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## **Cultural adaptation of a parenting intervention for parents in multi-ethnic disadvantaged neighborhoods : contextualised content in a built-in module**

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### **Citation**

Mourik, K. van. (2018, December 12). *Cultural adaptation of a parenting intervention for parents in multi-ethnic disadvantaged neighborhoods : contextualised content in a built-in module*. Retrieved from <https://hdl.handle.net/1887/67431>

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**Issue Date:** 2018-12-12

# 5

## Systematic approach to program selection and adaptation

Positive parenting and coping  
with stress and emotions

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Submitted for publication

## ABSTRACT

Ethnic minority and low socioeconomic status are associated with poorer intervention outcomes. Lack of attention to the stressors and resources of ethnic minorities and families of low socioeconomic status may compromise the relevance and effectiveness of an intervention. A three-stage design is presented for selecting and adapting a parenting intervention for parents living in multi-ethnic disadvantaged neighborhoods.

The three-stage design was informed by the Intervention Mapping approach and consists of: i) formulation of a checklist of criteria for an intervention to fulfil based on a needs assessment among the target population, ii) selection of the most suitable intervention by comparing existing interventions with the checklist, and iii) systematically adapting the selected intervention to fit the needs and stressors of the target group.

A qualitative needs assessment was performed among parents living in multi-ethnic disadvantaged neighborhoods, resulting in a checklist of 13 criteria referring to intervention content, intervention format and practical considerations. Of the 33 interventions reviewed, three were shortlisted based on fulfilling most of the criteria and being most acceptable for the Dutch setting. Group Triple P (Positive Parenting Program) was judged the most suitable, since implementation in local services would be most feasible. However, none of the three selected interventions fulfilled the criterion to improve parents' ability to cope with stress and unhelpful emotions. Therefore, a module on 'Coping with stress and unhelpful emotions' was developed and integrated in Group Triple P. Objectives were for parents to: i) recognize sources of stress and unhelpful emotions, ii) recognize how stress and emotions influence parenting behavior, and iii) use coping strategies to handle stress and emotions. Also, to enhance cultural sensitivity, adjustments were made to improve implementation of the intervention in ethnic minorities and families of low socioeconomic status.

The three-stage process proved a useful tool for the systematic selection and adaptation of an intervention to fit the needs of parents living in multi-ethnic disadvantaged neighborhoods. The built-in module 'Coping with stress and unhelpful emotions' served to improve the (cultural) relevance and fit of the selected intervention.

## INTRODUCTION

Parenting interventions are effective in improving the quality of parenting practices and overall family wellbeing, as well as in reducing child behavior problems (Barlow, Bergman, Kornor, Wei, & Bennett, 2016; Barlow, Coren, & Stewart-Brown, 2002). However, not all families benefit equally from parenting interventions because effectiveness can be influenced by, for example, participants' characteristics and intervention characteristics (Lundahl, Risser, & Lovejoy, 2006). Ethnic minorities are more likely to underutilize interventions and discontinue interventions prematurely as compared to ethnic majority groups (Griner & Smith, 2006; Miranda et al., 2005; Reyno & McGrath, 2006). Also, ethnic minority and low-income status are associated with poorer intervention outcomes (Griner & Smith, 2006; Lundahl et al., 2006; Reyno & McGrath, 2006). Therefore, simply selecting an evidence-based intervention does not necessarily ensure a positive outcome (Webster-Stratton, Reid, & Marsenich, 2014).

Researchers warn of the dangers of disseminating evidence-based interventions among diverse populations if such programs were originally developed for and tested on middle income and ethnic majority groups (Calzada, 2010; Coard, Wallace, Stevenson, & Brotman, 2004; Forehand & Kotchick, 2016; Gross et al., 2009). Interventions that fail to take into account the needs and stressors associated with an ethnic minority background and/or socioeconomic disadvantage, may compromise the interventions' relevance and effectiveness (Lau, 2006). This is supported by growing evidence indicating that culturally adapted interventions are more efficacious in ethnic minorities compared with similar interventions without cultural adaptations (Griner & Smith, 2006; van Mourik, Crone, de Wolff, & Reis, 2017). Nevertheless, although a culturally adapted intervention may enhance participation of the target group, program effectiveness is not guaranteed if the cultural adaptation is not based on evidence (Castro, Barrera, & Martinez, 2004). Prevention science aims to disseminate interventions that deliver the best science while also be culturally informed and responsive, addressing the stressors and resources of a local community (Castro et al., 2004).

The present study aimed to identify an evidence-based parenting intervention and adapt it for use in multi-ethnic disadvantaged neighborhoods. A three-stage design, informed by the Intervention Mapping approach was used to i) guide selection of

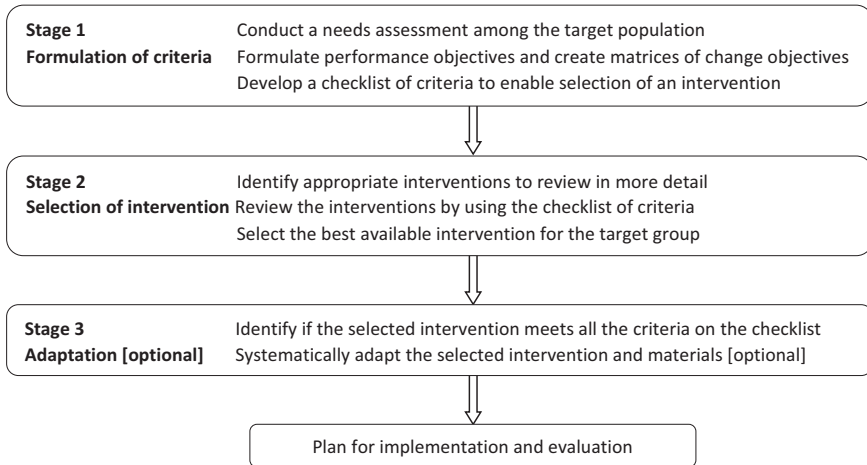
an evidence-based parenting intervention, ii) assess the fit of the intervention with the needs of the target group, iii) decide whether adaptation was necessary, and (if so) iv) adapt the intervention while maintaining the core components.

