

Master Thesis

“My child is already active by nature”

Parental perspectives on physical activity and gross motor development during the early childhood, living in low socio-economical areas in the Hague:

A qualitative study

Master of Health Sciences - Prevention and Public Health

Anouk van der Zwan

GGD-Haaglanden

gezondgewicht@ggdhaaglanden.nl

Vrije Universiteit Amsterdam

anoukvdzwan@live.nl

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Abstract

Background: Healthy physical activity behaviours during the early years are linked with several health benefits and track over time into adulthood. Gross motor skills are an important determinant of physical activity. Children's physical activity levels and motor competence has declined over the past years. Although parents have a central role in influencing their children, parents' perspectives on physical activity and early gross motor development is not well understood.

Objective: The aim of this study was to explore the perspectives of parents on early gross motor development and physical activity during the early childhood, living in low socio-economical areas in the Hague.

Methods: A qualitative study was conducted with an interpretive approach. A purposive sampling method was used to recruit parents of children aged 0-4 years old living in low socio-economical neighbourhoods in the Hague. Semi-structured interviews (n=15) were conducted by phone and face-to-face. A thematic content analysis was used to analyse the data.

Results: Although parents were aware of the positive effects of physical activity, parents took a more or less active attitude in stimulating their child's physical activity and gross motor development, whereby most parents believed in a natural development and maturation. Parental practices within the home environment and outdoor environment were identified. However, barriers inhibited their children's physical activity at interpersonal and organizational level. In addition, parents were not aware of physical activity recommendations given by the WHO. In addition, parents did not recognize their own child's physical activity levels. Parents expressed several needs including more information about the early gross motor development, more social contact with other parents and affordable and age-appropriate activities in the neighbourhood.

Conclusion: It can be concluded that there is a discrepancy between the importance that parents attach to physical activity for their child and the actual practices of parents in stimulating their child's early gross motor development and physical activity. The findings in this study could facilitate the development of an effective parental intervention programme aimed at improving the physical activity levels and gross motor skills of children in the early years.

Introduction

The early childhood (defined as the age between 0-4 years old) is a critical period for the establishment of health related behaviours, such as physical activity and sedentary behaviour. Evidence suggest that these behaviours track over time (Jones et al., 2013; Biddle et al., 2010). Sufficient physical activity during the early years has been favourably linked with several health indicators, such as psychosocial and cardiometabolic health, bone and muscle development and improved cognitive functioning (Carson et al., 2017). In contrast, sedentary behaviour can lead to overweight and other poor health outcomes at a later stage (Chau et al., 2014). Although it is recommended that children engage in >60 minutes of moderate to vigorous physical activity daily, many children fail to meet these guidelines, including 45% of the primary Dutch school children (Burghard et al., 2016). In addition, in the Netherlands, 8% of the children around the age of 2 years old has overweight or obesity, with the highest number of overweight in the low socio-economic areas in the Hague (12,8%) (Keetman et al., 2016).

Whilst there is a perception that young children are active by nature, there is growing evidence that excessive inactivity also occurs during the early years (Hesketh, Hinkley & Campbell, 2012). Several foreign studies reported that the majority of preschool children are not participating in adequate amounts of physical activity, with a lot of time spend on screen-based activities (Barbosa & Oliveira, 2016; Hinkley et al., 2012). The World Health Organization (WHO) have recently recognised the importance of early life behaviours by developing guidelines on physical activity, sedentary behaviour and sleep for children under 5 years of age (WHO, 2019).

Gross motor skills during childhood have been highlighted as an important determinant of physical activity. Gross motor skills are the foundation for more complex and sport-specific skills that are required for sports and activities (Gallahu & Donnely, 2013). Although not all children need to be 'expert' in all movement skills, poor gross motor development in early childhood is associated with reduced physical activity in older children (Robinson et al., 2012). The study of de Meester et al. (2018) supports this by showing a positive relation between children's motor competence and the time children spent in physical activity. On the other hand, children who are more physical active tend to learn and develop motor skills more easily (Lloyd et al., 2014). A reciprocal relationship between motor competence and physical activity is most likely; children with high motor competence are more likely to participate in physical activities than children with low motor competences, and vice versa (Lima et al., 2017). This relationship is more significant among children of three years and older (Veldman, 2018). Although sufficient motor skills are important, a decline in children's gross motor skill have been reported over the last years (Runhaar et al., 2010; Bardid et al., 2015; Hardy et al., 2013).

The gross motor development is ideally learned and developed during the early years and continues across different developmental phases: the reflexive period (e.g. reflexive early movements), the preadapted period (rudimentary motor skills) and finally, the development of gross motor skills (Clark & Metcalfe, 2002). Gross motor skills do not simply emerge through natural development and maturation. A supportive environment is necessary to acquire important motor skills and to maintain physical health (Malina, 2004). Parents have a great central role in influencing their children during the early childhood, including their own physical activity habits (Hnatiuk, Hesketh & Sluijs, 2016; Lindsay et al., 2017). According to recent studies, parents influence their children's physical activity levels through their parenting practices, such as encouraging their children to be physically active, setting limits for sedentary behavior and providing logistic support (Hesketh, Lakshman & Sluijs, 2017; Kesten et al., 2015). In addition, parents' perceptions, beliefs and positive attitudes toward physical activity may influence their young children's physical activity (Hesketh et

al., 2013; Sawyer et al., 2014; Xu et al., 2018). The knowledge of parents about early stimulation is positively related to an optimal gross motor development and a more precise perception of their own child's motor competence (Zeng et al., 2019; Thaariq et al., 2017). If parents give appropriate feedback and instructions, this could contribute to the development of motor competences (Clark et al., 2002). Although parents have a great influence on the gross motor development of their child, they are often not aware of the fact how important exercise is for young children. In general, parents have the perception that children are naturally physical active and that they don't need to stimulate their child's physical activity behaviour (Hesketh, Hinkley & Campbell, 2012).

Looking at the environmental factors, the availability and the amount of use of age-appropriate toys has positive effects on the child's motor skills development (Cools et al., 2011). Also, the availability of parks with outdoor play spaces, recreational facilities and safety of the neighbourhood can contribute to increased physical activity levels (Salmon et al., 2013). Toddlers who are able to move regularly during the day and are not be restrained for long periods showed significant better motor competences (Barnett, 2019). Family characteristics such as low parental education and low familial socio-economic status seemed to be associated with lower gross motor skills among children aged 0-5 years old (Sacconi et al., 2013; Wei et al., 2015). Siblings may be role models for young children's physical activity, as they observe and imitate the behaviors of those who are similar to them (Ward et al., 2017).

