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A comparison of the loneliness levels of mainstreamed primary students according to their sociometric status

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Abstract

The aim of this study was to investigate the differences in loneliness levels among children with low academic achievement, special needs and without special needs in terms of sociometric status in mainstreamed elementary classrooms. Data were collected via Student Information Form, Social Skills Rating System-Teacher Form, Children's Loneliness Scale and Peer Nomination Form. Findings revealed that the loneliness levels of students without special needs were significantly lower than the other two groups and that students in all three groups rated as popular scored significantly lower on the loneliness scale than students rated as rejected by their peers on sociometric measures.

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Keywords: Mainstreaming; primary school; sociometric status; peer nomination; loneliness; Children’s Loneliness Scale.

1. Introduction

Loneliness has been defined as an unpleasant experience where individuals perceive a discrepancy between the desired and achieved patterns of their social networks (Peplau & Pearlman, 1982). The peer group is the most important social network in children’s lives and has a high predictive value on an individual’s future social and emotional adjustment (Galanaki & Kalantzzi-Azizi, 1999). Many lonely students have difficulty developing satisfactory peer relationships and friendships (Asher, Hymel, & Renshaw, 1984). Lonely children often experience poor self-esteem and increased levels of anxiety and depression that may be accompanied by suicidal ideation (McWhirter, 1990). Therefore, loneliness is almost always associated with difficulties in peer relationships (Yu, Zhang & Yan, 2005). There is evidence that individual differences in acceptance are related to a variety of long term negative adjustment outcomes, ranging from dropping out of school, to criminal behavior, to some form of serious mental health disorder (Parker & Asher, 1987).

Asher et al. (1984) found that more than 10% of children from third through sixth grade reported feelings of loneliness and social dissatisfaction, and children’s feelings of loneliness were significantly related to their sociometric status. A consistent result in studies (Asher et al., 1984; Asher & Wheeler, 1985; Cassidy & Asher, 1992; Kaya, 2005; Margalit, Tur-Kaspa, & Most, 1999; Qualter & Munn, 2002; Renshaw & Brown, 1993; Williams...
Studies concerning mainstreaming practices have revealed that support services for the student and the classroom teacher result in student academic (Freeman, 2000) and social achievement (Lewis & Doorlag, 1999). Salend (1998) claimed that mainstreamed students communicated more with others, received social support more often from others and that their friendships lasted longer compared to students in segregated educational settings (Salend, 1998). Despite the positive consequences of mainstreaming, mainstreamed students have known to experience difficulties in peer relations such as being accepted less and being rejected more (Roberts & Zubrick, 1992; Stone & La Greca, 1990; Taylor, Asher, & Williams, 1987). Studies have also found that students with special needs (Heiman & Margalit, 1998; Luftig, 1988; Taylor et al., 1987; Pavri & Luftig, 2000; Pavri & Monda-Amaya, 2000; Pierson & Edwards, 2003; Williams & Asher, 1992) as well as low academic achievement (Margalit, 1996; Pierson & Edwards, 2003; Salomon & Strobel, 1996) show higher levels of loneliness compared to students without special needs.

Despite the literature on the sociometric status of mainstreamed students in Turkey (Akçamete & Ceber, 1998; Baydik & Bakkaloğlu, 2009; Vuran, 2005), no studies concerning the loneliness levels of this population exist. Nevertheless, data regarding the sociometric status and the loneliness levels of these students is critical in identifying the necessary for support services and enhancing the effectiveness of mainstreaming practices in general.

The purpose of this study is to compare the loneliness levels of low achieving students, students with special needs and students without special needs in terms of their sociometric status, in mainstreamed classrooms. Two research questions were posed:

1. Are there any differences in the loneliness scores among low achieving, special needs and without special needs students?
2. Are there any differences in the loneliness scores among low achieving, special needs and without special needs students according to their sociometric status?

2. Method

2.1. Participants

The sample consisted of 739 elementary students in 21 classrooms chosen across 7 schools with mainstreaming practices, in Mamak, Ankara. The students were divided into three groups for research purposes.