## METHODS

### Study approach

Intervention Mapping was initially used to develop behavior change interventions, but is also useful for tailoring existing interventions in a systematic way (Detaille, van der Gulden, Engels, Heerkens, & van Dijk, 2010). Intervention Mapping is based on the idea that an intervention will most likely be effective if it is grounded in the evidence regarding the particular problem and the target population and context (Bartholomew, Parcel, Kok, Gottlieb, & Fernández, 2011). It is a systematic approach for developing intervention strategies; it considers pragmatic issues at the organizational and individual level, and can support tailoring of an intervention to the needs of a specific population (Bartholomew et al., 2011; Draper et al., 2014; Gillison et al., 2012).

In the present study, which aims to select and adapt an existing evidence-based intervention, the Intervention Mapping steps are integrated in three stages: 1) systematically investigating and defining a checklist of criteria that an intervention needs to fulfil to meet the needs of the target population, 2) systematically reviewing and comparing existing interventions against these criteria to select a 'best available' intervention as a basis, and 3) if the selected intervention does not meet all the criteria, adapt it for the target population (Gillison et al., 2012; Highfield et al., 2015). Figure 1 presents an overview of the study approach to program selection and adaptation. This approach is both iterative and cumulative, i.e. evidence from each stage informs the choices and considerations that need to be taken into account in the following stages.



**Figure 1.** Study approach: Stages for program selection and adaptation

### **Stage 1      Formulation of essential criteria**

A needs assessment was conducted to gain detailed information on the needs of the target population regarding the improvement of parenting skills. Sixty-one semi-structured interviews and group discussions were held among parents with a child aged 0-15 years living in multi-ethnic disadvantaged neighborhoods. Parents were included when expressing parental concerns about their child's behavior or their parenting competence, thereby being a target population for preventive parenting interventions. For methodological details, see the broader study (of which the needs assessment was part) on parenting concerns and relevance of parenting support (van Mourik, Crone, Pels, & Reis, 2016).

A topic list was used to ask about parental concerns and parenting behavior, and what was needed to change the parenting situation. Interviews were audio-taped, transcribed ad verbatim, and anonymized. Thematic analysis was used to identify broader patterns of meaning (themes) (Braun & Clarke, 2012) to formulate the performance objectives, which specify what the desired outcome behavior of the parenting intervention should be (Bartholomew 2011). The needs assessment was also used to formulate change objectives which specify what the target group has to know, think or do in order to be able to perform the desired outcomes of the intervention (van Genugten, van Empelen, Flink, & Oenema, 2010).

At the start of the present study, independent of the needs assessment, the aim was formulated to select and adapt a preventive parenting intervention for parents with a child aged 0-12 years. Additional criteria were formulated based on evidence from the needs assessment. The checklist of essential (i.e. most basic or important aspects or qualities) criteria would enable selection of the most appropriate parenting intervention for parents living in multi-ethnic disadvantaged neighborhoods. Criteria were formulated in consultation with an intervention development group, comprised of researchers in medical anthropology and health sciences, experienced youth healthcare professionals, and policy advisers. For the criterion to be included, consensus was required among members of the intervention development group that a specific criterion was necessary to the success of the intervention for the target audience.

### **Stage 2            Selection of an intervention**

To identify potential relevant interventions, the parenting interventions that were screened for inclusion in a meta-analysis were assessed (van Mourik et al., 2017); the literature search used for this meta-analysis was conducted to identify preventive parenting programs delivered to ethnic minorities. The resulting list of programs was supplemented with preventive parenting interventions included in the database of effective youth interventions of the Netherlands Youth Institute.

To select the most appropriate intervention, interventions that met 50% or more of the essential criteria in the checklist were selected. These interventions were then discussed with the intervention development group, as well as with five additional experts in the field of parenting interventions, resulting in a shortlist of appropriate interventions. The intervention materials of the shortlisted interventions were reviewed by the first author (KM) and discussed with the second author (MC) to consider whether the interventions met the essential criteria. The selected intervention was then reported back to and approved by the intervention development group.

### **Stage 3            Adaptation**

Before adaptation, the intervention that was considered most appropriate was compared with the checklist of criteria. Adaptation was considered if not all criteria were met. To enable adjustment or incorporation of certain intervention elements without compromising the core components of the intervention, we collaborated

with the organization responsible for intervention development and training of professionals in the Netherlands. Taking into account the information from the needs assessment, input from the intervention developer, and consultation with the intervention development group, it was decided what adaptations would be beneficial. Both surface and deep structure adaptations were considered (Resnicow, Baranowski, Ahluwalia, & Braithwaite, 1999). Surface structure involves matching program materials and messages to the characteristics of the target population (e.g., language, locations, and persons involved). Deep structure sensitivity refers to incorporating those elements that influence the behavior of the target group (e.g. cultural, social, and environmental factors).

## RESULTS

Described below are details of the evidence used in each of the three stages to make informed choices in the process of intervention selection and adaptation.

### **Stage 1                      Formulation of essential criteria**

#### *Needs assessment*

Data from the needs assessment revealed that parents emphasized the importance of learning about (non-harsh) disciplinary strategies, and coping with stress and unhelpful emotions. Parents expressed a need to learn new disciplinary strategies to handle undesired behavior of their child, including knowledge and skills regarding non-harsh and non-violent discipline strategies. Parents, especially from Antillean-Dutch and Moroccan-Dutch descent, reported that harsh and physical disciplinary styles were often used by their own parents, resulting in them having little knowledge about other strategies to discipline their child. Parents also emphasized the importance of managing sources of stress/unhelpful emotions, and parent's emotional reactions to stressful situations. Coping with stress/unhelpful emotions in an effective manner would minimize their impact on the child and their own parenting behavior. Common sources of stress/unhelpful emotions were identified, including: financial problems, relationship problems, fear of cultural alienation of the child and the experience of discrimination. Other performance objectives identified were positive parenting (e.g. rewards), sensitive parenting (e.g. responsive parenting, age-appropriate parenting) and parental involvement. Table 1 lists the

desired outcomes and performance objectives for the intervention based on the needs assessment.

