

# A Support Program for Somali-born Parents on Children's Behavioral Problems

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abstract

**OBJECTIVES:** The objectives of this study were to evaluate a culturally tailored parenting support program (Ladnaan) for Somali-born parents and to determine its effectiveness on children's emotional and behavioral problems.

**METHODS:** This randomized controlled trial included 120 Somali-born parents with children aged 11 to 16 years. The parents reported self-perceived stress in relation to parenting practices. The intervention consisted of culturally tailored societal information combined with the parenting program Connect. Parents received 12 weeks of intervention, 1 to 2 hours each week, in groups of 12 to 17 parents. Nine group leaders with a Somali background who received a standardized training program delivered the intervention. The primary outcome was a decrease in emotional and behavioral problems based on a Child Behavior Checklist. Parents were randomly allocated either to an intervention group or a wait-list control group. Covariance analyses were conducted according to intention-to-treat principles.

**RESULTS:** The results showed significant improvement in the children in the intervention group for behavioral problems after a 2-month follow-up. The largest effect sizes according to Cohen's *d* were in aggressive behavior (95% confidence interval [CI], 1.06 to 3.07), social problems (95% CI, 0.64 to 1.70), and externalizing problems (95% CI, 0.96 to 3.53).

**CONCLUSIONS:** The large effect sizes in this study show that this 12-week culturally tailored parenting support program was associated with short-term improvements in children's behavior. The study adds to the field of parenting interventions by demonstrating how to culturally tailor, engage, and retain parenting programs for immigrant parents.

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**WHAT'S KNOWN ON THIS SUBJECT:** Immigration and transition to a new country may render constraints and cause disharmony and power-conflict problems in parent-child relationships. Parenting support programs have been shown to improve the health of parents and children. However, immigrants are underrepresented in parental programs.

**WHAT THIS STUDY ADDS:** This study is an example of how a culturally tailored parental program could be successfully delivered to immigrant parents. This program, which considers immigrant parents' special needs, reduced the children's behavioral problems.

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Life and family events premigration and postmigration have been found to have a profound effect on the health and well-being of immigrant children.<sup>1,2</sup> Risk factors include trauma, separation from parents, nonvoluntary migration, obstacles in the acculturation process,<sup>3</sup> and children who immigrate in their mid- or late teens.<sup>1,4</sup> Research also shows that parents who have experienced or witnessed violence have poorer mental health,<sup>2,5</sup> which is likely to affect parent-child attachment and negatively impact child development and mental health.<sup>5</sup> Transitioning to a new country may be beneficial for both parents and children, but it may render new and unexpected constraints in the parent-child relationship (eg, children tend to acculturate to the new country faster than their parents), cause disharmony and power conflicts,<sup>6-8</sup> and, subsequently, affect the child's mental health.<sup>9</sup>

Parental mental health and positive parent-child relationships are protective factors for the mental health of adolescents and young children.<sup>10-12</sup> Parenting support programs have repeatedly shown positive effects on children's emotional and behavioral problems.<sup>10,13,14</sup> One evidence-based parenting support program is Connect, which is derived from attachment theory.<sup>15</sup> It focuses on strengthening parent-child relationships by having parents reflect on their parenting to form a secure attachment with their children.

Several studies have shown that immigrants and ethnic groups are underrepresented in parenting support programs and that the programs only reach native-born parents and those parents with higher levels of education.<sup>16-18</sup> There are also difficulties related to recruiting and retaining immigrant parents and hard-to-reach groups in interventions.<sup>19,20</sup> There is limited

evidence on parenting intervention programs directed toward immigrant parents.

The Somali population is one of the largest asylum groups in Sweden.<sup>21</sup> A study<sup>6</sup> on Somali-born parents showed a need for specific support to improve the transition to various new demands on parenthood in the host country. The parents expressed a need for information about parenthood for older children and related matters in the host country.<sup>6</sup> For this reason, a combination of culturally tailored societal information and a modified Connect parenting program<sup>15</sup> was developed as the intervention protocol for the present study.

