

Appendix Table 7. Included Studies: Children Age 0 to 4 Years, Continued*

Study, Year (Reference)	Goal and Intervention Format	Follow-Up Time Frame	Outcomes	Results	USPSTF Quality Rating
PC setting during WCC visits					
Guyer et al., 1989 (36)	PC, hospital-based, and community-based programs to reduce accidental childhood injuries Parents Individual, unclear Intensity varied Counseled on seating location: unclear	2 y	Behavioral outcomes: Self-reported use of child safety restraints from approximately 5% of population Health outcomes: MVOI rates (age-adjusted); surveillance through hospitals; measured injuries requiring medical treatment in an emergency department or hospitalization or resulting in death Harms measure: NR	Self-reported use: IG: Before, 49.1%; after, 65.0% CG: Before, 49.6%; after, 63.3% <i>P</i> = NR MVOI rates (per 10 000 children): IG: Before, 46.54; during, 21.54 CG: Before, 44.53; during, 60.77 Adjusted OR, 2.78 (95% CI, 1.66–4.66)†	Fair: Baseline characteristics NR, but communities matched on important characteristics; outcomes measured at population level, adjusted for SES
Kelly et al., 1987 (27)	To reduce incorrect child restraint behavior through tailored education Parents Individual, print 3 contacts for 45 min total Counseled on seating location: unclear	6 mo after first visit	Behavioral outcomes: Child riding without restraints or sitting in front seat, assessed through interview or home visit by blinded staff Health outcomes: NR Harms measure: NR	Usually riding without restraint: IG: 67% CG: 70% <i>P</i> = NS Usually sitting in front seat: IG: 33% CG: 53% <i>P</i> < 0.05	Fair to poor: High attrition >30%; analyzed completers only; self-reported outcome; did not specify correct use
Liberato et al., 1989 (28)	To increase car seat use through education, coercion, and incentives Parents of children age 0–4 y Group, individual, print, other Counseled on seating location: no	6 mo, 12 mo	Behavioral outcomes: Observed every third car with a passenger age 0–4 y for car seat use; correct use was not assessed; assumption that the random sampling was representative of seat belt use even though sample was not necessarily the direct recipient of the intervention Health outcomes: NR Harms measure: NR	Safety seat nonuse: IG: 0 mo, 74.9%; 6 mo, 62.3%‡; 12 mo, 64.7%‡ CG: 0 mo, 87.8%; 6 mo, 89.1%; 12 mo, 70.0 (<i>P</i> = NS)	Fair to poor: Unclear whether groups were similar at baseline; observed outcome but did not specify correct use; unclear whether assessor was blinded
Reisinger et al., 1981 (37)	To increase car seat use through education and tailored counseling and modeling Parent Individual, print, modeling 3 contacts over 2 mo; time NR Counseled on seating location: NR	1, 2, 4, and 15 mo	Behavioral outcomes: Observation of correct use of infant car seat upon arrival for WCC visits Health outcomes: NR Harms measure: NR	Observed correctly using restraint: 1 mo: IG, 38%; CG, 31% 2 mo: IG, 50%; CG, 29% 4 mo: IG, 47%; CG, 43% 15 mo: IG, 56%; CG, 50%	Fair: Reported some but not all important baseline characteristics; blinded observation of outcome, correct use specified; 5% attrition at 2 mo and 23% attrition at 15 mo; analyzed completers only
Scherz, 1976 (38)	To increase infant car seat use through various intensities of education Parent Individual, print Counseled on seating location: NR	8 wk	Behavioral outcomes: Correct infant seat use, which included using an approved car seat or car bed attached by seat belt, self-reported on a survey Health outcomes: NR Harms measure: NR	Reported safe car seat use: IG4: 22% IG3: 22% IG2: 8% IG1: 12% CG: 9% <i>P</i> < 0.001 IG3 and IG4 vs. IG1, IG2, and CG: <i>P</i> < 0.001	Fair to poor: Did not report baseline characteristics, report of 100% follow-up at 8 wk is suspicious; 47% attrition at 9–12-mo follow-up (results not shown)
Antepartum PC setting only					
Alvarez and Jason, 1993 (29); study 2	To increase infant car seat use through education, modeling, and access Parent Individual 1 visit Counseled on seating location: NR	Discharge and 6 wk after discharge	Behavioral outcomes: Observed correct use of infant safety seat Health outcomes: NR Harms measure: NR	Proper use at hospital discharge: IG1: 6/7 (86%\$) IG2: 1/7 (14%\$) <i>P</i> < 0.01 Proper use at 6-wk visit: IG1:4/7 (57%\$) IG2:1/7 (14%\$) <i>P</i> = NS	Fair: Outcome assessed by blinded observers; 0% attrition, but very small sample
Serwint et al., 1996 (30)	To see whether prenatal visits to a pediatrician had an effect on health behaviors after birth Parent Individual, print Counseled on seating location: NR	2 mo after birth	Behavioral outcomes: Child did not always use child safety seat in past month, assessed through questionnaire Health outcomes: NR Harms measure: NR	Reported use of car seat at last ride: IG: 77% (<i>n</i> = 54) CG: 86% (<i>n</i> = 51) <i>P</i> = 0.33 Reported ownership of infant car seat: IG: 83% (<i>n</i> = 54) CG: 94% (<i>n</i> = 51) <i>P</i> = 0.15	Fair to poor: High attrition >30%; analyzed completers only; low adherence in IG (57%); self-reported outcome and did not specify correct use
Peripartum inpatient setting only					
Christophersen and Sullivan, 1982 (31)	To increase infant restraint use through demonstration and access to free car seat Parent Format: individual, demonstration, and access 1 contact; time, 2 min—more than time normally needed to discharge patient Counseled on seating location: yes	Discharge and 4–6 wk after birth	Behavioral outcomes: Observed use and correct use of infant car seat Health outcomes: NR Harms measure: NR	Correct use of restraint: Discharge: IG, 67%; CG, 0%‡ 4–6 wk: IG, 29%; CG, 23% (<i>P</i> = NS)	Fair: Observed outcome and low attrition (10% at follow-up), but small sample and other methodological flaws
Lindqvist, 1993 (39)	To increase car seat use through education and tailored counseling and modeling Parent Individual, print, modeling 1 contact; time NR Counseled on seating location: NR	9 mo and 15 mo	Behavioral outcomes: Self-reported use of car seat by questionnaire Health outcomes: Self-report of motor vehicle accidents resulting in injuries during 0–9 mo Harms measure: NR	Reported more or less frequently restrained at 9 mo: IG: 96.2% CG: 49.4% <i>P</i> = NR Reporting car seat use at 15 mo: IG: 98.7% CG: 97.6% <i>P</i> = NR Motor vehicle accident–related injuries during 0–9 mo: No motor vehicle accidents resulted in personal injuries in either group	Fair to poor: Self-reported data and correct use not specified; no effort made to follow up on 13% of infants in intervention group whose mothers did not accept the car seat loan