**Table 1.** Themes extracted from the needs assessment, and desired outcomes and performance objectives for the parenting intervention

| <b>Themes</b>   | <b>Desired outcomes</b>                        | <b>Performance objectives</b>   |
|---|--|---|
| How to discipline a child<br>a) Little knowledge of non-harsh disciplinary strategies; tendency to get angry and yell; afraid to resort to physical disciplinary strategies (or have used these in the past)<br>b) Difficulty with setting rules and to maintain them; difficulties in regard to consistent discipline behavior<br>c) Unfamiliar with age-appropriate discipline strategies; perception that nothing works to stop undesirable behavior child as a result of the child's personality, genes or factors in the family context (e.g. stress, undesirable behavior, friends) | 1. Parent uses effective discipline strategies | a) Parent knows how to discipline effectively<br>b) Parent uses effective and non-harsh discipline strategies<br>c) Parent are able to use discipline strategies in a consistent manner<br>d) Parent uses age-appropriate discipline strategies |
| How and when to reward desired behavior<br>a) Tendency to focus on undesirable behavior of child; lack of positive interaction between parent and child<br>b) Lack of knowledge on how to reward a child<br>c) Rewards are unhealthy and expensive  | 2. Parent uses positive parenting principles   | a) Parent is aware when the child displays desirable behavior<br>b) Parent rewards desirable behavior in a healthy and non-expensive manner   |

Table 1. Continued

| Themes   | Desired outcomes                                      | Performance objectives   |
|--|---|--|
| <p>How to be sensitive to the child's needs, age and personality</p> <p>a) Feeling insecure as a parent, when having children with different personalities and ages; need for 'child specific' parenting in which one responds to the specific needs of the child; unfamiliar with age-appropriate parenting</p> <p>b) Need to better understand children's needs and worries; lack of understanding of needs and worries of older children (lack of communication and involvement); lack of experience in recognizing needs of younger children</p> | 3. Parent uses sensitive parenting skills             | <p>a) Parent examines the needs and desires of the child</p> <p>b) Parent uses parenting strategies that fits the needs and desires of the child</p> <p>c) Parents use age-appropriate strategies</p>                        |
| <p>How to improve the parent-child relationship</p> <p>a) Tendency to be busy with household tasks and work</p> <p>b) Need to do activities together, both indoors (homework, play activities) and outdoors (school, friends, leisure activities)</p> <p>c) Lack of communication between parent and child</p> <p>d) Need to simulate involvement of other parent</p>  | 4. Parent stimulates the involvement in the child     | <p>a) Parent invests in one-on-one time with the child, both indoors and outdoors</p> <p>b) Parent stimulates communication between parent and child</p> <p>c) Parent stimulates involvement of other parent</p>             |
| <p>How to cope with stress and unhelpful emotions</p> <p>a) Negative influence of stress and unhelpful emotions on the parenting behavior</p> <p>b) Need to reduce the influence of stress and unhelpful emotions on the parent behavior</p>   | 5. Parent can cope with stress and unhelpful emotions | <p>a) Parent recognizes sources of stress</p> <p>b) Parent recognizes the influence of stress and its influence on parenting behavior</p> <p>c) Parent uses coping strategies to cope with stress and unhelpful emotions</p> |

Parents reported several determinants related to their ability to improve their parenting behavior. These include social norms about appropriate parenting behavior, a lack of social support, and lack of experience due to being a first-time parent. The determinants were compared with constructs from behavior change theories ((e.g. Theory of Planned Behavior (Ajzen, 1991); Self-Regulation Theory (Austin, 1996; Maes & Karoly, 2005)) resulting in identification of the following determinant areas: knowledge, skills, attitudes/emotions and environmental context, resources and social influences. The determinants were transformed into change objectives which specified exactly what needed to be changed to achieve the performance objective. For example, parents emphasized two determinants that influenced their ability to discipline effectively: a lack of experience due to being a first-time parent, and a lack of good example by their own parents. These determinants are related to the determinant areas knowledge and skills, and were transformed into change objectives which specified exactly what needed to be changed to be able to discipline effectively. In this case, the intervention should stimulate that the parent knows different strategies to discipline a child, and that the parent is able to discipline the child effectively. These and other examples are provided in Table 2. Table i (Supplementary data) provides further details of the determinant areas, change objectives and performance objectives for each desired outcome, and provides an overview that supports the selection of the best available evidence-based intervention for the target group.

**Table 2.** Example of change objectives mapped against determinant areas and performance objectives

| <b>Performance objectives</b>                             | <b>Determinants</b>   | <b>Determinant areas</b>                               | <b>Change objectives</b>  |
|---|---|--|---|
| Parent knows how to discipline effectively                | Lack of experience due to being a first-time parent<br>Lack of good example of my own parents | Knowledge<br>Skills                                    | Parent knows different strategies to discipline a child<br>Parent is able to discipline their child effectively |
| Parent uses effective and non-harsh discipline strategies | Spanking a child is considered acceptable by many parents                                     | Attitudes  | Parent expresses positive feelings about the benefits of non-harsh discipline strategies                        |
| Parent recognizes how stress influences parental behavior | Lack of social support  | Environmental context, resources and social influences | Parent is able to share their experiences of stress and negative emotions with other parents                    |

*Checklist of criteria*

The performance objectives led to the formulation of five criteria regarding intervention content, and the change objectives resulted in four criteria related to intervention format and determinants needed to change parenting behavior. The checklist was supplemented with four criteria regarding practical considerations formulated by the intervention development group. These include i) acceptability of the program by the target group (cultural relevance) and by the providers (familiarity with the intervention), ii) feasibility and affordability for use in local services (e.g. training of professionals and number of sessions), and iii) evidence of effectiveness to guarantee program quality, and iv) effectiveness. These criteria were included to ensure that the intervention could be integrated within the established local services. Table 3 presents the checklist of the 13 criteria used for the selection of a parenting intervention. The most appropriate intervention should comply with most of the criteria.

