Figure S1. Average Activity Counts in 10-Minute Intervals Across 24h in the Daytime and Delayed Eating Conditions, Related to Table 1 and to STAR Methods. Time course plot showing average activity counts derived from actigraphy in 10-minute intervals across 24h in the daytime (blue dots) and delayed (red dots) eating conditions. As determined by cosinor analysis, there were no differences (for all measures, daytime values are presented first and delayed values are presented second) in amplitude (90.97±31.81 vs 90.14±33.37, t=-0.361, p=0.73, d=0.11) or mesor (113.27±40.17 vs 117.19±47.95, t=0.886, p=0.40, d=0.27) between the two eating conditions, but acrophase showed a slight delay in the delayed eating condition (-4.09±0.18h vs -4.18±0.21h, t=-2.382, p=0.04, d=0.72).

Enrollment

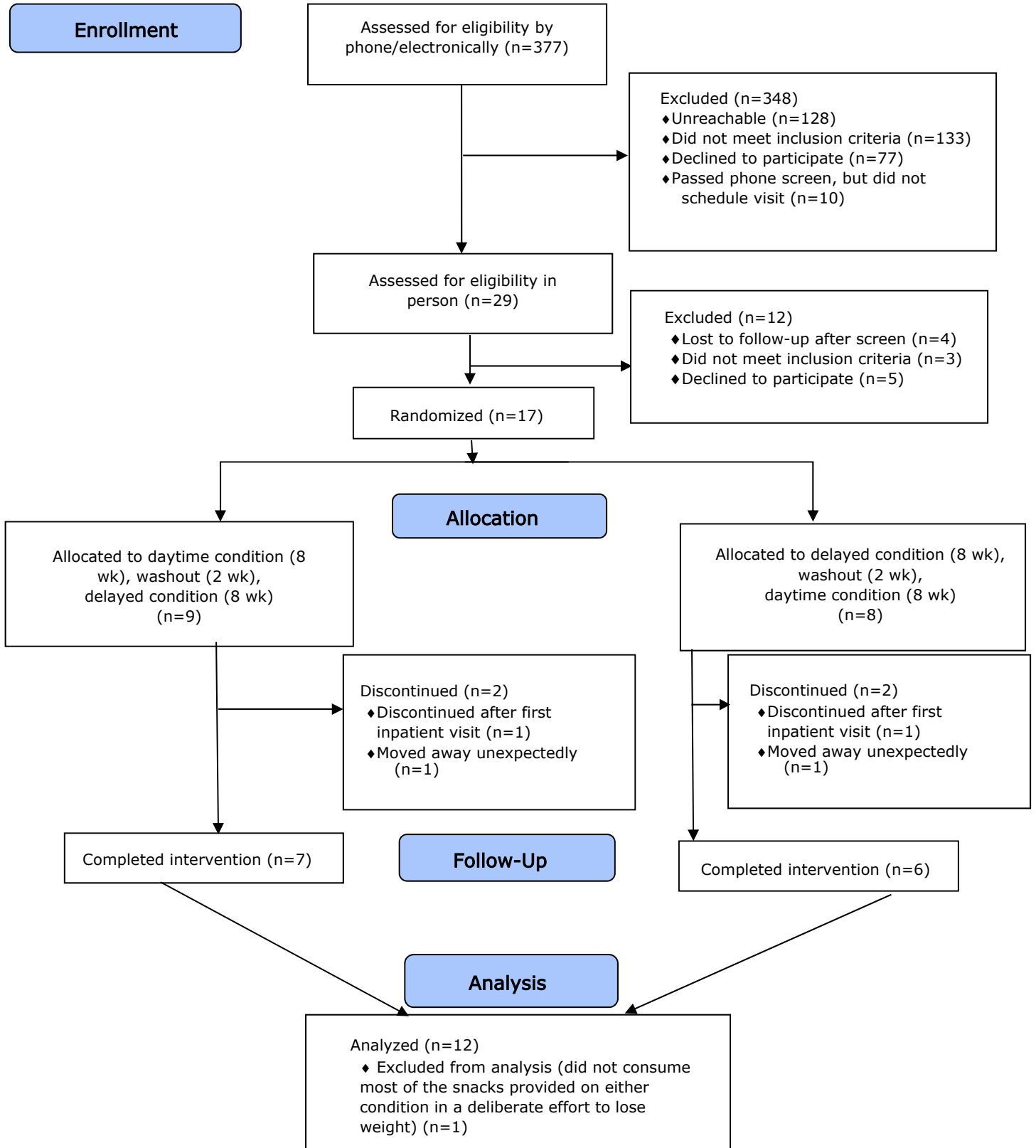Assessed for eligibility by phone/electronically (n=377)

Excluded (n=348)
- Unreachable (n=128)
- Did not meet inclusion criteria (n=133)
- Declined to participate (n=77)
- Passed phone screen, but did not schedule visit (n=10)

Assessed for eligibility in person (n=29)

Excluded (n=12)
- Lost to follow-up after screen (n=4)
- Did not meet inclusion criteria (n=3)
- Declined to participate (n=5)

Randomized (n=17)

