

Virtual reality in organizational psychology: applications in a COVID hospital and a private company

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The combination between virtual reality (VR) and psychology is hardly a new frontier: extensive research has been conducted in the last twenty years. Nevertheless the application of VR is traditionally related to some clinical activities, such as the treatment of phobias (Garcia-Palacios, Botella, Hoffman & Fabregat, 2007).

VR is recently seeing a wider use for two reasons. The first one is the development of less expensive, more portable and better quality instruments. The second is the increased familiarity of both researchers/practitioners and the public with virtual reality, even though still mostly associated to gaming.

The potential for using a VR-based psychological protocol in organizations lays in the expected superior efficacy as well as the interest that the use of new technologies can raise among workers (De Carlo, Carluccio, Rapisarda, Mora & Ometto, 2020).

A protocol was created for supporting managers and workers in managing stress and anxiety (Carl et al, 2019). The protocol was designed to be a secondary intervention: a training aimed at giving the participants a set of competences for effectively decrease their levels of anxiety and stress.

Such an intervention can be applied in organizations in order to increase health and organizational well-being, and to carry on actions of Corporate Social Responsibility.

The protocol was designed to be a series of four live, one-to-one, one hour long sessions with a psychologists with a virtual reality kit aimed at improving a desired set of skills: deep breathing, corporeal focus, consequential/rational/emotional thinking.

The protocol was ready at the beginning of 2020. The COVID-19 emergency and the subsequent lockdown in Italy made in-presence one-to-one interventions complex.

Nevertheless a request came: the COVID-dedicated hospital in Schiavonia (Padova), the first Italian structure to hospitalize a COVID patient and to host a death case, needed help for its personnel. An intervention on 18 participants was conducted, 13 MDs and 5 nurses participated to two sessions, one aimed at teaching deep breathing and the other aimed at strengthening mental coping strategies such as rationalization. The participants were also interviewed using a grid for identifying organizational stress symptoms. The results of this experience were satisfactory: 100% workers completed the intervention and 100% of the participants used the techniques taught during the training. The levels of satisfaction were high: 9,2 on a scale from 1 to 10. After 4 months, a follow up interview was conducted: the participants showed a 38% reduction of stress symptoms. 84% of the participants still used the techniques taught during the training.

The intervention had a relevant echo both on national and international press. Just a few days after the end of the lockdown a request came from a small energy company situated near Schiavonia. 18 workers were administered the protocol in its full, 4 sessions, version. The participants, in addition to the qualitative interview, were asked to complete a STAI 1 and STAI 2 anxiety questionnaire at the beginning and at the end of every session. The results of this intervention were also satisfactory: we measured a reduction of anxiety as a transient state by an average 30% after each session as well as a reduction of anxiety as a trait by 7% at the end of the whole intervention. The participants showed an average level of satisfaction of 9.6 out of 10,

High levels of compliance, 100% of the participants, independently practiced the techniques. The most relevant data from both the interventions, though, are qualitative. When asked to talk, the participants could express how strong and emotional they felt. *"I did it [breathing]*

when I was anxious and it helped, at least 4/5 times.", "I practiced it daily and also independently in moments of anxiety.", "I practiced breathing sometimes in the morning, other times in the evening, sometimes even outside of the daily exercises.", "I practiced breathing every day, even on Sunday in the pool.", "I feel very light, I have perceived benefits, I feel relaxed and relaxed.", "I feel very relaxed, almost asleep, very quiet. Virtual reality is beautiful. ", "I feel good, more relaxed and with a clear mind.", "It's beautiful, everyone should do it!", "I really like the feeling, it gets all the bad thoughts out of my head, they go away like the blue smoke coming out, nice experience!", "I felt calmer, I felt like I was doing something nice for my well-being."

These sentences from qualitative interviews show how intense the experience of a Virtual Reality based psychological intervention in organizations can be.

The two experiences described in this presentation are far from being exhaustive in a research perspective. The small samples do not allow for statistically significant analyses and the very difficult contingent conditions made everything, including wide data gathering, impossible. Nevertheless they are a concrete testimony of how Virtual Reality can be used by psychologists in organizations for helping managers and workers, therefore they are worth spreading and discussing. More interventions are currently being conducted and they will provide the broader sample needed to conduct statistical analyses.

References

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