Within the public health care in the Netherlands, there is a growing sense of concern about the reduced physical activity levels and the retardation of motor competence among children in the early years (Rijksoverheid, 2018). In the Hague, the HAGG-programme ('The Hague Approach Healthy Weight') is a part of the Municipal Health Services (GGD-Haaglanden) that is concerned with the healthy lifestyle of children living in low socio-economic areas in the Hague (Keetman et al., 2016). Several interventions have been developed to stimulate physical activity among children in the age 2-6 years old (GGD Haaglanden, 2017). In the coming years, the HAGG-programme wants to continue to work on stimulating young children's physical activity levels and gross motor development, including children in the age of 0-4 years old. To achieve this, the HAGG-programme is focusing on the parents and professionals around the child in the early years (9 months partum till 4 years old).

Despite the important role of parents, parents' perspectives on the gross motor development and physical activity of their children in the age 0-4 years, living in low socio-economic areas in the Hague, is not very well understood. The aim of this study is to explore parents' perspectives on physical activity behaviour and gross motor development of their children in the early years, living in low socio-economic area in the Hague. As physical activity patterns of children in the early years are predominantly under the influence and control their parents, it is critical to involve parents in new intervention programs. This study could provide valuable information from parents to facilitate the development of an tailored and effective intervention programme on parental level, with the aim to increase physical activity levels and gross motor skills of 0-4 year-old children in the Hague, to set them on trajectory towards good health throughout their lives.

Method

Study design

A qualitative study with an interpretative approach was performed with the aim to understand the perspective of parents through their own view and in their own social context (Green & Thorogood, 2014). Semi-structured interviews were used to collect the data as this allows the researcher to be flexible in how to ask questions as well as allowing the participants the freedom to raise additional issues (Green &

Thorogood, 2014). As a result, detailed and in-depth information could be gained about the perspectives of parents on physical activity behaviours and gross motor development of children in the early years.

Study population and recruitment

The participants were recruited from three city districts in the Hague ('Laak', 'Centrum' and 'Escamp') with the highest number of people with a low socio-economic status. A purposive sampling method has been used to recruit participants who are likely to give the most useful data and to generate an equal distribution of participants from those three city districts (Palinkas et al., 2015). In the first three weeks of March the recruitment of the parents took place in collaboration with professionals working at the Child and Family Centres (CJG's), located in three low socio-economic city districts in the Hague. Parents who visited the Child and Family Centre for a consult for their child, were asked face-to-face by the researcher to participate in this study. If parents agreed, the researcher asked for their contact details and an appointment was planned to conduct the interview. Due to COVID-19 measures, it was not possible to recruit parents in person at the Child and Family Centres in the period after 12 March. To recruit more participants who were not easily accessible after this period, a snowball technique has been used (Naderifar, Goli & Ghalkjaie, 2017). Already enrolled participants were asked if they knew parents who fit the inclusion criteria and who were willing to participate in this study. If so, contact details were exchanged and the researcher planned a telephone-appointment.

The following inclusion criteria were followed: parents with at least one child in the age between 0-4 years old, living in low socio-economic areas in the Hague and parents who were able to express themselves in sufficient Dutch. Parents of children with disabilities or chronic disease were excluded, which was asked to the parents during the recruitment. At the start of this study, the researcher joined several appointments with staff of the HAGG-programme during their work, to learn more about the current projects.

Data collection

To guide the interviews, a semi-structured interview guide was developed (see appendix 1). Topics for the interview guide were derived from intensive literature search. Conversations with health professionals within the field, such as youth nurses, paediatricians and managers of the Child and Family Centres were sources of inspiration that led to new topics for the interview guide. Furthermore, two models were used as a tool for developing the interview guide: "the Socio-Ecological Model for physical activity and fundamental movement skills" (Bellows et al., 2013) and "the Attitude - Social influence - self-Efficacy (ASE) model" (de Vries, 1988). The Socio-Ecological Model (figure 1) aims to identify factors from a contextual perspective that influence physical activity and motor behaviours (Bellows et al., 2013). This model contains 4 levels: child characteristics (e.g. sex, ethnicity, age), interpersonal factors (e.g. parent characteristic, SES, siblings, parent's perception of their child's sedentary behaviour and motor competence) and environmental factors (e.g. home environment, availability of equipment, outdoor play spaces etc.).

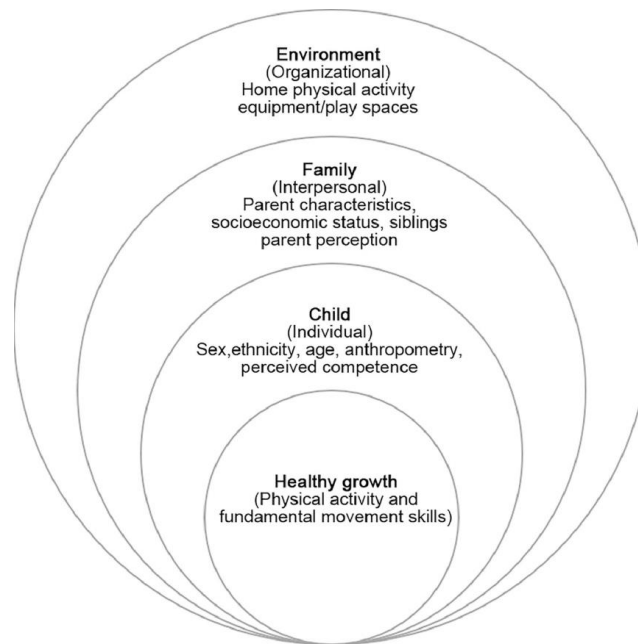


Figure 1. Socio-ecological model

The ASE-model (figure 2) assumes that the intention to perform behaviour, in this study parental behaviour, leads to the actual performance of that behaviour. This model contains the concepts attitudes, social influence, self-efficacy, barriers, behaviour intention and extern variables (de Vries, 1988).

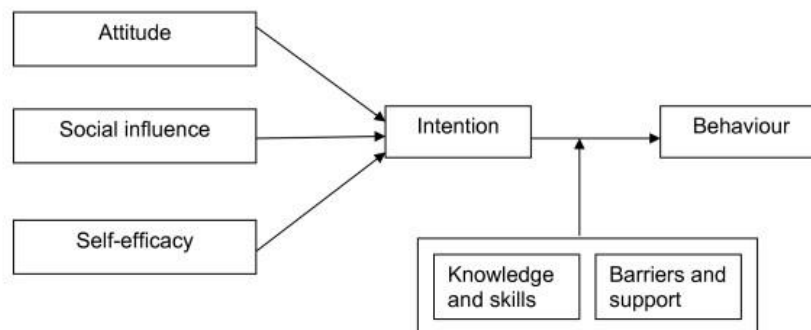


Figure 2. ASE-model

Table 1 shows the topics of the interview guide with example questions. The first pilot-interview was practiced with a colleague researcher, to test the comprehensibility of the interview questions. During the interviews, the interview guide was used to ensure all topics will be discussed. After the first interviews, a second consultation took place with a colleague from the HAGG-programme to ensure the questions were sufficiently understandable for the target audience. Some questions that needed adjustments were expanded or redrafted. During the phase of data-collection a logbook has been kept up to ensure that important decisions, problems and solutions during this study could be retrieved.