Allocation

Allocated to daytime condition (8 wk), washout (2 wk), delayed condition (8 wk) (n=9)

Allocated to delayed condition (8 wk), washout (2 wk), daytime condition (8 wk) (n=8)

Discontinued (n=2)
- Discontinued after first inpatient visit (n=1)
- Moved away unexpectedly (n=1)

Discontinued (n=2)
- Discontinued after first inpatient visit (n=1)
- Moved away unexpectedly (n=1)

Follow-Up

Completed intervention (n=7)

Completed intervention (n=6)

Analysis

Analyzed (n=12)
- Excluded from analysis (did not consume most of the snacks provided on either condition in a deliberate effort to lose weight) (n=1)

Figure S2. CONSORT Flow Diagram, Related to STAR Methods. CONSORT flow diagram for the study.

Screening

Screening Visit 1: Psychosocial assessment

10-Day Screening Period: Daily food/sleep/activity logs; wrist actigraphy

Screening Visit 2: History and physical

8-Week Eating: Daytime Condition

8-Week Eating: Delayed Condition

2-Week Washout Period (free eating, no prescribed schedule)

8-Week Eating: Delayed Condition

8-Week Eating: Daytime Condition

Inpatient Assessments
Visits before and after each eating condition included blood draws every 4h, indirect calorimetry, and DXA
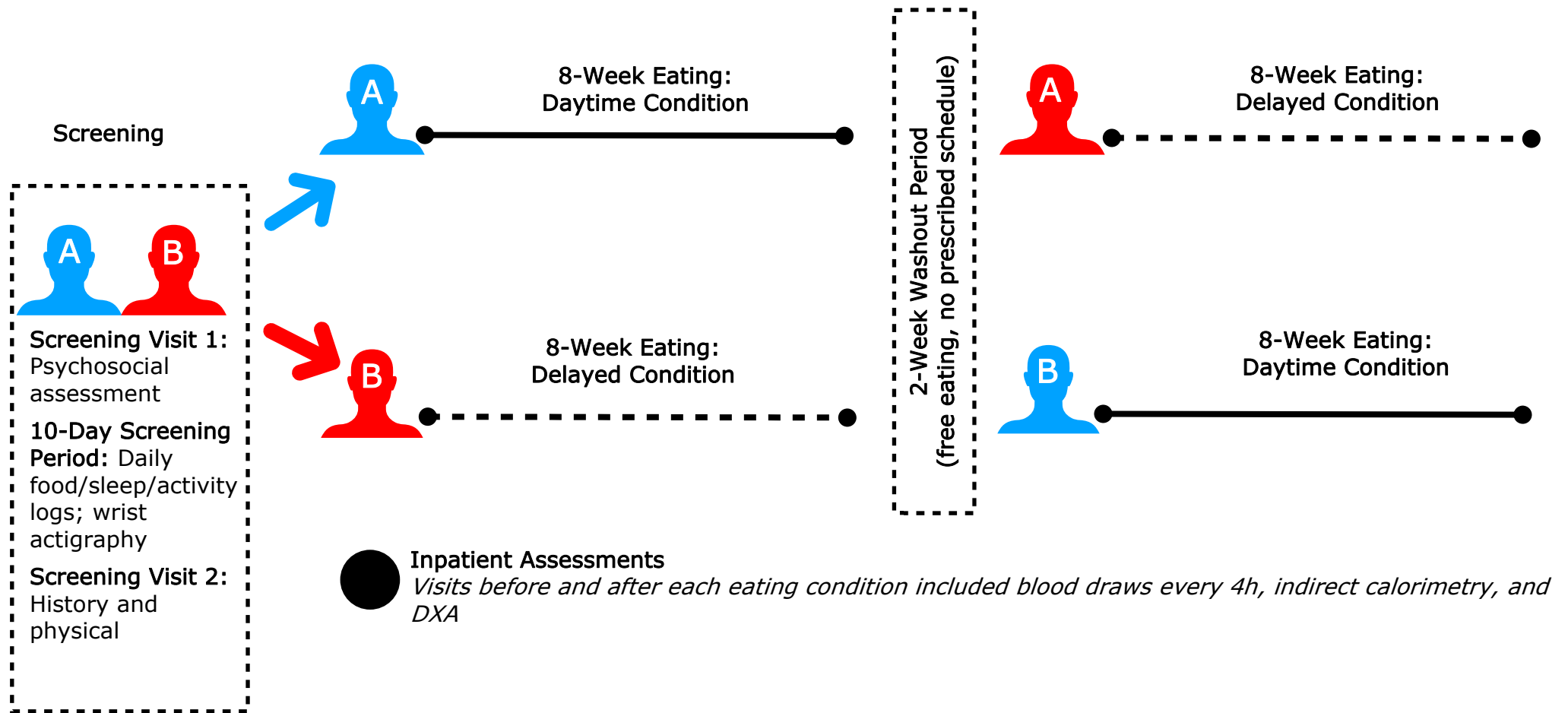
Figure S3. Study Timeline and Procedures, Related to STAR Methods. Timeline and procedures for the study. Daytime: blue, Delayed: red.