer Space: A Multi-Disciplinary Approach (3)

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VIRTUAL FUTURISTIC ANALOGUE MISSIONS TO DRIVE METHODOLOGICAL INNOVATION  
 FOR CLINICAL RESEARCH FOR SPACE MISSION AND EARTH

**Abstract**

Background: Future research for space exploration will not only require repeating terrestrial research in simulated/space environments, it also necessitates innovative approaches to the methods of clinical research to investigate these new challenges. Longterm missions require the continuous commitment and motivation of participants in the clinical trial; therefore, patient involvement in the research process is important. Methods: We piloted a series of virtual workshops using a futuristic sci-fi scenario for interplanetary and interstellar missions adapted for zoom. Individuals were given characters and scenarios to play in groups as crewmembers during these missions. Each person group was facilitated by one of the organisers. There were 1-2 observers who silently followed the discussion and taken notes on the group dynamics ad discussions. The group had to design a response that required both management of the situation and the development of a new method to control the outbreak of an unknown disease during this mission. Results: In 2019, we conducted small groups of pilot hybrid workshops (some participants in person, some virtual) and tested different scenarios on how to engage with individuals. In 2020, we conducted four workshops with 20-30 people from diverse fields (engineers, lawyers, artists, clinical researchers, medics, geologists, other sciences and professionals). There were challenges in that some individuals easily adapted to their fictional role and engaged well in the scenario whilst others struggled and took more time. However, in general, most groups engaged in the process. Groups used a co-design approach to develop alternative approaches to designing clinical research and a range of interventions to address the effects of a pandemic. This included; different management approaches to engage with the individuals affected in the design of the study, a series of environmental and logistical interventions to ensure a balance between addressing the outbreak and its consequences but also ensure the sustainability of the mission, or using quarantine or other strategies to identify what the problem is. Conclusions:

This speculative approach might be used to train individuals to find new processes and methods for unprecedented situations where a quick response is needed