Our hypothesis was that a culturally tailored parenting support program (ie, Ladnaan [the Somali word meaning a sense of health and well-being]) targeting Somali-born parents would reduce children's emotional and behavioral problems. The study aimed to evaluate a culturally tailored parenting support program for Somali-born parents and assess its effectiveness in improving children's emotional and behavioral problems.

## METHODS

### Study Design

This study was designed as a randomized controlled trial. Parents were randomized either to an intervention group (IG) or a wait-list control group (CG). The parents in the CG received the tailored parenting intervention after all follow-up measurements were completed in both groups. This article followed the CONSORT guidelines for nonpharmacologic treatments.<sup>22</sup> All parents (ie, parents in both the IG and CG) completed a baseline questionnaire before randomization and a follow-up questionnaire 2 months after the parents in the IG had completed the

intervention. Ethical approval was obtained from the Swedish Regional Ethical Review Board in Uppsala, Sweden (Dnr 2014/048).

### Setting and Participants

The study was conducted in a city in the middle of Sweden with ~50 000 inhabitants, of whom ~4% are of Somali origin.<sup>23</sup> Inclusion criteria were as follows: (1) Somali-born parents with children aged 11 to 16 years; and (2) reporting self-perceived stress related to parenting practices. Exclusion criteria were as follows: (1) parent participation in another parenting program; and (2) parents with severe mental illness (eg, psychosis, schizophrenia, bipolar disorder).

Participants were recruited from Somali associations, social services, and schools; a family center; and through key persons. All parents showing interest in participating were screened for the inclusion criteria after a brief screening protocol. Written informed consent was obtained from the participants in connection with baseline measures. Parents were asked to select 1 of their children as the target child for this study. When both parents participated in the intervention, only the same parent who was screened for the study completed the questionnaires throughout the study. The questionnaires were answered at a time and location chosen by the parent and facilitated by the first author or data collectors for the purpose of supporting parents in completing the questionnaires if problems arose. The majority of the data collections took place at the parents' home. All parents who participated in the baseline and follow-up assessments were given 150 SEK in the form of a gift certificate.

### Intervention

The parenting intervention consisted of culturally tailored

societal information combined with the Connect parenting support program.<sup>24</sup> The culturally tailored societal information was developed based on an earlier finding from a qualitative focus group discussion.<sup>6</sup> This part of the intervention constituted the first part of the program (2 sessions) and covered 3 themes: convention on the rights of the child, parenting styles (authoritarian and democratic parenting), and the aim and purpose of social services work with children. These themes were presented as group lectures, workshops, and discussions. After presentation of the societal information, the intervention proceeded with 10 sessions of the Connect parenting support program.

The Connect is a nonbehavioral program based on attachment theory. It addresses 9 principles on child development, parent-child relationships, and challenged interactions<sup>24</sup> that aim to strengthen the parent-child relationship and attachment by encouraging parents to reflect on how their emotional responses affect their child's behavior. The program instructs parents to first build a secure relationship with their child and then to develop sensitivity toward their behavior through reflection, role-play, and parenting discussions with other parents.<sup>15,24</sup> The delivering of the Connect program relies on a manual intended to guide the group leaders to structure the session.<sup>24</sup> Based on our aim of providing a culturally tailored parenting program, it was necessary to translate and adapt the program to the needs of Somali-born parents living in Sweden. The aim of the adaptation was not to change the core components of the Connect program but rather to modify some examples, role-plays, and situations to be more culturally appropriate and understandable. Group leaders met together with

the first author several times before the intervention to discuss and determine a consensus over the various concepts that were used in the manual.

Parents received 12 sessions of the culturally tailored societal information part of the intervention combined with the Connect parenting program. Parents met together in mixed groups of 12 to 17 parents along with 2 group leaders for 1- to 2-hour sessions each week. Parents were offered some beverages and snacks 0.5 hour before the sessions began. There was also the possibility for parents to have child care (during the sessions) and to receive help (eg, reading letters from the municipality, migration agency, or hospitals before and after sessions). Sessions were held in a neighborhood facility where most of the parents lived. The intervention (societal information and Connect) was delivered by 9 group leaders of Somali background who received the standardized training program.<sup>24</sup>

### Outcomes

The primary outcome was to reduce children's emotional and behavioral problems by using the Child Behavior Checklist for Ages 6 to 18 (CBCL 6-18). The parents answered the CBCL 6-18 from their perspective of their child.<sup>25</sup> The CBCL 6-18 consists of 133 items comprising 2 sections: (1) competence scales; and (2) emotional and behavioral problems. In this study, 5 sex-related items (items 59, 60, 73, 96, and 110) were excluded. The  $\alpha$  Cronbach coefficients for all the subscales in this study were  $>0.70$ . The questionnaire also included information about the sociodemographic characteristics of the participants.

