

ALBERTA INFANT MOTOR SCALE

Item scores in the Dutch population

Patricia A.M. van Iersel and Mijna Hadders-Algra

INTRODUCTION

Between January 2017 and March 2019 1700 infants representative for the Dutch population in terms of social and perinatal background have been assessed in the framework of the IMP-SINDA project. The aim of this project was to collect normative data for the Infant Motor Profile (IMP) and the Standardized Infant NeuroDevelopmental Assessment (SINDA). These normative data were used to document the manuals of the IMP (Hadders-Algra and Heineman, 2021) and SINDA (Hadders-Algra et al. 2021, 2022).

The infants aged 2 to 18 months corrected age, for each month of age 100 infants were included. Each infant was assessed once. The assessments were video recorded. This allowed also for an assessment of the Alberta Infant Motor Scale (AIMS) in all infants and the calculation of the Dutch AIMS-norms and percentile curves. The normative data have been published in the paper of Van Iersel et al. (2020).

The current document may be regarded as an Appendix of the latter paper. It provides the scores of the Dutch normative sample for each individual AIMS item.

Acknowledgements

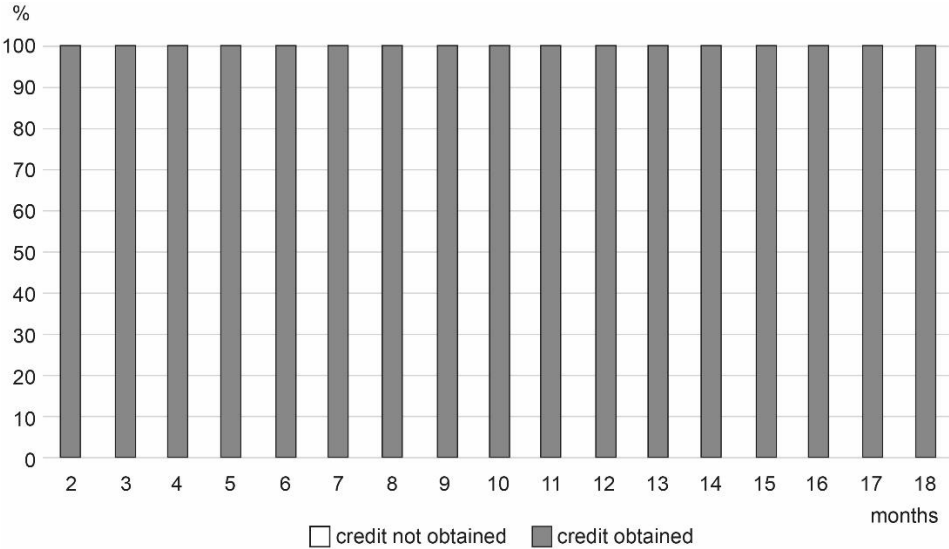
We gratefully acknowledge the excellent technical assistance of Anneke Kracht in production of the figures. The IMP-SINDA project was financially supported by the Cornelia Stichting and the Stichting Ontwikkelingsneurofysiologie Groningen.

References

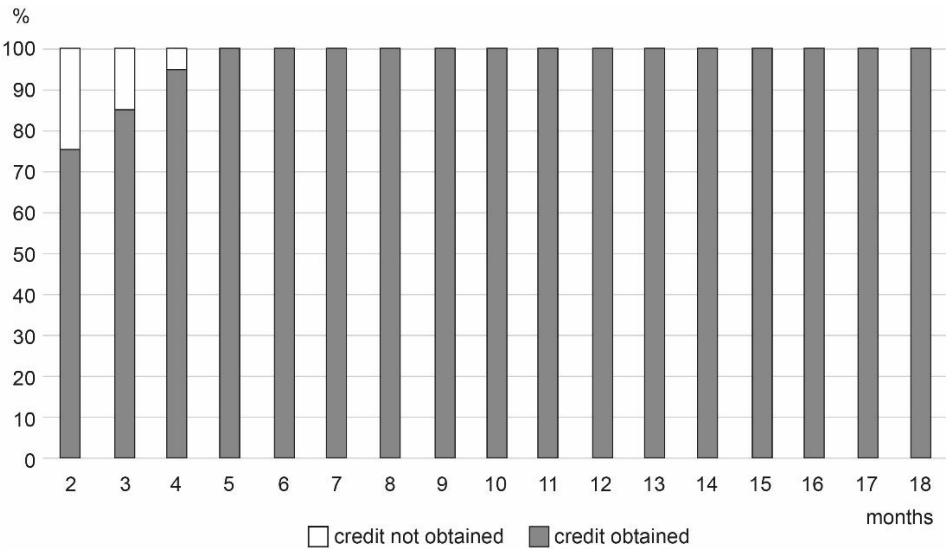
- Hadders-Algra M, Heineman KR. The Infant Motor Profile. Abingdon, UK: Routledge, 2021.
- Hadders-Algra M, Tacke U, Pietz J, Philippi H. SINDA – Standardized Infant NeuroDevelopmental Assessment. Een instrument voor vroegtijdige herkenning van ontwikkelingsstoornissen. Assen: Koninklijke van Gorcum, 2021.
- Hadders-Algra M, Tacke U, Pietz J, Philippi H. The Standardized Infant NeuroDevelopmental Assessment. London: Mac Keith Press, 2022.
- Van Iersel PAM, la Bastide-van Gemert S, Wu Y-C, Hadders-Algra M. Alberta Infant Motor Scale: cross-cultural analysis of gross motor development in Dutch and Canadian infants and introduction of Dutch norms. Early Hum Dev 2020; 151: 105239.

ITEMS OF THE PRONE SUBSCALE

Prone lying (1)

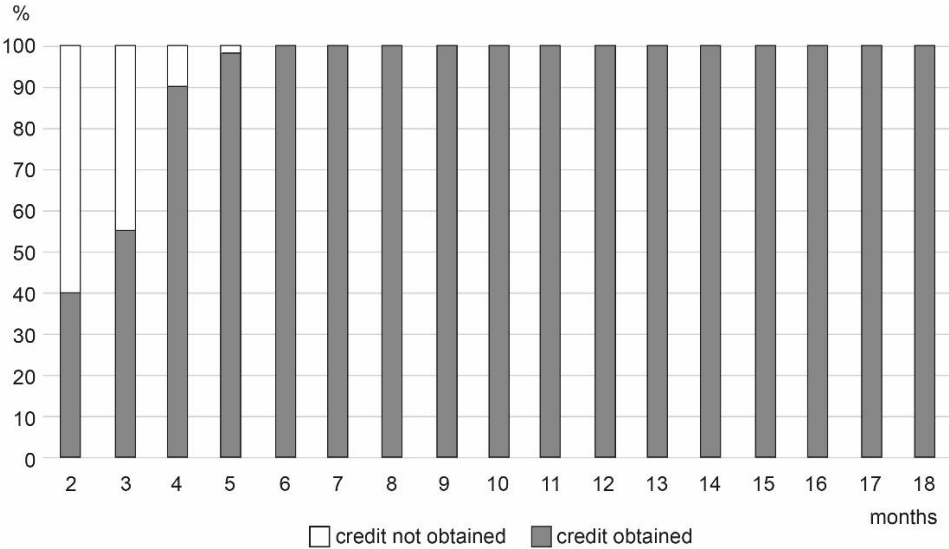


Prone lying (2)



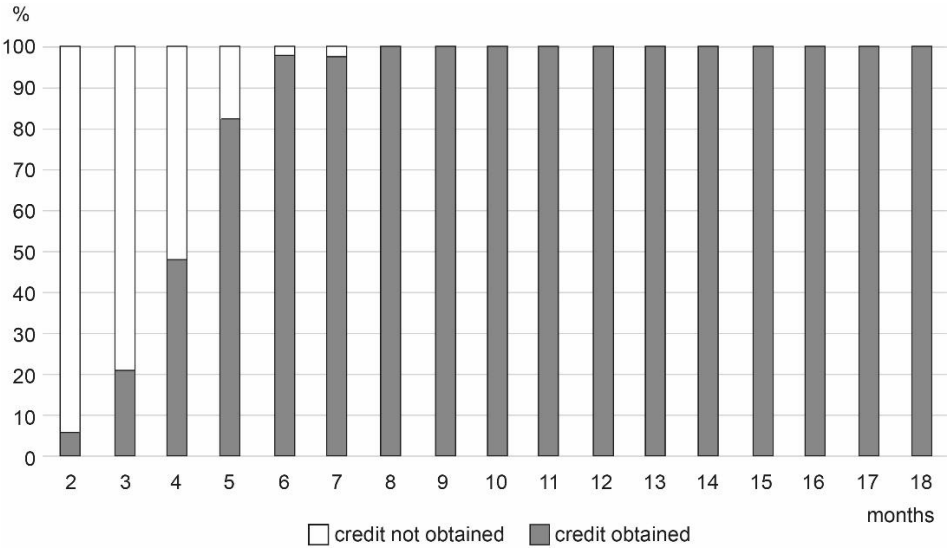
- At 2 months $\geq 50\%$ of infants is credited
- At 4 months $\geq 90\%$ of infants is credited

Prone prop



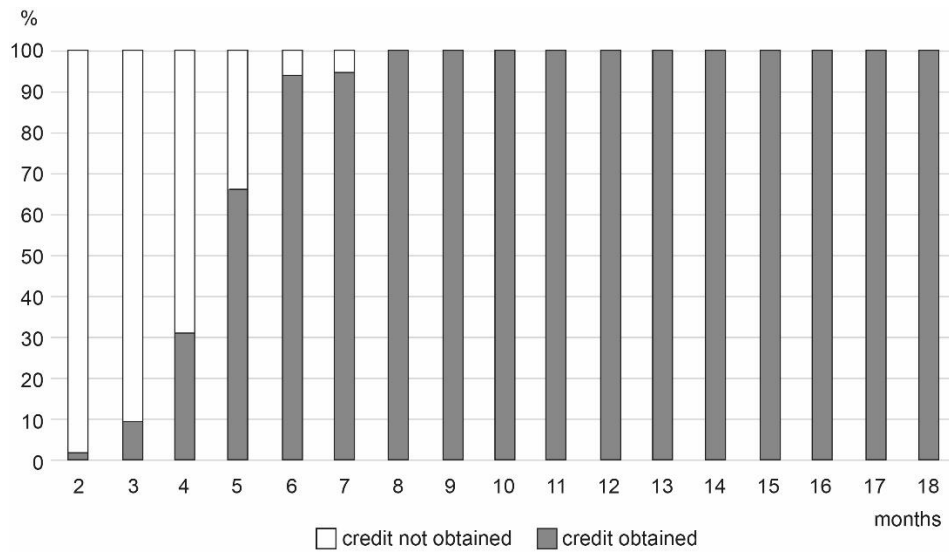
- At 3 months $\geq 50\%$ of infants is credited
- At 4 months $\geq 90\%$ of infants is credited

Forearm support (1)



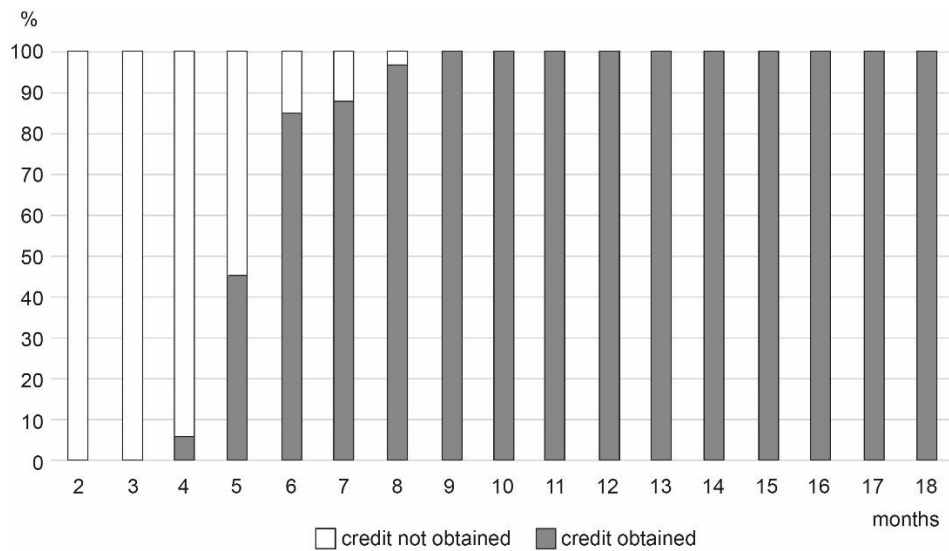
- At 5 months $\geq 50\%$ of infants is credited
- At 6 months $\geq 90\%$ of infants is credited