Table 1: Sample interview questions

Topic Area	Example questions
Parental practices	Could you describe typical weekday or weekend physical activities you do with your child? What do you do to stimulate your child's physical activity and gross motor development?
Perspective of parents regarding stimulating physical activity and gross motor development	How would you describe your role in stimulating your child's physical activity behaviour and gross motor development? How important do you think physical activity is to your child?
Parental knowledge	Which resources do you use to acquire knowledge about the gross motor development of your child? Do you know facilities in the neighbourhood and what do you think of these facilities?
Parent's own physical activity behaviour	Could you tell me something about your own physical activity behaviour?
Barriers regarding stimulating PA and MD	Which barriers do you experience in stimulating gross motor development and physical activity of your child?
Social-cultural influences	Do you think your culture/background influence the way you stimulate your child to be physically active?

Based on the participant's preferences, the interviews were held at the Child and Family Centre or at their homes. All interviews were conducted by the same researcher. All parents were interviewed in Dutch. At the commencement of each interview, the researcher explained details regarding the interviews, for instance the aim of this study, that the interview would be recorded, that the information would be processed anonymously and that the interview would take approximately 30-45 minutes. All participants were asked to fill out the informed consent form. Due to measures to control COVID-19, interviews that were planned after 16 March were conducted by phone, as required by the social distance proposed by the Netherlands National Institute of Public Health and the Environment (RIVM). The informed consent was taken orally before the start of the interview. Demographic questionnaires were administered at the start of each interview including parental age, age and gender of child, number of siblings, parental highest educational levels, work status, ethnicity and household situation. Parents were presented with a 7,50 euro gift voucher as compensation for their time.

Data analysis

The interviews were transcribed verbatim and anonymised. The data have been analysed according to a thematic content analysis, to identify, analyse and report patterns within qualitative data (Green & Thorogood, 2014). The process of data collection and analysis was iterative, which means that after the first interview, the process of data analysis started, while data collection continued. In this way, new upcoming themes could be further explored and the interview guide could be adjusted (Green & Thorogood, 2014). Data analysis was performed with the help of the qualitative data analysis software system MAXQDA 2020 (VERBI software, 2019). The first step of the analysis was familiarization with the data. This step was executed by transcribing the records, listening to the interviews and reading the transcripts. The second step

involved generating initial codes to the text. A second researcher coded one interview independently, and the results were discussed during an online meeting to make sure the text segments were properly interpreted and to contrast the subjective views of the researchers (Frambach, 2013). The third step included searching for upcoming thematic patterns and naming initial themes to the coded segments. This process continued until a point when no new findings were identified from the transcripts. During this phase a weekly online brainstorm session took place with the supervisor, to make sure the themes were clearly and comprehensive. If necessary, the coding frame could be refined. Finally, the last step of the analysis was to review, define and name themes, that were found to be the best representation and most relevant for the study (Green & Thorogood, 2014).

To support the results, striking text passages were selected as illustrative and representative quotes for the emergent themes (Lingard, 2019). The quotes were translated into English using a back-translation technique and were discussed with a native English speaker to enhance the quality of the transference (Brislin, 1970; Nes et al., 2010).

Results

In total, 15 interviews were conducted with parents of children in the age between 0-4 years old in the period March – April 2020. The interviews lasted between 20 and 55 minutes. Two interviews were conducted at the participant’s home. Due to measures to control COVID-19, the last 13 interviews were conducted by phone. After 13 interviews, no further themes or codes were identified. A further two additional interviews were performed to confirm saturation (Kerr, Nixon & Wild, 2010).

Participant characteristics of the parents (n=15) are displayed in table 2. Most parents that were interviewed were mothers. They had children aged 3 months to 4 years old. The majority of the parents were in a partnered relationship. The educational level varied among parents, in which half of the parents were low to middle educated. Half of the parents were unemployed, the other half were mostly engaged in part-time work. Most of the families lived in a flat or apartment. Only a few had a house with backyard. The population sample was diverse in terms of ethnicity (Antillean, Turkish, Dutch, Bulgarian and Syrian).

Table 2. Participant characteristics

Respondent number	Age parent	Highest educational level **	Employment	Marital status	Age child(ren) (≤ 4yrs)	Older siblings (>5yrs) yes/no (N)	Living situation
R1 (F*)	29	Middle	Student	Single	11 months (boy)	No	Flat
R2 (F)	32	Middle	Unemployed	Married	9 m (boy) 1.7 yrs. (girl)	Yes (2)	Flat
R3 (F)	31	Low	Part-time	Married	3 yrs. (girl)	Yes (1)	Flat
R4 (F)	29	High	Part-time	Cohabitant	1.6 yrs. (girl) 3.4 yrs. (girl)	No	House with garden
R5 (F)	29	Middle	Unemployed	Married	1 yr. (boy) 4.11 yrs. (girl)	No	House with garden
R6 (F)	36	Middle	Unemployed	Married	4.3 yrs. (girl)	Yes (3)	House with garden

Respondent number	Age parent	Highest educational level **	Employment	Marital status	Age child(ren) (\leq 4yrs)	Older siblings (>5yrs) yes/no (N)	Living situation
R7 (M)	32	High	Full-time	Cohabitant	8 months (boy)	No	Flat
R8 (F)	36	Middle	Part-time	Married	3 yrs. (boy)	Yes (1)	Flat
R9 (F)	34	Middle	Part-time	Married	1.5 yrs. (girl) 3.11 yrs. (girl)	no	House with garden
R10 (F)	35	High	Part-time	Married	3.6 yrs. (boy)	Yes (1)	Flat
R11 (F)	30	High	Part-time	Married	1.2 yrs. (boy)	No	Flat
R12 (F)	23	High	Part-time	Cohabitant	3 yrs. (girl)	No	Flat
R13 (F)	32	High	Unemployed	Married	2.9 yrs. (girl)	Yes (1)	Flat
R14 (F)	33	Middle	Unemployed	Married	3 months (girl) 2.5 yrs. (girl)	Yes (1)	Flat
R15 (F)	30	High	Unemployed	Married	3.5 yrs. (boy)	No	Flat

**(F) = female, (M) = male; ** low = middle school or lower, middle = high school/vocational education, high = university*

Five main themes, with up to two subthemes, emerged from the data: (1) parental beliefs on stimulating physical activity of their child, including the subthemes a) value of physical activity and b) parents' perceptions of their role in stimulating their child's gross motor development; (2) needs and barriers to stimulating physical activity, including the subthemes a) perceived barriers to stimulating physical activity and b) needs of parents in promoting physical activity; (3) knowledge of physical activity and gross motor development, including the subthemes a) parents description of a healthy activity pattern for their child and b) resources of knowledge acquisition about early childhood gross motor development; (4) parental practices in stimulating their child's physical activity, including a) providing a supportive home environment and b) providing a supportive outdoor home environment; and (5) social and cultural influences on promoting physical activity.

