



Commentary

Protocol to Examine Important Weight Issues with Preschool Children and their Parents

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Abstract

Finding ways to impact the continuing, worldwide weight problem is imperative. As research has indicated that maximum benefit and ability to affect change may lie with preschool children and their parents, it is important to have protocols for properly assessing and engaging this population. This paper describes how a study of 198 parents and children obtained consent and collected weight-related information.

Keywords: Child; Weight; Protocol

Introduction

The importance of working with preschool-aged children and their parents to develop prevention and intervention strategies related to weight issues has been well-validated [1].

Infancy and childhood have been identified as a prime target for intervention due to modifiable risk factors for obesity that exist, including insufficient sleep, the introduction of certain foods at young ages, and screen time [2]. This same age group also has risk if weight issues are not addressed. Children who are obese have a greater risk of facing suboptimal health, emotional, and behavioral problems [3]. Obesity and its co-morbidities are expected to rise with 90 million obese school-age children estimated in the year 2025 and with roughly half of them having one or more comorbidities like elevated blood triglycerides or cholesterol [4].

While working with preschool-aged youth, creating a protocol to properly assess and protect the child is crucial. This paper describes the protocol of working with preschool age children and their parents in a recently completed study. It included 198 parents and children from independent preschools and daycares with preschools.

The protocol was used in a cross-sectional study investigating what factors could predict parental misclassification of child weight in preschool-aged children. This work was planned as the first step to provide a better understanding of modifiable factors that could help frame future intervention and prevention strategies. Therefore, the questionnaire included demographic-based questions as well as questions based on the theoretical components of the Health Belief Model being examined and on three methods of

gauging parental assessment of child weight. The study also required the investigator to assess weights, heights, and determine the body mass index and corresponding classification for each child. The protocol used to do these items is discussed in this paper.

Human Subjects and Consent

This study was approved by the Idaho State University Institutional Review Board and was conducted in Utah. Written consent was required for all participants. The legal guardian signed the form authorizing both their self-report questionnaire data and the child information (height, weight, gender) to be collected and included in the study. Parental permission was being obtained to collect the child height and weight, which is a reasonable requirement to protect the children [5].

Not much information was provided in the literature to explain how preschool children were asked about obtaining child weight. The investigator explained the height and weight collection in terms the child understands and asked if it is OK. For the preschool age group, parental consent was the appropriate method, which was obtained. As an added safety, the investigator kept the child in their own environment and obtained verbal assent as described from children prior to measuring the height and weight; a facility staff member was present during this process as well. If the child did not wish to have their height or weight collected, the child and parent were excluded from the study with no consequences or reprimand.

Survey locations

Approval from preschool and daycare management was obtained after the investigator explained the study in person. A written letter was included for each site and submitted to the IRB for inclusion as participating sites. This was done as a further safety mechanism for the participating children because it showed the institutions had full understanding of the study and what was required of both parents and children.

Procedures

Daycares and preschools

The materials were first sent home to parents for consent and survey completion. This included a recruitment flyer, a study description, a consent form that clearly explained what was being asked, and a copy of the survey. The recruitment flier was also hung in the entrance to the daycare and preschools with facility permission, so people could read about the study and contact the investigator about participation if they somehow missed the information that was sent home. Anyone who contacted the researcher via this method was asked to verbally confirm that they had not already participated. Arrangements were made to provide the paper survey and to obtain the needed consent for child involvement.

Once consent was obtained, parents filled out the questionnaire with pen/paper and sent it back to the school via the child. Parents returned their completed questionnaires to their respective facility by placing them in a locked box that only the investigator had access to open. An assigned personal identifier allowed the child height and weight and parental survey to be matched. The child weight was obtained at the participating daycare or preschool in a private-public space with a screen to ensure privacy. This was like other studies [6], who performed the weight at children's schools.

Safety of child information

A unique identifier consisting of the letter A and three numbers were assigned to match the child weight/height to the correct parent. This meant both the parent survey will be labelled and the child height/weight labeled with the same identifier (for example, A001).

Anthropometric measurements

Child height and weight were measured at local daycares and preschools by the investigator. World Health Organization guidelines were used for collecting height and weight data (2006). A stable stadiometer was used for mobile height measurement and an electronic digital body weight scale with step-on technology was used to measure weight. Children were asked to remove their shoes, jackets, and anything in their pockets, which is the common method as demonstrated [7]. They were asked not to wear extra layers of clothing, such as jackets to keep measurement consistent. Weight was also measured to the nearest 0.1 kilograms for

accuracy as done by Al Junaibi et al. [8] and Robinson et al. [9].

Height and weight of all children were measured and recorded. Child weight/height information was used to calculate a BMI. The height, weight, and BMI classification was coded with the same identifier as the parent to ensure the correct parent questionnaires was associated to the correct child information. This was critical for evaluation and analysis as the perception of weight was a primary objective.

The investigator collected the weights, heights, and genders of the children and ensured they were matched to the correct parent. The child data collection form was used to collect height, weight, gender, and date of collection of these items on children. To match the child to the correct parent, a piece of paper stating the child's full name and parent name was stapled to the child data collection form. The parent identifier was written on the applicable line with the added "C" at the end to identify child information (prior to taking the weight). This front paper was separated from the child forms and shredded after correct information pairing was confirmed with investigator review.

Incentives

All participating parents were given the chance to win a \$50 gift card. Enrolled parents were entered into a raffle drawing to determine who received the gift cards.

Discussion

Working with this age group requires extra safety measures to be instituted to protect the children and their data. By obtaining written consent from parents and participating daycares as well as ensuring child assent and comfort, the children in this study were sufficiently protected.

Compliance with Ethical Standards

Conflict of Interest

There is no conflict of interest by any of the authors.

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Ethical Conduct of Research

The Idaho State University Institutional Review Board approved this research.

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