

Effects of the Use of the Babywalker on Psychomotor Development and Reasons Provided by Caregivers for its Use

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Abstract

Introduction: Baby walker (BW) is an instrument that is still used frequently. However, in medical field there is the conviction that it is not only NOT useful, but also interfere the Psychomotor Development, as well as cause falls and injuries in the child.

Objective: To analyze the reasons for using BW and those effects, applying a survey to 168 parents of normal children under 24 months, with normal development, that had achieved independent walking.

Results: 63.1% used BW, 77.4% under 3 hours daily and 8.5% more than 6 hours per day. Reasons were “for convenience” (36.8%) and “stimulate walking” (34.9%). From the children attending Kindergarten, 65.4% used baby walkers, in front of 61.9% of those who did not as sist. Moreover, in some children, their use was done just in the Garden. The use was greater in males (66.9% vs 55.9%). Concerning their effects, from the children who did not crawl, 80.4% had used baby walkers; e quine gait and shocks with furniture or walls were more frequent in children who used BW (87.7% and 74.6% respectively) and in relation to arm protective reactions, in 43.4% of children who used BW they were poor, versus 12.9% of those who did not use. The age of crawling, standing and walking was 1 - 2 months later in children who used BW.

Conclusion: BW not only does not s stimulate psychomotor development but also potentiates deficiencies.

Keywords: *Baby Walker; Psychomotor Development; Crawling; Equine Gait; Injuries*

Introduction

The use of the babywalker (BW) is still a common practice in many parts of the world. Its documented use dates back to the Middle Age, with illustrations and models from that time being found in museums. Probably in the beginning, the objective was to protect the child from the dangers of the soil, from infections to injuries by animals. Over time they have evolved, finding a wide variety of models on the market today.

There are articles in the literature that talk about the problems generated by the use of the babywalker, both from the point of view of cause trauma [1] and altering the process of acquiring milestones in Psychomotor Development [2]. However, in our environment there are few publications in this regard, so we wanted to investigate both the causes of its use and its effects.

Among the arguments that are currently used to justify the use of the walker, are the one that “strengthens the legs” so that the child can walk better; leave it there to do the housework; because the “child likes it and is entertained”; for the “comfort” of caregivers. However, those of us who work in health and specifically in child rehabilitation, we realize that the use of the walker is not only not beneficial, but

together with being a “generator” of trauma to the child due to falls from or with the walker, also carries a series of consequences for its development. Among these, the fact that many children who use a walker do not crawl; or that when they start the march they do so on tiptoe, fall more frequently and collide with furniture or walls. Since there is a belief that the walker helps the march, we also wanted to determine whether children who use it, walk before or after those who do not.

Finally, the Kindergarten is an instance of stimulation for the child, by interacting with their peers and participating in the pedagogical activities of that level. Along with this, it should also be an instance of education to the family on development and parenting issues. For this reason, we were interested in knowing if there were differences in the use of a walker between the children who attended Garden and those who did not.

Objective of the Study

The objective of this study is to know the causes that lead to the use of the walker, as well as to review its effects on some milestones of Psychomotor Development.

Materials and Methods

A survey was applied to parents of infants who attend a healthy check-up, who had already achieved independent gait and who were under 24 months of age, from different primary health centers in the Valparaíso region, without neuromotor pathologies. The study was initially carried out within the framework of a thesis work for obtaining the title of Kinesiology from the Universidad del Mar [3], later expanding the data and reviewing the results.

The validity of the survey was tested by consulting health professionals, specialists in the area of Psychomotor Development, about its content. And its reliability was tested by randomly re-surveying 10 parents and/or caregivers.