Prone mobility



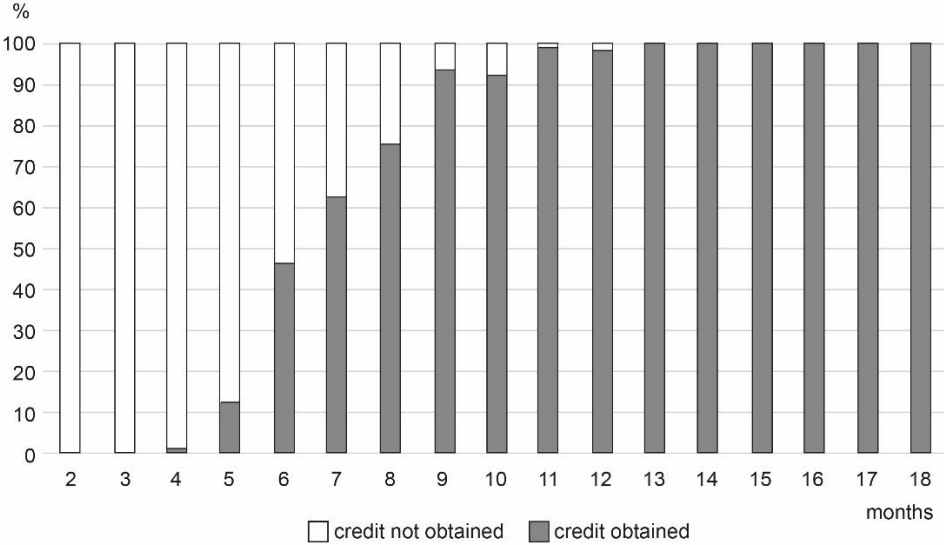
- At 5 months $\geq 50\%$ of infants is credited
- At 6 months $\geq 90\%$ of infants is credited

Forearm support (2)



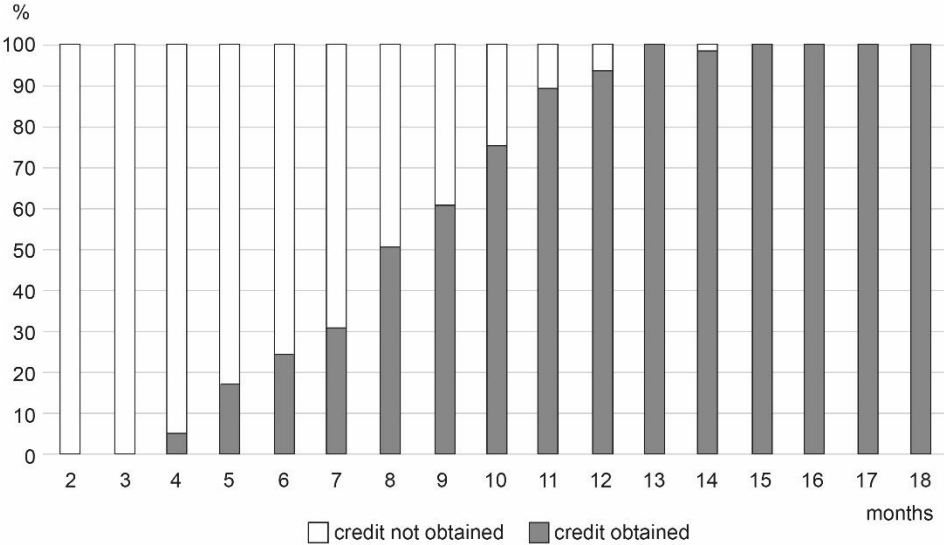
- At 6 months $\geq 50\%$ of infants is credited
- At 8 months $\geq 90\%$ of infants is credited

Extended arm support



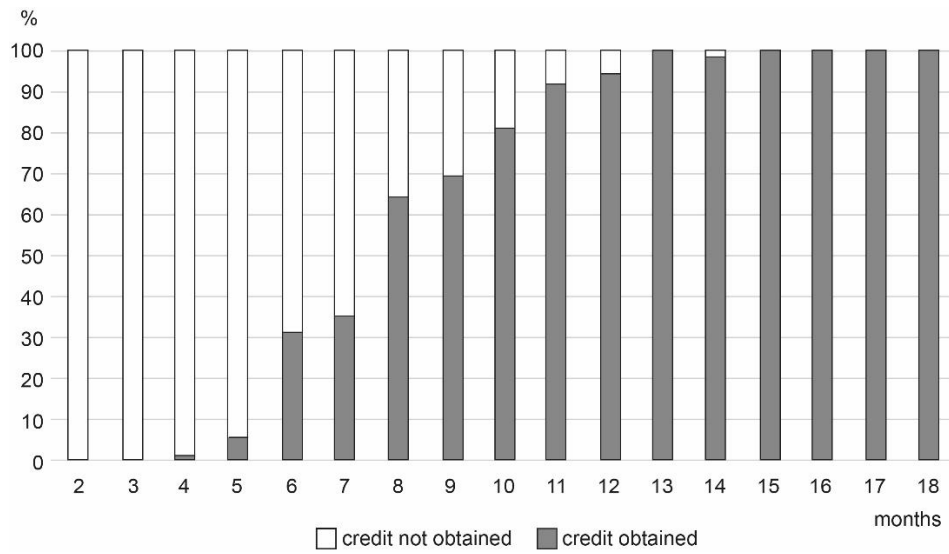
- At 7 months $\geq 50\%$ of infants is credited
- At 9 months $\geq 90\%$ of infants is credited

Rolling prone to supine without rotation



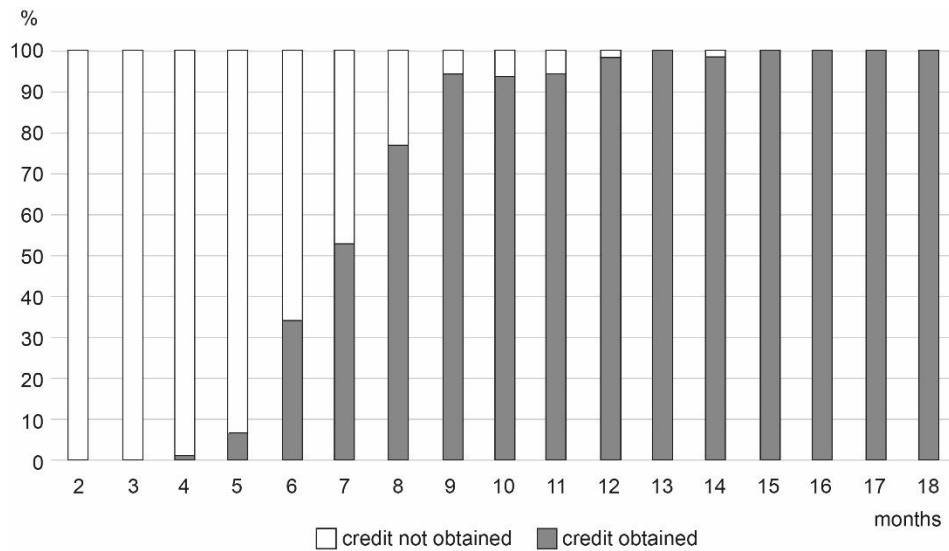
- At 8 months $\geq 50\%$ of infants is credited
- At 12 months $\geq 90\%$ of infants is credited

Swimming



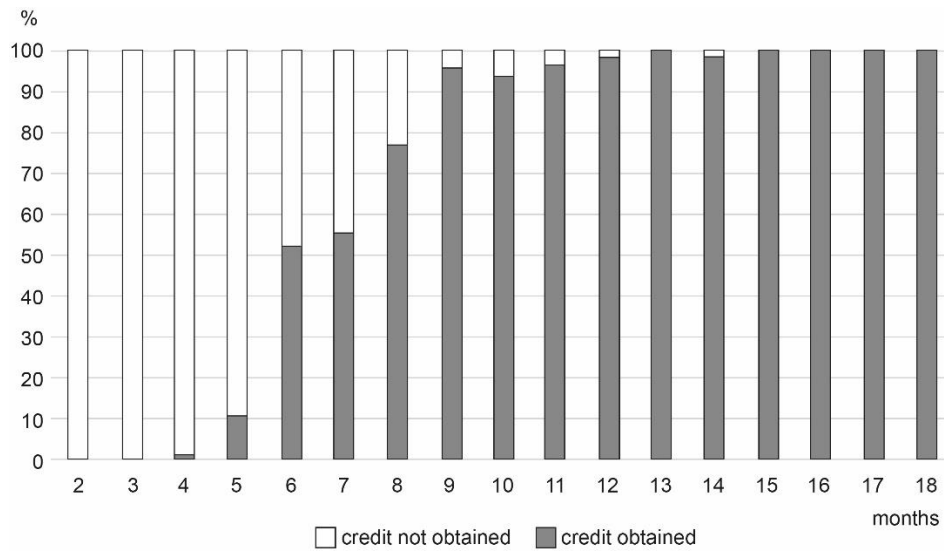
- At 8 months $\geq 50\%$ of infants is credited
- At 11 months $\geq 90\%$ of infants is credited

Reaching from forearm support



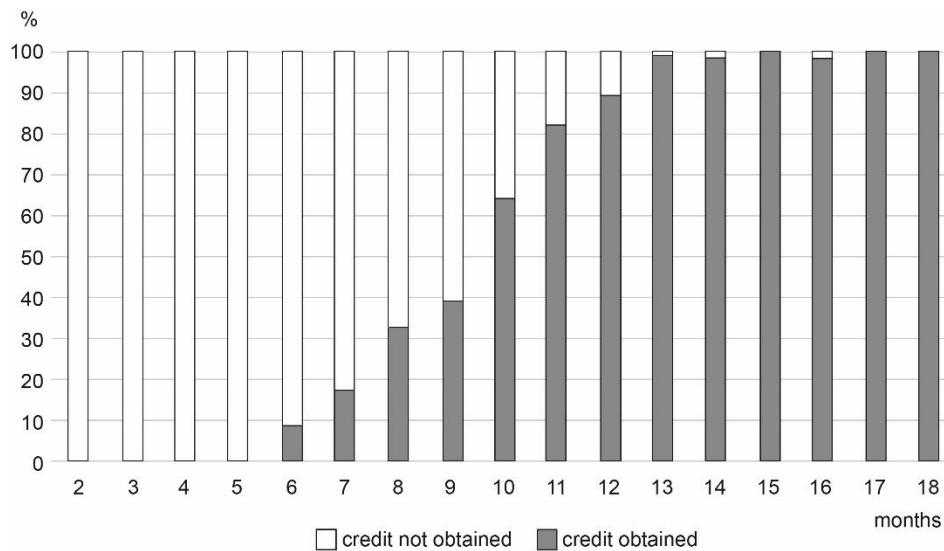
- At 7 months $\geq 50\%$ of infants is credited
- At 9 months $\geq 90\%$ of infants is credited

Pivoting



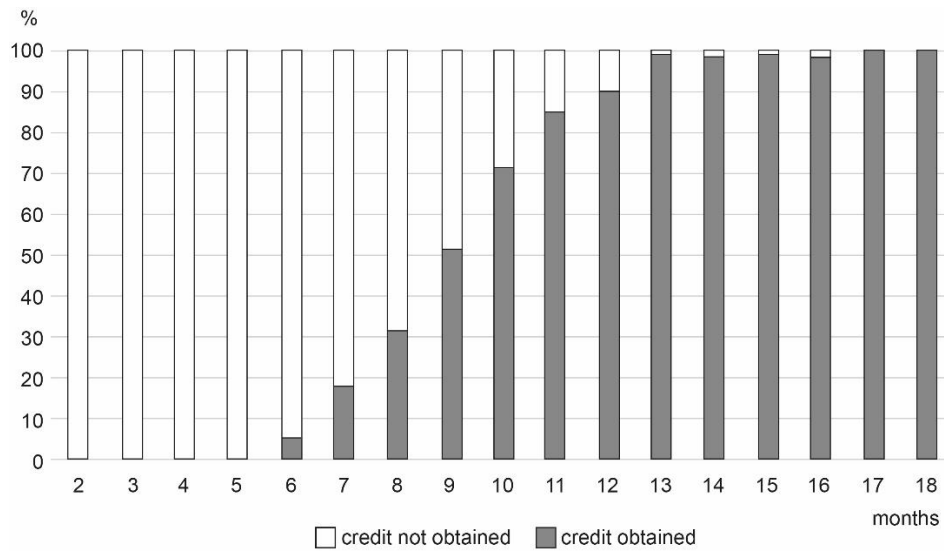
- At 6 months $\geq 50\%$ of infants is credited
- At 9 months $\geq 90\%$ of infants is credited

Rolling prone to supine with rotation



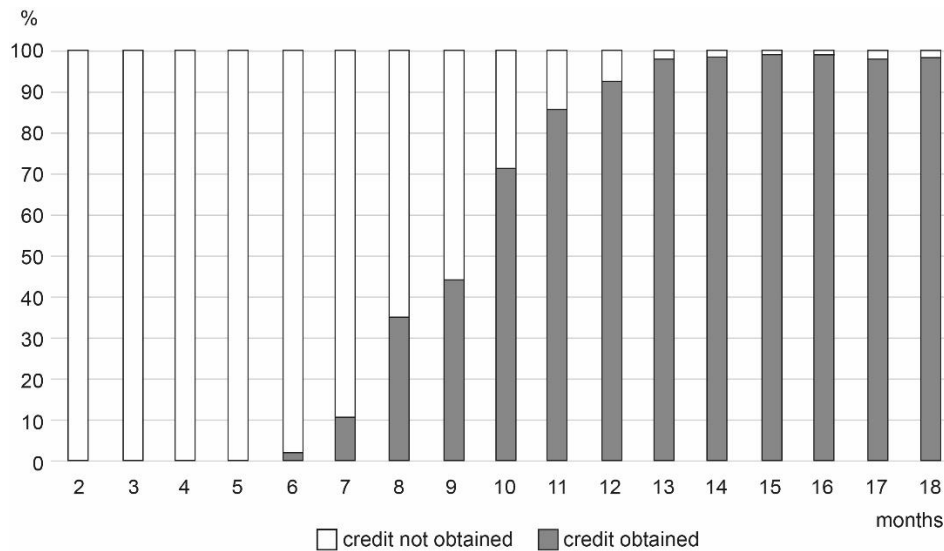
- At 10 months $\geq 50\%$ of infants is credited
- At 13 months $\geq 90\%$ of infants is credited

