

Video Interventions in Psychiatric Settings: Addressing Social Communication

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Overview

- This presentation discusses the value of video interventions for children with social pragmatic impairments secondary to a variety of psychiatric diagnoses.
- It reviews the basics of video modeling, discusses the importance of the social learning theory, as well as describes available research on the subject
- Treatment using video modeling is described in this presentation with the focus on intervention details and well as select treatment protocols
- Audios of treatment with various age-groups and abilities is provided for illustration purposes

Psychiatric Impairments and Language Disorders

- Very high comorbidity rates 37-89% (Blankenstijn, & Scheper, 2003) depending on which study you look at
- Children with language disorders are at risk for developing psychiatric conditions (e.g., anxiety, depression, etc.)
- Children with psychiatric diagnoses often have significant comorbid language deficits, which may go undetected for years
- Cohen et al, 1998 found that 40% of children between 7-14 years of age referred solely for psychiatric problems had a language impairment that had never been suspected
- Hollo, Wehby, & Oliver (2014) did a meta-analysis of 22 studies, which reported results of language assessments in children with emotional and behavioral disturbances, EBD, with no prior history of language impairment (LI). They found that more than 80% of these children displayed below average language performance on standardized assessments (1–2 SD below the mean on a single measure) and 46.5% of these children qualified for criteria of moderate-severe LI (>2 SD below the mean on a single measure)

Psychiatric Diagnoses and Language Disorders

- Benner, Nelson, and Epstein (2002) examined 26 studies (n= 2,796) that addressed students with EBD and language deficits and found that ~71% of students were identified with pragmatic language deficits
 - Students with EBD had high co-occurrence rates of antisocial behavior and language deficits
- Cohen et al., 1998 found that most common difficulties were in the areas of emotion decoding and social problem solving
- Bryan, 1991 found that these children present with difficulties understanding another person's affective state
- Baltaxe & Simmons, 1988 found multiple pragmatic deficits
 - Conversation rule violations
 - Lack of background information provision
 - Behavioral outbursts vs. use of language
 - Decreased language use for problem solving
 - Lack of appropriate communication style

Psychiatric Diagnoses and Social Pragmatic Skills

- Hyter, 2003 found that pragmatics is the area of language most affected for students with EBD
- Aram, Ekelman, & Nation, 1984 found that pragmatic language disorders can complicate co-occurring psychiatric disorders
- Goldman, 1987 found via parental reports that children with language learning deficits did not use language for problem solving (e.g., sit down and talk through problems) but instead reacted physically by throwing tantrums and by storming out of the room.

Specific Psychiatric Diagnoses and Social Skills

- Speltz et al, 1999 found that preschool boys with ODD had poorer vocabularies for describing affective states than TD peers
- Bishop and Baird, 2001 found that children with ADHD showed evidence of underlying difficulties in social understanding
- Gilmour et al, 2004 found that substantial portion of children with conduct disorder have deficits in their pragmatic skills that are as severe as those of children diagnosed with ASD

Video Modeling: A Brief Overview

- Video modeling (VM), involves the learner being shown a model of targeted behavior, which the learner then has the opportunity to perform immediately or later (Franzone, & Collet-Klingenberg, 2008)
- **Types of video modeling**
 - **Basic video modeling**
 - Someone other than the learner perform the desired skill
 - **Video self- modeling**
 - Recording the learner performing desired skill
 - **Point-of-view video modeling**
 - Target behavior or skill is recorded from the perspective of what the learner will see when s/he performs the response
 - **Video prompting**
 - Learner is shown a video clip of one step of the task and then given the opportunity to complete that step before the next step is shown

Select Research on Video Modeling and Pragmatic Abilities

- Studies have demonstrated faster acquisition of social skills and increased generalization when using video modeling than when using modeling completed during a therapy session (Charlop-Christy, Le, & Freeman, 2000)
- Improvement in recognizing emotions in speech and facial expressions (Corbett, 2003)
- Improvement in the area of compliment-giving initiations and responses (Apple, Billingsley, & Schwartz, 2005)
- Improvement in the area of social initiations (Nikopoulos & Keenan, 2004; Buggey, 2005)

Video Analysis

- Learners view a video with a ‘social message’ and are then asked a series of verbal reasoning questions pertaining to the video in order to explore observed social behaviors of actors
- Not restricted to observations of desired behaviors only
- Videos may present a number of undesirable behaviors to foster a discussion among participants regarding how these behaviors are inappropriate and what can be done differently to change them
- The medium is salient to clients and readily engages their attention (Bellini, 2007)
- Observational learning is a highly effective method of learning new information

Social Learning Theory (Bandura, 1977)

