**CONFERENCE ABSTRACT**

**Sufficient exercise: mother’s perceptions on neighbourhood safety and quality of outdoor playgrounds in Rotterdam**

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**Introduction:** Physical activity in children is associated with both physical and psychological benefits, such as increased cardiorespiratory fitness, reduced body fatness, improved self-esteem and fewer depressive symptoms. Unfortunately, more than 80% of children in the Netherlands does not meet the recommended level of daily physical activity, with percentages even higher in deprived neighbourhoods. As such, improving the level of physical activity of these children becomes a priority.

Several studies link physical activity to environmental factors, such as air pollution, access to healthcare, neighbourhood cohesion, crime and safety. Parental concerns regarding neighbourhood safety restrict the physical outdoor activity of children, affecting their health and development. Furthermore, playground characteristics such as size, distance, design, equipment, hygiene and facilities affect parents’ perceptions of outdoor playgrounds, and thereby children’s participation in outdoor play.

**Policy context and objective:** To improve physical activity of children in deprived neighbourhoods of Rotterdam we need to inform and advise local policymakers about the perceptions of mothers regarding neighbourhood safety and quality of outdoor playgrounds. To do this, we collected photos from, and conducted interviews with, residents in these neighbourhoods, so that future policies could be targeted to their needs and preferences.

**Targeted population:** In this research we involve mothers of young children (aged 0 – 8 years old) from 4 deprived neighbourhoods in Rotterdam. Mothers need to be sufficiently skilled in the Dutch language to participate in the interviews. We aim to collect 100 photos with written information on why the specific picture was taken. Subsequently, we aim to interview at least 25 of these mothers.

**Highlights:** The photos and interviews will provide the municipality with insight into the liveability of the selected neighbourhoods, which may ultimately lead to targeted improvements in the selected neighbourhoods. To complement the information from residents, we will score these neighbourhoods on safety and outdoor playgrounds through Google Street view. As a result, we can provide local politicians with objective scores and subjective perceptions about certain neighbourhoods, in order to provide them with a comprehensive understanding of these neighbourhoods.

**Transferability:** This study design can easily be transferred to other municipalities who aim to increase the activity level of young children. Involving residents in the re-design of their neighbourhood increases the probability that the liveability of these neighbourhoods will be improved. Subsequently, this will also increase the physical activity level of children in these
neighbourhoods. Furthermore, the additional information gained through Google Street view is a highly cost effective and reproducible method, in comparison to in-person observations.

**Conclusions:** In deprived neighbourhoods, the outdoor environment is often the only option for physical exercise, since a gym subscription is too expensive for most residents. Therefore, especially in deprived neighbourhoods, an adequate and safe outdoor environment is of high priority, in order to prevent a multitude of short- and long-term (mental) health problems. Through direct involvement of residents achieving these goals becomes more plausible.

**Keywords:** physical activity; child development; neighbourhood safety; playground quality; qualitative research