The Effects of Peer Praise Notes on Socially Withdrawn Adolescents: A Classroom Intervention

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Outline

• Background Literature

• Method

• Results

• Discussion
Background Literature

• Socially Withdrawn Students
• Interventions
• Praise
• Teacher Praise
• Peer Praise
• Written Praise
Socially Withdrawn Students

- Research has shown that those students who are socially withdrawn or isolated have difficulty learning appropriate social conduct which places them at risk for difficulties later in life (Oden, 1980; Patterson, Reid, & Dishion, 1992).

- Children who were avoided, neglected, or teased were at high risk for developing behavioral and emotional disorders (Gresham, MacMillan, & Bocian, 1998).
• Students find interactions with withdrawn students to be aversive or less rewarding than interactions with other students (Stormshak, et al., 1999).

• Many students avoid interactions with students who have behavior or emotional disorders (McDowell, 1988; Myerson & Hale, 1984).
Interventions

• One approach aimed to increase students’ social involvement is to design educational systems that increase prosocial behavior, rather than simply aiming to prevent antisocial behavior (Winette & Winkler, 1972).

• Prosocial behaviors should be reinforced, teaching students that prosocial behaviors are valued (Skinner, Cashwell, & Skinner, 2000).
• Peer approval is a powerful source of prosocial influence and may be an effective target for intervention (Skinner, et al., 2000).
Praise

• Praise is viewed as positive reinforcement which encourages desirable behavior, while extinguishing undesirable behavior (Thomas, 1991).

• If delivered correctly, praise increases students’:
  – on-task behavior (Ferguson & Houghton, 1992)
  – motivation in the classroom (Thomas, 1991)
  – academic success (Sutherland & Wehby, 2001)
Teacher Praise

- Praise has been widely recommended as an important reinforcement method for teachers. It can build self-esteem, provide encouragement, and build a close relationship between student and teacher (Brophy, 1981).
Peer Praise

• Positive Peer Reporting (PPR or “tootling”):
  – Students verbally report their peers’ prosocial behaviors
  – PPR has been effective in increasing the social interactions of withdrawn students (Skinner, et al., 2002).

• PPR:
  – Increased the social involvement of three socially withdrawn children
  – Peers were a source of positive reinforcement for the prosocial behavior of at-risk children (Moroz & Jones, 2002).
Written Praise

• The effects of peer to peer written praise have not been thoroughly explored.
What are the effects of peer-written praise notes on the social involvement of three socially withdrawn middle-school students?
Method

- Participants
- Setting
- Measures
- Observations
- Experimental Procedures
Participants

• Three adolescents (age 12-14) attending a public Jr. High school in the Western United States
Setting

- Participants were screened using Stages One and Two of the Systematic Screening for Behavior Disorders (SSBD) and identified as displaying internalizing symptoms.

- Participants were enrolled in Successful Skills for Living and Learning (SSLL), a class for students at risk for emotional behavioral disorders.

- The three participants were selected by the teacher and the PI.
Measures

- Participants’ interactions were observed and recorded 4 days a week during a 15-minute Peer Activity Time.

- Students’ Peer Activity Time activities included:
  - Listening to music
  - Talking to their friends
  - Hanging out together on the couch in the back of the room
  - Playing games alone or with others (e.g., Jenga, cards, domino’s, hackysack, etc.)
Target Behavior: Social Involvement

1. Social engagement: any positive verbal or nonverbal interaction with a peer (e.g., talking, actively listening, playing together, etc.)

2. Participation: involvement in a game with structure or rules

(Not included in social involvement was playing alone, talking to an adult, parallel play, standing near peers while watching them play a game, or any negative interaction.)
Observational Method

- Partial interval recording: Observation sessions occurred during Peer Activity Time and consisted of 72, 10-second intervals (12 minutes).
Observation Form

Observation Form: Sample
Period: 1 2 3  
Day of week: __________  
Date: ___________  
Observer ________________

<table>
<thead>
<tr>
<th>Interval (10 second intervals)</th>
<th>+=Active</th>
<th>Who initiated the interaction? (first initial of student)</th>
<th>Who was the recipient of the interaction? (first initial of student)</th>
<th>Students Involved in interaction? (first initial of students)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>+</td>
<td>J</td>
<td>C</td>
<td>J, C, S</td>
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<tr>
<td>2</td>
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<tr>
<td>3</td>
<td>0</td>
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</tbody>
</table>
Interobserver Agreement

• Prior to data collection, the two observers conducted practice sessions. When interobserver agreement exceeded 90%, training was terminated.