For comprehensibility during the interviews, the concepts 'physical activity' and 'early gross motor development' were sometimes expressed with terms as 'exercise/moving' and 'movement development'. However, for the practical feasibility in the result section, only the concepts 'physical activity' and 'early gross motor development' have been used.

Theme 1: Parental beliefs on physical activity and gross motor development of their child

The beliefs of parents were shaped by the value parents attach to physical activity of their child and the perception of their role in stimulating their child's gross motor development.

Subtheme 1.1: Value of physical activity

Parents recognized that physical activity is important for their child in many aspects. The most common mentioned benefits of their child being physically active were associated with psychological benefits. Parents related physical activity with enjoyment for their children. In addition, parents stated that children are very active by nature and that being physically active is a need for children to lose energy. This was often related

with benefits of having better concentration levels and better sleep during the day or at night. One parent explained:

"She just has to lose her energy. She needs to be able to run... I notice that when she had an activity during the day ... she sleeps better..." (R5, boy aged 1.0 yrs. and girl aged 4.11 yrs.)

Other parents argued that physical activity is good for the social and emotional development of their child. For example, parents stated that through physical activity their child learns to interact with other children, apart from their own siblings. Furthermore, parents highlighted the importance of parent-child play, which could lead to a better bonding with their child. A parent gave an example:

"... I spend a lot of time at work. So then you miss time together. And if you can play together you still have a bond with each other. And you are spending time together." (R12, daughter aged 3 yrs.)

Parents stated that physical activity prevents their children from having a sedentary behaviour or becoming overweight. In addition, parents argued that sufficient physical activity may help develop sufficient motor skills, which are needed for participating in sport activities on the longer term, such as school gym or organized sport activities. One parent gave the following argument:

"... Yes, so that a child will not develop a delay in his motor development. And that a child can participate in school-gym when he is older... things like that... but also physically, so preventing obesity." (R10, son aged 3.6 yrs.)

Subtheme 1.2: Parents perception of their role in stimulating their child's gross motor development

Motor development was associated with learning basic movement skills during the age between 0-2 years old, such as crawling and walking. Parents take a more or less active attitude in stimulating their child's gross motor development. Some parents argued that it is important to be pro-active in stimulating the gross motor development of their child to prevent a delay in the motor development. One parent mentioned:

"If you do not undertake such things by yourself, I believe that you will deprive your child of her development." (R3, son aged 3 yrs.)

However, most of the parents argued that the gross motor development will occur spontaneously without the need for direct support. Also, parents considered that children have different personality traits and that some children are more inclined to be active than others. A parent explained her argument as follow:

"He does it by himself, I don't want to worry about him too much.... For example, when he started walking. No. His motor development comes naturally, but I help a little. But I don't push too much. It has to come from himself." (R15, son aged 3.5 yrs.)

Theme 2: Needs and barriers regarding stimulating physical activity.

Parents reported several barriers to their child's physical activity. However, parents expressed their needs to overcome these barriers.

Subtheme 2.1: Perceived barriers regarding stimulating physical activity of their child

The most mentioned barriers were related to the organizational level of the socio-ecological model, such as restrictions in participating in organized activities. Parents stated that there is a lack of provision of specific organised activities in the age-category of 0-4 years old in their neighbourhood. Other parents mentioned costs for organized activities as an important barrier. This hindered them to let their child taking place in organised activities.

“Yes, it is often too expensive. I remember when I was little... I also went to the community centres where you could participate in activities for 2 or 3 euro’s... such as football or something like that... or painting.. And I miss that for my own children”. (R8 son aged 3 yrs.)

Parents reported that their concerns about safety hindered their children’s physical activity, which included concerns related to the safety of the playground (e.g. unsafe trampoline for young children) and community safety (e.g. crime or loitering youth in the neighbourhood). Although parents were mostly satisfied with the amount of playground in the neighbourhood, parents argued that there are limited options for play equipment for preschool children in playgrounds in the neighbourhood. A parent expressed her dissatisfaction as follows:

“Yes, there are a number of activities, but it remains limited compared to the 4+ category... and many playgrounds are not always well maintained or well equipped for children under the age of 4. So, there is certainly a limited supply.” (R12, daughter aged 3 yrs.)

Good weather conditions were mentioned by parents as a prerequisite for going outside. During the winter months, their children spend less time outdoors and were less active, which they recognized as a negative influence on their children’s physical activity. Some parents reported having limited space (e.g. small apartments, lack of a garden) where their children could play safely and this inhibited their children’s physical activity. For example, one parent stated:

“Our house is not a suitable place for my children to play. At home, you cannot really be active without disturbing your neighbours. You should not make nuisance.” (R15, son aged 3.5yrs.)

Other key barriers mentioned by parents were related to the interpersonal environment, for example time and planning complexities. Especially parents who have multiple children stated that managing several children within their family could be a challenge. Also, parents argued that their busy lifestyles and few time after working hours makes it difficult to spend time with their children and to follow and stimulate their gross motor development. Other parents explained that they not always have the energy to play with their children, for example when they come home from work. A parent mentioned:

“Yes, for example, when I come home from work, I am often still a bit tired. I’ll prefer to sit down on my bed. But on the other hand, I rather want him to be active. I want to play with him, but it is difficult for me.” (R1, son aged 11 months).

Subtheme 2.2: Needs of parents in promoting physical activity

Parents expressed their needs to overcome the above mentioned barriers. For example, wanting a greater range of stimulating play equipment in the neighbourhood that is challenging and appealing for children aged 0-4 years old. Also, parents mentioned the need for more organized activities and affordable activities

in the neighbourhood for their young children. Furthermore, the need for more social contact with other mothers in the neighbourhood to exchange experiences, knowledge and to stimulate each other in encouraging their children to be physically active was mentioned. A parent advocates the need for more social contact with other families as follows:

"... also the social contact with other mothers contributes. And the children will make more friends and will go outside. Nowadays, families stay more inside, because there is simply nothing." (R14, daughters aged 3 months and 2.5 yrs.)

Parents mentioned that the municipality must take more responsibility in organizing activities or by educating parents about physical activities for young children and early gross motor development. Furthermore, parents emphasised the need for more information about activities in neighbourhood and encouragement to participate in these activities, particularly from the Centre for Youth and Family (CJG). The Centre for Youth and Family should play an active role in informing and advice parents on healthy physical activity behaviours for their young children. The opinion of a parent, who argues that encouragement of physical activity for children remain in the background during consults at the CJG, is as follows:

"I think... at the Child and Family Centre... I miss... receiving information about, for example, the possibilities in the neighbourhood. And that you are encouraged to make use of these facilities. It initially starts there." (R8, son aged 3 yrs., and daughter aged 5 yrs.)

