‘Social Distancing’ in football

Player pair distance:
- 200 cm
- 150 cm
- 100 cm
- 100 cm (inner circle)
- 50 cm
- 30 cm
- 30 cm (inner circle)
- 10 cm

Encounter time:
- 33.8 sec
- 19.9 sec
- 8.5 sec
- 1.4 sec
- 0.4 sec
`Close Encounters` matches Dutch Eredivisie

- Analysis based on position data of all players of 482 matches in the Dutch Eredivisie;
- Corrected for `goal-celebrations` and interactions during pre-match/half time and post match;
- Players have very limited number of close encounters during a match;
- In less than 10 of the matches, we see a slightly higher exposure for 1-2 player pairings.
Interactions during Eredivisie games

- We see a significant increase of close encounter time for a threshold distance of >150 cm;
- For threshold distances lower than 150 cm, there is no risk for 75% of the player pairings and very limited risk for the remainder (25%);
- For all close encounters with a threshold lower than 200 cm, we see an average close encounter time which is slightly higher than 30 seconds.

0.2% of all matches exceed 30 sec average

1.2% of all matches exceed 30 sec average

69.9% of all matches exceed 30 sec average

0 player pairings (min) 237 player pairings (highest measurement)
### ‘Close Encounters’ Matches Dutch Eredivisie

<table>
<thead>
<tr>
<th>Distance &lt; 30 cm</th>
<th>Highest player pairing encounter time per match (sec.)</th>
<th>Average encounter time per player pairing (sec.)</th>
<th>% of player pairings with encounters &gt; 30 sec.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distance &lt; 50 cm</td>
<td>32.2</td>
<td>1.4</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Distance &lt; 100 cm</td>
<td>151.9</td>
<td>8.5</td>
<td>9%</td>
</tr>
<tr>
<td>Distance &lt; 150 cm</td>
<td>352.11</td>
<td>19.9</td>
<td>24%</td>
</tr>
<tr>
<td>Distance &lt; 200 cm</td>
<td>591.2</td>
<td>33.8</td>
<td>39%</td>
</tr>
</tbody>
</table>
Corner- and goal-celebration exposure

Interpretation

- 50-80% of the total exposure can be attributed to corners and ‘goal celebration’.
- Corner exposure is mainly driven by the duration of the event, while goal celebration exposure is mainly driven by the number of players involved.
- Other high exposure events are VAR moments, game interruptions and red cards.
Impact Behavioral Changes

Interpretation

- Changing goal celebrations can result in up to a 35% reduction in mean player pairing exposure (behavioural).
- Reducing the time allowed for taking corner can result in up to a 45% reduction in mean player pairing exposure.
‘Social Distancing’ in football

Player pair distance

- 200 cm: 33.8 sec
- 150 cm: 19.9 sec
- 100 cm: 8.5 sec
- 50 cm: 1.4 sec
- 30 cm: 0.4 sec

Encounter time

CONTACT

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