• Interobserver agreement: During 33% of the observations, the secondary observer simultaneously recorded the interactions. Interobserver agreement was 98%.
Experimental Design

• An A-B-A single subject design across participants was used.

• This design was selected because it has been used in prior studies on PPR.
Intervention

• Students were asked to write a praise note to each of their classmates every week; they were reinforced (with a group contingency) for writing 2-3 praise notes each morning.
Date: 4/28/2007
To: David
I really liked your role-play in class.
You are cool!
From: Sam

Adapted from *How Full is Your Bucket?*
Tom Rath & Donald O. Clifton, PhD.
A checklist was completed by the PI to ensure the training of students was conducted in a consistent manner across classrooms.
- 100% treatment integrity

The teacher and the PI jointly implemented the intervention daily.
- Permanent product data suggests that the intervention was implemented as designed.

During our unit on peer relations, you will be encouraged to write praise notes to your classmates.

Each morning there will be two Peer Praise Notes on your desk. You will be given time to write praise notes after journaling time.

(Teacher demonstrates the steps of writing a praise note by writing on a praise note transparency on the overhead projector):

a. To: Sam
b. Write a message to a classmate. You can write something specific like “I liked your role-play. You were very …”
In Class Tracking of Praise Notes

- Public posting was used to reinforce the writing of praise notes (i.e., a poster was hung on the wall indicating the number of praise notes written so far that week, as well as the class goal).

The PI praised students for praise notes written that day and asked one student to move the dial.
Group Contingency

- Group contingencies were used to reinforce the writing of praise notes.
- Students rank-ordered a list of activities they wanted to earn.

Please number each activity from 1–6. #1 is the activity you would like to do the most, #6 is the activity you would like to do the least.

- Doughnut and chocolate milk party
- Fiesta Party (chips, salsa, Sangria)
- Smallville movie, popcorn, and soda
- Burgerking: receive $3 for breakfast
- Outside games (kickball) and candy party
- Dodge ball in the gym and candy party
Results

• Interaction With Peers
• Daily Praise Notes
• Initiations and Responses
• Results
• Social Validity
Interaction With Peers: Student J

**Results**

**Baseline**
- Mean: 9.17%

**Intervention**
- Mean: 49%

**Withdrawal**
- Mean: 94%

**Maintenance**
- Probe Mean: 31.94%
Daily Praise Notes: Student J

<table>
<thead>
<tr>
<th>Day 1</th>
<th>Day 2</th>
<th>Day 3</th>
<th>Day 4</th>
<th>Day 5</th>
<th>Day 6</th>
<th>Day 7</th>
<th>Day 8</th>
<th>Day 9</th>
</tr>
</thead>
<tbody>
<tr>
<td># of Praise Notes:</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

- **Sent**: Mean: 1.89
- **Received**: Mean: 1.67

8 PPN received by Day 5
Interaction With Peers: Student A

Baseline
Mean: 41.27%

Intervention
Mean: 93%

Withdrawal
Mean: 98%

Maintenance
Probe
Mean: 100%

% of Interactions

Days

Results
Daily Praise Notes: Student A

Mean: 2

1 PPN received from C on Day 1

Sent  Received

Day 1  Day 2  Day 3  Day 4  Day 5  Day 6

# of Praise Notes
Interaction With Peers: Student R

Baseline
Mean: 14.61%

Intervention
Mean: 55.38%

Withdrawal
Mean: 59.52%

Maintenance
Probe
Mean: 6.94%
Daily Praise Notes: Student R

<table>
<thead>
<tr>
<th>Day</th>
<th># of Praise Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
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<tr>
<td>3</td>
<td>4</td>
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<tr>
<td>4</td>
<td>2</td>
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<tr>
<td>5</td>
<td>1</td>
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<td>6</td>
<td>1</td>
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<tr>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>9</td>
<td>2</td>
</tr>
</tbody>
</table>