Theme 3: Knowledge of physical activity and early gross motor development

Parents knowledge about their children's physical activity behaviours and gross motor development consisted of parents perception of a healthy activity pattern for their child and resources parents use to acquire knowledge about their child's gross motor development.

Subtheme 3.1: Parents perception of a healthy activity pattern for their child

Parents of older children related a healthy activity pattern with the amount of time spending outside. The preferable mentioned time spent outside by parents varied from one hour every day till one hour per three days a week. However, parents argued that there is a discrepancy between the desired amount of physical activity outside and the actual amount of time their child is physically active outside. In addition, some parents argued that it was difficult to judge whether their child were getting enough physical activity.

Parents of infants found it difficult to describe a healthy activity pattern and to recognize the activity pattern of their child. Some parent gauged their child's activity levels by using a combination of visible cues. For instance, they frequently suggested that their child was active because they perceived them to have high levels of energy during the day. One parent gave an example:

"... She is not very active, but she isn't either really inactive... She is always on the go. I constantly run after her." (R9, daughters aged 1.5yrs and 3.11 yrs.)

Subtheme 3.2: Parents resources of knowledge acquisition about early childhood gross motor development

Parents stated that they took their own initiative to search for information about the gross motor development of their child. The three most mentioned sources of information used by parents were internet, relatives (family and friends) or professionals. An important source of information for parents is the

Child and Family Centre. However, parents mentioned that they have to ask questions themselves in order to get answers, otherwise they would not receive the desirable information about early childhood gross motor development or advices on physical activities for young children. Parents of children who attend child-cares mentioned information they receive during information meetings for parents at the child-care as valuable.

Websites and accompanying online newsletters were used as an important sources to acquire information about their child's gross motor development. Parents use this information in order to check whether motor milestones, appropriate to their child's age, have been achieved. However, some parents doubt whether these websites are sufficiently reliable. Another parent argued that despite the information and advices she acquired, she took eventually little action in stimulating the gross motor development of her child.

"For example, I received some forms where I can see what she should be able to do at her age. So we tried to be more aware of the milestones that were described in the form, but that is about it." (R9, daughters aged 1.5yrs and 3.11 yrs.)

Theme 4: Parental practices in stimulating their child's physical activity and early gross motor development

Parents mentioned different practices they do to stimulate their child's physical activity and gross motor development. While most of the practices encourage their child, parents also reported several practices that could discourage their child's physical activity behaviour. The practices of parents are divided into the home environment and the outdoor environment.

Subtheme 4.1: Providing a supportive home environment

Some parents of children under two years of age talked about providing play equipment for their child to actively stimulate new motor skills, such as tummy time, rolling, crawling and walking. Other parents took a less active role in stimulating their child's motor skills and let their children play more independently. The following quote illustrates this:

"Being indoors is just a daily routine. Mostly they just play with themselves and with the toys they have. So actually... in terms of development, I don't do that much..." (R2, son aged 1.7 yrs. and daughter aged 3 yrs.)

Parents don't give attention to the amount of time their babies or toddlers spend sitting in a box, rocker or chair. However, a parent highlighted the importance of providing enough space for their child to freely move around. For instance, by creating enough space in the living room and limiting the time spend in a box or baby seat. This parent argued:

"In my opinion, a box is the same as a prison for a child. Personal choice. Children spend all day long in a box [at day-care] and when you come home, your child needs to be able to crawl, as long as your house is babyproofed." (R11, son aged 1.2 yrs.)

Parents of older children try to encourage their child to be active by supplying play equipment that is suitable and challenging for their age, for instance a ball, a skippy ball, skipping ropes or a tricycle. Parents with no backyard reported to have less options for physical activities at home. Therefore, they offer their children activities that stimulate their fine motor development, such as art crafts. All parents acknowledged that the amount of screen time at home, defined as watching television or the use of electronic devices, discourage the physical activity behaviour of their child. Regardless the age of their child, almost all children

were allowed to watch television or use electronic media. Parents spoke of restrictions to their children's screen time and tried to limit screen time to 1-1.5 hours per day. Parents acknowledged that it is a challenge for them to keep track of this time. Furthermore, parents argued that themselves or their partners were reluctant to change their own screen time behaviors. Another parent argued to have no concern at all about the screen-time behaviour of their young child, as this doesn't influence her children's play during the day. The following quote reflects this:

"Yes. Although the television is on, they don't watch intensively. If they do, we really have to sit down and there should be no toys around them. Then they will watch more intensively, I think. And even then, they are children... so they move a lot. Mostly the TV is on for no reason." (R2, son aged 1.7 yrs. and daughter aged 3 yrs.)

Subtheme 4.2: Providing a supportive outdoor environment

Almost all parents considered the outdoor space as important in promoting physical activity in children. The majority of the parents facilitated their child's physical activity by taking them to parks or playgrounds, mostly only during weekends. A mother gave the following example:

"Yes, on Saturdays... on weekends ... I go outside with the children. Truly playing outdoors." (R6, daughter aged 4.3 yrs.)

In addition, parents spoke of the importance of establish healthy activity habits within their families. They try to encourage active transport, such as walking to school or shops instead of using the car or public transport. In contrast, parents talked about their own inactive lifestyle. Parents were aware of their exemplary role and considered their own inactive lifestyle as a negative influencing on their children's physical activity. One parent described:

"Uhm... it's really bad. Because, I'm not physically active. Yes, I think it certainly affects the children. You are just like a mirror to your children. Your children copy what you do as a parent... not everything... but yes, your children will do that too." (R6, daughter aged 4.3 yrs.)

Parents talked about organised activities in the neighbourhood. For babies and toddlers, baby and toddler swimming was mentioned as a fun and affordable activity. Furthermore, parents of children aged two years and older mentioned activities organised by the municipality, such as 'Beweegkriebels' and 'Voetjebal'. However, the majority of the parents reported that they will start considering organized activities when their children are of school age.

Theme 5: Social and cultural influences on promoting physical activity

The social environment was frequently raised by parents as an important influence on their child's physical activity levels. For example, parents reported that the presence of older sibling (older than 4 years old) or playmates positively stimulate the physical activity of their children, because they observe and imitate their physical activity behaviour. Parents themselves spoke of their social network (e.g. friends, parents) positively influencing their children's physical activity by their provision of information, encouragement and sharing experiences. Parents felt more confident when they received positive support from their relatives. As one mother explained:

"... that you can discuss certain things is valuable. For example, sometimes I think... is only my child the only one acting like this? But then you hear from others, it is not." (R8, son aged 3 yrs.)

Parents mentioned that their own cultural background had little influence on their child's physical activity. However, some parents spoke about the difference between their own childhood and the way in which physical activity now plays a role in raising their own children. Other parents, who recently moved to the Netherlands, talked about the differences such as improved youth care and play facilities for their children compared to their country of origin. The following quote illustrates this:

"Yes... my two youngest children were born in Greece. The culture there... there you have no Child and Family Centre. So you learn absolutely nothing about the development of your child. Or something like that. You don't compare your child with anyone else. So yes, there is a cultural difference." (R2, son aged 1.7 yrs. and daughter aged 3 yrs.)