**Students with low academic achievement.** These students did not meet the criteria for special needs but were rated as significantly below average in academic achievement in the classroom by their teachers. This group of students was identified according to the following procedures. Firstly, the teachers specified whether each student had academic difficulties or not on the Student Information Form. Thirty two of the students were reported to be so. Secondly, the teachers filled out the The Academic Competence Scale (ACS) of the Social Skills Rating System-Teacher Form (SSRS-TF) for each of their students. The ACS scores of the students revealed that the scores of the low achievement, the special needs and the no special needs groups were between 9-24 (M=14.00, SD=4.19), 9-31 (M=16.31, SD=8.46) and 27-45 arasında (M=33.75, SD=17.03), respectively. Gresham and Elliot (1990) reported that a total score of 26 or lower is used as a basis for classifying an individual student as low achieving.

**Students with special needs.** This group consisted of 32 students identified by the Guidance and Research Centres as eligible for mainstreaming.

**Students without special needs.** This group consisted of 674 students who did not display any academic problems or special needs. Forty of these students were randomly chosen to tackle the two research questions, according to the other two groups’ age, gender and grade level. The chi-square coefficients for these variables across the three groups showed no significant differences (age \[X^2 (2) = 5.21, p>.05\], gender \[X^2 (2) = 4.68, p>.05\], grade level \[X^2 (2) = 1.65, p>.05\]). The demographic characteristics of the sample are displayed in the Table 1.
2.2. Instruments

Student Information Form (SIF). This form contains questions about the students, regarding school, branch, grade, gender, age, teacher opinions of the student’s academic performance in the study.

Social Skills Rating System-Teacher Form (SSRS-TF). SSRS-TF developed by Gresham and Elliot (1990) has been adapted for the Turkish population by Sucuoğlu and Özokçu (2005). SSRS-TF is an instrument developed for grades K-6 and requires the teacher to rate each student on a Likert-type scale. In this study, this instrument was used to evaluate the social skills, problem behaviors and academic competence of the students. There are three main scales in SSRS-TF: Sosyal Skills, Problem Behaviors, and Academic Competence (ACS). Only the ACS was used in this study. ACS measures teacher perceptions of academic achievement, requiring the teacher’s judgment of the students’ academic and/or learning behaviors as compared to other children in the same classroom. This scale consists of nine items tapping reading and mathematics ability, parental encouragement, and overall academic performance. The ACS items are rated on a percentage ranking of class wide functioning (i.e. 1=lowest 10% of the class, 5=highest 10% of class). The lowest score that can be achieved on ACS is 9 and the highest score is 45. After summing responses to the items, scores can range from a low of 9 to a high of 45, with higher scores indicating greater academic competence. A total score of 26 or lower was used as a basis for classifying an individual student as a low achiever. This would mean that the teachers had an average rating of either one (lowest 10% of the class) or two (lowest 20% of the class) on each item of the academic competence portion of the SSRT-TF for that student (Gresham & Elliot, 1990). In the adapted version of SSRT-TF (Sucuoğlu & Özokçu, 2005) no items were dropped out for the Academic Competence Scale and this factor explained 87.06% of the total variance. The item analysis showed that all items could discriminate the high and low achieving students. The item total correlations were reported to be between.40 ile .77 and Cronbach Alpha for the total score to be .97.

Children’s Loneliness Scale (CLS). CLS developed by Asher et al., in 1984 and revised by Asher and Wheeler in 1985 has been adapted to the Turkish population by Kaya (2005). The original scale consists of 24 items with a 5-point Likert-type rating to identify the extent to which a student feels each item best describes him or her. Sixteen primary items examine students’ feelings of loneliness, sosyal adequacy and inadequacy, and subjective estimations of peer status. Eight “filler” items focus on students’ hobbies or preferred activities and are designed to help students feel more relaxed and open about indicating their feelings on the questionnaire. Children indicated how suitable each item was for them on a scale from 1 (“That’s always true about me”) to 5 (“That’s not true at all about me”). After summing responses to the primary items, scores can range from a low of 16 to a high of 80, with higher scores indicating greater feelings of loneliness. The adapted version of CLS (Kaya, 2005) consists of 19 items with eleven primary and eight filler items. According to the principal component analysis, it was seen that the factor analysis that eleven primary items for 3rd-4th grades show a single factor structure. Internal consistency coefficients of the scale were found as .87 and reliability coefficients calculated by the test-retest method was found as .76 for 3rd and 4th grades. In addition, it was investigated whether the scale was able to distinguish the popular and the rejected students’ level of loneliness, and it was found that there was a significant difference between the scores of these two groups. After summing responses to the primary items, scores can range from 11 to 55, with higher scores indicating greater feelings of loneliness.