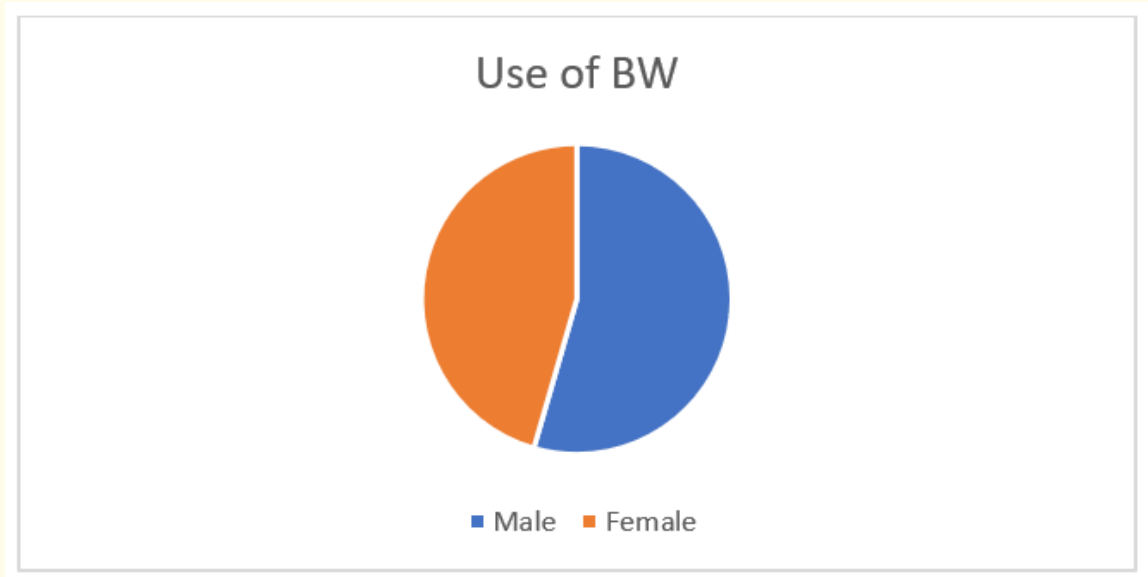
The Survey was divided into 2 parts:

1. General aspects of the environment and/or caregivers:
 - a. Regarding the use/non-use of a walker,
 - b. Hours of daily use,
 - c. Reasons for use,
 - d. Type of home, number of siblings,
 - e. Attendance or not at Kindergarten.
2. Aspects of the child, milestones of psychomotor development:
 - a. Sex
 - b. Crawling achievement or not
 - c. Walking on tiptoe
 - d. Collision with furniture, walls or people when walking

- e. Protective arm reactions when falling
- f. Frequency of falls while walking
- g. Crawling, standing and gait age.

Results

The distribution by sex of the sample was 59 girls (35.12%) and 109 boys (64.88%). Of these, 63.1% used a walker, with the distribution by sex of 55.9% of the girls and 66.9% of the boys (Graph 1).

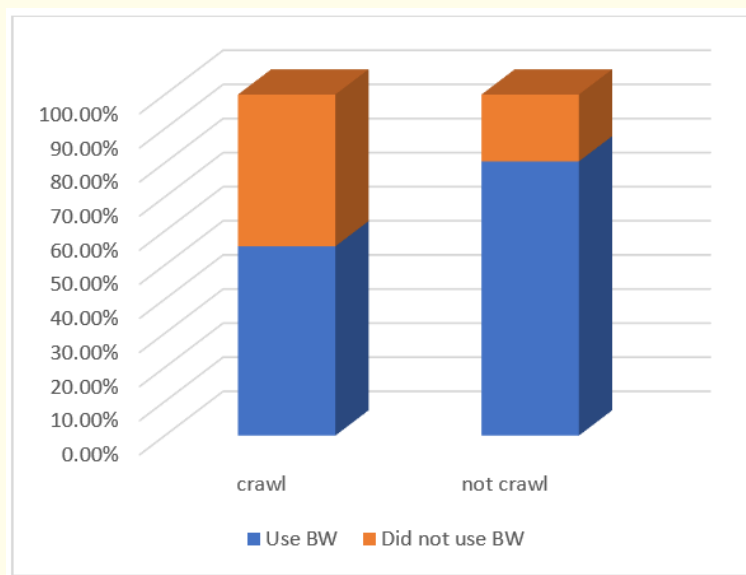


Graph 1: Distribution by sex from the children who used babywalker. The data from the graph 1 are: from the total sample, 64,9% of the children uses BW. Separated by sex, 55,9% of the females and 66,9% from the males used one.

The 32.7% of children attended garden, in full or part time. Of these, 65.4% used a walker, versus 61.9% of those who had only been at home, mainly in charge of their mothers.

Regarding the number of hours of use, 77.4% used it less than 3 hours a day, 14.2% used it 3 - 6 hours and 8.5% used it more than 6 hours.