Discussion

This study explored the perspectives of parents on the gross motor development and physical activity of their children aged 0-4 years old, living in low socio-economic areas in The Hague. The interviews indicated a diversity of factors that may influence early childhood gross development and physical activity level. These factors are important to take into consideration when designing an parent targeted intervention to increase children's physical activity and gross motor skills during the early years.

Parents were aware of the positive effects of physical activity. However, there were mixed views about the role parents should take in stimulating their child's physical activity and gross motor development. While some parents took a more active role in stimulating the gross motor development of their child, most parents believed that their child acquires new motor skills by natural development and therefore took a less active attitude. The practices of parents seemed to be shaped by their knowledge and perceptions of young children's physical activity and gross motor development. Parental practices to promote their child's physical activity and gross motor development were mentioned, such as providing a supportive home environment (e.g. providing space to play, play equipment, stimulating motor milestones) and outdoor environment (e.g. stimulating active transport, going to parks or playgrounds). Parents reported several barriers, which could be divided into two levels of the socio-ecological model; on organizational level (e.g. safety concerns, bad weather conditions and lack of affordable and appropriate activities) and on interpersonal level (e.g. costs, time and planning complexities and parents own lifestyle). Furthermore, parents experiences difficulties in recognizing a healthy activity pattern for their child. Parents expressed the need for more age-appropriate and affordable play opportunities in the neighbourhood and more encouragement information from health professionals. Social networks for their children were frequently raised by parents as a positive influence, as well as their own relationships with other parents. The cultural background were less seen as an influence on their child's physical activity, however some parents recognized differences between play facilities and youth care for their children in the Netherlands and their country of origin. Parents took predominantly their own initiative to gather information about early childhood motor development, whereby the three most mentioned sources were internet, relatives and the consults with paediatric nurses.

Findings in the context of previous research

In this present study, parents mentioned several benefits of physical activity for their children, including health, social and psychological benefits. These beneficial reasons for participating in physical activity have previously been reported in a qualitative study among English parents of 2-4-years old children from an area of high deprivation, whereby most parents associated physical activity with 'physically better' and 'more concentrated' (Roscoe et al., 2017). A study conducted by Carson et al. (2017) investigated the relationship between physical activity and health indicators during the early years. In line with the present study, the results showed that physical activity results in better motor development, cognitive development and psychosocial health. Despite parents in the present study recognized the potential benefits of physical activity, most parents in this study believed in a natural development of gross motor skills. These findings are supported in a mixed-methods study of Van Schaik et al. (2018) who compared the parental beliefs on gross motor development between Dutch and Israeli parents of children aged 2 till 7 months old. In this study, it was found that Dutch parents acknowledged the importance of motor development during the first year of life, but believed in children's own pace and did not hold the opinion that actively promoting motor development is crucial (Van Schaik et al., 2018).

Furthermore, Van Schaik et al. (2018) implies that cultural background is the strongest predictor of parental beliefs on motor development, more than parental education, age or gender. This is in contrast with the present study, whereby the cultural background was less seen as an influence by parents. However, the study of Van Schaik et al. (2018) did not fully represent all culture groups in the Netherlands and the sample included only middle-class families. Another possible explanation for the low influence of culture on the parental beliefs on early motor development in the present study is that all parents in the Netherlands receive the same advice from website and the Child and Family Centres. During the consults at the Child and Family Centres, the given advice is mostly focused on parenting, regularity in sleeping and feeding practices, whereby clear instruction provided for physical activities and screen-time behaviour remains more in the background (Boersen et al., 2020). Parents in the present study mentioned the need for more information from the Child and Family Centres about early gross motor development and physical activities for their child during the early years. In order to acquire more information, parents in this present study used resources as websites and friends and families. These resources were also mentioned in a previous study investigating the most frequent recourses about child development used by young parents (Barlett et al., 2017).

Based on their beliefs on motor development, parents in this study reported different practices in stimulating their child's gross motor development. Some parents were active in practicing motor milestones with their child and other parents, who believed in a natural process of motor development, were reluctant in stimulating their child's gross motor development. This beliefs-behavior relation is reflected in previous studies. Gomes et al. (2017) investigated the relationship between parental practices and beliefs of Brazilian parents of children aged 12 till 24 months. Parents who attached great importance to specific motor activities, practised these activities more often with their infants. This is in line with the study of Oudgenoeg-Paz et al. (2020) who investigated that if parents do not believe that motor development should be supported, they might not practice stimulating activities. In this present study, practices such as providing equipment, restrictions in screen-time, encouraging active transport, going to outdoor playgrounds and organized activities in the neighbourhood were mentioned by parents in the present study as parenting practices that encourage their child's physical activity. This is in line with the study of Hutchen & Lee (2018) investigating the influence of parenting practices on children's physical activity levels. In this review of

qualitative and quantitative studies, it was investigated that parental encouragement and enrolling in activities were positively associated with children's physical activity level.

Parental modelling was a common mentioned parent practice in this present study and was viewed by parents as both encouraging (modelling of an active lifestyle, encouragement of active transport) and discouraging (parents own sedentary behaviour and screen-time behaviour). These findings corresponds with the study of Barkin et al. (2017) on the relationship between parent's physical activity and pre-schoolers activity in underserved populations. In this study, it was investigated that increasing parental physical activity and reducing sedentary behavior correlate with increased physical activity in young children. Also, in a qualitative study of O'Connor et al. (2013) identifying what Hispanic parents do to encourage or discourage their 3-5-years old children's physical activity, parental modelling was reported by parents as a major influence on their child's physical activity behaviour.

A number of positive parental practices were mentioned by parents in the present study, but they also spoke of barriers that discourage their children's physical activity during the early years, such as costs, time and planning complexities, parents' own lifestyles, safety concern, lack of appropriate activities for young children and bad weather conditions. The experienced barriers by parents to promoting their child's physical activity and gross motor skills reflects those found in a systematic review of Hesketh et al. (2017) investigating barriers and facilitators to 0-6-years old children's physical activity and sedentary behaviour. In this review it was identified that the most mentioned barriers were on organizational level and interpersonal level of the socio-ecological model, which is consistent with the experience of parents in this study.