Peer Nomination Form (PNF). This form was administered in a group format to determine each student’s sociometric status. In the peer nomination method, liking (L) and disliking (D) scores of the students are gathered by asking the group to make both positive and negative choices. In this study, students ordered three classmates as “like
to play with them” and “do not like to play with them” by starting with the one they preferred the most. For this purpose, a form was prepared and given to the students with instructions in the beginning to explain what they were supposed to do, followed by a fill-in-the-blanks section to list the name of the classmates they liked to play with and the ones they did not. For 'like to play with", the most preferred student received a score of 3, the second a score of 2 and the least preferred a score of 1. For each class, the total scores for the students nominated positively and a standard L score for each student in the class were obtained. Similarly, for “not like to play with", the most preferred student received a score of 3, the second a score of 2 and the least preferred given a score of 1. For each class, the total scores for the students who received negative nomination scores and a standard D score for each student in the class were obtained. Dimensions of sociometric status, social preference (SP) and social impact (SI) scores were then derived from standardized L and D scores. SP score was computed as the L score minus D score, SI score was computed as the sum of the L and D scores (Stone & La Greca, 1990). By using L, D, SP and SI scores, each student then was classified as fitting into one of the following six subsociometric groups according to the measures used by Asher and Dodge (1986) in sociometric classification: a) popular: SP>1.0, L>0 ve D<0; b) rejected: SP<-1.0, L<0 ve D>0; c) neglected: SI<-1.0, L<0 ve D<0; d) controversial: SI>1.0, L>0 ve D>0; e) average: SP and SI scores between -.5 and .5, f) other: students not falling into one of these groups.

3. Results

The means and standard deviations for the loneliness scores across sociometric status of the students are displayed in Table 2.

<table>
<thead>
<tr>
<th>Groups With Low Academic Achievement</th>
<th>Sociometric Status</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Popular</td>
<td>2</td>
<td>18.00</td>
<td>1.41</td>
<td></td>
</tr>
<tr>
<td>Rejected</td>
<td>21</td>
<td>33.33</td>
<td>9.28</td>
<td></td>
</tr>
<tr>
<td>Neglected</td>
<td>3</td>
<td>25.33</td>
<td>8.96</td>
<td></td>
</tr>
<tr>
<td>Controversial</td>
<td>2</td>
<td>37.00</td>
<td>4.24</td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>2</td>
<td>13.00</td>
<td>1.41</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>16.50</td>
<td>7.77</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>32</td>
<td>29.53</td>
<td>10.75</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Groups With Special Needs</th>
<th>Sociometric Status</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Popular</td>
<td>2</td>
<td>17.50</td>
<td>2.12</td>
<td></td>
</tr>
<tr>
<td>Rejected</td>
<td>15</td>
<td>36.33</td>
<td>6.95</td>
<td></td>
</tr>
<tr>
<td>Neglected</td>
<td>8</td>
<td>31.25</td>
<td>11.62</td>
<td></td>
</tr>
<tr>
<td>Controversial</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>3</td>
<td>29.00</td>
<td>11.26</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>25.50</td>
<td>7.04</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>32</td>
<td>31.84</td>
<td>9.72</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Groups Without Special Needs</th>
<th>Sociometric Status</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Popular</td>
<td>13</td>
<td>17.00</td>
<td>6.87</td>
<td></td>
</tr>
<tr>
<td>Rejected</td>
<td>8</td>
<td>27.75</td>
<td>13.55</td>
<td></td>
</tr>
<tr>
<td>Neglected</td>
<td>6</td>
<td>22.83</td>
<td>9.30</td>
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<tr>
<td>Controversial</td>
<td>2</td>
<td>33.50</td>
<td>6.36</td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>3</td>
<td>19.66</td>
<td>3.78</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>8</td>
<td>28.25</td>
<td>6.08</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>40</td>
<td>23.30</td>
<td>9.78</td>
<td></td>
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</tbody>
</table>

3.1. Are there any differences in the loneliness scores among low achieving, special needs and no special needs students?

A one-way between groups analysis of variance was conducted to explore the impact of group on loneliness score, as measured by the CLS (Table 3). There was a statistically significant difference at the p<.05 level on loneliness scores for the three groups [F(2,101)=7.03, p<.05]. Post-hoc comparisons using the LSD test indicated that the mean score of students without special needs (M=23.30, SD=9.78) was significantly different from the other two groups (M=31.84, SD=9.72). This finding indicates that students without special needs display lower levels of loneliness than either low achievers or special needs students.
3.2. Are there any differences in the loneliness scores among low achieving, special needs and no special needs students according to their sociometric status?