**Table 3.** Checklist of the essential and desirable criteria

| <b>Intervention content</b>   | <b>Source</b>                  |
|---|--------------------------------|
| Improving parenting behavior:   |                                |
| 1. Disciplinary strategies  | Performance objectives         |
| 2. Positive parenting   | Performance objectives         |
| 3. Sensitive parenting  | Performance objectives         |
| 4. Parental involvement   | Performance objectives         |
| 5. Coping with stress and unhelpful emotions                            | Performance objectives         |
| <b>Intervention format</b>  |                                |
| 6. Group-based program  | Change objectives              |
| <b>Determinant areas.</b> Attention for:                                |                                |
| 7. Skills and knowledge   | Change objectives              |
| 8. Attitudes and emotions   | Change objectives              |
| 9. Environmental context and social influences                          | Change objectives              |
| <b>Practical considerations</b>   |                                |
| 10. Acceptable to target group (cultural relevance)                     | Intervention development group |
| 11. Acceptable to professionals (familiarity)                           | Intervention development group |
| 12. Feasible within local services (training costs, number of sessions) | Intervention development group |
| <b>Research quality</b>   |                                |
| 13. Evidence for effectiveness  | Intervention development group |

## **Stage 2            Selection of an intervention**

### *Selection appropriate intervention*

A total of 33 interventions were identified and compared against the checklist of criteria, of which eight interventions met about 50% of the criteria (for details see Table ii, Supplementary data). In consultation with the intervention development group and experts in the field of parenting interventions, the interventions were included if they met the majority of content criteria. Of the interventions meeting the majority of criteria, it was also required that there was evidence for the intervention's effectiveness and that the intervention was already implemented in the Netherlands.

Although interventions implemented in other countries may have considerable potential for the target group, experts anticipated the following obstacles for successful implementation in the Netherlands. First, low acceptance by professionals was anticipated due to unfamiliarity with the interventions, combined with the multiple parenting interventions already used in the Dutch setting. Second, high implementation costs related to translation of the materials and training of professionals were anticipated when selecting an intervention not already used in the Netherlands. This led to the shortlisting of three interventions that were considered most appropriate: i) Incredible Years (pre-school BASIC program), ii) Parent Management Training Oregon, and iii) Triple P Positive Parenting Program (Group Triple P level 4). After reviewing the facilitator handbooks and detailed program specifications of these three interventions, it was concluded that none of them paid specific attention to 'coping with stress and unhelpful emotions' or made no to little use of behavior change techniques related to the determinants 'attitudes and emotions' (for details see Table ii, Supplementary materials).

After discussion with the intervention development group, Group Triple P was selected as it met the majority of the essential criteria including the practical considerations, in particular its feasibility within local services. This latter point was decisive for the intervention development group to ensure implementation and sustainability in practice (Gillison et al., 2012). Group Triple P was already used in the Dutch primary care setting, professionals showed ongoing support/interest, and the intervention consists of eight sessions which was judged feasible for implementation in the local setting. Although Incredible Years BASIC and PMTO are promising interventions with a strong evidence base (Bjorknes & Manger,

2013; Leijten, Raaijmakers, Orobio de Castro, van den Ban, & Matthys, 2017), the professionals were less familiar with these interventions and questions arose regarding the feasibility/affordability within local Dutch services (e.g. few trained professionals in preventive services, and involving more than 10 sessions).

**Table 4.** Comparison of three interventions against the checklist of criteria

|   | Incredible years<br>(BASIC pre-<br>school) | Parent Manage-<br>ment Training<br>Oregon (PMTO) | Positive Parenting<br>Program (Group<br>Triple P) |
|---|--|--|---|
| <b>Intervention content</b>   |  |  |   |
| Improving parenting behavior:   |  |  |   |
| 1. Disciplinary strategies  | ✓  | ✓  | ✓   |
| 2. Positive parenting   | ✓  | ✓  | ✓   |
| 3. Sensitive parenting  | ✓  | ✓  | -   |
| 4. Parental involvement   | ✓  | ✓  | ✓   |
| 5. Coping with stress and unhelpful emotions                            | -  | -  | -   |
| <b>Intervention format</b>  |  |  |   |
| 6. Group-based program  | ✓  | ✓  | ✓   |
| <b>Determinant areas.</b> <sup>1</sup> Attention for:                   |  |  |   |
| 7. Skills and knowledge   | ✓  | ✓  | ✓   |
| 8. Attitudes and emotions   | -  | -  | -   |
| 9. Environmental context and social influences                          | ✓  | ✓  | ✓   |
| <b>Practical considerations</b>   |  |  |   |
| 10. Acceptable to target group (cultural sensitivity)                   | ✓  | ✓  | ✓   |
| 11. Acceptable to professionals (familiarity)                           | ✓  | ✓  | ✓   |
| 12. Feasible within local services (training costs, number of sessions) | -  | -  | ✓   |
| <b>Research quality</b>   |  |  |   |
| 13. Evidence for effectiveness  | ✓  | ✓  | ✓   |

<sup>1</sup> For details of coding the determinant areas, see Table ii (Supplementary data)

### **Stage 3            Adaptation of an intervention**

Group Triple P does not pay specific attention to ‘coping with stress and unhelpful emotions’ and ‘sensitive parenting’, and had limited attention for the determinant area ‘attitude and emotions’. To enable incorporation of these elements in the intervention without compromising the core components of Group Triple P, we collaborated with Triple P the Netherlands and Triple P Australia. Taking into account the information from the needs assessment, the level of flexibility that Triple P could offer, and consultation with the intervention development group, it was decided that the objective ‘coping with stress and unhelpful emotions’ would be integrated as a module in Group Triple P (deep structure adaptation) and that the cultural sensitivity of the intervention for dissemination would be improved (surface structure adaptation).

#### *Module ‘Coping with stress and unhelpful emotions’*

A module was developed to enhance the fit of Group Triple P without compromising the core components of the existing intervention: also called a built-in adaptation or modular approach (Castro et al., 2004). Based on the needs assessment, three performance objectives were formulated regarding ‘coping with stress and unhelpful emotions’: i) parents recognize sources of stress and unhelpful emotions, ii) parents recognize how stress and unhelpful emotions influence parenting behavior, and iii) parents use coping strategies to handle stress and unhelpful emotions (see Table ii, Supplementary data). This was compared with the existing course ‘Coping with emotions’ of Triple P Family Transitions which is used among parents in the process of separation and divorce, and the sessions on ‘Coping skills’ in Enhanced Triple P which is used in families who require extra support to make or maintain changes in parenting due to family issues such as stress, poor coping, partner conflict or mental health issues. The objectives of these sessions were roughly similar to the above described objectives. Adjustments were made to make the session suitable for a broader category of parents than only those who experience divorce and separation and those who experience more difficult family issues and was named ‘Coping with stress and unhelpful emotions’.

