

Teaching Normal Development Using Stimulus Videotapes in Psychiatric Education

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This article examines the educational principles supporting the use of stimulus videotapes. General principles of using videotape in teaching are discussed, followed by a specific review of the literature regarding the uses of videotape in psychiatric education. The literature on the use of stimulus videotape in psychiatric education is reviewed, with particular attention to its use in teaching normal development. (Academic Psychiatry 2003; 27:283–288)

The purpose of this article is to outline the principles of teaching in psychiatric education using stimulus videotape, as revealed by a review of the literature.

The article begins with a discussion of the general principles of using videotape in teaching, followed by a specific review of the literature regarding the uses of videotape (particularly stimulus videotape) in psychiatric education. Next, the literature on the use of stimulus videotape in psychiatric education will be reviewed, with particular attention to its use in teaching normal development. A concise overview of development videotapes is provided.

General Principles of Using Videotape in Teaching

The effective use of videotape has been shown to enhance learning. Wileman (33) states, "Visual images offer several advantages over verbal communication. They can present more information in a given amount of space and time. They simplify complex concepts and clarify pieces of abstract language-based concepts. Visual messages are efficient and effective at getting audience attention... Research has shown that visual images increase learning retention." A study of teaching methods by Dwyer (6) demonstrated that telling alone, showing visually alone, and combined telling and showing all resulted in at least 70% recall at 3 hours. However, 3 days later, retention was 10% for telling alone and 20% for showing alone, versus 65% for combined telling and showing. Meryn

(22) emphasizes that the current multimedia/Internet generation prefers "fractal communication." Fractal communication is "information in a nutshell," served up in modules that is characterized by five major elements: value of novelty, value of utility, emotional value, conversational value, and entertainment value. Meryn posits that this style is quite relevant for medical communication. Stimulus videotape, when used effectively, provides these five major elements of fractal communication and thus actively engages the learner on multiple levels.

Penta and Telder (26) describe the fundamental principles guiding the selection of audiovisual materials. They ask: Is the material appropriate to the learning objective? Does it demand active student involvement at visceral, cognitive, and emotional levels ("not necessarily physical response...; it can also mean emotional involvement, learning through deep feeling as well as intellectual activity")? Is the material appropriate to the level of the audience? Is the material basically sound ("film often ages rapidly in a world of change")? Is the material of good technical quality? Is the cost justifiable?

Penta and Telder also emphasize that the effective use of trigger videotape "requires a teacher to exercise the greatest self-restraint, for he must be will-

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ing to allow his students to identify and explore the issues while he himself merely guides, restates, and clarifies their contributions rather than pointing out what there is to be seen. Explanations may occasionally be required, but most teachers who control their impatience will probably be impressed by the knowledge, sensitivity, and understanding that students exhibit when given the opportunity." When a teacher has a great deal of material to cover in a short time, it is important that he or she restrain the urge to plunge ahead and, instead, allow sufficient time for class discussion of the video clip.

Rather than showing a videotape for an entire class session (a relatively passive enterprise), stimulus or "trigger" video clips that last from 1 to 5 minutes are considered optimal for illustrating lecture points and stimulating active class discussion (27), although films of up to 15 to 20 minutes are useful in some cases (28,7). Showing extensive film segments without stopping for discussion blurs the teaching point and leaves the students wondering if they came to class to watch television or participate.

Uses of Videotape (With Emphasis on Stimulus Videotape) in Psychiatric Education

In 1978, the American Psychiatric Association's Office of Education, in collaboration with the Consortium of Psychiatric Educational Organizations, sponsored a conference series that incorporated stimulus videotapes into a variety of learning modules (4). These tapes utilized professional actors to simulate common clinical situations. Alger and Lurie outline three common elements of effective stimulus tapes: the learning focus is on one specific area; the vignette has specific clinical relevance to the target audience; and the depiction is credible to the viewer. Alger and Lurie also describe a recommended sequence of four instructional strategies: identify learning objectives; show the vignette; hold group discussions; and summarize. Examples of small group discussion foci include clarification of feelings and attitudes, discussion of similar situations, role-playing, and problem solving.

The use of videotape in psychiatric education, as discussed in the literature, may be conveniently grouped into four categories: *to provide feedback and evaluation, to enhance students' exposure to diagnostic assessment and psychopathology, to stimulate discussion of*

theoretical issues in education, and to provide patient education and prevention. These categories are discussed below.

First, videotape has been found to be useful for purposes of *feedback and evaluation*. Examples include filming students during interviews with patients (real or mock), filming teachers during lectures or clinical teaching, and filming patients to facilitate their own understanding of family interactions. Video may be utilized to enhance observation techniques through a focused standardized patient interview, followed by the completion of a practice mental status examination (31). Assessment of skills using videotape may focus on interviewing techniques, filming the student with a real or standardized patient (19), or as part of an objective structured clinical examination (14). Paul et al. (25) describe how students were asked to videotape each other while examining a patient, followed by feedback from three different sources: self-critique, peer feedback, and instructor feedback.

