

June 16, 2008

UCSD to Study Impact of Video Games on Teenage Health

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Ready. Set. Launch Nintendo.

Video game researchers eager to discover what holds the interest of gamers young and old have donned their (virtual) thinking caps and equipped themselves with all the equipment of an avid gamer as part of a nationwide study involving 11 universities and the Maine Medical Center.

More than \$2 million in grants provided by the Robert Wood Johnson Foundation will allow researchers to explore everything from how cyber-cycling games encourage physical and neurological activity in seniors to how virtual role-playing games work to prevent relapse in alcoholics.

UC San Diego researchers in the Department of Family and Preventive Medicine will use \$198,000 to discover how interactive digital games can be designed to improve health in teenagers.

They will study so-called "exergames," popularized by musical video game Dance Dance Revolution and Nintendo Wii's baseball, boxing, bowling, golf and tennis games, which encourage players to mimic dance moves and other physical activities while monitoring a screen and using game controllers. Studies have shown that Dance Dance Revolution can raise a player's heart rate to the level of an aerobic workout.

'Exciting Next Step'

"I think it's a very exciting next step in our understanding of what motivates people to get physical activity and how technology and games can play a role," said Debra Lieberman, a leading expert in the research and design of interactive media for learning and health behavior change at UC Santa Barbara.

Health Games Research, an \$8.25 million Robert Wood Johnson Foundation national program designed to support innovative research in video games, is headquartered at the university.

Lieberman directs the Health Games Research Program and helped select grant recipients.

"Our aim was between 10 and 15 (recipients) that would add up to about \$2 million that

would really help us understand some aspect of health games,” she said. “(UC San Diego) happened to be a good proposal and addressed an important question.”

Researchers will ask what motivates play among social settings and whether the level of physical activity leads to increased health benefits, according to Dr. Gregory Norman, who is leading a team of four researchers to study adolescent behavior.

The information could prove valuable to the computer and video game industry, which took in about \$9.5 billion last year.

Japanese technology company SSD/XaviX, which has a branch in San Diego, will provide researchers with game equipment.

The research team will begin by mapping the games to determine what psychological principals motivate play. Then, they will invite a dozen children, ages 11 to 15, into the lab to play the games to judge various verbal, facial and other reactions.

The final phase involves a three-month, home-based study of 120 adolescents. Researchers will investigate how the social interactions that take place during game play influence health behavior change.

“Based on these findings, we would continue our research and apply for a federal grant,” Norman said.

Other study participants include Cornell University, Indiana University, Maine Medical Center; Union College, University of Central Florida, University of Florida, University of North Carolina at Chapel Hill, University of South Carolina Research Foundation; University of Southern California, University of Vermont and the University of Washington.