- **Sent**: Mean: 2.25
- **Received**: Mean: 2.33

6 PPN received by day 2
Responses and Initiations: Student J

**Baseline**
- Means: 1 0

**Intervention**
- Means: .33 1

**Withdrawal**
- Means: .75 1

**Maintenance Probe**
- Means: 0 4

Days: 03/16 03/19 03/20 03/21 03/22 03/23 03/24 03/25 03/26 03/27 03/28 03/29 03/30 04/02 04/03 04/04 04/05 04/06 04/09 04/10 04/11 04/12 04/13 04/16 04/17 04/18 04/23 04/24 04/25 04/26 04/30 05/01 05/02 05/03 05/04 05/05 05/06 05/17 05/18 05/19 05/21

# of Responses and Initiations

- **Responses**
- **Initiations**

- **Baseline**
- **Intervention**
- **Withdrawal**
- **Maintenance Probe**
Responses and Initiations: Student A

Baseline
Means: \(0.71\) 0

Intervention
Means: \(1.33\) 0.5

Withdrawal
Means: 1 0

Maintenance
Probe
Means: 1 0

<table>
<thead>
<tr>
<th>Days</th>
<th># of Responses</th>
<th># of Initiations</th>
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<tbody>
<tr>
<td>03/16</td>
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<tr>
<td>03/19</td>
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<td>03/20</td>
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<tr>
<td>03/22</td>
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</tr>
<tr>
<td>03/26</td>
<td>1</td>
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</tr>
<tr>
<td>03/28</td>
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<td>0</td>
</tr>
<tr>
<td>03/30</td>
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<tr>
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<tr>
<td>04/03</td>
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<td>04/05</td>
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<td>04/06</td>
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<td>04/09</td>
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<tr>
<td>05/19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>05/21</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Responses and Initiations: Student R

Baseline
Means: .2 .4

Intervention
Means: 1.88 2.25

Withdrawal
Means: 2 1.86

Maintenance
Probe
Means: 0 1

- Responses
- Initiations
## Praise Note Content

<table>
<thead>
<tr>
<th>Categories</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>You’re Cool/Awesome/You Rock</td>
<td>25%</td>
</tr>
<tr>
<td>You’re Good at ___/Talented</td>
<td>16%</td>
</tr>
<tr>
<td>You’re Funny</td>
<td>15%</td>
</tr>
<tr>
<td>Specific Compliment</td>
<td>10%</td>
</tr>
<tr>
<td>You’re a Good Friend</td>
<td>8%</td>
</tr>
<tr>
<td>I’m Glad You’re in My Class</td>
<td>7%</td>
</tr>
<tr>
<td>Good Work in Class</td>
<td>6%</td>
</tr>
<tr>
<td>Thanks for ___/Appreciation</td>
<td>6%</td>
</tr>
<tr>
<td>You Have a Good Personality</td>
<td>6%</td>
</tr>
<tr>
<td>You’re Nice/Kind</td>
<td>4%</td>
</tr>
<tr>
<td>Other (e.g., you’re smart, you’re quiet, what’s up?, etc.)</td>
<td>20%</td>
</tr>
<tr>
<td>Total</td>
<td>377 Peer Praise Notes</td>
</tr>
</tbody>
</table>

Some of the notes contained more than one message, hence, the total percentage exceeds 100%.
Praise Note Content

• 32% of praise notes under the category “You’re Good at ___” referred to games played during Peer Activity time.