An approval for translating and using the CBCL 6-18 was obtained from the instrument developers. The instrument was translated into the Somali language by following the 4 steps of the World

Health Organization's process of translation.<sup>26</sup>

### Sample Size

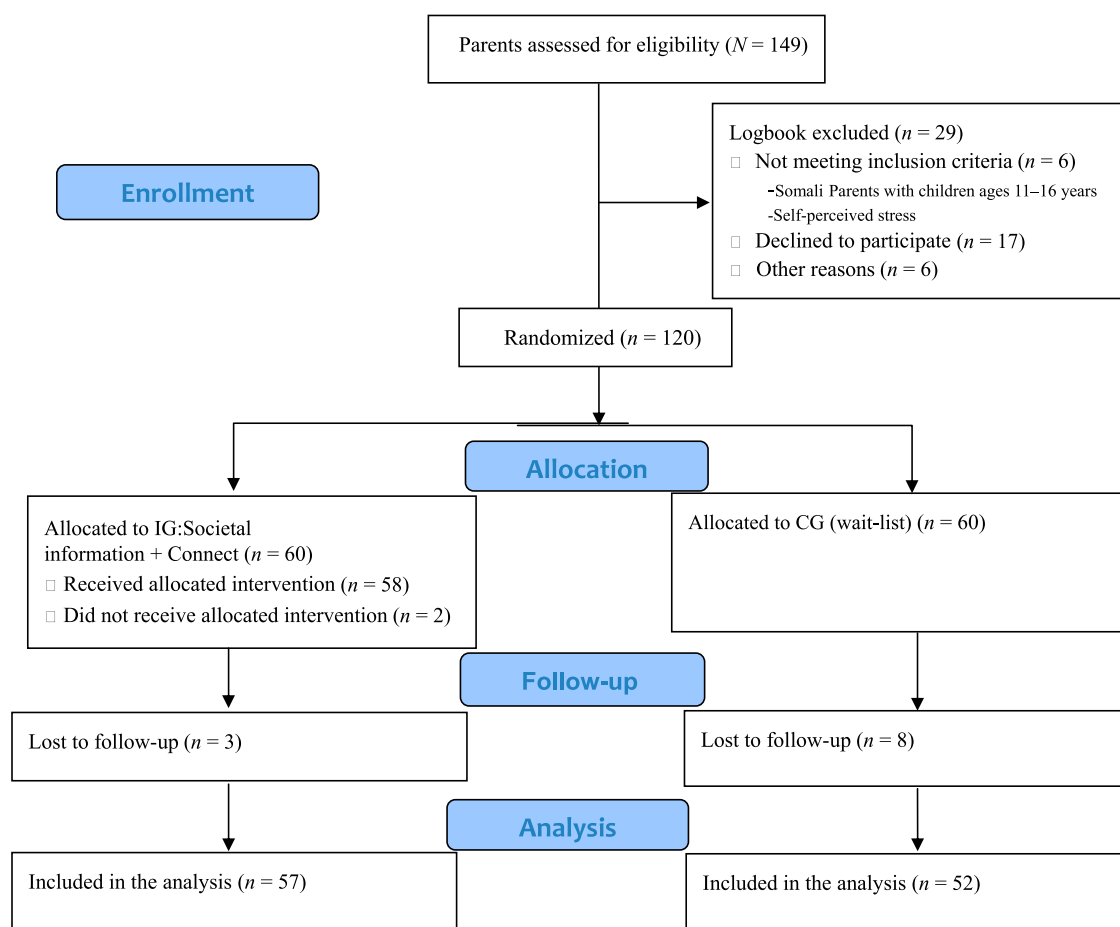
A power analysis was conducted to determine the required sample size. The sample size estimation was based on a previous study indicating that, to detect a medium effect size of Cohen's  $d = 0.5$ , a sample of 128 children (IG,  $n = 64$ ; CG,  $n = 64$ ) was required<sup>27</sup> at 80% power and with  $\alpha$  set at  $P < .05$ .