Four-point kneeling (1)



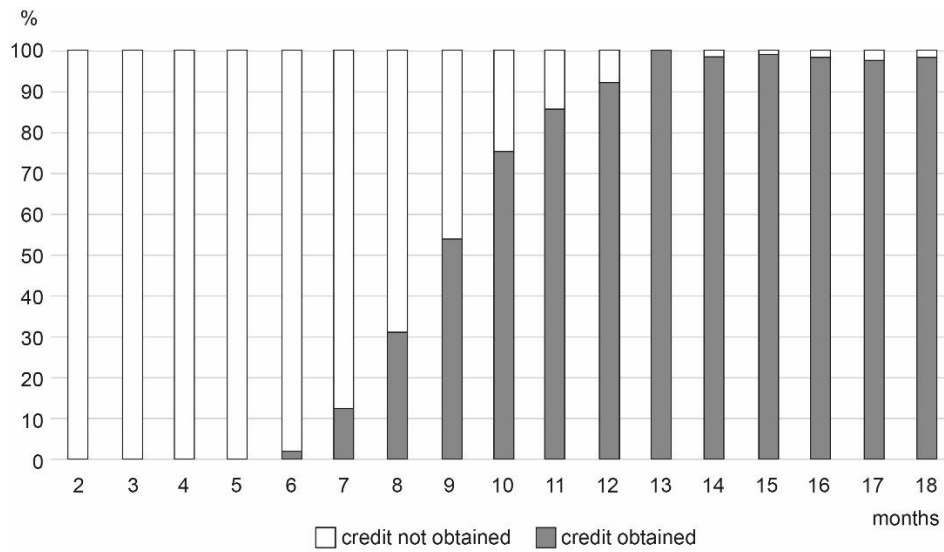
- At 9 months $\geq 50\%$ of infants is credited
- At 12 months $\geq 90\%$ of infants is credited

Propped lying on side



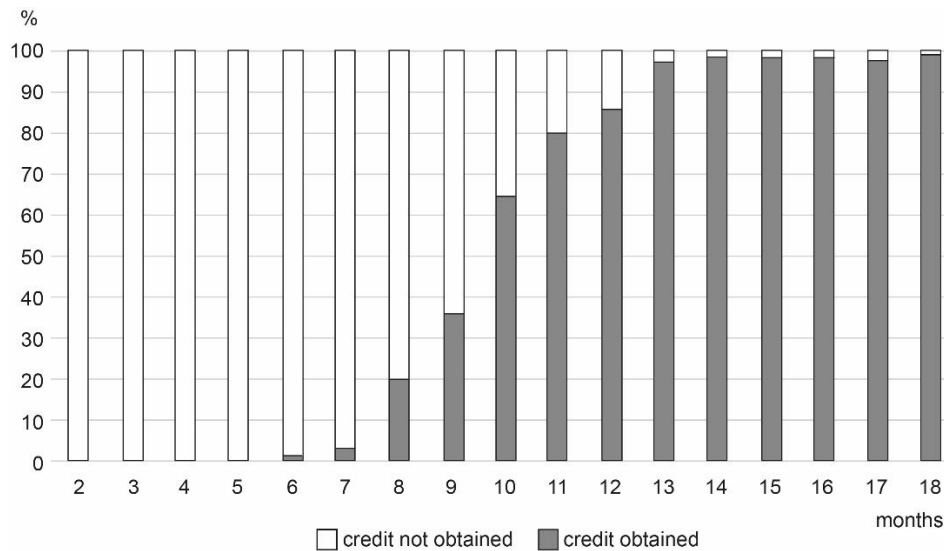
- At 10 months $\geq 50\%$ of infants is credited
- At 12 months $\geq 90\%$ of infants is credited

Reciprocal crawling



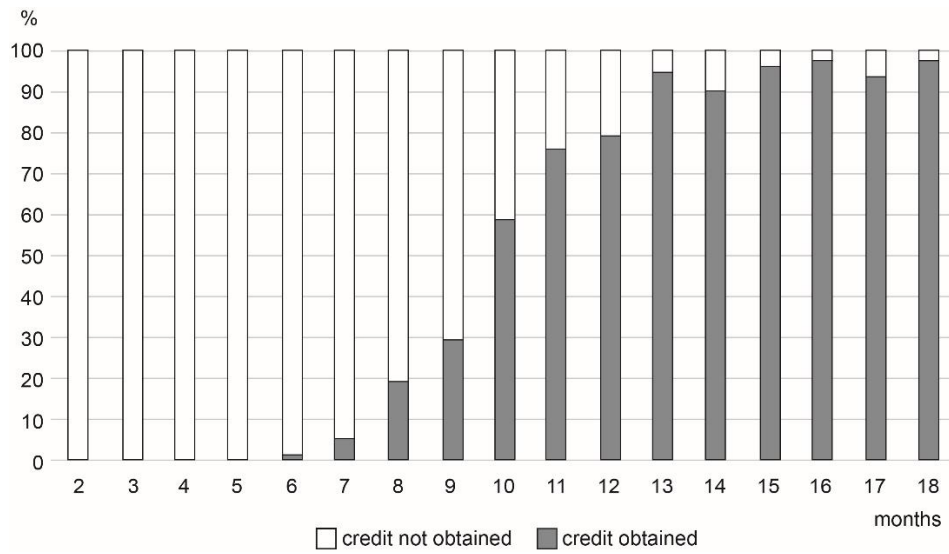
- At 9 months $\geq 50\%$ of infants is credited
- At 12 months $\geq 90\%$ of infants is credited

Four-point kneeling to sitting or half-sitting



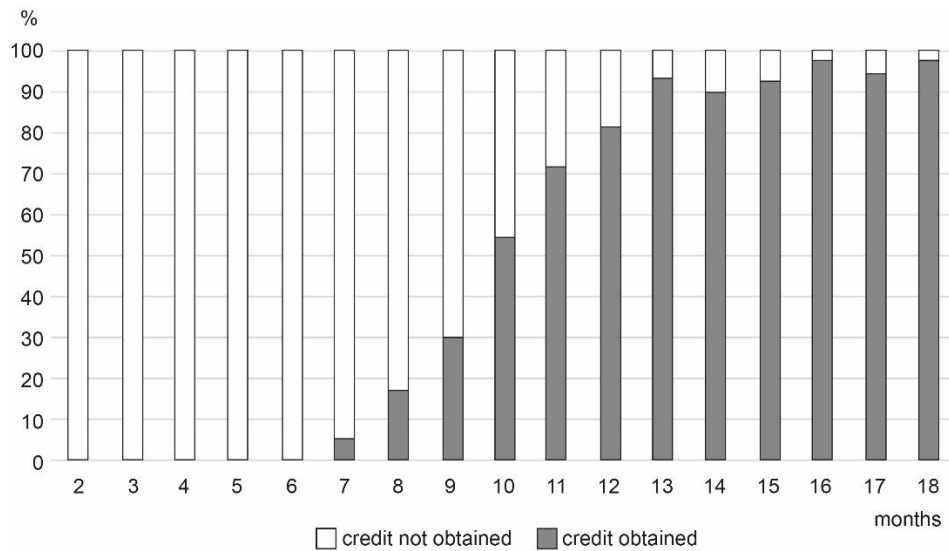
- At 10 months $\geq 50\%$ of infants is credited
- At 13 months $\geq 90\%$ of infants is credited

Reciprocal creeping (1)



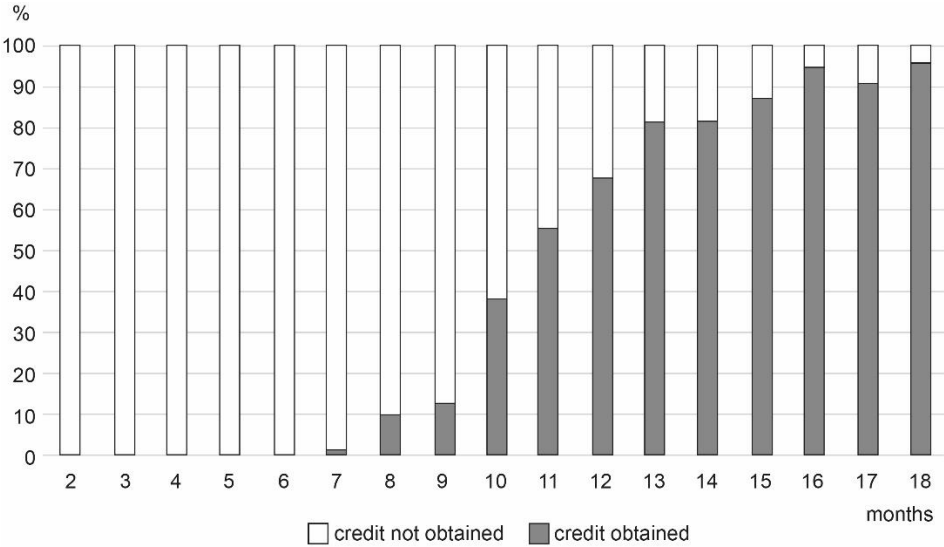
- At 10 months $\geq 50\%$ of infants is credited
- At 13 months $\geq 90\%$ of infants is credited

Reaching from extended arm support



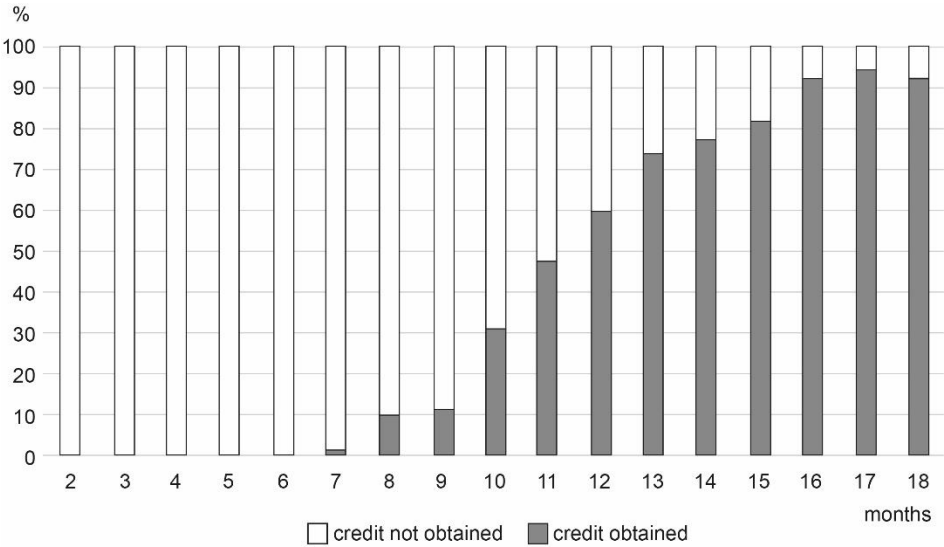
- At 10 months $\geq 50\%$ of infants is credited
- At 13 months $\geq 90\%$ of infants is credited

Four-point kneeling (2)



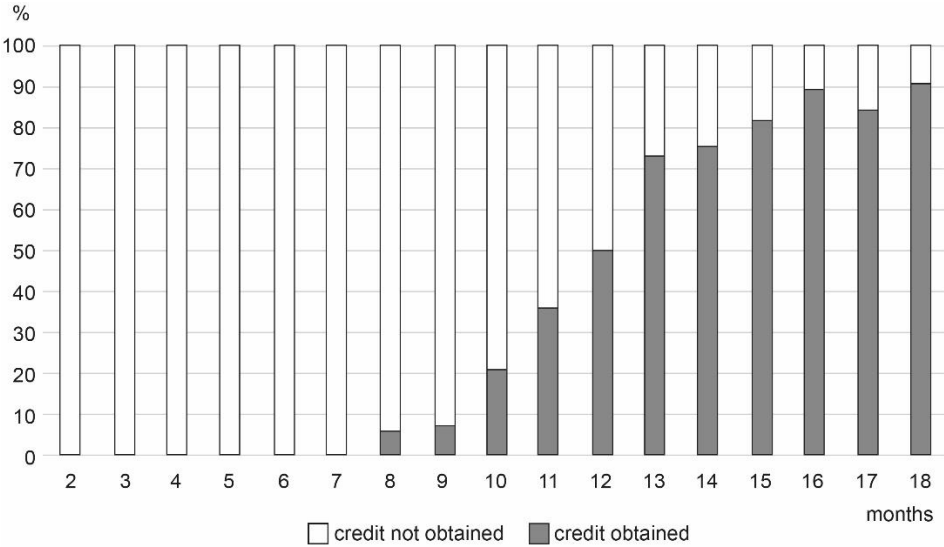
- At 11 months $\geq 50\%$ of infants is credited
- At 16 months $\geq 90\%$ of infants is credited

Modified four-point kneeling



- At 12 months $\geq 50\%$ of infants is credited
- At 16 months $\geq 90\%$ of infants is credited