In this module, parents are informed about the impact of stress and unhelpful emotions on the mind, the body and (parenting) behavior. For example: one exercise stimulates parents to document a situation in which they experienced stress or unhelpful emotions, and report how this influenced their thoughts and bodily

responses to increase self-awareness. Different strategies are provided to deal with the effect of stress and unhelpful emotions, including the provision of relaxation exercises and development of personal coping statements. The module includes both an individual and group format; individual exercises in the parent handbook are alternated by watching DVD footage of parenting situations, and discussing parents' responses to the footage. Table 5 gives details of the module 'Coping with stress and unhelpful emotions' and insight into its determinants and behavior change techniques (BCTs, Michie et al., 2013). The module consisted of one 2.5-hour session and takes into account different change objectives related to parents' ability to change their parenting behavior: i.e. knowledge and skills to perform the behavior, attitudes and emotions regarding the behavior and environmental context, and the resources to be able to change the behavior.

**Table 5.** Determinants and behavior change techniques in the module 'Coping with stress and unhelpful emotions'

| <b>Determinant</b>                  | <b>Behavior change technique</b>            | <b>Examples from the module</b>  |
|-------------------------------------|---|--|
| Knowledge                           | Information about consequences              | Information about bodily responses as a result of stress and unhelpful emotions  |
|                                     | Instructions on how to perform the behavior | Information and instruction about relaxation exercises   |
| Skills                              | Self-monitoring of behavior                 | Parents document situations in which they experience unhelpful emotions, and how this influences their thoughts and bodily responses                   |
|                                     | Action planning                             | Parents develop coping statements they can use in situations that trigger stress and unhelpful emotions  |
| Attitudes and emotions              | Demonstration of the behavior               | DVD footage of parents who have unhelpful thoughts, complemented with helping thoughts provided by a credible source in favor of this behavior.        |
|                                     | Information about others' approval          | Parents share their ideas in response to the DVD footage about unhelpful thoughts  |
|                                     | Goal setting; review behavior goals         | Parents plan pleasant activities in their daily schedules, and document afterwards the pleasure the activity gave them on a 0-10 scale                 |
| Environmental context and resources | Social comparison                           | Parents share with others, based on situations that are described in the parent workbook, the thoughts and emotions they would have in such situations |

### *Cultural sensitivity*

To improve the acceptability and cultural sensitivity of Group Triple P for the target group, further adjustments were made. Based on consultations with community healthcare professionals with experience in providing support to ethnic minorities and families with low socioeconomic status (SES), five adjustments were made. First, an individual welcome meeting was incorporated to establish a relationship between participants and providers, to motivate participants to attend all sessions, and for providers to learn about the family setting and context of the parent. Second, an extra session was incorporated to discuss the theme 'managing misbehavior', because this theme was considered to be 'information dense'. The extra session was incorporated at the expense of one individual session. Third, group leaders could either use home visits or telephone consultancy for the individual sessions, which offered them flexibility when working with parents with poor Dutch language proficiency. Fourth, the sessions were longer in duration to slow down the pace of presentation and be able to share personal stories. Fifth, the original handbook was simplified for participants with limited (Dutch) language skills, with shorter sentences, simpler words, and a selection of core and optional assignments.

### *Implementation and evaluation plan*

The adjusted version of Group Triple P, with the module 'Coping with stress and unhelpful emotions' and the adjustments to improve cultural sensitivity, was named Triple P Extra. Triple P Extra was designed to be delivered by community healthcare professionals. A training manual and training session was developed, and a process evaluation was planned to evaluate the implementation and (cultural) relevance of the module on coping with stress and unhelpful emotions (van Mourik, Crone, & Reis, 2018).

## **DISCUSSION**

This study aimed to select an existing parenting intervention that was suitable for the target group, and increase its fit to the needs and stressors of parents living in multi-ethnic disadvantaged neighborhoods. A three-stage process was documented for the selection and adaptation of an intervention, which drew on a local needs assessment, expert opinions of relevant stakeholders, and existing evidence for interventions aimed to promote good parenting behavior. First, in-depth interviews

with parents resulted in a checklist of criteria for an intervention. Second, 33 interventions were compared to this checklist, of which three fulfilled the majority of the criteria. None of these interventions provided attention to the theme ‘coping with stress and unhelpful emotions’ of parents, which was identified as important for parents living in multi-ethnic disadvantaged neighborhoods. Group Triple P was selected to fit the majority of criteria and for being suitable for implementation in Dutch local services. Third, the module ‘Coping with stress and unhelpful emotions’ was developed and integrated in Group Triple P. In addition, adjustments were made to improve the cultural sensitivity of the intervention for ethnic minorities and families with lower SES.

### **Comparison with former research**

Ethnic minorities and families with lower SES are more vulnerable to the experience of (parenting) stress due to structural disadvantages, including economic difficulties, acculturation stress, and low social support (Emmen et al., 2013; Leidy, Guerra, & Toro, 2010; Martinez, 2006; Nomaguchi & House, 2013). This is important, because parenting stress increases non-optimal parenting (e.g. harsh parenting) and can have a long-lasting effect on the wellbeing of children (Emmen et al., 2013; White, Liu, Nair, & Tein, 2015). As also demonstrated earlier, the needs assessment of the present study showed that parents experience stress and unhelpful emotions due to contextual stressors, which consequently influenced their parenting behavior (van Mourik et al., 2016). Parents felt challenged to be a ‘good parent’ when feeling overwhelmed by stress and emotions. They emphasized the importance of managing parents’ emotional reactions to stressors to minimize their effect on their parenting behavior and the child’s development. Interestingly, the systematic comparison of existing interventions indicated that attention for coping strategies to handle stress and unhelpful emotions was not a standard theme in preventive parenting interventions. Therefore, adaptations were made to incorporate this theme in an existing intervention, by developing and integrating a module on ‘Coping with stress and unhelpful emotions’.