### Randomization, Allocation, and Implementation

The participants were randomly allocated to the IG or CG by using a computer sequence generator.<sup>28</sup> Group affiliation and study number were placed in an opaque sealed envelope. Allocating parents to the IG and CG was conducted directly after the baseline questionnaire was completed. The parent selected 1 of the sealed envelopes and was allocated to the IG or CG. Both parents were invited to the parenting program, and they were randomized together as 1 family. Each family (parent or parents) had a personal identification number that appeared on the questionnaire instead of the parent's name. The questionnaires were continuously collected, and the data collectors were not blinded to group assignment.

### Statistical Methods

Analyses were conducted on the basis of intention-to-treat principles. Accordingly, all randomized parents in the groups to which they were allocated were included in the analysis, regardless of the number of sessions they participated in if data were available for follow-up. To analyze potential differences between the IG and CG regarding their sociodemographic data,  $\chi^2$  tests were performed;  $t$  tests were used to evaluate possible differences in baseline between the IG and CG. The  $t$  tests were also used to analyze



**FIGURE 1**  
Participant flowchart.

differences in the CBCL 6–18 between groups related to the number of sessions. To evaluate the effect of the intervention, an analysis of covariance (ANCOVA) was performed with the values at follow-up as dependent variables; group and baseline values served as independent variables. The results from the ANCOVA model are presented as the estimated group difference with corresponding 95% confidence intervals (CIs). In addition, differences within each group were analyzed by using paired *t* tests presented as means  $\pm$  SDs. Effect size was calculated by using Cohen's *d* from *F* tests ( $d = 0.2$ , small;  $d = 0.5$ , medium; and  $d = 0.8$ , large).<sup>27</sup> SPSS version 23.0 (IBM SPSS Statistics, IBM Corporation, Armonk, NY) was used for statistical analyses.

## RESULTS

### Participant Flow

During May 2014 to March 2015, a total of 149 parents were assessed for eligibility according to the inclusion criteria. Of these 149 parents, 6 did not meet the inclusion criteria, 17 declined participation, and 6 could not participate because of illness or time constraints. In total, 120 parents were randomly assigned to the IG ( $n = 60$ ) and CG ( $n = 60$ ). Of the 60 parents randomized to the IG, 2 did not attend any session and did not participate in the follow-up. The flowchart in Fig 1 provides further details on enrollment.

### Baseline Characteristics

Participant sociodemographic characteristics are presented in Table 1.

Most of the participants were the biological parents of the child; only 2 parents were a stepparent or close relative, and they were the main caretakers of the child. In both groups, the age of the parents ranged from 30 to 70 years. The majority of parents had lived in Sweden for 1 to 5 years, had less than an upper secondary level of education, were cohabiting with their partner, and lived in a low socioeconomic residential area. The number of children living at home in the IG ranged from 1 to 11 children, and in the CG it ranged from 1 to 13. There were no statistically significant sociodemographic differences between the 2 groups.

At baseline, no significant differences between the 2 groups were noted in the CBCL 6–18 symptom subscales,

except on the rule-breaking behavior in the CBCL 6–18, where parents in the IG reported more problems in their children than parents in the CG ( $P < .01$ ). Less than 1% of the children were in the clinical range (>70th percentile). No significant differences were observed between girls and boys at baseline.

Analyses of the differences in relation to attendance were dichotomized into high or low attendees based on the distribution of attendance. Two-thirds of the parents ( $n = 40$ ) attended  $\geq 8$  sessions (high attendees), and one-third ( $n = 17$ ) attended  $< 8$  sessions (low attendees). The  $t$  test showed significant differences between the high and low attendees at baseline; high attendees reported more externalizing problems ( $P < .03$ ) and had a higher total problem score ( $P < .03$ ) compared with low attendees.