3.2.1. The loneliness scores of low achieving students according to their sociometric status

A one-way between groups analysis of variance was conducted to explore the impact of sociometric status on loneliness scores of students with low academic achievement, as measured by the CLS (Table 4). There was a statistically significant difference at the p<.05 level on CLS scores for the six groups \( F(2,26)=4.29, p<.05 \). Post-hoc comparisons using the LSD test indicated that the mean score of popular students (M=18.00, SD=1.41) was significantly different from the mean score of rejected students (M=33.33, SD=9.28) and the mean score of controversial students (M=37.00, SD=4.24); the mean score of rejected students (M=33.33, SD=9.28) was significantly different from the mean score of average students (M=13.00, SD=1.41) and the mean score of other students (M=16.50, SD=7.77) and the mean score of controversial students (M=37.00, SD=4.24) was significantly different from the mean score of average students (M=13.00, SD=1.41) and the mean score of other students (M=16.50, SD=7.77). These findings indicate that popular students reported lower levels of loneliness than rejected and controversial students and that rejected and controversial students had higher levels of loneliness than students in the average and other sociometric group.

3.2.2. The loneliness scores of special needs students according to their sociometric status

A one-way between groups analysis of variance was conducted to explore the impact of sociometric status on loneliness score of students with special needs, as measured by the CLS (Table 5). There was a statistically significant difference at the p<.05 level on CLS scores for five groups \( F(2,34)=2.911, p<.05 \). Post-hoc comparisons using the LSD test indicated that the mean score of rejected students (M=36.33, SD=6.95) differed significantly from the mean score of popular students (M=17.00, SD=6.87) and the mean score of other students (M=25.50, SD=7.04). This finding shows that rejected students experienced higher levels of loneliness compared to students in the popular and other sociometric groups.

3.2.3. The loneliness scores of students without special needs according to their sociometric status

A one-way between groups analysis of variance was conducted to explore the impact of sociometric status on
loneliness scores of student without special needs, as measured by the CLS (Table 6). There was a statistically significant difference at the p<.05 level on CLS scores for the six groups [F(2,34)=2.911, p<.05]. Post-hoc comparisons using the LSD test indicated that the mean score of popular students (M=17.00, SD=6.87) was significantly different from the mean score of rejected students (M=27.75, SD=13.55), the mean score of controversial students (M=33.50, SD=6.36) and the mean score of other students (M=28.25, SD=6.08). This indicates that popular students had lower levels of loneliness compared to students in the rejected, controversial and other sociometric groups.

<table>
<thead>
<tr>
<th>Sum of Square</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>p</th>
<th>Paired Comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1119.400</td>
<td>5</td>
<td>223.880</td>
<td>2.911</td>
<td>.027</td>
</tr>
<tr>
<td>Within Groups</td>
<td>2615.000</td>
<td>34</td>
<td>76.912</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>3734.400</td>
<td>39</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. Discussion and Conclusion

Taken together, our findings indicate that the loneliness levels of students without special needs is lower than that of low achievers and special needs students and that the loneliness levels of low achievers and special needs students were similar. The loneliness levels of the three groups were also found to differ according to sociometric status. A similar finding in all three groups was that the loneliness levels of popular students were significantly lower than that of rejected students. These findings are mainly parallel with the literature (Asher et al., 1984; Asher & Wheeler, 1985; Cassidy & Asher, 1992; Kaya, 2005; Margalit et al., 1999; Qualter & Munn, 2002; Renshaw & Brown, 1993; Williams & Asher, 1992; Yu et al., 2005).

The debilitating effects of loneliness highlight the need to develop strategies to teach children how to cope with these unpleasant feelings (Pavri & Monda-Amaya, 2000). On the basis of his literature review, Pavri (2001) suggested certain critical student and teacher generated interventions that can increase social support and reduce feelings of loneliness in students. These approaches to working with students who are lonely include a) social skills training, b) creating opportunities for social interaction, c) creating an accepting classroom climate, d) teaching adaptive coping strategies, and e) enhancing student’s self-esteem. Further research is needed on the impact of these key interventions aimed to reduce loneliness in students.

References


