Social cognition in relation to bullying behaviour in upper primary school

Lyset Rekers-Mombarg, Marije Wijnberg, Theo van Batenburg & Greetje van der Werf
Introduction

› Bullying happens in almost every class
› Roles for children involved in bullying:
  • bully, victim, victim & bully, outsider

› Individual characteristic pattern:
› **Bullies:** agressive reaction pattern, more favourable view of violence, strong need to dominate and feel powerful, feel little empathy for victims, social cognition low or high?
› **Vic**tims: low self-esteem, anxious submissive reaction pattern, over-proctective parents, are physical weaker than the bully, social cognition?
Social cognition

› Piaget’s Social theory (1954-1985)
  • Development of social decentralisation and perspective-taking.
  • ‘Deducing of perceptions, emotions, intentions and thoughts of others and considering this in one’s behavior towards the other’.
  • Understanding of how to deal with your own feelings and emotions and those of others.
Questions

1) Is the social cognition related to the role of students in bullying incidents?

2) Has the Dynamic model or Social network intervention program affected the social cognition of Dutch grade 5 students?
Study design

› Experiment: randomisation of Dutch primary schools

› **Group 1:** Dynamic model intervention
  • 13 schools, 219 students

› **Group 2:** Control
  • 15 schools, 314 students

› **Group 3:** Social Network intervention
  • 16 schools, 339 students

Duration intervention period: ½ school year
Social cognition test

Originally a video test (Westerhof, Jansen, & van der Werf, 1993)
  • Chronbach’s $\alpha=.76$

Construct of the social cognition test:
  › 5 developmental levels:
    • comparing, perspective taking, relating, coordinating and coping
  › 3 emotional content domains:
    • feelings, thoughts and intentions

Picture story test:
  • Belgium, Cyprus, Greece and the Netherlands
  • 6 picture story’s about social situations
  • 90 items
Example: Hugo and Charles are playing darts

The darts champion is winning again!

Yes. Good for you. I only had 24 points.

Hey Hugo, what is the matter with you now?

Playing darts is not always fun if you lose all the time. We already played 5 games and I haven't won once.
Social cognition test

Question 20. How does Hugo feel?
(Hugo is the boy who is losing all the time)

A. Hugo is angry because Charles was cheating
   ☐ ☐ ☐
B. Hugo is sad because he is losing from Charles all the time
   ☐ ☐ ☐
C. Hugo is angry because he does not like to lose
   ☐ ☐ ☐

› Recoding responses: 0 (low) - 2 (high social cognitive)
› Cronbach’s α= .88
› 2177 students
Bullying:

› Revised Olweus (1996) questionnaire
  • role in bullying incidents: 1 item
  • Tendency to be bullied (scale A): 9 items
  • Tendency to bully (scale B): 9 items

Quality of School life:

• 6 items, e.g. ‘I like being at school’; ‘Teachers in my school want students to do their best’
• Responses: 1=‘I don’t agree at all’ to 5=‘I agree completely’
## Results 1

<table>
<thead>
<tr>
<th></th>
<th>Pre intervention</th>
<th></th>
<th>Post intervention</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Victim</td>
<td>Bully</td>
<td>Bully &amp; victim</td>
<td>Outsider</td>
</tr>
<tr>
<td></td>
<td>14%</td>
<td>3%</td>
<td>3%</td>
<td>79%</td>
</tr>
<tr>
<td>Tendency to be bullied</td>
<td>2.27</td>
<td>1.25</td>
<td>2.39</td>
<td>1.13</td>
</tr>
<tr>
<td>Tendency to bully</td>
<td>1.25</td>
<td>1.75</td>
<td>1.72</td>
<td>1.07</td>
</tr>
<tr>
<td>Quality of school life</td>
<td>3.88</td>
<td>3.85</td>
<td>3.55</td>
<td>4.25</td>
</tr>
</tbody>
</table>
Results 2: Social cognition

![Bar chart showing social cognition test scores for different groups: victim, bully, victim&bully, outsider. The bars are labeled with significance levels: * and ***.](image)
Results 3: Social cognition

![Bar chart showing social cognition test scores for different groups.]

- Gr 1 Dynamic Model
- Gr 2 Control
- Gr 3 Social Network

*Significant difference
# Social cognition – Multi level analysis

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>.135 (.0.73)</td>
<td>.224 (.105)</td>
</tr>
<tr>
<td>Boys</td>
<td>-.201 (.069)</td>
<td>-.200 (.069)</td>
</tr>
<tr>
<td>Ethnic minority</td>
<td>-.284 (.096)</td>
<td>-.270 (.096)</td>
</tr>
<tr>
<td>Group 1 Dynamic Model</td>
<td>--</td>
<td>-.282 (.148)</td>
</tr>
<tr>
<td>Group 3 Social network</td>
<td>--</td>
<td>-.038 (.136)</td>
</tr>
<tr>
<td>Variance at student level</td>
<td>.893 (.046)</td>
<td>.892 (.046)</td>
</tr>
<tr>
<td>Variance at school level</td>
<td>.095 (.033)</td>
<td>.084 (.030)</td>
</tr>
<tr>
<td>R2 student level</td>
<td>3.1%</td>
<td>4.3%</td>
</tr>
<tr>
<td>Deviance (Model fit)</td>
<td>2218</td>
<td>2214</td>
</tr>
</tbody>
</table>
Conclusions & discussion 1

› Outsiders and victims had a similar social cognition score.
› The social cognition of bully and bully-victim was lower than that of outsiders or victims.

› *Social cognition test may be a new instrument for the identification of students with high risk of being or becoming a bully in upper primary school.*
› *Social cognition test may be used as a measure for interventions at the individual level that aim to improve the student’s social cognition?*
Conclusions & discussion 2

› The Daphne intervention program or Social network intervention program has *not* affected the social cognition of the Dutch grade 5 students.

› *Results of Greece, Belgium, Cyprus?*

› *Differences in matrix of development level by content domains?*
Thank you for your attention!

l.t.m.rekers-mombarg@rug.nl