### Effectiveness of a Culturally Tailored Parenting Intervention

Findings from the paired  $t$  test revealed that parents in the IG scored their children significantly better (compared with baseline) 2 months after the intervention in 2 competence scales (social and school) with respect to the internalizing and externalizing problems and in the total problem score (Table 2). Children in the IG had less aggressive and attention problems 2 months after the intervention compared with children in the CG.

The ANCOVA models indicated that there were no statistically significant differences on the competence scales and internalizing problems between the IG and CG. The analyses also demonstrated that children in the IG had improved significantly compared with children in the CG 2 months after the intervention in the symptoms of aggressive behavior (95% CI, 1.06 to 3.07; effect size,  $d = 0.76$ ), social problems (95% CI, 0.64 to 1.70;  $d = 0.83$ ), attention problems (95% CI, 0.45 to 1.62;  $d = 0.54$ ),

**TABLE 1** Sociodemographic Data on Participants and Children in the IG ( $n = 60$ ) and the CG ( $n = 60$ )

Variable	IG	CG
<b>Participants</b>		
Mothers	43 (72)	37 (62)
Fathers	17 (28)	23 (38)
Participants' age, y	44 $\pm$ 8	45 $\pm$ 9
Years in Sweden		
1–5	39 (65)	34 (57)
6–9	10 (17)	19 (32)
$\geq 10$ y	11 (18)	7 (12)
Highest educational level		
Less than upper secondary school	37 (62)	32 (54)
Upper secondary school	22 (37)	22 (37)
Higher education	1 (2)	5 (9)
Occupation		
Unemployed	12 (20)	8 (14)
Parental leave	13 (22)	6 (10)
Studying	29 (48)	31 (53)
Employed	5 (8)	11 (19)
Other	1 (2)	3 (5)
Civic status		
Divorced/separated	18 (30)	15 (25)
Married	39 (65)	41 (70)
Widow/widowed	3 (5)	3 (5)
Cohabiting with partner	31 (52)	34 (57)
No. of children living at home	5 $\pm$ 2	5 $\pm$ 3
Worries about own financial situation	21 (36)	15 (26)
Have visited a cultural event in the past year	21 (35)	19 (32)
Have visited a meeting in the past year	24 (41)	32 (53)
Children of male sex	36 (60)	33 (55)
Child attending special education	23 (38)	18 (31)
Child's age, y	14 $\pm$ 2	13 $\pm$ 2

Data are presented as  $n$  (%) or mean  $\pm$  SD.

and in the externalizing problems (95% CI, 0.96 to 3.53;  $d = 0.60$ ) and the total problems score (95% CI, 1.58 to 7.14;  $d = 0.50$ ). Thus, the effect sizes of these symptoms were medium to large. Our hypothesis was confirmed in that a culturally tailored parenting support program improved the children's behavioral problems (Table 2).

### DISCUSSION

To our knowledge, this study is the first to evaluate a culturally tailored parenting support program for Somali-born parents to reduce children's emotional and behavioral problems. Our overall findings found that the intervention reduced behavior problems in immigrant children 2 months after the intervention. This observation is in line with previous studies evaluating similar interventions

aimed at supporting parent–child relationships to improve the behavior.<sup>10,13,14</sup>

An important finding of this study was the greater effect on children's behavior problems in the short term (ie, 2 months after the intervention). The overall effect size was large compared with results from studies targeting minority groups<sup>13,29</sup> or universal parenting programs showing small to medium effect sizes.<sup>18</sup> Several studies indicate that nonbehavioral parenting programs might not yield a short-term effect.<sup>30–32</sup> By contrast, nonbehavioral programs that focus on strengthening parent–child relationships, particularly in older children, have been effective.<sup>33</sup> What differentiates the Connect program from others is that Connect focuses on parents building a partnership with their child and jointly solving conflicts, whereas other parenting

**TABLE 2** Paired *t* Tests and ANCOVA on Differences in CBCL 6–18 in the IG and CG at Baseline and at the 2-Month Follow-up