Study, Year (Reference)	Goal and Intervention Format	Follow-Up Time Frame	Outcomes	Results	USPSTF Quality Rating
Reisinger and Williams, 1978 (40)	To increase infant restraint use through education and access to car seat, demonstration modeling Parent Format: varied per group: print; individual; access, modeling 1 contact: education component approximately 10 min for IG2 Counseled on seating location: no	Discharge and 2–4 mo after birth	Behavioral outcomes: Observation of correct use of infant carrier (infant car seat restrained with car seat belt) Health outcomes: NR Harms measure: NR	Use at hospital discharge (85.55% sample): CG: 6% IG1: 8% (literature + access) IG2: 8% (literature + access + health education) IG3: 11% (literature + free carrier) Use at follow-up (66.5% sample): CG: 21% IG1: 22% IG2: 20% IG3: 28% <i>P</i> values: NR Baseline for behavior: NR	Fair: Blinded observation of outcome; measured correct use; reported no difference in baseline SES characteristics between groups
Tietge et al., 1987 (41)	To increase infant car seat use through education and modeling Parent Individual, video 1 contact, 19 min total Counseled on seating location: NR	Discharge	Behavioral outcomes: Observed correct use of infant car seat Health outcomes: NR Harms measure: NR	Correct seat use: IG2: 74.2% IG1: 68.8% CG: 63.3% <i>P</i> = NS	Fair to poor: 27% attrition (cannot determine whether differential); analyzed completers only; excluded 5 women in intervention group who did not watch film
PC-R education courses Barone, 1988 (32)	Conflict theory model of decision making; to increase car seat use, compared with control Parent Group One 2-h session Counseled on seating location: unclear	Unclear	Behavioral outcomes: Observed correctly installed car seat Health outcomes: NR Harms measure: NR	Correctly installed car seat: IG: 100% CG: 100% <i>P</i> = NS	Fair to poor: Randomization method unclear; age of children in groups NR; unclear whether outcome assessment was blinded
Goodson et al., 1985 (42)	To increase use of infant car seat through education and modeling Parents Group; film, demonstration, question and answer; one 30-min session Counseled on seating location: NR	4–6 mo after birth	Behavioral outcomes: Use of crash-tested car seat on the last ride self-reported during a telephone interview Health outcomes: NR Harms measure: NR	IG: 96.1% CG: 78.3% <i>P</i> < 0.001	Fair to poor: Baseline characteristics NR; 17% attrition with analysis of completers only; unclear whether outcome assessors were blinded; correct use not specified

* CG = control group; IG = intervention group; MVOI = motor vehicle occupant injury; NR = not reported; NS = not significant; OR = odds ratio; PC = primary care; PC-R = referable to primary care; SES = socioeconomic status; USPSTF = U.S. Preventive Services Task Force; WCC = well-child care.

† Adjusted for SES.

‡ *P* < 0.05 from baseline.

§ Calculated value.