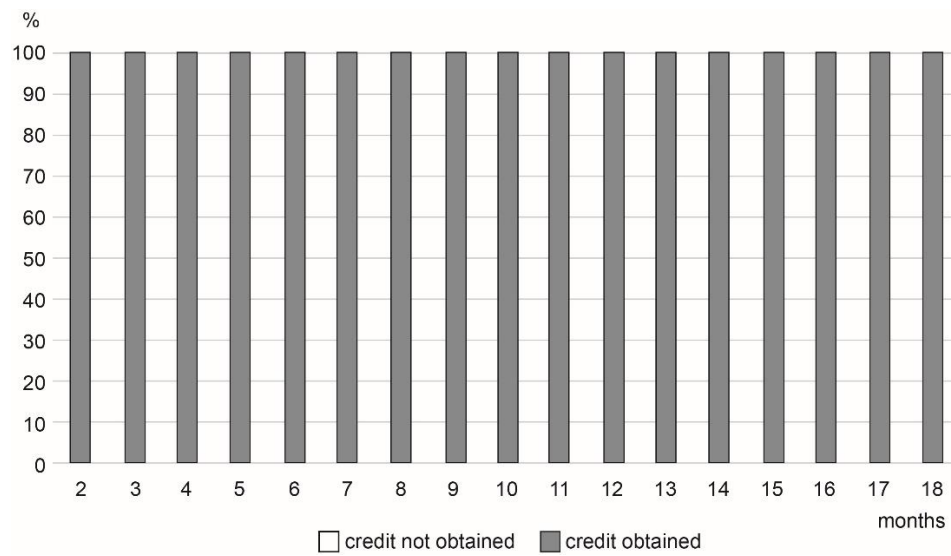
Reciprocal creeping (2)



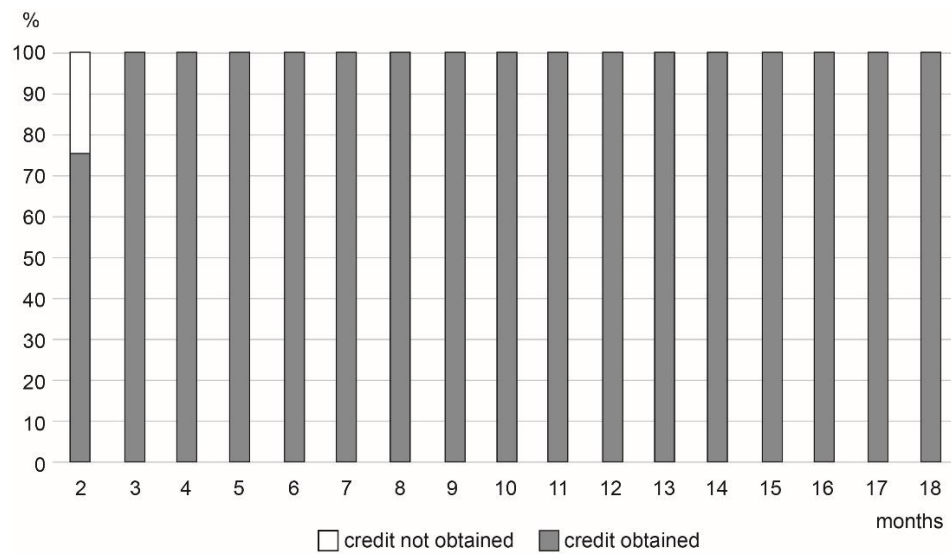
- At 12 months $\geq 50\%$ of infants is credited
- At 18 months $\geq 90\%$ of infants is credited

ITEMS OF THE SUPINE SUBSCALE

Supine lying (1)

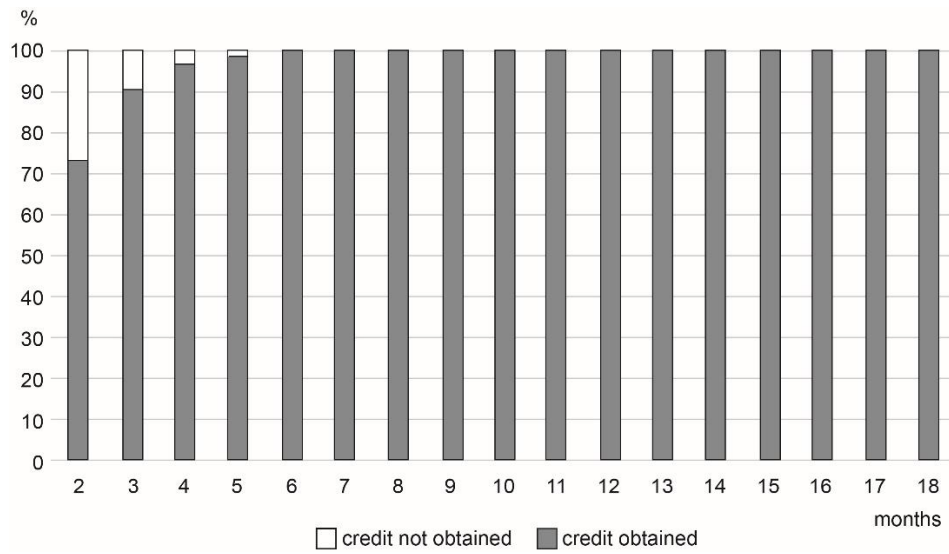


Supine lying (2)



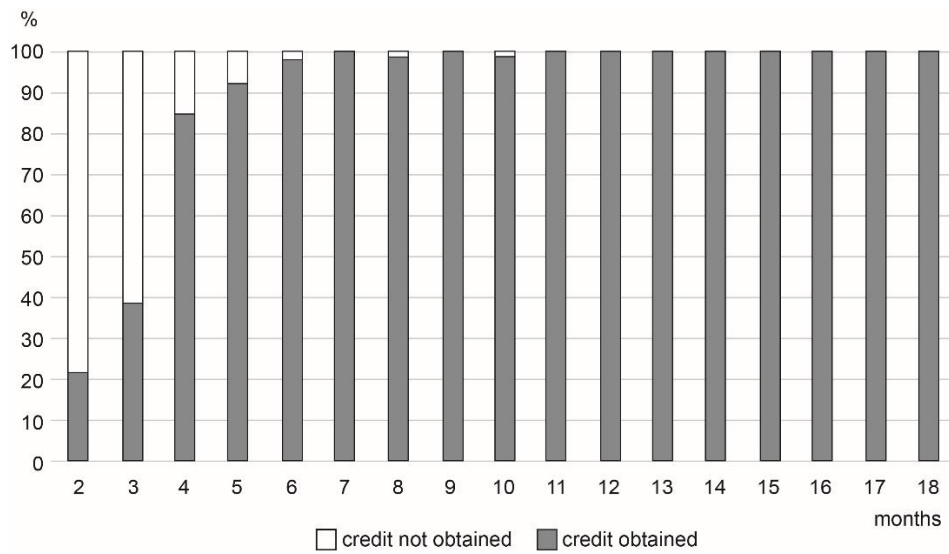
- At 2 months $\geq 50\%$ of infants is credited
- At 3 months $\geq 90\%$ of infants is credited

Supine lying (3)



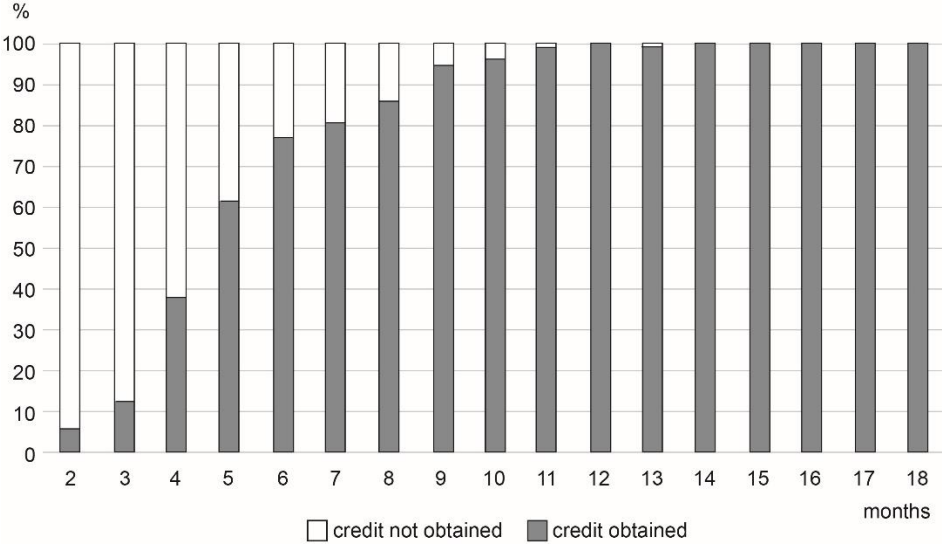
- At 2 months $\geq 50\%$ of infants is credited
- At 3 months $\geq 90\%$ of infants is credited

Supine lying (4)



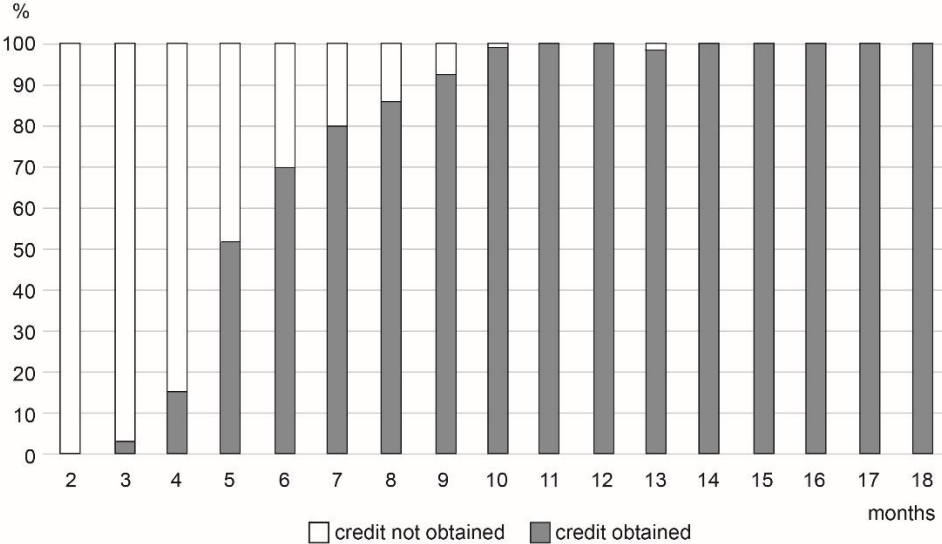
- At 4 months $\geq 50\%$ of infants is credited
- At 5 months $\geq 90\%$ of infants is credited

Hands to knees



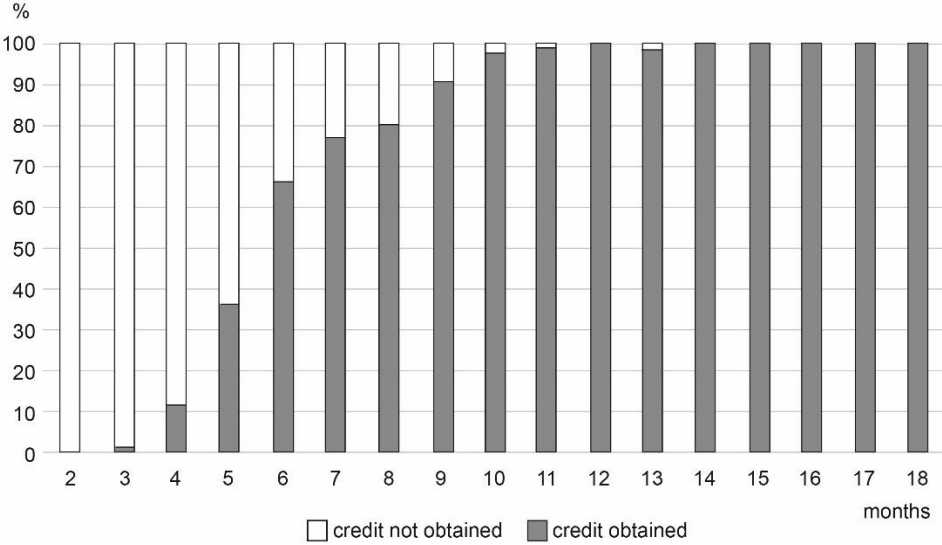
- At 5 months $\geq 50\%$ of infants is credited
- At 9 months $\geq 90\%$ of infants is credited

Active extension



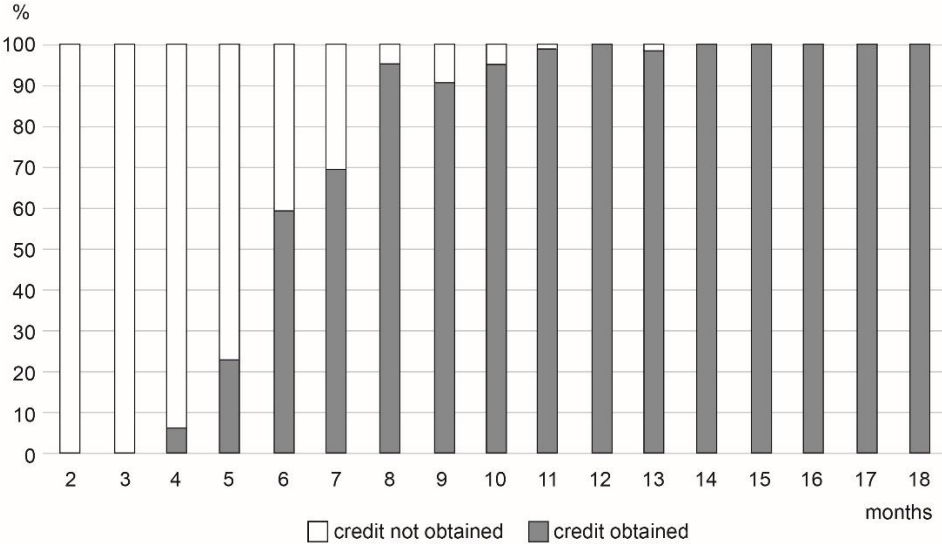
- At 5 months $\geq 50\%$ of infants is credited
- At 9 months $\geq 90\%$ of infants is credited