- Stresses the importance of observing and modeling the behaviors, attitudes, and emotional reactions of others
- “Learning would be exceedingly laborious, not to mention hazardous, if people had to rely solely on the effects of their own actions to inform them what to do. Fortunately, most human behavior is learned observationally through modeling: from observing others one forms an idea of how new behaviors are performed, and on later occasions this coded information serves as a guide for action.” (p. 22).
- Select principles
 - Coding modeled **behavior into words** results in better retention (as opposed to mere observations)
 - Clients are more likely to internalize modeled behavior **if it results in outcomes they value (motivation and gain)**
 - **The modeled behavior is likely to be internalized if the model has admired status and the behavior has functional value**

The Setting

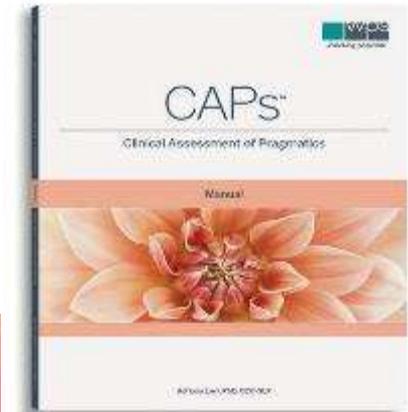
- **Rutgers Day School**
- **Ongoing enrollment**
- ~85 students in total (as of October 2019)
 - 53 elementary aged students
 - 32 adolescents
- Out-of-district special education school located in a psychiatric hospital for students 4-21 years of age with severe emotional and behavioral disturbances
- Variety of DSM-5 diagnoses including ASD, Anxiety, Depression, Mood Disorders, ODD, etc.

The Participants

- 40 participants to date with a variety of psychiatric impairments
 - 25 elementary aged students 7-11 years of age
 - 15 adolescent aged 12-19 years of age
- Inclusion criteria (Elementary and Adolescent)
 - Intellectual quotient ≥ 50
 - Diagnosis of social communication deficits based on standardized test combinations
 - Obtained a percentile rank of ≤ 10 on each of the 3 subtests from the Clinical Assessment of Pragmatics (CAPs; Lavi, 2019)
 - Obtained a percentile rank of ≤ 10 on each of the 3 subtests from the Social Language Development Test-Elementary
 - Obtained a percentile rank of ≤ 10 on the Social Language Development Test-Adolescent
- Exclusion Criteria
 - Students who were not administered social pragmatic testing
 - Students with significant expressive language deficits under 7 years of age

The Assessments

- **SLDTE Subtests**
 - Making Inferences
 - Interpersonal Negotiations
 - Multiple Interpretations
- **CAPs Subtests**
 - Social Context Appraisal
 - Affective Expression
 - Paralinguistic Symbols
- **SLDTA**
 - Entire test



The Materials

- Website: **Video Learning Squad** (30 day free trial)
- Videos for elementary aged and adolescent aged students
- <https://videolearningsquad.com/>
- Protocols developed by the clinician with a focus on verbal reasoning, social cognition, Theory of Mind (ToM), etc., based on the available research of identified deficit areas in children with psychiatric impairments and concomitant language deficits



Treatment Details

- First set of intervention sessions began on April 1
 - Enrollment is ongoing so more participants have been added in ESY 2019 as well as 2019-2020 academic school year
- Elementary aged groups
 - Intervention is provided 2x per week for a duration of 60 minutes to 5 participants per group
 - ***Peers with intellectual impairment are specifically paired with higher functioning peers in order to improve socialization, self motivation, and self efficacy of all group members**
- Adolescent groups
 - Intervention is provided 1x per week for a duration of 40 minutes to 3 participants per group
- Intervention is ongoing
 - 24 weeks to date (intervention was provided during ESY as well)
- Reevaluations are scheduled for the month of January 2020 to determine gains

Intervention: Elementary and Adolescent Groups

- 2 videos are watched per 30 minute session
- Each video is played twice in its entirety
- Each video then is played in short frames as participants answer questions
- Sample Goals:
 - Students will assume first person perspectives
 - Students will identify conflicts in presented scenarios
 - Students will provide suggestions on how to solve conflicts in presented scenarios
 - Students will justify their solutions to the presented conflicts
 - Students will identify elements of irony and sarcasm in the presented videos
 - Students will identify how the actors in the videos are feeling
 - Students will identify instances of nonverbal body language in the presented social scenarios

Elementary Group Intervention: Empathy Peer Mentoring Video “**Friend and His Scooter**”

- What went wrong in the video?
- How did it go wrong?
- What could have been done differently?
- Why was Bryan sad?
- Why did Bryan think he did not do anything wrong? (cause he told the truth)
- When can telling the truth hurt someone’s feelings?
 - Definition: “limping” –walking with difficulty because of hurt/damaged leg/foot
 - Definition: “Perseverance” – keep trying to do something until get it right
 - Phrase: “White lie” –bending the truth (by telling a very small lie) not to hurt someone’s feelings
 - What is the benefit of white lie?