There is a long history of interventions being transferred to other groups or settings without considering the extent to which the program fits with the new target group, context and/or implementation setting (Leerlooijer et al., 2014). Existing interventions may be promising for use in different settings; for example, Leerlooijer et al. (2014) state that it is valuable to identify suitable interventions, assess fit

of the original intervention within the new context and target group, and decide whether adaptation is necessary and appropriate. They underline that, if adaptation is undertaken, it should be determined what needs to be adapted and what core components should be maintained (Leerlooijer et al., 2014). The present study followed this latter approach. In addition, we concur with Baumann et al. (2015) who state that the field of prevention science is ripe for more studies documenting the process of cultural adaptation, and with Abraham and Michie (2008) who emphasize the importance of transparency with regard to intervention development.

In the present study, the three-stage process used (inspired by the Intervention Mapping approach) resulted in transparent selection and adaptation of an intervention. The use of the Intervention Mapping approach for intervention selection and adaptation (being both iterative and cumulative) is in concordance with those who advocate for a rationale for cultural adaptations prior to adapting evidence-based interventions, given the concerns regarding an absence of data that confirm that such adaptations are needed (Domenech Rodriguez & Bernal, 2012). In using the Intervention Mapping approach, adaptation of an intervention is not fixed beforehand, but uses collected evidence to guide the decisions to either make adaptations or not, and the type of adaptations needed. This systematic approach enabled us to address the needs of the target group, fit the implementation setting, match the capacity of program deliverers, and preserve program elements that are deemed necessary to change behavior in the original intervention (Leerlooijer et al., 2014).

In addition, Gillison et al. (2012) state that different groups of stakeholders may generate different selection criteria regarding the content of interventions and make different intervention choices; they considered this to be a potential limitation of their own work. Allowing the perspectives of different stakeholders to influence the checklist of criteria and describing the considerations made is, in their experience, a valid approach (Gillison et al., 2012). In the present study, core stakeholders were, apart from the parents (potential service receivers), also youth healthcare professionals (potential service deliverers). The expertise and interests of the latter group were safeguarded by involving representatives in an intervention development group from the outset of the project (comprising researchers in medical anthropology and health sciences, experienced youth healthcare professionals, and policy advisers.) Therefore, the outcomes of the needs assessment among parents

were combined with theoretical perspectives, scientific evidence, and considerations from practice and policy. This was further complemented with expert consultations. This enabled us to take into account practical considerations related to local public health services and organizational capacity which, if not met, would limit integration within the established local services (Gillison et al., 2012).

### **Strengths and limitations**

Despite the strengths of the Intervention Mapping approach it is a time-consuming process, especially for the development of new interventions (Detaille et al., 2010; Gillison et al., 2012). To enhance progress and, following earlier research using the Intervention Mapping approach for tailoring interventions (Detaille et al., 2010; Gillison et al., 2012), the approach was simplified and found to be useful to adapt an existing intervention that has been proven effective.

We aimed to select an existing intervention that was suitable for the target group, enabling us to relatively quickly adapt a promising intervention to the needs and stressors of the target group. However, we had to consider the opportunities provided by the care system which provides opportunities and restrictions for implementation in the local services (Abel & Frohlich, 2012). In the present study, the choice was made to select an intervention that was already implemented in the Netherlands, thereby excluding internationally used interventions that incorporated the theme 'coping with stress and unhelpful emotions' in their curriculum.

Our criteria could have been too stringent and, although our team reached consensus about the suitability of interventions, others may have different perspectives about the selection criteria. A further complicating factor is that parenting interventions are generally complex, involving many components (Michie et al., 2013). This presents a challenge to identify the components within them and to compare them against the defined checklist of criteria.

Based on a systematic approach, Group Triple P was selected as fitting the majority of essential criteria and for being most suitable for implementation in Dutch local services. However, there is discrepancy in the literature regarding the cultural acceptability of Group Triple P. Some researchers indicate that Triple P is acceptable for parents from culturally diverse backgrounds and for parents in urban, low-income settings (Matsumoto, Sofronoff, & Sanders, 2010; Mejia, Leijten, Lachman, & Parra-

Cardona, 2016; Turner, Richards, & Sanders, 2007), whereas others raise concerns about its appropriateness for groups that are culturally diverse and/or with a lower SES (Thomas & Zimmer-Gembeck, 2007). We aimed to improve the fit of Group Triple P by including the module ‘Coping with stress and unhelpful emotions’ and adjustments to improve dissemination in parents from an ethnic minority and with lower SES. The module was integrated in Group Triple P and has been evaluated (van Mourik et al., 2018); this evaluation provides information on the interventions’ appropriateness and relevance for parents living in multi-ethnic disadvantaged neighborhoods.

### **Implications**

Mejia and colleagues see great potential for future research and practice if flexibility can be built into an intervention (Mejia et al., 2016). This allows the providers of parenting interventions to adjust the components of the intervention to the composition and needs of a particular participant group, e.g. by selecting modules from different interventions to incorporate in the adapted intervention. In the present study, the main adaptation includes integration of a module on ‘Coping with stress and unhelpful emotions’ in an existing parenting intervention delivered to parents living in multi-ethnic disadvantaged neighborhoods. This can be considered a ‘built-in’ adaptation to enhance program fit, while also maximizing fidelity of implementation and program effectiveness (Castro et al., 2004).

In the present study, the developed module should not be considered a culturally-specific intervention for use in a specific group of parents. It was developed as a general intervention module that can be flexibly applied to a wide range of parents. When parents experience stress and unhelpful emotions, regardless of their ethnicity and SES, the module ‘Coping with stress and unhelpful emotions’ may be relevant for them. This is especially applicable when considering the impact of stress and unhelpful emotions on parenting practices.

## **CONCLUSIONS**

The three-stage process described in this study is useful for the systematic selection and adaptation of an existing intervention to a new target group. The needs assessment among parents living in multi-ethnic disadvantaged neighborhoods

resulted in specific attention paid to the theme 'stress and unhelpful emotions', which is not a common target of parenting interventions in general. This resulted in the adaptation of Group Triple P by including a module on 'Coping with stress and unhelpful emotions'. The present study addresses the potential for the in-built flexibility of interventions by including modules relevant for specific target groups and contexts.