Variable	IG ( <i>n</i> = 57)			CG ( <i>n</i> = 52)			Model-based Mean Difference: B (95% CI)	<i>P</i>	Effect Size: Cohen's <i>d</i>
	Mean ± SD		Mean Difference ± SD	Mean ± SD		Mean Difference ± SD			
	Baseline	Follow-up		Baseline	Follow-up				
Competence scales									
Social	6.62 ± 2.64	7.43 ± 2.16	−0.81 ± 2.92*	6.93 ± 2.33	7.55 ± 2.08	−0.62 ± 2.66	0.052 (−0.73 to 0.84)	.90	0.06
Activities	8.07 ± 1.74	7.78 ± 1.80	0.28 ± 1.85	8.02 ± 2.20	7.41 ± 1.81	0.61 ± 2.38	−0.36 (−1.18 to 0.46)	.39	0.22
School	4.59 ± 0.83	4.93 ± 0.82	−0.34 ± 0.95*	4.77 ± 0.86	4.82 ± 0.65	−0.04 ± 0.90	−0.17 (−0.45 to 0.11)	.24	0.16
Total competence score	19.71 ± 3.25	20.02 ± 3.65	−0.31 ± 3.99	20.67 ± 3.83	20.06 ± 2.93	0.61 ± 3.88	−0.28 (−1.96 to 1.41)	.74	0.01
Symptoms									
Anxious	2.58 ± 1.29	1.70 ± 1.30	0.88 ± 1.72**	2.33 ± 1.73	1.56 ± 1.83	0.77 ± 2.09**	−0.08 (−0.67 to 0.50)	.78	0.09
Withdrawn	2.05 ± 1.41	1.65 ± 1.43	0.40 ± 1.70	1.86 ± 1.86	1.29 ± 1.21	0.58 ± 1.82*	−0.31 (−0.80 to 0.17)	.20	0.29
Somatic complaints	0.96 ± 1.28	0.44 ± 1.16	0.53 ± 1.27**	0.73 ± 1.85	0.52 ± 0.98	0.21 ± 1.32	0.17 (−0.16 to 0.51)	.31	0.09
Rule-breaking behavior	1.82 ± 1.72	1.07 ± 1.31	0.75 ± 1.57**	1.15 ± 0.98	1.08 ± 1.12	0.08 ± 1.36	0.23 (−0.21 to 0.67)	.31	0.01
Aggressive behavior	2.79 ± 3.82	1.28 ± 2.39	1.51 ± 4.20**	2.34 ± 2.83	3.27 ± 3.00	−0.92 ± 3.35*	2.07 (1.06 to 3.07)	<.001	0.76
Social problems	1.67 ± 1.44	0.72 ± 1.11	0.95 ± 1.70**	1.58 ± 1.62	1.86 ± 1.77	−0.29 ± 1.79	1.17 (0.64 to 1.70)	<.001	0.83
Thought problems	0.60 ± 0.84	0.53 ± 0.83	0.07 ± 1.03	0.63 ± 1.25	0.38 ± 0.95	0.25 ± 1.31	−0.15 (−0.48 to 0.17)	.36	0.18
Attention problems	1.40 ± 2.50	0.77 ± 1.71	0.63 ± 2.28*	0.83 ± 1.98	1.58 ± 1.83	−0.75 ± 1.74**	1.03 (0.45 to 1.62)	<.001	0.54
Other problems	1.96 ± 1.88	1.44 ± 1.36	0.53 ± 2.12	1.73 ± 1.46	1.63 ± 1.73	0.09 ± 2.12	0.23 (−0.36 to 0.81)	.45	0.12
Internalizing <sup>a</sup>	5.60 ± 2.64	3.79 ± 2.86	1.81 ± 3.23**	4.92 ± 4.45	3.37 ± 3.10	1.56 ± 3.84**	−0.181 (−1.21 to 0.84)	.73	0.16
Externalizing <sup>b</sup>	4.61 ± 5.12	2.35 ± 3.41	2.26 ± 5.44**	3.50 ± 3.35	4.35 ± 3.55	−0.85 ± 3.89	2.24 (0.96 to 3.53)	<.001	0.60
Total problems score <sup>c</sup>	15.84 ± 9.94	9.60 ± 7.31	6.25 ± 10.97**	13.19 ± 10.10	13.17 ± 8.29	0.02 ± 9.00	4.36 (1.58 to 7.14)	.002	0.50

A higher score (mean ± SD) in the competence scales and total competence score indicate higher competence. A lower score (mean ± SD) in the internalizing, externalizing, total problem score, and all 9 syndromes indicates reduced problems.