Pinsky and Wipf (27) sensitively suggest that the common usage of "bad" versus "good" examples of interviewing technique should be tempered by a demonstration of thoughtful reflection. "By framing communication skills in terms of a process of reflection and continual improvement rather than 'the correct approach,' the teacher alleviates some of the learners' fears of being videotaped or performing poorly or being judged and rather focuses their attention on identifying their strengths and correcting weaknesses." Similarly, Forgotson et al. (7) suggest that after an interview with a patient is recorded, the interviewer can then archive a segment discussing, with self-critique, his or her reactions, affective response, and the areas he or she wished had been covered.

Alternatively, diagnostic acumen or knowledge base may be assessed using a trigger videotape of a patient and then evaluating the students' presentation (i.e., the oral boards examination format). A series of multiple-choice questions can be developed around a single video clip. The utility of testing knowledge in this manner is that it stimulates higher-order thinking (using Bloom's taxonomy/hierarchy of knowledge, comprehension, application, analysis, synthesis, and evaluation). Rather than merely recognizing and identifying facts, students are challenged to synthesize concepts and apply them in the context of a real-life situation.

Second, videotape has been used to selectively *enhance students' exposure to diagnostic assessment and psychopathology*. This is particularly useful when a condition is rare and unlikely to be encountered during routine clinical rotations. It is also useful in targeting or highlighting specific symptomatology. Parkin et al. (24) point out that "child psychiatric interviews can be very lengthy and covering the whole interview may not be appropriate." The downside of bringing in children for live interviewing is that often the child is uncomfortably shy in front of a group, or the baby is asleep, or the toddler is cranky, or the preschooler has a fever and the interview is canceled at the last minute, and the unfortunate result is that teaching points may not be effectively demonstrated. Having a video clip that highlights a specific teaching point is, therefore, sometimes preferable. On the other hand, a live interview has immediacy, an excitement of the unknown, and the potential for interaction with the audience. Rather, like the difference between live theater improvisation and a feature film, both teaching methods have their place.

Greenman et al. (12) and Janzen et al. (16) discuss the importance of normal infant observation in the training of child and adolescent psychiatrists. They suggest the delightful idea of pairing each new trainee with an expectant couple. The student interviews the prospective parents about their hopes and fantasies about the baby, is present at the birth, makes home visits and evaluations after the birth, and is available to the parents for expert support throughout his or her residency training. Unfortunately, this wonderful approach (successful in 1978 and 1981, respectively) might be curtailed today by the multiple demands of the current residency schedule. Selected video clips that follow a child longitudinally could provide a time-efficient and reasonably effective learning alternative, although videotape could not substitute for the interactional experience.

Learning is most effective when it occurs in a context in which the activity will occur (11). Although experienced virtually, it therefore makes sense to use video clips of actual children to demonstrate the concepts of normal development in context rather than simply discussing abstract theories. In addition to individual child development, common parenting dilemmas, such as how to get an uncooperative child to pick up his or her toys, can be effectively used to stimulate class discussion on parenting approaches,

behavioral modification, etc. Alternatively, vignettes can be used as the framework for case-based learning, in which students generate and pursue a list of topics stimulated by the video for further research.

Many psychiatry residency training programs have created lists of favorite popular movies to illustrate various aspects of development. There have been several recent articles exploring the use of commercial film in the teaching of both normal development and psychopathology, which go so far as to list annotated recommendations for specific films and their "indications" for illustrating aspects of normal development and various psychiatric disorders or learning how to construct a psychosocial formulation (15,17,23,29). The advantages of using commercial films as teaching vignettes are described as increasing enthusiasm and enjoyment on the part of the students while dramatically and efficiently illustrating specific concepts. Well-chosen film excerpts, used as stimulus videotape, open the classroom to a wonderful array of resources on a virtually limitless range of topics.

There are some disadvantages to the use of commercial film, not adequately described in the aforementioned articles, of which the instructor needs to be aware. First, copyright issues and the obtaining of written permission for use of commercial material need to be explored (27,30). Pinsky et al. (27) review the four factors of the doctrine of "fair use": 1) the purpose of the use, 2) the nature of the work, 3) the amount copied, and 4) the economic impact of the use. It is recommended that educators "always consult with your institution's legal counsel to make sure you are within fair use parameters and are adhering to your institution's own intellectual property guidelines" (5). Second, the issue of blurring the line between student and film critic is not addressed. It is important to remember that the commercial films are scripted dramatizations that have limited and variable basis in reality. There is a risk in using characters that have been created for dramatic effect (e.g., Hannibal Lecter) in the teaching of psychopathology. The student may confuse a dramatic characterization with an accurate description of a syndrome or normal phase of development. Furthermore, the observing stance of the student shifts from physician-therapist-psychiatrist to a movie-goer who desires entertainment. One advantage to using live interviews and video clips of actual children is that the student, by seeing a real child, is challenged to develop an atti-

tude of empathic respect. In summary, there is a place for both commercial movie clips and tapes of real children, as well as live interviews, in the teaching of development. All three approaches provide rich illustrations to enliven teaching objectives.