Although parents in this present study found it difficult to describe a healthy activity pattern for children in the early years, parents supposed that their own child was sufficient active during the day and expressed no concern about their child's physical activity levels. In a study of Corder et al. (2010) on parental awareness of children's physical activity level, it was investigated that most parents incorrectly classified their child as active when their child was inactive. Although the present study did not examined whether the perceptions of parents on their children's physical activity level were accurate, it could be suspected that also parents in the present study overestimated their children's physical activity levels. In addition, parents acknowledged that it was difficult for them to recognize their child's activity pattern. A reason for the difficulties that parents expressed in describing and recognizing a health activity pattern could be explained by the findings in a previous study of Bentley et al. (2012). This results of this study suggest that the cultural norm has shifted to support a more inactive lifestyle and this could result in a loss of intuitive knowledge of physical activity patterns. Therefore, an accurate perception of children's physical activity is important, because if parents overestimate their child's physical activity, parents may not consider an increase of physical activity for their child as necessary (Bentley, 2012).

Strengths and limitations

Trustworthiness of the data was evaluated through the use of the concepts credibility, dependability, transferability and confirmability (Frambach et al., 2013). The data-analysis and collection was a iterative process and data collection was ended when saturation was achieved, which enhanced dependability of this study. Credibility of the data was strengthened by having two research independently code and interpret the data of one transcript, to make sure the text segments were properly interpreted and to contrast the subjective views of the researchers. During the phase of data-analysis, a weekly meeting took place to discuss the findings. This increased confirmability of the study.

Although effort is made to prevent bias, the findings of this study should be considered in light of some limitations. Due to the circumstance of COVID-19 during this study, probably a selection bias has occurred, which limited the transferability of this study. The use of snowball sampling might have resulted in a sampling bias as participants might have similar demographic characteristics and perceptions to the individuals recruiting them (Brace-Govan, 2004). Therefore, the population sample in this study did not fully represent the majority of the people living in low socio-economic area that were included in this study. Furthermore, due to the COVID-19 measures, adjustments had to be made during the phase of data-collection. For instance, the interviews had to be conducted by telephone. Therefore, parents living situation and non-verbal expressions could not be observed. On the other hand, using the telephone permit more anonymity and privacy and it is a convenient method for parents (Cachia & Millward, 2011). In addition, parents are more likely to answer sensitive questions over the telephone (Sturges & Hanrahan, 2004). Furthermore, while this study aimed to investigate the perspectives of parents, those who participated in the interview were predominantly mothers. A possible reason for this is that the majority of the parents who visited the Child and Family Centre with their child, were mothers. This reflects a limitation of the purposive sampling technique. The views of fathers with regard to children's physical activity and motor development could provide alternative insights, as fathers have a key role in promoting children physical activity (Zahra et al., 2015). Finally, descriptions of former physical activities or practices that stimulate the motor development of their child were sometimes retrospective, therefore parents may have overestimated their practices. Also, it could be possible that parents gave socially desirable answers.

Recommendations for practice

Based on the insights gained from this study, several recommendations for future interventions can be derived from this study. Table 3 provides a summary of how the key issues that were raised in this study could be addressed in the development of an intervention on parental level. First of all, many parents in this study believed that there was no urgent need to support their child's motor development. Given the fact that the parental beliefs on early motor development plays an important role in what parents do with their children and how they respond to interventions, health promoters need to take these beliefs into account when designing an intervention programme targeted on parents (Van Schaik et al., 2018). This could be addressed by improving parents awareness on the importance of early gross motor development and the accompanying future health benefits (Janz, 2005). Also, increasing parents knowledge about early gross motor development will likely result in more positive parenting practices (September et al., 2017). Barlett et al. (2017) provided recommendations on how to deliver information about parenting and early child development, for example accompany information with practical tips, give options and alternatives for physical activities and deliver information with clear and concise recommendations. Moreover, O'Dwyer et al. (2017) investigated the effectiveness of a family focused active play intervention ('Active Play) which included a activity and educational component for pre-schoolers and their parents. Children's sedentary time and physical activity levels changed positively. This suggest that education is an effective strategy to convince parents about the importance of physical activity for their children.

Furthermore, it is recommended to provide parents with more information on how, when and where to encourage their child's physical activity in the neighbourhood as this stimulate parents to spent more time outdoors with their child (Sääkslahti, 2014). Community engagement can encourage physical activity and increase social contact between parents (Aarts et al., 2010). Especially in low socio-economical areas, it is vital to gain more support for low-cost activities to increase young children's physical activity levels (Brockman et al., 2009). Besides the outdoor environment, it is import to advise parents that the also the

home environment can make a difference to their young child’s motor competence, for example by providing a home space with toys and equipment to facilitate physical activity and maximising time for toddlers to be free to move around (Barnett et al., 2019). Parents with small living conditions could be provided with more ideas about how to use their space more creatively. In addition, given the parents’ concerns about the screen time behaviours of their children, it is advised to inform parents about the effects of excessive screen-time for children and to provide strategies to reduce the amount of screen-time. For example, by providing parents with ideas for alternative non-sedentary activities, conducting time restrictions, turning the TV off during family mealtimes to teach children social skills and make parents aware of their own exemplary role (Vandewater, 2005).

The low physical activity levels of children during the winter and in bad weather could be reduced by educate parents about feasible alternatives and by learning parents to adapt to different weather conditions. In addition, research has shown that parent’s physical activity behaviour is associated with the physical activity level of their children (Hinkley et al., 2012; Oliver et al., 2010). Targeting the physical activity levels of parents and provide additional opportunities for parents to be active with their children could be an effective strategy to increase young children’s physical activity levels (Hesketh et al., 2014). This is line with the study of O’Dwyer et al. (2012) suggesting that parents should be encouraged to be physically active themselves in order to increase their child’s physical activity.

Table 3. Recommendations for practice

Key component to be addressed within a intervention on parental level	Recommendations for intervention content
Improving parent’s awareness of physical activity and early gross motor development	<ul style="list-style-type: none"> • Improve parents’ knowledge of physical activity recommendations for children in the early years • Improve parents’ knowledge of the importance of early motor development and it’s effects on the long term • Make parents aware of their own important role • Help parents to recognize a healthy activity pattern for young children
Support parental practices	<ul style="list-style-type: none"> • Inform parents about activities in the neighbourhood • Provide parents with practical and easy applicable ideas to stimulate the early gross motor development • Support parent’s own activity behaviour and active travel within the family • Educate parents on screen time restriction strategies • Inform parents on how to provide a supportive home environment for their children
Overcoming barriers to physical activity	<ul style="list-style-type: none"> • Provide parents with ideas for low cost activities at home and in small living conditions. • Inform parents on how to adapt to different weather condition • Provide more low-cost activities appropriate play equipment in the neighbourhood for children aged 0-4 years old

Future research

For future researcher, it is recommended to include a more diverse sample of parents regarding their socio-economical level, which could give a better representation of the parents living in low socio-economic areas. In addition, cultural influence is an important factor in the practices and beliefs of parents on physical activity and gross motor development of their child. Further research on this theme is necessary, so that

future interventions could be more tailored to the target group. Also, more research into the physical activity levels of children in the early years living in the Netherlands is necessary in order to develop physical guidelines for children aged 0-4 years old. Finally, a large number of studies on interventions aimed at increasing physical activity in the early years have focused on the child care setting. Given the important role of parents, it is recommended to gain more insight in the effect of interventions on parental level.