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# APPENDIX 1

**Table i.** Overview of performance and change objectives for the desired outcomes

| Performance objectives  | Knowledge  | Skills  |
|---|--|---|
| <b>1. Discipline strategies</b>   |  |   |
| a. Parents know how to discipline effectively                           | Parents know different strategies to discipline a child<br><br>Parents know how discipline strategies can be effectively used                                | Parents are able to discipline their child effectively                        |
| b. Parents use effective and non-harsh discipline strategies            | Parents know how to use discipline strategies<br><br>Parents know when to use discipline strategies  | Parents are able to use non-harsh discipline strategies                       |
| c. Parents are able to use discipline strategies in a consistent manner | Parents know what consistent discipline is   | Parents are able to set family rules and maintain them                        |
| d. Parents use age appropriate discipline strategies                    | Parents know different age appropriate strategies to discipline their child  | Parents are able to use age-appropriate discipline strategies                 |
| <b>2. Cope with stress and emotions</b>                                 |  |   |
| a. Parents recognize sources of stress                                  | Parents have knowledge about common sources of stress for children and parents<br><br>Parents know how stress influences children's behavior and development | Parents are able to identify sources of stress for their child and themselves |

| Attitudes   | Emotions  | Environmental context, resources and social influences   |
|---|---|--|
| <p>Parents know there is a positive relationship between effective discipline and children's behavior</p> | <p>Parents are able to recognize situations in which their discipline behavior is influenced by stress or negative feelings</p> | <p>Parents are able to compare and evaluate discipline strategies that are used in the Netherlands and in other countries</p>  |
| <p>Parents express confidence that they can use different discipline strategies</p>                       | <p>Parents know how to control their emotions when the child displays undesired behavior</p>                                    |  |
| <p>Parents express positive feelings about the benefits of non-harsh discipline strategies</p>            | <p>Parents express confidence to not use harsh discipline when feeling stressed or emotional</p>                                | <p>Parents know that spanking a child is not allowed in the Netherlands</p>  |
| <p>Parents express confidence that they can use non-harsh discipline strategies</p>                       |   | <p>Parents are able to discuss with other involved in parenting the child, the benefits of non-harsh discipline</p>  |
| <p>Parents express confidence that they can discipline their child in a consistent manner</p>             | <p>Parents are able to discipline the child consistently when feeling stressed or emotional</p>                                 | <p>Parents feel confident to use discipline strategies in a consistent manner even when being observed by other people (e.g. in the supermarket, when visiting family)</p> |
| <p>Parents are able to identify the positive results of consistent discipline</p>                         |   |  |
| <p>Parents express positive feelings about the use of age-appropriate discipline strategies</p>           |   |  |
| <p>Parents express confidence that they can use age-appropriate discipline strategies</p>                 |   |  |
|   | <p>Parents know how stress influences their parenting behavior</p>  |  |

**Table i.** Continued

| <b>Performance objectives</b>   | <b>Knowledge</b>   | <b>Skills</b>  |
|---|--|--|
| b. Parents recognize how stress influences parent behavior                  | Parents know how stress influences the behavior and mental health of adults  | Parents are able to identify how stress influences their parenting behavior  |
| c. Parents use coping strategies to deal with stress and unhelpful emotions | <p>Parents know strategies to manage the influence of stress</p> <p>Parents have knowledge about healthy and unhealthy coping strategies</p> | Parents are able to use healthy coping strategies to reduce the influence of stress  |
| <b>3. Positive parenting</b>  |  |  |
| a. Parents are aware when the child displays desirable behavior             |  | Parents are able to determine what they consider good behaviour and what behaviour they want to reward   |
| b. Parents reward desirable behavior in a healthy and non-expensive manner  | Parents know different strategies to reward good child behaviour   | Parents know how to reward their child in a non-expensive and healthy manner   |
| <b>4. Sensitive parenting</b>   |  |  |
| a. Parents examine the needs and desires of the child                       | <p>Parents have knowledge about children's developmental stages</p> <p>Parents know what sensitive parenting is</p>                          | <p>Parents are able to determine the child needs via observation or communication</p> <p>Parents are able to observe and interpret the child's behaviour</p> |

| Attitudes  | Emotions  | Environmental context, resources and social influences   |
|--|---|--|
| Parents express positive feelings about reducing the influence of stress on their parenting behavior           |   | Parents are able to share their experiences of stress and negative emotions with other parents   |
| Parents express positive feelings about developing healthy coping strategies to reduce the influence of stress | Parents are able to use healthy coping strategies, also when feeling unhappy or stressed                        | Parents are able to ask for support when finding it difficult to stop using unhealthy coping strategies<br><br>Parents are able to ask for support to help them dealing with the sources of stress |
| Parents express positive feelings about the benefits of positive parenting                                     |   |  |
| Parents express confidence to recognize good child behaviour   |   |  |
| Parents express positive feelings about the benefits of reward strategies on child behaviour                   | Parents are able to reward their child's good behaviour, even when feeling/being occupied with other activities | Parents plan to change their daily schedule to create time to reward their child's good behaviour  |
| Parents know the distinction between pampering and rewarding a child   |   | Parents are able to discuss with others involved in raising the child (e.g. grandmother) how to reward the child's behavior  |
| Parents express positive feelings about the benefits of responding with sensitivity to the child               |   | Parents make time to be able to identify the needs of their child  |
| Parents express confidence that they can identify the needs of their child                                     |   |  |