Hands to feet



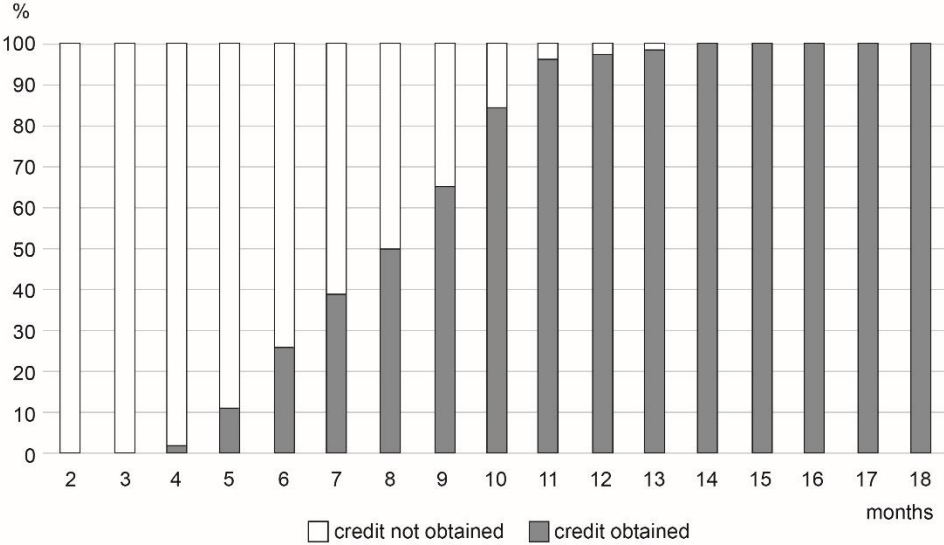
- At 6 months $\geq 50\%$ of infants is credited
- At 9 months $\geq 90\%$ of infants is credited

Rolling supine to prone without rotation



- At 6 months $\geq 50\%$ of infants is credited
- At 8 months $\geq 90\%$ of infants is credited

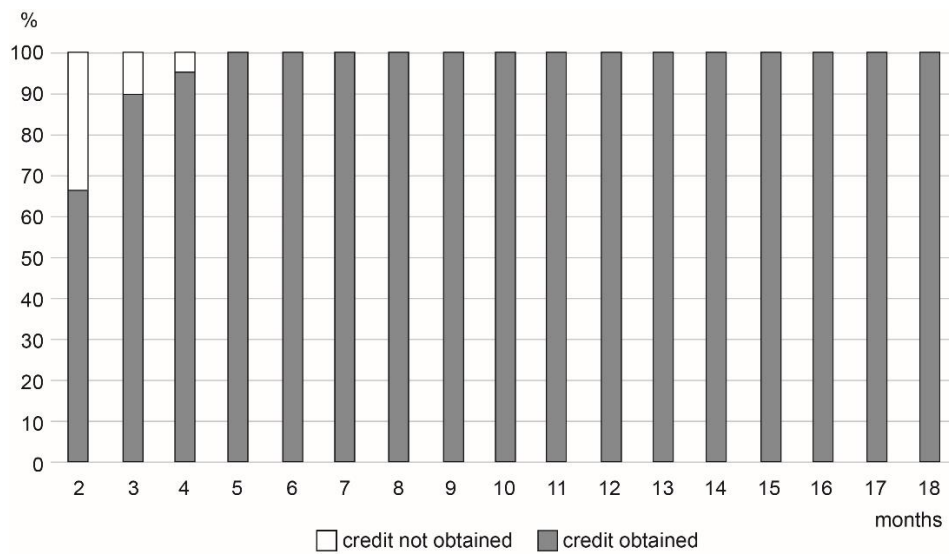
Rolling supine to prone with rotation



- At 8 months $\geq 50\%$ of infants is credited
- At 11 months $\geq 90\%$ of infants is credited

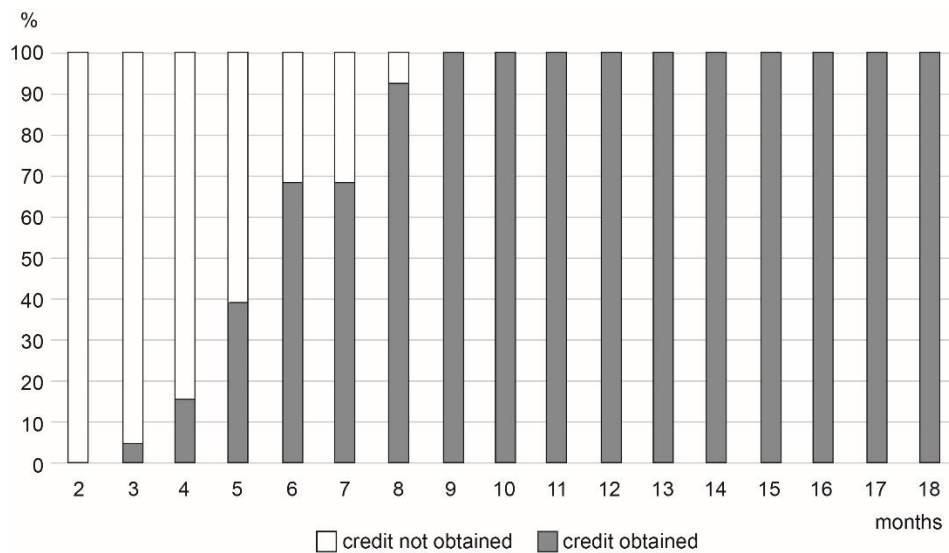
ITEMS OF THE SIT SUBSCALE

Sitting with support



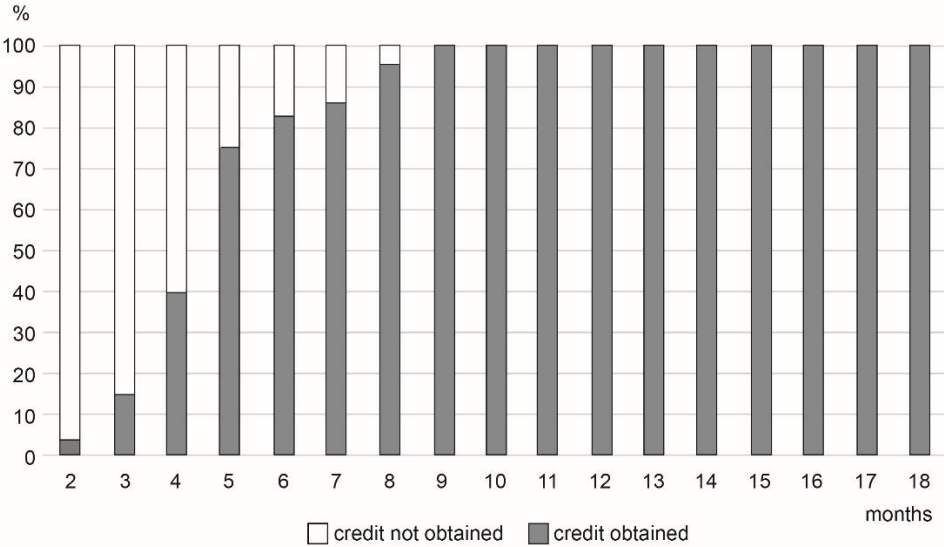
- At 2 months $\geq 50\%$ of infants is credited
- At 3 months $\geq 90\%$ of infants is credited

Sitting with propped arms



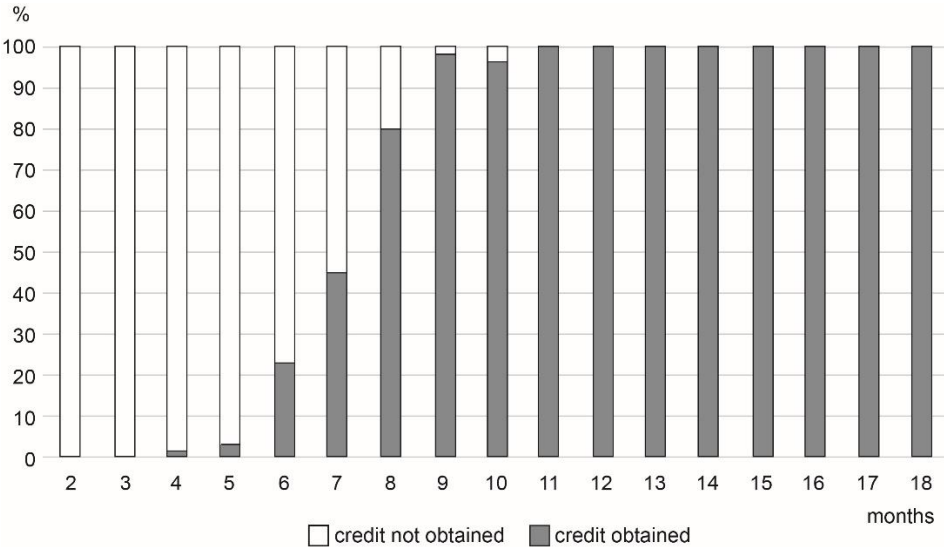
- At 6 months $\geq 50\%$ of infants is credited
- At 8 months $\geq 90\%$ of infants is credited

Pull to sit



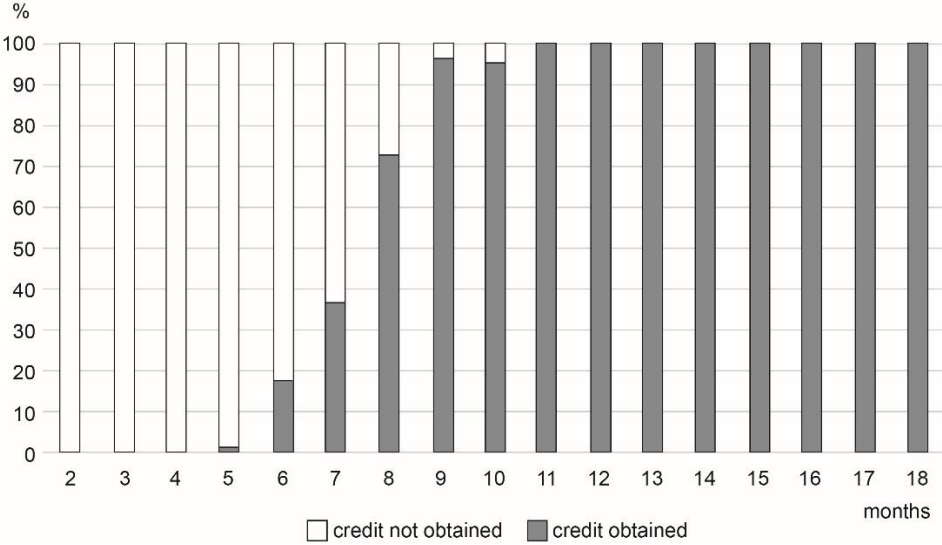
- At 5 months $\geq 50\%$ of infants is credited
- At 8 months $\geq 90\%$ of infants is credited

Unsustained sitting



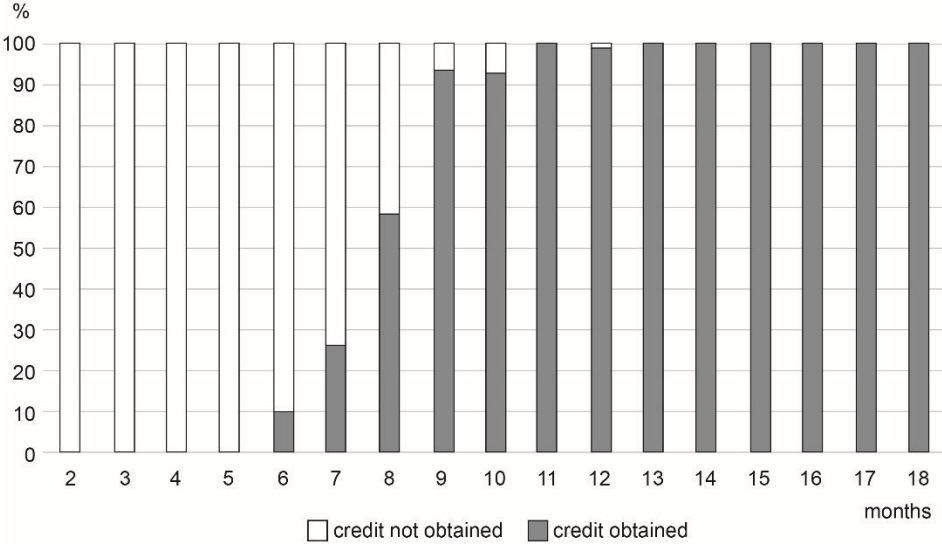
- At 8 months $\geq 50\%$ of infants is credited
- At 9 months $\geq 90\%$ of infants is credited

