Full-day, in home validation of infant body position measurements from inertial sensors

John M. Franchak[1], Maximilian Tang[1], Hailey Rousey[1], & Chuan Luo[1]

Author Note

Add complete departmental affiliations for each author here. Each new line herein must be indented, like this line.

Enter author note here.

Correspondence concerning this article should be addressed to John M. Franchak, UC Riverside Department of Psychology, 900 University Avenue, Riverside, CA 92521. E-mail: franchak@ucr.edu

Abstract

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Current Study

Methods

Participants

Apparatus

Procedure

Body position annotation

Body position classification

Results

Goal 1: Optimize and validate body position classification model

Goal 2: Assess classification accuracy over long recordings

Goal 3: Compare classification estimates to prior literature

Goal 4: Examine wear time and compliance in full-day data collection

Discussion

References

Table 1

	With Outliers		Without Outliers	
Position	Group	Individual	Group	Individual
Held	-0.02	0.16	0.59	0.65
Prone	0.97	0.83	0.97	0.82
Sitting	0.72	0.93	0.75	0.98
Supine	0.84	0.93	0.87	0.97
Upright	0.84	0.93	0.99	0.94

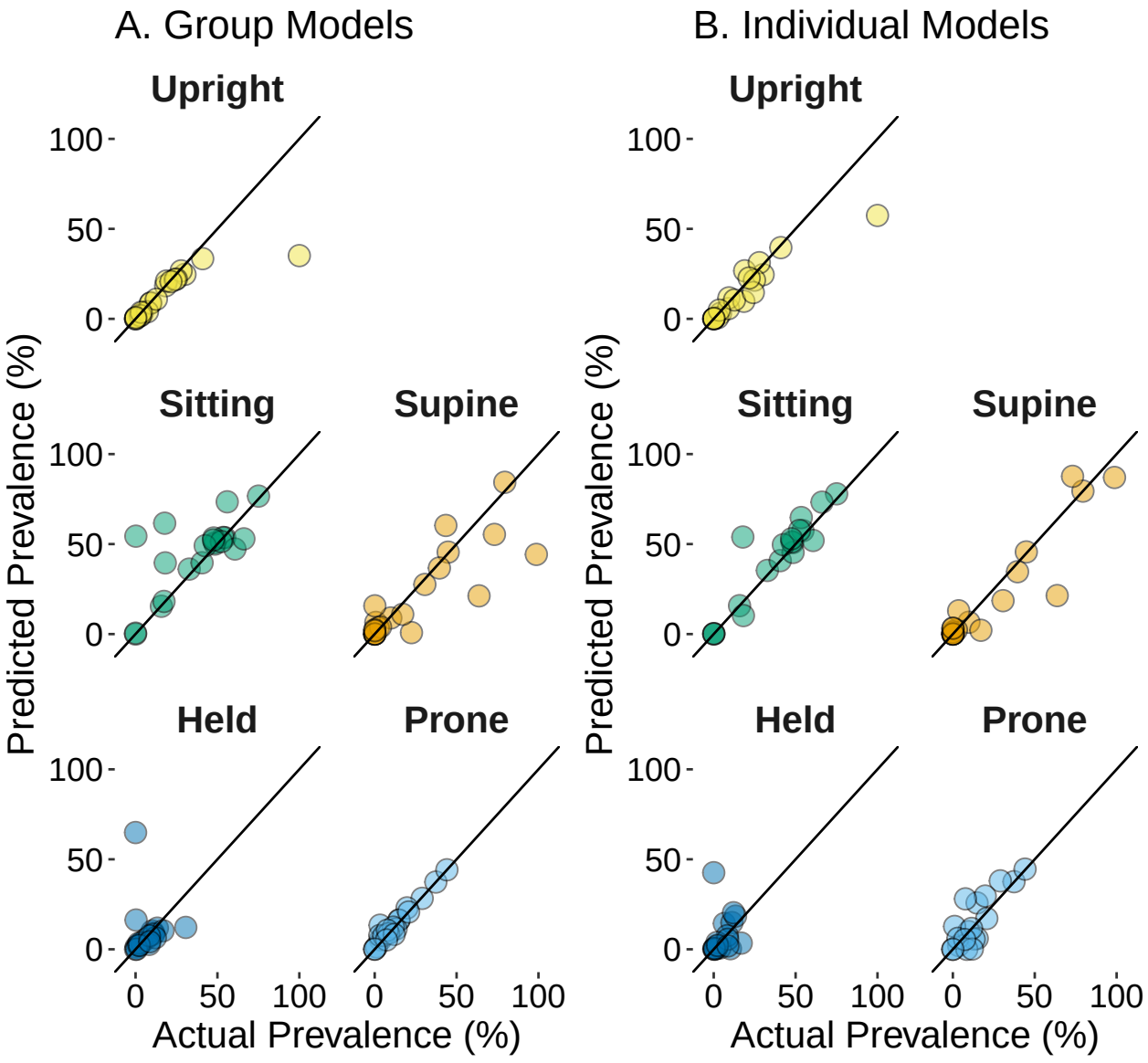

Figure 1. Overall agreement between human-coded body position and model-predicted body position in the long-delay period. Agreement for group models is shown in (A) and agreement for individual models is shown in (B). Plots are shown separately for each body position with a reference line that indicates perfect agreement; each point in a plot represent data for a single participant.