

Virtual Scenarios for diagnosis and rehabilitation of mentally disordered offenders and for men sentenced for domestic violence

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Abstract and Objective

Assessment and rehabilitation of mentally disordered offenders (MDOs) and of men prosecuted for domestic violence is performed in constrained settings, where social and cultural factors are missing. We have developed a simulation system, where scenarios in which violence might occur, can be realistically visualized. The system called Reactions on Display (RoD) allows the offender to choose from different scenarios, make decisions in certain situations, choose actions, see the reactions from victims and others and subsequently learn how to avoid violence. Results from two pilot studies have showed that RoD's interface and design were well received by offenders and professionals.

Keywords:

Virtual encounters, Simulation, Forensic psychiatry, Risk assessment, Violence

Introduction

Much of the severe violence in society is carried out by mentally disordered offenders (MDOs). Domestic violence is also a major problem in society.

Most current risk estimations are based on verbalization, which requires the ability to understand and react to verbal descriptions. However this ability is limited for many MDOs due to reduced cognitive functions or other problems.

In treatment of men sentenced for domestic violence, a rehabilitation program called Integrated Domestic Abuse Programme (IDAP) is often used. In IDAP, short video clips are used to exemplify domestic violence, which are discussed together with a therapist. However, the offender can not interact with the scenarios, hampering the rehabilitation.

It has been suggested that simulated environments creating realistic, emotional engaging scenarios where the clinician can observe how the offender reacts in certain situations and how different triggers influence decisions could improve risk estimations and treatment. Such simulations might be used for risk need analysis and rehabilitation.

Methods

A screen based interactive simulation system which can visualize different scenarios, possible actions and reactions has been developed, which is called Reactions on Display, RoD.

Two different pilot studies were set up. One within Forensic psychiatry (n=10) and one within the prison system where IDAP-based rehabilitation is already used (n=10). The studies were carried out on a voluntary basis focusing on investigation of feeling of realism, emotional engagement and usability of the simulation system. Log files, interviews and questions in the RoD system re. the possibility to "read" the virtual actors' emotions, feelings and potential reactions were analyzed.

Results

RoD starts with a longer film sequence which aims to outline a picture of the main character and build a relationship between him and the patient/offender. The scenario evolves as the user selects from a number of possible choices of action. Each action is in its turn illustrated by a reaction followed by a consequence, all illustrated by video sequences. All the video sequences are expressive, illustrative, and directed with realism in mind and are shown on full screen.

All participants could use the system and most of them indicated that they thought it might be a good complement to ordinary rehabilitation measures. Both studies showed that the RoD interface was well received by the users. All participants liked the visual design and indicated that they were emotionally engaged by the scenarios.

Conclusions

Our results indicate that RoD might be useful for risk estimation and treatment of MDOs within forensic psychiatry. RoD also seems to be possible to be used by professionals working with IDAP-based rehabilitation of men sentenced for abusing women.