













quasi-experimental exploratory method commonly used must evolve towards proposals more oriented to the evidence based on clinical results with study of causality.

In addition, most of the proposals focus on a face-to-face work of robots in interaction with autistic persons and the applications in virtual worlds interconnected that allow to extend the robotic interactions without presence of the therapist are not frequent.

## **5. Conclusions and Future Works**

According with Diehl J, Schmitt L. M., Villano M, Crowell C.R. (2012), Begum M., Serna R.W., Yanco H.A. (2016) and Cho Seong-Jin & Ahn Dong Hyun (2016), we found that the purpose of many of the investigations is oriented towards the study of “responses to robots or robot-like characteristics, eliciting behavior, modeling, teaching, or practicing skills and providing feedback or encouragement, that is, the use of a robot as purveyor of behavioral contingencies or social support during an activity” (Diehl J., 2012). However, in this work we also find a fifth teleological category: the purpose of stimulating the human-human relationship with the robot as a linking instrument (Costa S. et al, 2015; Costescu C.A., Vanderborgh B. & David D.O., 2015; Sang-Seok Yun, JongSuk Choi & Sung-Kee Park, 2016). In this fifth teleological category, there is the intensive use of virtualization technologies and greater application of machine learning to adapt to a specific ludic objective.

We also conclude that is common to find research that focus on experimental design with a robot action in scheduled moments, physically controlled when people are exposed. However, evidence of validated advances in clinical terms is still incipient, so this seems to be a real limitation for employability increase of autistic people.

In the future, research with rigorous methods aimed at obtaining evidence-based clinical results is a great opportunity, especially if a strong link is made in increasing the employability of autistic people. In this sense, the quasi-experimental exploratory method commonly used must evolve towards proposals more oriented to the evidence based on clinical results with study of causality.

Another great opportunity for research in the future is the use of virtual reality experience of autistic people in combination with an avatar of a physical robot. This is an innovative way to search continuous and real time exposure to therapy protocols without therapist physical supervision but virtual, taking into account that experiments with robotics applications in virtual worlds interconnected with “physical world” under a cyber-physical concept are not frequently considered.

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