Sitting with arm support



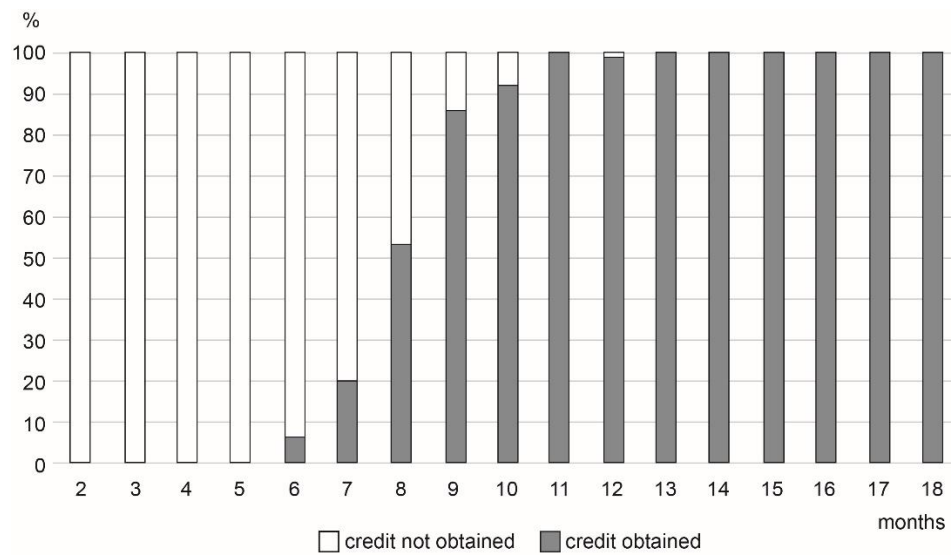
- At 8 months $\geq 50\%$ of infants is credited
- At 9 months $\geq 90\%$ of infants is credited

Unsustained sitting without arm support



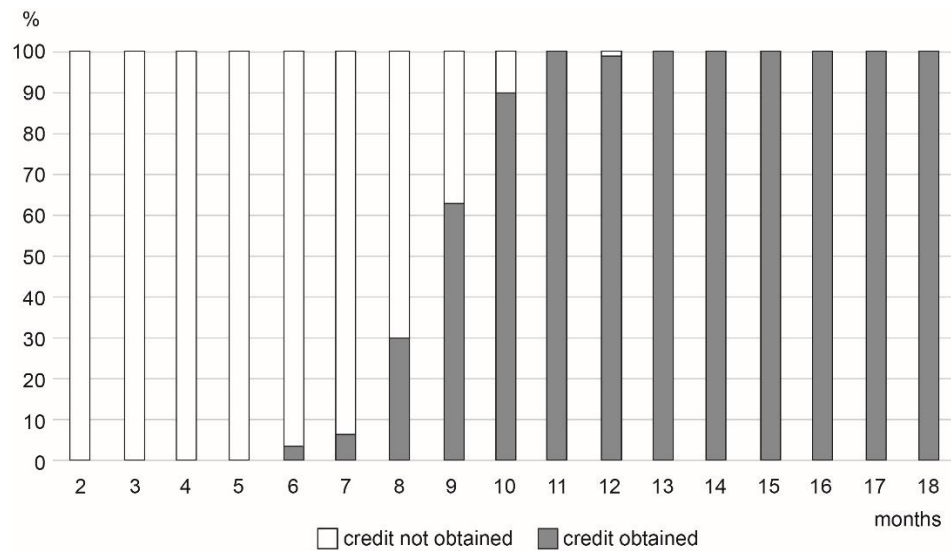
- At 8 months $\geq 50\%$ of infants is credited
- At 9 months $\geq 90\%$ of infants is credited

Weight shift in unsustained sitting



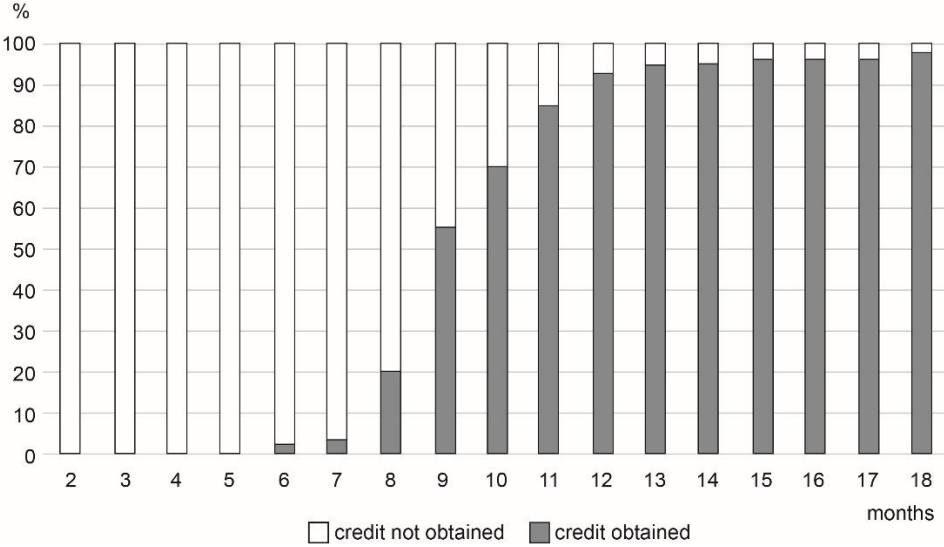
- At 8 months $\geq 50\%$ of infants is credited
- At 10 months $\geq 90\%$ of infants is credited

Sitting without arm support



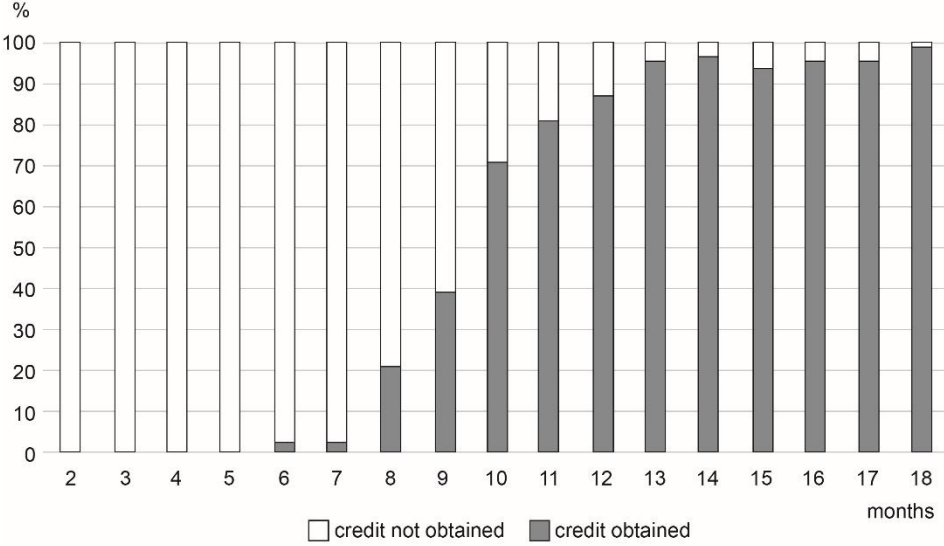
- At 9 months $\geq 50\%$ of infants is credited
- At 10 months $\geq 90\%$ of infants is credited

Reach with rotation in sitting



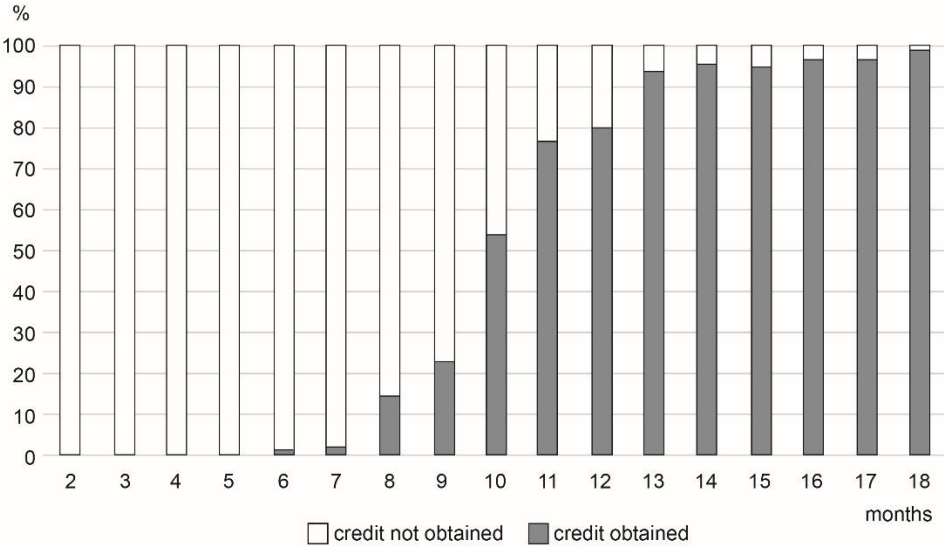
- At 9 months $\geq 50\%$ of infants is credited
- At 12 months $\geq 90\%$ of infants is credited

Sitting to prone



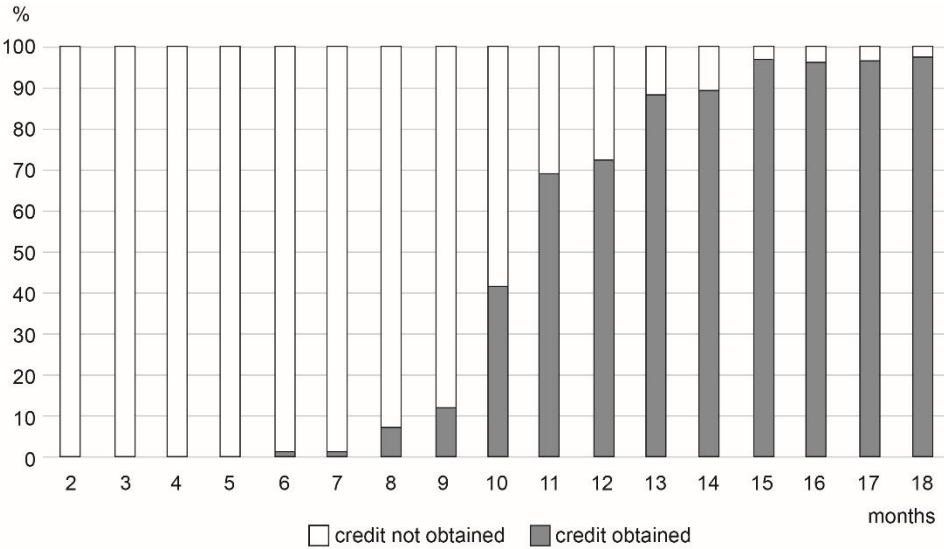
- At 10 months $\geq 50\%$ of infants is credited
- At 13 months $\geq 90\%$ of infants is credited

Sitting to four-point kneeling



- At 10 months $\geq 50\%$ of infants is credited
- At 13 months $\geq 90\%$ of infants is credited

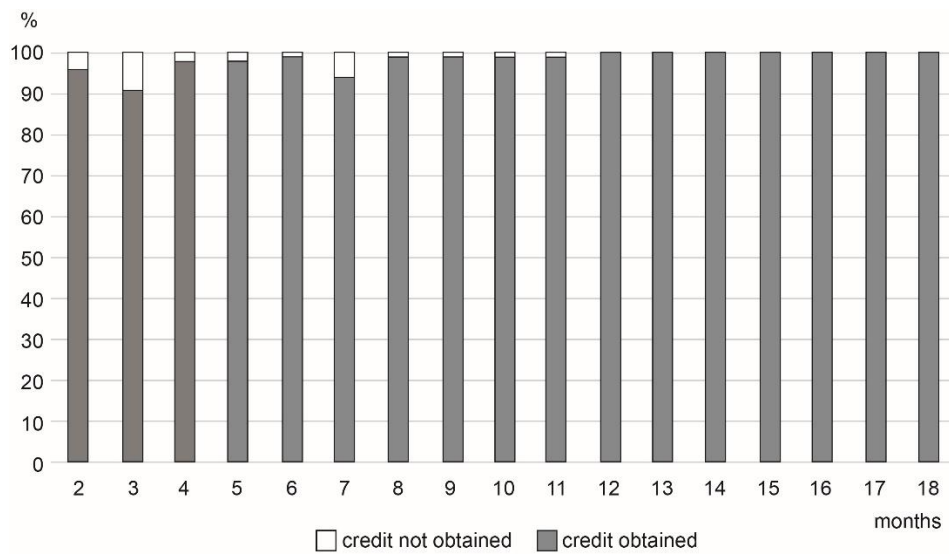
Sitting without arm support



- At 11 months $\geq 50\%$ of infants is credited
- At 15 months $\geq 90\%$ of infants is credited