• 50% of praise notes under the category “You’re Fun to Play With” referred to playing with that person during Peer Activity Time.
Results

• The data suggests the treatment was effective for all 3 participants
  – All participants’ interactions increased

• The target behavior did not reverse
  – Participants’ interactions did not decrease when treatment was removed
  – Recent research challenges us to find interventions that empirically demonstrate maintenance of behavior (Marchant, et al., 2007).
    • Social involvement maintained after treatment was removed
Social Validity: Teacher

The teacher believed the intervention to be beneficial for all students.

*Intervention Rating Profile-15, (Witt & Elliott, 1985)*

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Slightly Disagree</th>
<th>Slightly Agree</th>
<th>Strongly Agree/Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I would suggest the use of Peer Praise Notes to other teachers.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>This intervention (Peer Praise Notes) is a fair way to handle students socially withdrawn behavior.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>I like the procedures used in the Peer Praise Notes Intervention.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Overall, Peer Praise Notes would be beneficial for the students.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>
### Social Validity: Students

Students believed the intervention to be beneficial

*Intervention Rating Profile-15 (adapted for adolescents), (Witt & Elliott, 1985)*

<table>
<thead>
<tr>
<th>Students Feedback</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Slightly Disagree</th>
<th>Slightly Agree</th>
<th>Strongly Agree/Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I would suggest the use of Peer Praise Notes to other teachers.</td>
<td></td>
<td></td>
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<td></td>
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<td>X X X</td>
</tr>
</tbody>
</table>

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**Literature**

**Method**

**Results**

**Discussion**
Social Validity: Students

Of 16 students:

“Peer Praise Notes could help a student who does not socialize very much with classmates.”
  • 81% agreed or strongly agreed

“Peer praise Notes would be effective in improving a child’s social involvement with classmates.”
  • 75% agreed or strongly agreed

“Peer Praise Notes would be appropriate for a variety of students.”
  • 75% agreed or strongly agreed

“Overall, Peer Praise Notes would be beneficial for the students.”
  • 69% agreed or strongly agreed
Discussion

• Given the potential risks to students who are socially isolated or withdrawn, it is necessary to thoroughly examine our treatment approaches.

• Data suggests Peer Praise Notes produced distinguishable improvements in the social involvement of socially isolated adolescents.

• This study extended previous research by:
  – examining a Junior High school population (adolescents rather than elementary students)
  – utilizing written peer praise (previous research examined teacher praise or verbal peer praise -“tootling”)

[Image 533x103 to 562x218]
[Image 533x260 to 562x375]
[Image 533x419 to 562x534]
[Image 533x572 to 562x687]
Limitations

- Classes were small (5-10 students); limited number of students with whom to interact.
- An A-B-A-B design did not allow for a demonstration of experimental control.
Challenges

• Intervention is time consuming
  – Writing praise notes
  – Reviewing praise notes
  – Peer Activity Time (3-4 days a week for 15 min.)
• Some students do not receive praise notes some of the time
• Students with lower levels of writing skills
• Inappropriate praise note content
• Inappropriate behavior during Peer Activity Time (rough-housing)
How to implement PPN in your classroom:

1. Introduce and discuss *How Full is Your Bucket: a rationale for PPN* (Tom Rath & Donald O. Clifton, PhD.)
2. Instruct and demonstrate how to write effective praise notes:
3. Introduce intervention:
   a. Place “bucket” in the room
   b. Place “drops” (PPN) by the bucket
   c. Allow time for students to write “drops” to their peers and place in the bucket
   d. Review PPN for appropriate content and give them to students
   e. Provide a place for students to keep their PPN (e.g., inside their journal or notebook)
4. Establish reinforcement (e.g., group contingencies—class activities, public posting)
5. Track student interactions during class activities to determine whether PPN provided desired results

For a copy of this presentation: http://education.byu.edu/pbsi/


Target Behavior: Social Involvement

Example:
- Christine is playing a card game with Courtney
- Clay and John are sitting on the couch talking and laughing

Non-example:
- Jack is sitting at his desk playing dominos alone
- Dylan is wandering around the room observing his classmates while they play games
References


Experimental Procedures

• Experimental Design
• Intervention
  – Group Contingency
  – Treatment Integrity
  – Tracking of Praise Notes
  – Peer Praise Notes Content