Table i. Continued

| Performance objectives   | Knowledge   | Skills   |
|--|---|--|
| b. Parents use parenting strategies that fits the needs and desires of the child |   | Parents are able to adjust their parenting behavior to the child's needs   |
| c. Parents use age-appropriate strategies  | <p>Parents have knowledge about common child needs per age</p> <p>Parents have knowledge about age appropriate parenting behaviour</p>                      | Parents are able to list age appropriate activities  |
| <b>5. Parental involvement</b>   |   |  |
| a. Parents invest in one-on-one time with the child, both indoors and outdoors   | <p>Parents know what quality time entails</p> <p>Parents have knowledge about appropriate parental involvement for different age groups</p>                 | <p>Parents know how to spend quality time with their child, both indoors and outdoors</p> <p>Parents are able to list activities that can be done with their child both indoors and outdoors</p> |
| b. Parents stimulate communication between parent and child                      | <p>Parents have knowledge about what open and positive communication entails</p> <p>Parents know strategies to stimulate communication with their child</p> | Parents are able to construct a safe and supporting setting with mutual respect to communicate (and discuss sensitive topics) with their child   |
| c. Parents stimulate involvement of the other parent                             |   | Parents are able to make a plan with the other parent about how, when and how often the other parent will spend time with the child  |

| Attitudes   | Emotions   | Environmental context, resources and social influences   |
|---|--|--|
| <p>Parents express confidence that they can understand and respond appropriately to their child's needs</p>                     | <p>Parents understand that tantrums represent real emotions, and respond to these emotions in a sensitive manner</p>   | <p>Parents make time to interact with their child and to build a strong relationship</p>   |
| <p>Parents express positive feelings about age appropriate parenting behavior</p>   | <p>Parents are aware under what conditions/in what situations they have difficulty to be responsive to their child's needs</p>   |  |
| <p>Parents express confidence that they can use age appropriate parenting strategies</p>  |  |  |
| <p>Parents express positive feelings about the benefits of investing time in the parent-child relationship</p>                  |  | <p>Parents plan to spend time with their child on a regular basis</p>  |
| <p>Parents express positive feelings about the benefits of parental involvement of both parents throughout the child's life</p> |  | <p>Parents stimulate involvement in the outdoors activities of their child, potentially the involvement of somebody else when lacking the possibility themselves</p> |
| <p>Parents express positive feelings about the benefits of open and positive communication with their child</p>                 |  |  |
| <p>Parents express confidence that they can stimulate open and positive communication with their child</p>                      |  |  |
|   | <p>Parents express positive feelings about the other parent spending time with the child, even when having negative feelings about (their relationship with) the other partner</p> | <p>Parents are able to discuss with the other parent the benefits of them investing quality time in the child</p>  |

## APPENDIX 2

**Table ii.** Checklist essential criteria, comparison of interventions

|   | Evidence-based interventions |                                       |                                     |
|---|------------------------------|---------------------------------------|-------------------------------------|
|   | Chicago Parent Program (CPP) | Family Links Nurturing Program (FLNP) | Incredible years (BASIC pre-school) |
| <b>Intervention content</b>   |                              |                                       |                                     |
| Improving parenting behavior:   |                              |                                       |                                     |
| 1. Disciplinary strategies  | ✓                            | ✓                                     | ✓                                   |
| 2. Positive parenting   | ✓                            | ✓                                     | ✓                                   |
| 3. Sensitive parenting  | -                            | ✓                                     | ✓                                   |
| 4. Parental involvement   | ✓                            | ✓                                     | ✓                                   |
| 5. Coping with stress and unhelpful emotions                            | ✓                            | ✓                                     | -                                   |
| <b>Intervention format</b>  |                              |                                       |                                     |
| 6. Group based program  | ✓                            | ✓                                     | ✓                                   |
| <b>Determinant areas.</b> <sup>1</sup> Attention for:                   |                              |                                       |                                     |
| 7. Skills and knowledge   | ✓                            | ✓                                     | ✓                                   |
| 8. Attitudes and emotions   | ✓                            | ✓                                     | -                                   |
| 9. Environmental context and social influences                          | ✓                            | ✓                                     | ✓                                   |
| <b>Practical considerations</b>   |                              |                                       |                                     |
| 10. Acceptable to target group (cultural relevance) <sup>2</sup>        | ✓                            | -                                     | ✓                                   |
| 11. Acceptable to professionals (familiarity)                           | -                            | -                                     | ✓                                   |
| 12. Feasible within local services (training costs, number of sessions) | -                            | -                                     | -                                   |
| <b>Research quality</b>   |                              |                                       |                                     |
| 13. Evidence for effectiveness  | ✓                            | ✓                                     | ✓                                   |

<sup>1</sup> Van Achterberg et. al. (2010) ordered the behavioral change techniques along the conceptual equivalents of the determinants areas they addressed. To be able to judge if interventions focused on specific determinants areas, we made use of this ordering in regard to the determinants knowledge, skills, attitude and emotions, and social influences and environmental context. According to Van Achterberg, (1) knowledge techniques were typically operationalized as the transfer of information about brochures, videos or giving advice in individual consultations or groups; (2) skills were operationalized as self-efficacy techniques, including guided practice, modelling and graded tasks to rehearse or practice with behavior; (3) attitude techniques were operationalized as including prompts, messages and encouragement to go through a process of re-evaluation of outcomes of current and alternative behaviors, and to strengthen positive beliefs about the outcome of the target behaviour; (4) social influence techniques were operationalized as social comparison, including opportunities for social comparison and mobilization of social norms.

<sup>2</sup> Based on effects found in a RCT among a multi-ethnic population and/or research on the cultural relevance of the intervention

| Evidence-based interventions |  |   | Practice-based interventions<br>(in the Netherlands) |   |   |
|------------------------------|--|---|--|---|---|
| Parent Corps                 | Parent Management Training Oregon (PMTO) | Positive Parenting Program (Group Triple P) | Opvoeden & Zo (Parenting Etcetera)                   | Themis opvoedmodule (Themis Parenting Module) |   |
| ✓                            | ✓  | ✓   | ✓  | ✓   | ✓ |
| ✓                            | ✓  | ✓   | ✓  | ✓   | - |
| -                            | ✓  | -   | -  | -   | ✓ |
| ✓                            | ✓  | ✓   | -  | -   | ✓ |
| ✓                            | -  | -   | -  | -   | - |
| ✓                            | ✓  | ✓   | ✓  | ✓   | ✓ |
| ✓                            | ✓  | ✓   | ✓  | ✓   | ✓ |
| -                            | -  | -   | -  | -   | - |
| ✓                            | ✓  | ✓   | ✓  | ✓   | ✓ |
| ✓                            | ✓  | ✓   | -  | -   | - |
| -                            | ✓  | ✓   | ✓  | ✓   | ✓ |
| -                            | -  | ✓   | ✓  | ✓   | ✓ |
| ✓                            | ✓  | ✓   | -  | -   | - |