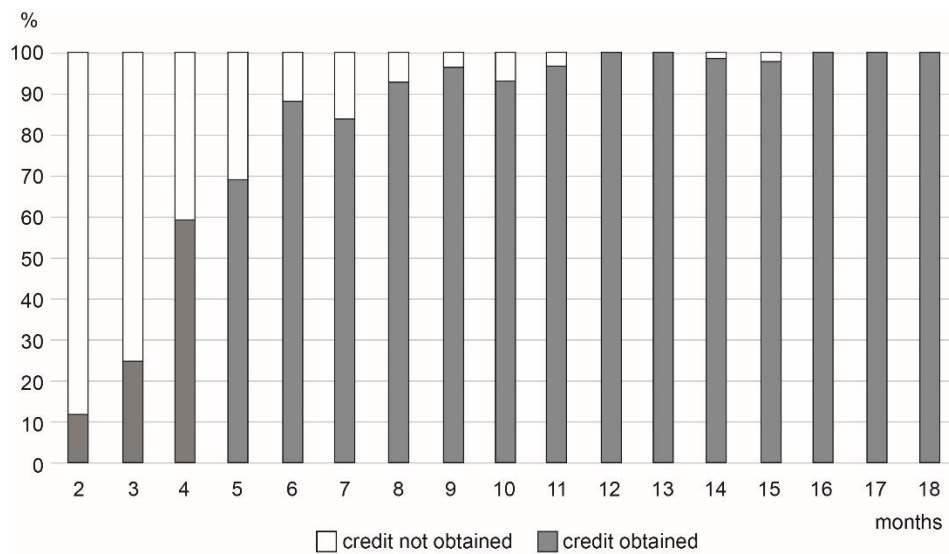
ITEMS OF THE STAND SUBSCALE

Supported standing (1)



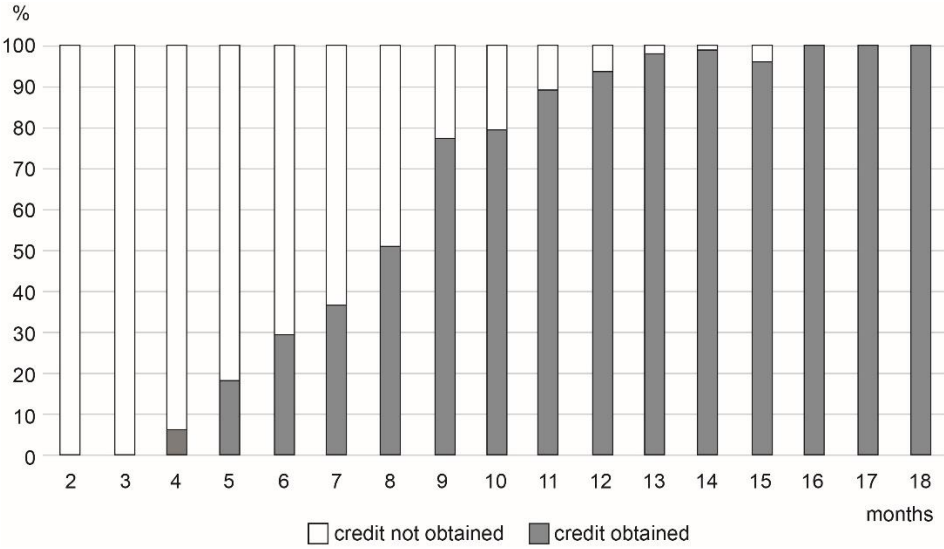
- At 2 months $\geq 50\%$ of infants is credited
- At 2 months $\geq 90\%$ of infants is credited

Supported standing (2)



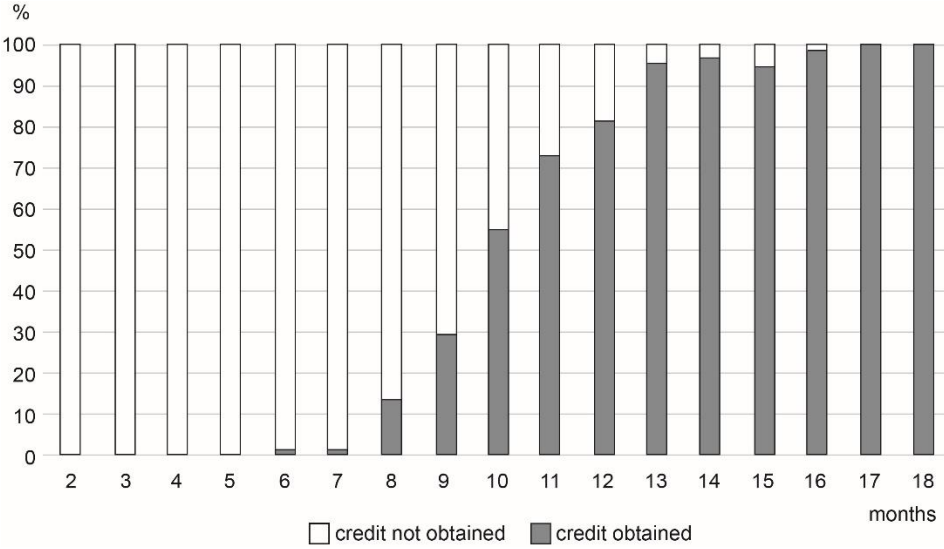
- At 4 months $\geq 50\%$ of infants is credited
- At 8 months $\geq 90\%$ of infants is credited

Supported standing (3)



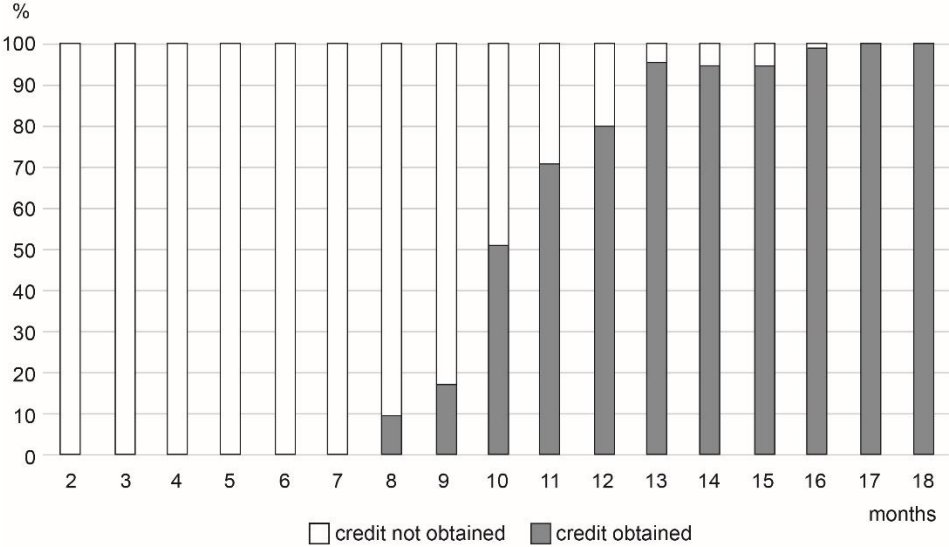
- At 8 months $\geq 50\%$ of infants is credited
- At 12 months $\geq 90\%$ of infants is credited

Pulls to stand with support



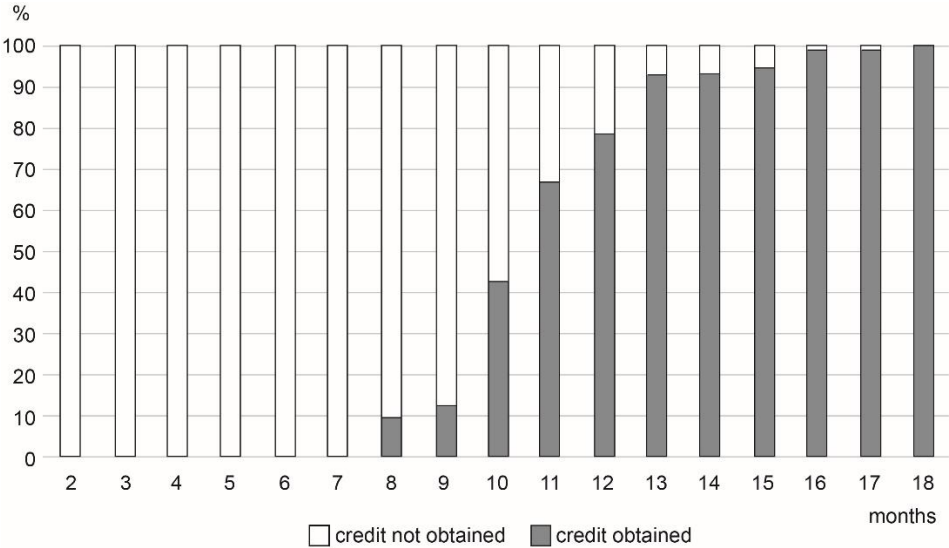
- At 10 months $\geq 50\%$ of infants is credited
- At 13 months $\geq 90\%$ of infants is credited

Pulls to stand / stands



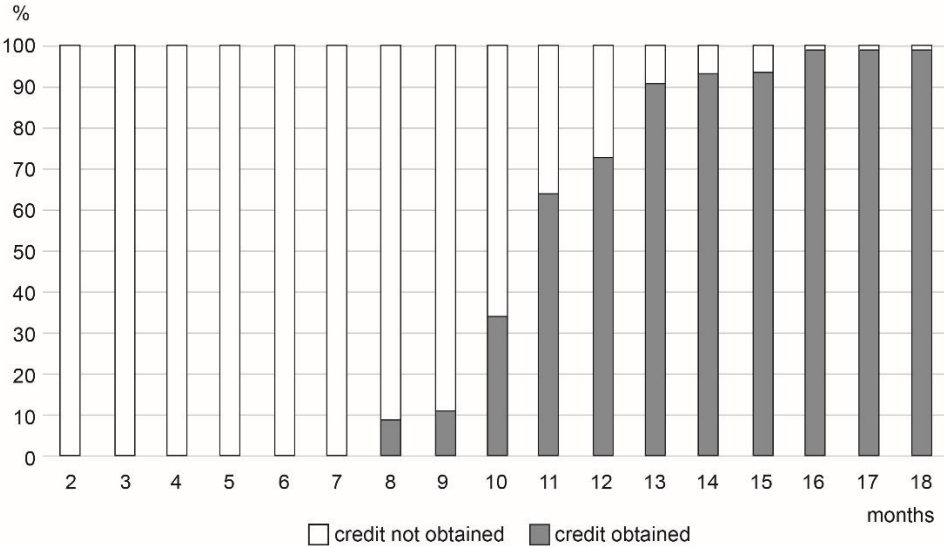
- At 10 months $\geq 50\%$ of infants is credited
- At 13 months $\geq 90\%$ of infants is credited

Supported standing with rotation



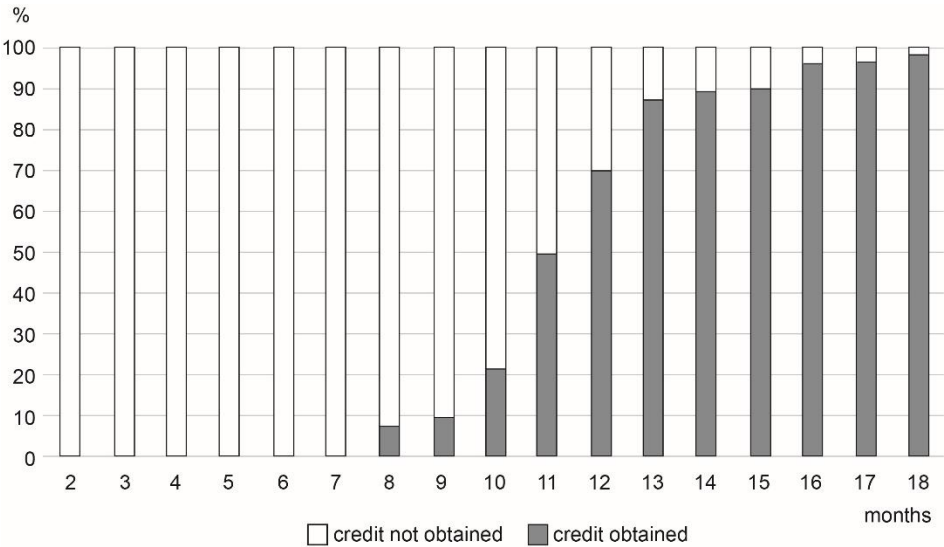
- At 11 months $\geq 50\%$ of infants is credited
- At 13 months $\geq 90\%$ of infants is credited

Cruising without rotation



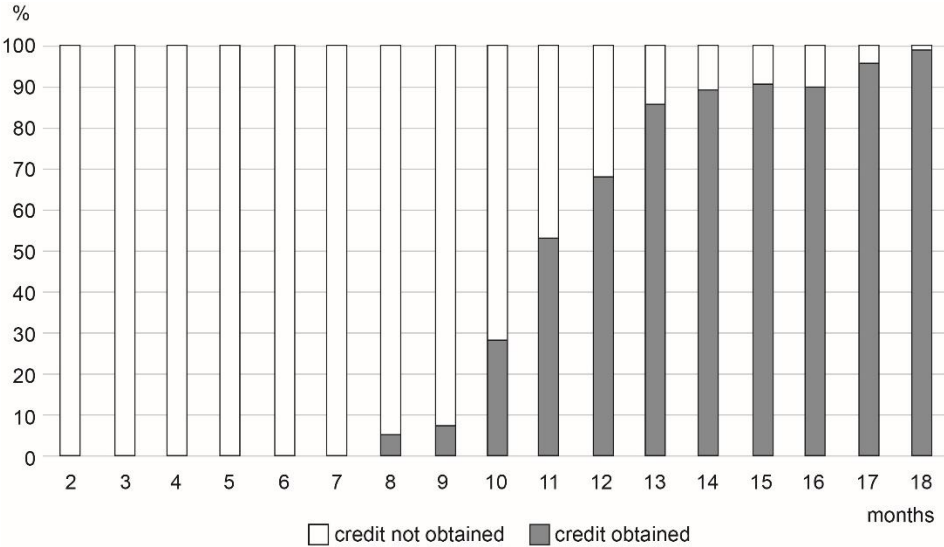
- At 11 months $\geq 50\%$ of infants is credited
- At 13 months $\geq 90\%$ of infants is credited

