video games have health benefits

EDITOR—The article by Edroos on video games as learning aids was interesting but selective.[1] Evidence indicates that important skills may be built or reinforced by video games—for example, spatial visualisation.[2]

Video games have also been used to improve children's health care. One of the best studied is Packy and Marlon (Kidz Health Software).[3] It was designed to improve self care and compliance in children with diabetes. In a controlled study, 8 to 16 year olds were assigned to either playing Packy and Marlon or an entertainment game.[3] In addition to more communication with parents and improved self care, the treatment group needed fewer urgent medical visits.

Several case reports describe the use of video games for rehabilitation. In one, an electronic game was used to improve arm control in a 13 year old boy with Erb's palsy.[w4] The game's format capitalised on the child's motivation to succeed and focused attention away from potential discomfort. Electronic games have also been used to increase adolescents' awareness in HIV/AIDS prevention programs.[5]

Studies have shown that video games can provide cognitive distraction—hence less nausea and need for painkillers—during chemotherapy in children.[1,6]

Parents would support the use of video games if they were sure that they helped their children educationally. There are several elements that the teacher, parent, or facilitator should evaluate when choosing a health promoting, or educational, or helping, video game.[9]

Educational or therapeutic objective— The objective of the game should be clear
Type of game—Some games need physical skill and strategy and others are games of chance

Required level and nature of involvement—Should the video game player be passive or active?
Information and rules Some games allow the player to have a range of knowledge and information about past experiences with the game, others give the player minimal amounts of information
The role of luck—Some games are driven by chance

Difficulty—Some games allow the player to choose the difficulty level
Competition—Some players are attracted by competition
Duration—Rewards, personal challenges, or changes in surroundings can maintain interest

Participant age and characteristics
Computerised games have been developed for a range of ages
Number of players—Some videogames are solitary in nature, others pit players against each other or the computer
Facilitator's role—In some videogames, the facilitator observes. In others, the facilitator is an important part of the game.

Video games bring new challenges to education and medicine. Video games may possess advantages not present in other learning strategies—for example, the ability to choose different solutions to a difficult problem and then to see the effect of those decisions in a fictional game allows players to experiment with problem solving. Video games have great positive potential in addition to their entertainment. There has been considerable success when games are designed to tackle a specific problem or to teach a certain skill. However, generalisability outside the game playing situation remains an important research question.

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