The Use of Technology in Social Work

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History of the Use of Technology in Two Examples

- In group work, it is used to compose songs, facilitate relaxation exercises, and record meetings.

- In schools, computer simulation is used for life skills training (delinquency, teen pregnancy, substance abuse, anger management)
Expanding The Use of Technology

- In group work
  - Video Modeling
  - Videotaping Behavioral Rehearsal
  - Creating Computer Simulations

- In Schools
  - Computer Simulations
  - Virtual Reality
Group Work: The Modeling Sequence

- Determine behaviors in which one or more group members are deficient
- **Modeling** – demonstration of behaviors
- **Behavior Rehearsal** – practice of modeled behaviors
- Coaching – prompting client during behavior rehearsal
- Group Feedback – evaluation
- Re-rehearsal – repeating practice
- Extra-group task – client designs a task to practice what was learned in group
Modeling and Behavioral Rehearsal

- Traditional group work techniques
- Learn skills through observation and practice
- Role-playing
- Especially effective in small groups
- Technology can be used to enhance these activities
Video Modeling

- Members model skills for each other
- All are involved and support each other’s efforts to create a video
- Group members can watch tape and evaluate each strategy modeled
- Video is watched at home between sessions - individual chooses favorite strategies and practices
Video Self-Modeling

- Client role-plays competent behavior on video
- Client repeatedly observes her/his adaptive or effective behavior on videotape
- This role play represents a new strategy for the client
Videotape or CD-ROM Modeling

- Actors model targeted skills
- Bigelow and Lutzker (1998) had success with parents at risk for child abuse & neglect in a group setting
- Drawback: modeling may be viewed as irrelevant if content is not personalized
Videotaping Behavioral Rehearsal

- Behavioral rehearsal follows modeling
- Client plays role(s) of characters demanding response from him/her, and the camera plays the role of the client.
Example of Videotaping Behavioral Rehearsal

- Steve, the client, acts out reactions that his wife might have when he tries to discuss their financial difficulties.
- Each time the wife (played by Steve) demands a response from the camera (playing Steve), the scene is cut and a blue screen flashes “please respond”
Outcomes of Videotaping Behavioral Rehearsal

- Steve plays both roles, and can now practice how he will respond (privately at home, or as a group).
- In the following group session, clients share their favorite responses.
- Pros: Able to play opposing role (access that role); it’s fun; and allows for multiple & varied repetitions.
Computer Simulations

- Provide active participation & individualized feedback
- Require users to make decisions and face consequences
- Each repetition revisits program content until skills are performed appropriately
Benefits of Computer Simulation

- Participants can work individually, in small or large groups with unlimited access.
- Anonymity of computer simulation is good for people embarrassed to role-play in front of others.
- Programs seen as games – creates less resistance and more openness to change.
Creating Computer Simulation

- Can be created using tapes from previous groups, with consent
- Possible responses to a situation are mapped
  - e.g., from previous role-play: Steve’s wife is mad. He can (a) get mad, (b) apologize, (c) explain why he is worried, (d) be kind, or (e) be uncompromising
  - Consequences would differ depending on the response
Issues for Group Leader

- Necessary Equipment
- Group Process Issues
  - Watch interactions at the computer - members will not participate if embarrassed or threatened
  - Process the activity – how the simulation was/was not realistic; evaluate which strategies worked; link actions & consequences
Why is Technology Important for School SW?

- Computer Simulation and Virtual Reality
- Popular with young people – spend a lot of time with technology
- Although used for entertainment, less has been done to use it for building pro-social skills
Benefits of Computer Simulation

- Benefits are same as those for group work:
  - Participants can work individually, in small or large groups with unlimited access
  - Anonymity is good for people embarrassed to role-play in front of others
  - Programs seen as games – creates less resistance and more openness to change
Limitations

- Costly
- Difficult to fix
- Teachers must be trained to use technology
- School personnel must be supportive
Examples of Computer Simulations for Youth

- Anger Management/Conflict Resolution
- Substance Abuse Prevention
- Health Promotion
Anger Management/Conflict Resolution

SMART Team
Pilot-tested in midwestern middle school
Users:
  - Enhanced self-knowledge during conflict
  - Increased pro-social behavior
  - More intentions to use non-violent strategies
No increase in confidence to handle problem situations
Substance Abuse Prevention

- SMACK
- Students 1st answer questions that are then used to personalize the simulation content
- Depending on response, they progress through a range of possible situations
- Students offered drugs; offered the chance to sell a belonging to get drugs
- Widely used in Britain (schools, rehab, police)
- No outcome data testing efficacy; no reports on how drug users react to SMACK
Health Promotion (1)

- Health Hero – video game; for people with diabetes & asthma, and for understanding effects of smoking;
  - increased knowledge & self-efficacy

- Life Challenge – HIV/AIDS prevention; time travel adventure game; players record responses to use in simulated situations;
  - increased knowledge of safe sex practices and HIV risk factors
Health Promotion (2)

- CHESS
  - for people who have contracted or are at risk of contracting HIV;
  - provide info, offer support, analyses & personal planning services; for older teens

- BARN
  - human sexuality, stress mgmt, alcohol/drug abuse, body mgmt, smoking;
  - adventure & quiz games, soap operas, and user-composed stories
Virtual Reality

- Allows the user to interact with a seemingly three-dimensional, computer-simulated environment
- Special VR equipment – helmets, gloves
- Current uses are physical rather than interpersonal in nature
Virtual Reality Benefits & Limitations

- **Benefits:**
  - Endless repetitions
  - Personalized content
  - Highly interactive
  - Popular with children/adolescents

- **Limitations:**
  - Disorientation
  - Motion sickness
Virtual Reality Uses

- Phobias
- Eating Disorders
- Skills Training
Treating Phobias with VR

- Used for fear of flying, fear of heights, fear of being somewhere that escape might be difficult or embarrassing, and fear of public speaking
- Clients display anxiety symptoms during treatment similar to real situations
- After treatment, significant decrease in anxiety symptoms
- No research has been done with children
Eating Disorders

- Reactions to food and calories consumed were noted during “virtual eating”
- To challenge distorted body perceptions – client chose a figure she thought most closely resembled her body; client and therapist discussed the differences b/t the actual & perceived images
- Client increased her body awareness and motivation to change, and decreased bodily dissatisfaction
Skills Training

- For children with disabilities: life skills training, cognitive skills training, mobility/spatial skills training and pro-social skills training
- “Builds self-control, mastery, and social skills while setting aside self-consciousness surrounding physical disabilities”
Potential Applications to the Classroom

- Teach social skills
- Level of immersion would have more impact (less immersive programs impact knowledge and attitudes, but very little impact on skills acquisition)
- Ex: a program to teach children how to interact with a bully – bully would grow bigger if response was negative; bully would shrink if the user learns appropriate ways to communicate.
How to Integrate into Daily Practice

- As an adjunct to established interventions
- Students can work individually or in groups
- Must monitor interactions, so that students feel comfortable in front of others
- Activity must be processed – students discuss how it applies to real life situations
- Become involved in designing new technological interventions
Barriers to Using Simulation & VR

- Acceptance – skepticism, fear of change
- Safety – head-mounted displays for VR may be too heavy & big; risk of psychological harm
- Efficacy – most programs lack sufficient research & evaluation
- Cost
References


References (cont.)