Half-kneeling



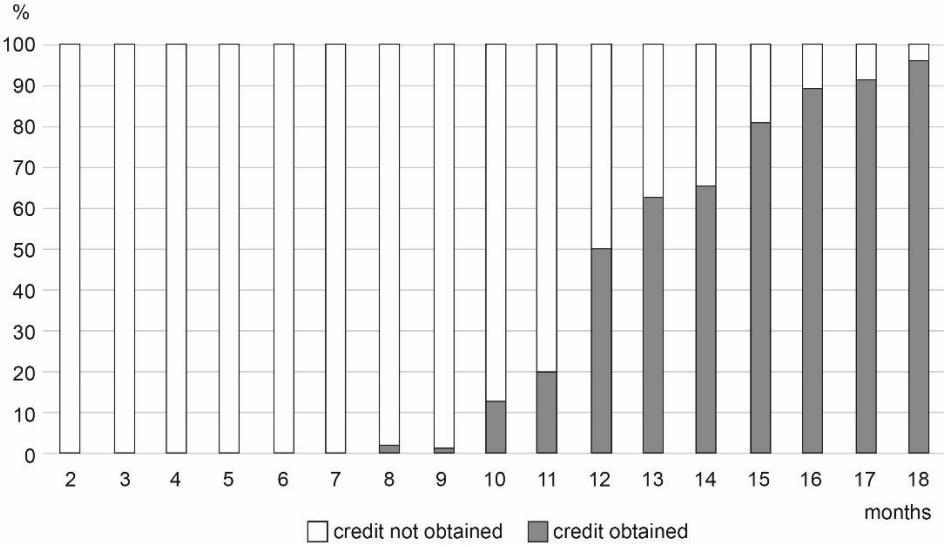
- At 12 months $\geq 50\%$ of infants is credited
- At 15 months $\geq 90\%$ of infants is credited

Controlled lowering from standing



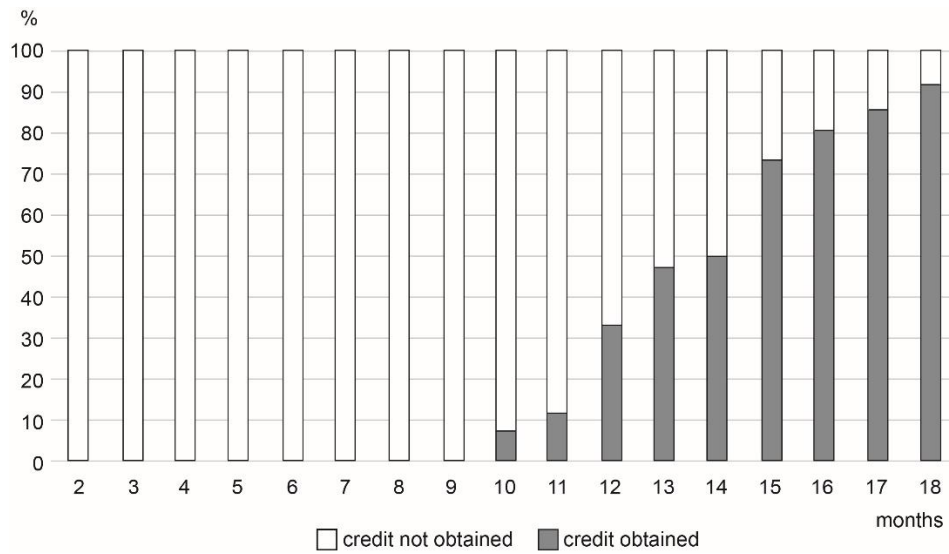
- At 11 months $\geq 50\%$ of infants is credited
- At 15 months $\geq 90\%$ of infants is credited

Cruising with rotation



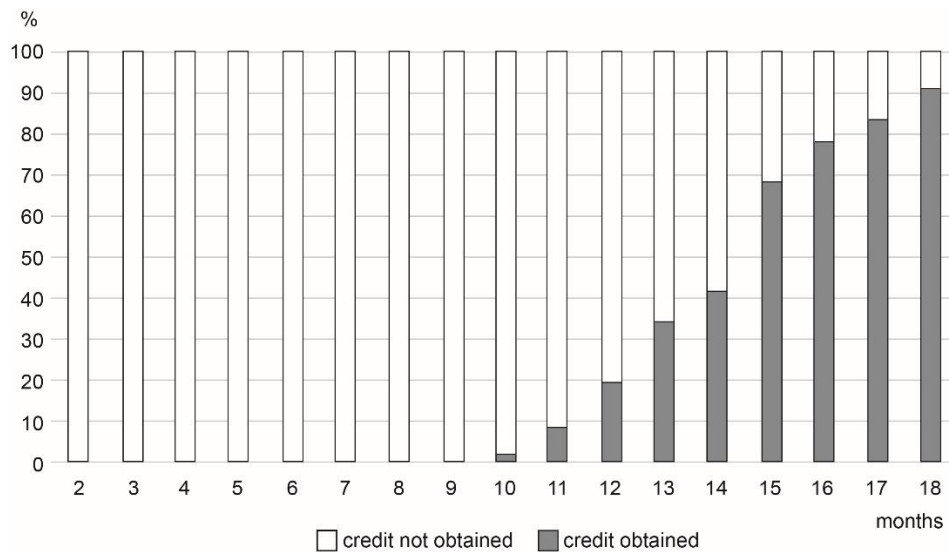
- At 12 months $\geq 50\%$ of infants is credited
- At 17 months $\geq 90\%$ of infants is credited

Stands alone



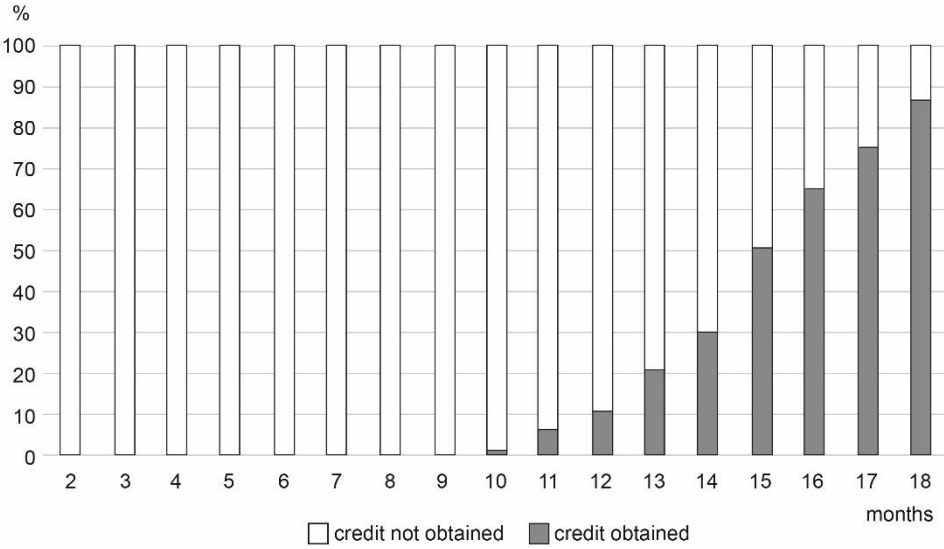
- At 14 months $\geq 50\%$ of infants is credited
- At 18 months $\geq 90\%$ of infants is credited

Early stepping



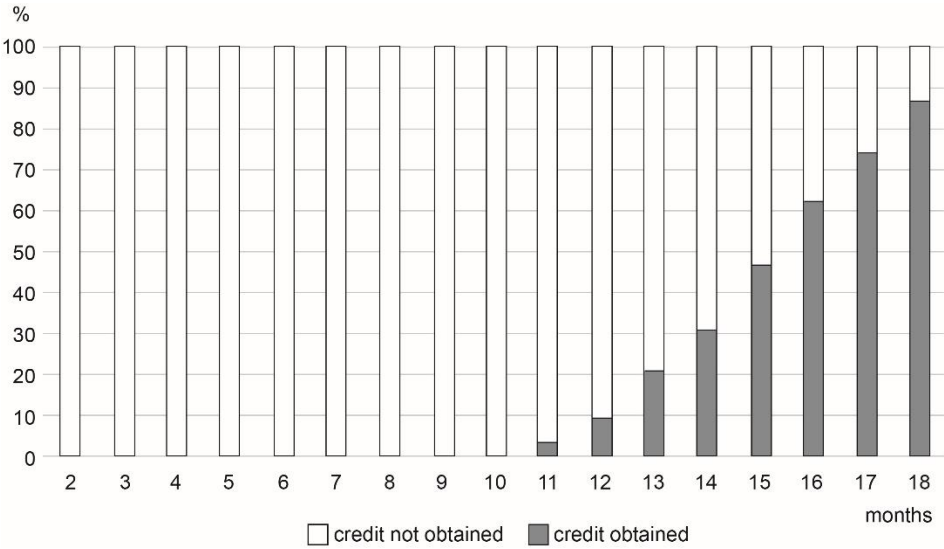
- At 15 months $\geq 50\%$ of infants is credited
- At 18 months $\geq 90\%$ of infants is credited

Standing from modified squat



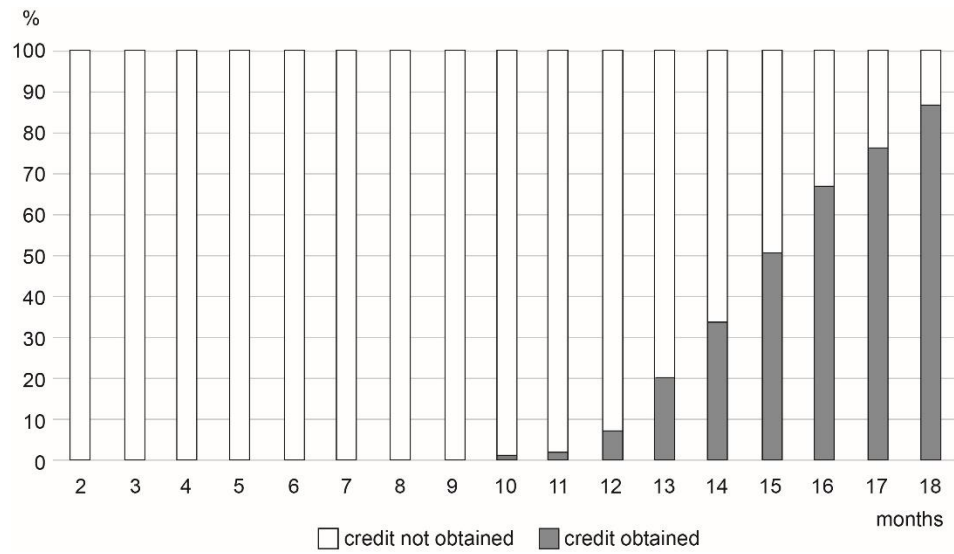
- At 15 months \geq 50% of infants is credited
- At >18 months \geq 90% of infants is credited

Standing from quadruped position



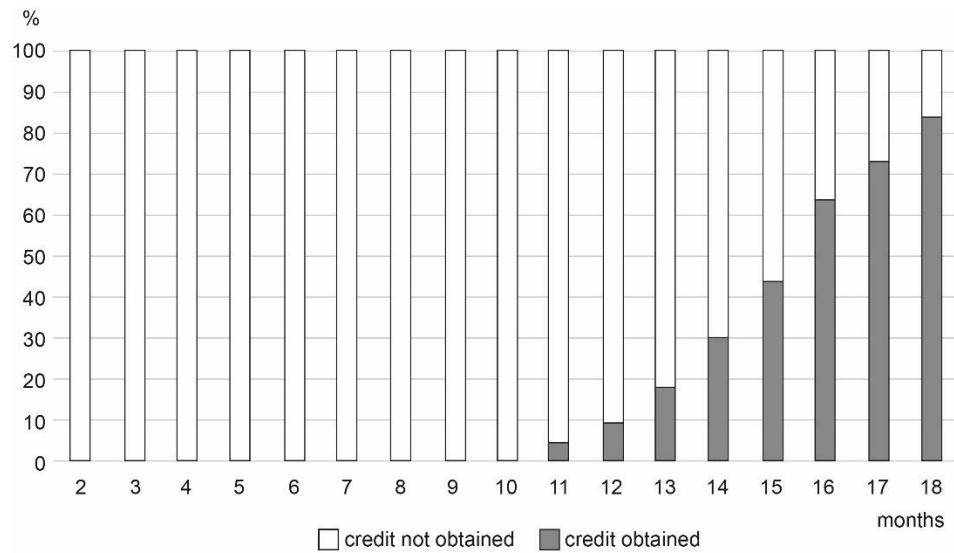
- At 16 months \geq 50% of infants is credited
- At >18 months \geq 90% of infants is credited

Walks alone



- At 15 months $\geq 50\%$ of infants is credited
- At >18 months $\geq 90\%$ of infants is credited

Squat



- At 16 months $\geq 50\%$ of infants is credited
- At >18 months $\geq 90\%$ of infants is credited