Third, videotape has been used to *stimulate discussion of theoretical issues in education*, such as ethics or informed consent (Accreditation Council for Graduate Medical Education 2001 conference). Video clips of live children can be used to heighten sensitivity to child interviewing issues and provide a focus for exploring a child's thinking without prematurely "correcting" or intervening. These skills are particularly relevant to the renewed emphasis by the Accreditation Council for Graduate Medical Education (3) on core competencies such as interpersonal communication.

A final use of stimulus videotape, not previously mentioned, is *patient education and prevention*. For example, Leitch (20) describes a study in which an educational videotape for pregnant mothers on infant communication techniques (i.e., dyadic interactions in which the parent learns to read infant communication cues) resulted in a significant improvement in Nursing Child Assessment Teaching Scale scores (e.g., sensitivity to cues, social-emotional growth-fostering behaviors). Video clips can also be used at well-baby visits to the pediatrician in order to preview the next developmental phase. Parenting groups for mentally ill parents may find video clips of normal children useful in stimulating discussion on how to handle potential challenges.

Overview of Existing Normal Development Videotapes

There are countless commercial videotapes about normal child development, which focus on specific topics or age groups. These generally have voice-over narration and often present a particular theory or expert approach. Although excerpts can be selected for presentation, such tapes are not designed as stimulus tapes and are intended to be viewed in their entirety. Different ages are usually represented by different children. Individual children are rarely followed longitudinally for more than brief periods. Some videotapes are targeted for parent education, while others are designed for graduate education. Such informational resources can be located at www.zerotothree.org,

www.dbpeds.org, www.childdevmedia.com, and www.iamyourchild.org, to name a few web sites.

A variety of undergraduate developmental psychology textbooks have recently added interactive CD-ROMs that are provided to the student when the textbook is purchased by the entire class. These CD-ROMs may include descriptive text, video, animation, and self-assessment quizzes. Of these, only two CD-ROMs currently utilize video clips of children: Dunn's "Observations in Child Development" and Downey et al.'s "Observing Children and Adolescents." These clips are limited to staged scenarios and cross-sectional interviews.

There are advantages to both longitudinal and cross-sectional approaches, and each has its place in the teaching of normal development. Cross-sectional perspectives offer the opportunity to compare and contrast "snapshots" of various children, thus demonstrating diversity (e.g., cultural, gender) and illustrating the range of normal development. By contrast, longitudinal perspectives offer the opportunity to track developmental lines as they emerge. The longitudinal approach also offers a depth of understanding and engagement with an individual personality over time, from which universal principles may be discovered.

Cross-sectional documentaries include the public broadcasting service (PBS)-funded *5 Girls* (9), which contrasts the coming-of-age of five adolescent girls, ages 12 to 17. PBS has several other productions of note, including *Childhood*, *The Secret Life of the Brain*, *Life's First Feelings*, and *Right From the Start*.

Normal development videotapes with extended longitudinal follow-up are rare. The most significant and well-known longitudinal documentary videotape series is Michael Apted's *42 Up*. Begun in 1964, the filmmaker follows 14 British children from varied social classes, at intervals of 7 years. Another longitudinal documentary, *Girls Like Us* (32), follows four working-class girls in South Philadelphia from ages 14 through 18.

A longitudinal stimulus videotape, *Normal Development in the First Ten Years of Life* (Fox, VHS 2000, DVD 2002) was designed for teachers of normal child development to use as a teaching resource. The design of this particular videotape adheres to the educational principles outlined above. Created in classroom discussion trigger format, the videotape provides examples of one child's 10-year develop-

ment in the realms of temperament, cognition, morality, gross and fine motor activity, verbal ability, attachment, separation-individuation, normal anxiety, etc. Both formal (psychological testing) and informal (unstructured naturalistic) assessment and observation are utilized. Academic, social, and family arenas are portrayed, including peer group interaction, sibling issues, and parenting techniques. The 201 real-life "visual anecdotes" illustrate the teacher's points and provide a stimulus for discussion. The clips can be shown in any order at the instructor's discretion. A list of recommendations of which clips to use for specific topics is provided. The DVD format allows nonanalog clip selection, so that the instructor can freely select clips without fast-forwarding. Since there is no voice-over narration, the videotape is useful for teaching students at any level and in any discipline (e.g., education, nursing, occupational therapy, pediatrics, physical therapy, psychiatry, psychology, and social work). The absence of voice-over narration also allows for multiple interpretations of the same documented event. In order to keep the video itself from becoming outdated, commentary is restricted to

the accompanying log, which is easily revised as new research findings in development arise.

Conclusion

The uses of stimulus videotape in psychiatric education have been well-documented and are based on sound educational principles. Due to the increasing time pressures on medical educators coupled with technological advances, there appears to be a growing need for supplemental teaching resources. For example, Frazer et al. (10) describe a survey of unmet needs in teaching developmental behavioral pediatrics. Of 148 programs, the majority reported using articles, lecture outlines, and precepting. Although few programs used standardized case-based or computerized materials, most indicated a desire for such materials. Barriers to teaching included a lack of adequate faculty, time, money, and curricular resources. The use of stimulus videotape in teaching normal development in psychiatric education, and in medical education in general, is one viable solution to these common challenges.

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