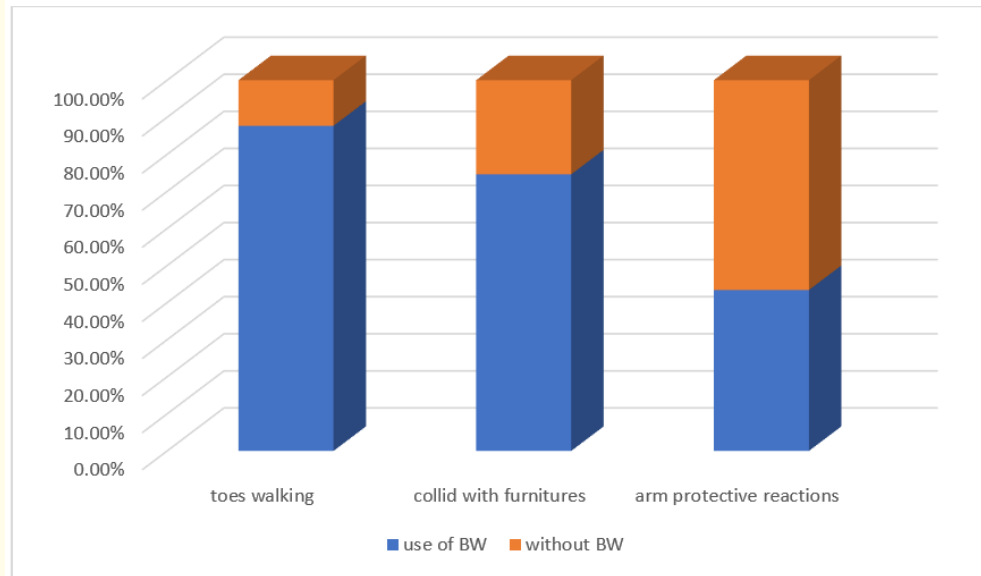
Of the entire sample, 69.6% achieved the crawling milestone. Of those who did not succeed, 80.4% used a walker. In the group that did crawl, only 55.5% had used a walker (Graph 2).



Graph 2: Comparison of the children who crawl in relation with the use of babywalker.

With regard to walking on the toes (38.7% of the total), 87.7% of the children who presented it had used a walker.

Regarding the item “collides with walls, furniture or people” when walking (70.2% of the total), 74.6% from them had used a walker.



Graph 3: Comparison of children who walk on their toes, who collide with furniture or walls and who have poor arm protective reactions (RPB) in relation to the use of a walker.

Regarding the item “protective reactions of the arms when falling” (PRA), that is to say, the function of support and protection of the hands or previous parachute reaction, it was consulted if they was present, inefficient or absent. Of the total sample, 67.9% of the children had adequate PRA. When comparing this item in relation to the use of a walker, it was observed that 43.4% of the children who used a walker had poor PRA, versus only 12.9% of the children who did not use it.

Regarding the age of onset of crawling, standing and independent walking, it was observed that on average, these appeared 1 - 2 months later in the children who had used a walker (Table 1).

	Without Walker	With Walker
Crawl	8m	9m
Standing	10m	11m
Free run	12m	14m

Table 1: Age of crawling, standing and gait in children who used babywalker and those who did not.

Discussion and Conclusion

The custom of using the walker continues to be highly prevalent, with the idea of facilitating care for parents or stimulating the child. According to the results obtained, especially in relation to psychomotor development, it is evident that its use not only does not stimulate

development, but also promotes greater instability in gait, delaying even the appearance of those that it precisely aims to stimulate. Along with this, it alters the formation of the child's body scheme, since when moving inside the walker, it changes direction when it collides or bumps into something, so it "learns" that when it collides it is when it must change direction, a pattern that persists when the child starts walking, at least months or years after it.

Crawling is a milestone whose relevance is often questioned, since there are children who do not do it, but they also acquire independent walking. However, this milestone is relevant not only from the neuromotor point of view, requiring the optimal functioning of the central nervous system, but also from the socio-emotional, cognitive and sensory point of view [4]. The use of the walker, especially if it is of early onset, translates into a lower incidence of this milestone, as was found in this study (80.4% of the children who did not crawl, used a walker).

The Kindergarten, as mentioned before, is an instance of stimulation for children, but it should also be an instance of education for parents in terms of the rules of raising, handling and stimulating children. Therefore, it is striking that regarding the use of babywalkers, attendance at the Garden was not a protective factor, but rather a slightly higher use of a walker was observed in those who attended it. Moreover, astonishes and worries me that even today, there are gardens with them, to the same as with other elements probably just as harmful as static stimulation centers (walkers without wheels) or "Bouncy".

In sum, in all the aspects evaluated, the children who used a walker showed poorer results. Therefore, its use is not only not recommended, but should be strongly discouraged.

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