<sup>a</sup> Includes the symptoms of anxiety, withdrawal, and somatic complaints.

<sup>b</sup> Includes the symptoms of rule-breaking and aggressive behavior.

<sup>c</sup> Includes the internalizing and externalizing groups of symptoms and the symptoms of social problems, thought problems, attention problems, and other problems.

\* *P* < .05;

\*\* *P* < .01.

programs focus on approving positive or disapproving negative behavior in children. The Connect program motivates parents to understand and balance the adolescent's need for autonomy and attachment.<sup>15</sup> This study showed that the Connect program can reduce behavioral but not emotional problems in the short term. One explanation could be that parents in the beginning focus on their child's antisocial behavior rather than on the internalizing behaviors of anxiety, withdrawal,

and depression. Thus, to secure the parent-child relationship and the parents' sensitivity to their child's emotional needs might require a stepwise progression.<sup>34</sup> Furthermore, the children in this intervention were in the normal range for internalizing behaviors. However, we have not tested the underlying mechanism of change that would likely play an important role in reducing children's emotional and behavioral problems (eg, why the intervention worked). Studies that have used the Connect

program<sup>34,35</sup> have reported that strengthened parental sensitivity toward their children's behavior provides a secure and safe base for the child. The increased sensitivity shifts the focus from the specific problem to the parent's desire to reflect on the reason behind the child's behavioral patterns. These studies have shown that an increase in attachment security was associated with a reduction in emotional and behavioral problems.

The present study evaluated the effect of an intervention consisting of culturally tailored societal information combined with the Connect parenting support program. It is possible that the tailored societal information was not effective per se but addressed an important need<sup>6</sup> and therefore helped to support the parents.

Other studies have shown that immigrant parents can benefit from parenting interventions if they are tailored to their needs and facilitated with group leaders of a similar background,<sup>16,17,36</sup> which is in agreement with the intervention in our study. The fact that our intervention targeted the specific needs of immigrant parents (eg, societal information, modification of the Connect parenting program to make it more culturally understandable, delivery of the intervention by group leaders of Somali background) may have been a contributing factor of its success.<sup>37</sup>

Our study had several strengths and limitations. One strength of this study was the engagement of immigrant families. A further strength is that we retained almost all the parents who were randomized to the intervention and followed up with them. However, a limitation is that we cannot determine whether it was the Connect program alone or the culturally tailored societal information alone, or

the combination of both factors that improved the children's behavioral problems. Because the outcome was measured on the basis of the parents' perspective of their child's mental health, this factor is both a limitation and a bias. Children's self-reports would have been desirable but were not feasible in this study because most of the parents refused to give informed consent for their children's participation. Another limitation is that we have only short-term data and thus do not know whether the effect is long-lasting. A longer follow-up is necessary to determine whether improvement in children's behavior is sustained after a longer period (eg, 1–2 years).

This study can be first and foremost generalized to Somali-born parents who brought their children to Sweden. However, it can also be generalized to other immigrants in Sweden who have fled their countries because of war or social or environmental conflict.

## CONCLUSIONS

The present study found that culturally tailored parenting support (ie, the Ladnaan program) reduced children's behavioral problems with large effect sizes on the outcomes. Our findings indicate that when developing and delivering parenting intervention, it is paramount to

consider the specific needs of immigrant families. This study adds to the field of parenting interventions in terms of how to culturally tailor, engage, and retain parenting programs for immigrant parents. We recommend that culturally tailored parenting programs be made accessible to immigrant parents. These programs should focus on strengthening parenting competencies and fostering parent involvement in all aspects of their child's life.

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## ABBREVIATIONS

ANCOVA: analysis of covariance  
CBCL 6–18: Child Behavior Checklist for Ages 6 to 18  
CG: control group  
CI: confidence interval  
IG: intervention group

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