Conclusion

This study provided insights into the perspectives of parents, living in low socio-economical areas in the Hague, on early gross motor development and physical activity of children in the early years. This study's results demonstrate that parents had different beliefs on early gross motor development, whereby most of the parents believed in a natural maturation of the gross motor development during the early years and did not prioritize physical activity for their child. Although parents were aware of the beneficial effects of physical activity during the early years, in practice they experienced barriers that hampered them in promoting stimulating physical activity for their child. These barriers seemed to be reinforced by the lack of knowledge on healthy activity patterns for young children and the lack of awareness of their own child's physical activity level. It can be concluded that there is a discrepancy between the importance that parents attach to physical activity for their child and the actual practices of parents in stimulating their child's early gross motor development and physical activity.

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Appendix I. Topic guide (Dutch)

Demografische informatie:

- Wat is de geboortedatum van uw zoon/dochter?
- Wat is uw leeftijd?
- Heeft u ook nog andere kinderen en in welke leeftijden?
- Wat is uw opleidingsniveau?
- Werkt u op dit moment? Niet/parttime/fulltime
- Hoe is de gezinssituatie? Getrouwd/gescheiden/alleenstaand?
- Wat is uw nationaliteit? Hoe lang woont u al in Nederland?
- Hoe is uw woonsituatie? Flat/eengezinswoning

Tabel 4: topic guide interview

Vraag	Doorvragen
Grand Tour question: Hoe bent u bezig met het bewegen van uw kind?	Hoeveel beweegt uw kind? Kunt u mij een typische omschrijving geven van activiteiten op een doordeweekse dag en in het weekend. Actief samenspel ouder-kind of zelfstandig spelen? Geeft u uw kind bewust de ruimte om te bewegen? Gebruik van wipstoeltjes/auto stoeltjes? Hoe gaat u om met schermtijd in huis?
Wat zijn volgens u de belangrijkste motorische mijlpalen die uw kind heeft doorlopen (of nog moet doorlopen)? (indien nodig uitleg mot. ontwikkeling geven)	Heeft u hier een rol in? En zo ja, wat voor rol? Actief volgen van de ontwikkeling? Hoe ontwikkelt uw kind deze nieuwe vaardigheden? Heeft u zich wel eens zorgen gemaakt over het bewegen van uw kind? Zijn er specifieke activiteiten die ouders met hun kinderen kunnen doen om de mot. ontwikkeling te stimuleren? Waarom is dit belangrijk?
Waar speelt uw kind mee/daagt u uw kind mee uit?	Voorbeelden van materiaal? Motivatie aanschaf materiaal?
Wat vindt u van de sport- en beweegactiviteiten in de wijk voor jonge kinderen?	Maakt u hier gebruik van? En wat is uw motivatie hiervoor? Vanaf welke leeftijd?
Hoe belangrijk denkt u dat voldoende bewegen is voor jonge kinderen?	Denkt u dat het een probleem is als uw kind te weinig beweegt en teveel tijd zittend doorbrengt? Weet u hoeveel uw kind zou moeten bewegen? Wat vindt u lastig in het voldoende laten bewegen van uw kind? Ervaart u barrières hierin?
Wat zou u kunnen helpen om uw kind voldoende te laten bewegen?	Voorbeelden: materialen, plekken op heen te gaan, leren van andere ouders? Waar zoekt u informatie op? Heeft uw behoefte gehad aan tips en van wie/hoe zou u die willen ontvangen?
We komen bijna aan het einde van het interview. Ik zou u nog een laatste vraag willen stellen.	
Op welke manier bent u zelf bezig met bewegen?	Sport u zelf? In hoeverre denkt u dat uw eigen beweeggedrag invloed heeft op het beweeggedrag van uw kind? (indien van toepassing) Denkt u dat uw achtergrond cultuur van invloed kan zijn op het beweeggedrag?
Dit is het einde van het interview. Bedankt voor uw tijd.	

Appendix II. Informed consent form (Dutch)



Westeinde 128
2512 HE Den Haag
tel. (088) 355 01 00

Faculteit der Aard- en Levenswetenschappen
Postadres: FALW, De Boelelaan 1085, 1081 HV Amsterdam

TOESTEMMINGSFORMULIER (informed consent)

Betreft: medewerking aan een onderzoek omtrent de rol van ouders rondom de motorische ontwikkeling van hun kind (leeftijd 0-4 jaar).

Ik verklaar hierbij op voor mij duidelijke wijze te zijn ingelicht over de aard, methode en doel van het onderzoek.

Ik begrijp dat:

- Ik mijn medewerking aan dit onderzoek kan stoppen op ieder moment en zonder opgave van reden
- gegevens anoniem worden verwerkt, zonder herleidbaar te zijn tot de persoon
- de opname vernietigd wordt na uitwerking van het interview

Ik verklaar dat ik:

- geheel vrijwillig bereid ben aan dit onderzoek mee te doen
- de uitkomsten van dit interview verwerkt mogen worden in een verslag of wetenschappelijke publicatie
- toestemming geeft om het interview op te laten nemen door middel van een voice-recorder.

Handtekening:

Naam:

Datum:.....

Onderzoeker

Ik heb mondeling toelichting verstrekt over de aard, methode en doel van het onderzoek. Ik verklaar mij bereid nog opkomende vragen over het onderzoek naar vermogen te beantwoorden.

Handtekening:

Naam:

Datum:

Instituut voor Gezondheidswetenschappen Bezoekadres: de Boelelaan 1085 Internet: www.beta.vu.nl

Appendix III. Code tree

Table 5. Coding scheme

Parental beliefs on stimulating PA/FMS
<ul style="list-style-type: none">• Value of physical activity<ul style="list-style-type: none">○ Psychological benefits○ Health benefits○ Social benefits• Parents perception of their role regarding early motor development<ul style="list-style-type: none">○ Passive approach○ Active approach
Needs and barriers regarding stimulating physical activity
<ul style="list-style-type: none">• Perceived barriers regarding stimulating physical activity of their child<ul style="list-style-type: none">○ Restrictions in participating in organized activities○ Time and Planning○ Season and weather○ Environment• Needs of parents in promoting physical activity
Knowledge of physical activity and early gross motor development
<ul style="list-style-type: none">• Parents description of a healthy activity pattern for their child• Parents resources of knowledge acquisition about early childhood gross motor development
Parental practices in stimulating their child's physical activity and early gross motor development
<ul style="list-style-type: none">• Providing a supportive home environment<ul style="list-style-type: none">○ Teach gross motor skills at home○ Physical activities within the home setting○ Dealing with sedentary behaviour and screen time• Providing a supportive outdoor environment<ul style="list-style-type: none">○ Parental modelling and encouragement○ Organised and unorganised activities in the neighbourhood
Social and cultural influences on promoting physical activity