Intervention: Adolescent Group

- **Additional Two Part Writing Component**
- Part I: Students provide responses to questions in writing and formulate responses via coherent and cohesive compound and complex sentences
- Part II: Students act as peer models and create their own list of questions based on presented videos



The Birthday Party: Sample Questions (Therapist)

1. What went wrong in this video?
2. How do you know that something went wrong?
3. Who behaved inappropriately in this video?
4. The girl in the striped shirt stated, "This party is so fun." Did she mean what she said? Why or why not?
5. How did the boy in the red shirt interpret what she said? Why?
6. What looks is the girl in the striped shirt giving the boy? Why?
7. Why did the girl in the flowered shirt tell Al to "get a slice of the cake?"
8. Why are the girls being sarcastic to the boy?
9. What do you think the boy feels at the end of the video?
10. What do you think the girls feel at the end of the video?
11. What do you think the boy thinks at the end of the video?
12. What do you think the girls think at the end of the video?

Birthday Cake



Worksheet: Birthday Cake

The Birthday Party: Student's Typed Responses (Age 12 year old male w/t ASD)

1. What went wrong in this video? **Al's friends were pranking him and talking him into cutting the cake.**
2. How do you know that something went wrong? **Al cut the cake and ended up getting in trouble with an adult in charge of the party.**
3. Who behaved inappropriately in this video? **Al's friends.**
4. The girl in the striped shirt stated, "This party is so fun." Did she mean what she said? Why or why not? **No, she thought the party was lame. She was being sarcastic because she was rolling her eyes, stretching her words, pausing between words, and using a low pitch showing boredom.**
5. How did the boy in the red shirt interpret what she said? **Why? He thought that she meant what she said. Al doesn't understand sarcasm and is being literal.**
6. What looks is the girl in the striped shirt giving the boy? **Why? She is giving the boy an incredulous look, which shows, "Is he serious?"**
7. Why did the girl in the flowered shirt tell Al to "get a slice of the cake?" **Because they have nothing to do so they want entertainment at Al's expense.**
8. Why are the girls being sarcastic to the boy? **They are bored and pranking Al looks like fun.**
9. What do you think the boy feels at the end of the video? **He feels like he can't trust his friends**
10. What do you think the girls feel at the end of the video? **They feel happy that the boys in trouble**
11. What do you think the boy thinks at the end of the video? **He thinks that it's a misunderstanding and he is confused.**
12. What do you think the girls think at the end of the video? **He is so lame.**

The Birthday Party: Student Created Questions

15 year old female with SCD

- Why were the friends chuckling in the background?
- Was there a reason the girl raised her inflection when she told Al, “go ask her out”?
- Why would Al’s friends look at each other after encouraging him to ask Christina out?
- Why would Al’s friends trick him?

Birthday Cake



Quantitative Findings

- Clinical Data (goal mastery and progression)
 - Students improve abilities to answer verbal reasoning questions pertaining to the presented social scenarios
 - Students improved ability to use varied affect and prosody in conversational exchanges
 - Students improved ability to make inferences
 - Students improved ability to provide solutions to social programs
- Behavioral Observations (data tracking)
 - Increased amount of polite language used in interchanges with staff
 - Decreased frequency of verbal and physical outbursts in the classroom
 - Increased compliance and cooperation with staff's directions and requests
 - Decreased number and frequency of restraints

Qualitative Findings

- Students find the videos highly salient
- Students make requests to watch specific videos and explain their rationale why they wish to do so
- Students verbalize preference for the videos as compared to traditional therapy materials (e.g., worksheets)
- Students verbalize excitement when coming to sessions that they will be working with the videos

Adolescent Group Discussion: 15 years olds with ASD

- **“Superhero Movie”**
- Click on the Audio to hear the sample



Elementary Group (9-10 years of age): Mixed Diagnoses

- **“Supporting Friends”** Video
- Click on the Audio to hear the sample



7 Year Old with ASD with Emerging Social Communication Abilities

- “PB & J” Video
- Click on the Audio to hear the sample



Conclusion

- High saliency of presented information makes sessions engaging to all participants who readily attend sessions and “request extra sessions”
- Video modeling intervention is judged to be a promising treatment methodology for elementary and adolescent aged children with a variety of psychiatric impairments as well as varying levels of cognitive abilities
- More research is needed to determine long term gains across both groups

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