

Obesity Prevention and Control: Mass Media Interventions to Reduce Screen Time (2008 Archived Review)

Table of Contents

Review Summary	2
Intervention Definition	2
Summary of Task Force Finding	2
Results from the Systematic Review.....	2
Task Force Finding and Rationale Statement.....	3
Intervention Definition	3
Task Force Finding.....	3
Rationale	3
Supporting Materials	4
Evidence Gaps	4
What are Evidence Gaps?	4
Identified Evidence Gaps.....	4
Search Strategy	5
Search Terms.....	5
Screen time search: an example from MedLine	5
Disclaimer.....	6

Review Summary

Intervention Definition

These types of interventions use mass media to reduce screen time, time spent watching TV, videotapes, or DVDs; playing video or computer games; or surfing the Internet. In these campaigns, one or more components is designed to:

- Increase knowledge about screen time
- Influence attitudes
- Change behavior by transmitting messages through newspapers, radio, television, and billboards

Summary of Task Force Finding

The Community Preventive Services Task Force finds insufficient evidence to determine the effectiveness of mass media campaigns to reduce screen time or change weight-related behaviors and outcomes because there were no available studies.

Results from the Systematic Review

No studies were identified that examined mass media interventions designed to reduce screen time.

These results were based on a systematic review of all available studies, conducted on behalf of the Task Force by a team of specialists in systematic review methods, and in research, practice and policy related to obesity prevention and control.

Task Force Finding and Rationale Statement

Intervention Definition

Screen time is time spent watching TV, videotapes, or DVDs; playing video or computer games; and surfing the Internet. Components of behavioral interventions to reduce screen time (mostly "TV time reduction") include skills building, tips, goal setting, reinforcement techniques, workbooks, messages, TV turnoff challenges, and family support.

Task Force Finding (January 2008)

The Community Preventive Services Task Force found insufficient evidence to determine the effectiveness of mass media campaigns to reduce screen time or change weight-related behaviors and outcomes because there were no available studies.

Rationale

The Task Force was unable to determine the effectiveness of mass media campaigns to reduce measured screen time or change weight-related behaviors and outcomes because there were no existing studies.

Supporting Materials

Evidence Gaps

What are Evidence Gaps?

Each Community Preventive Services Task Force (Task Force) review identifies critical evidence gaps—areas where information is lacking. Evidence gaps can exist whether or not a recommendation is made. In cases when the Task Force finds insufficient evidence to determine whether an intervention strategy works, evidence gaps encourage researchers and program evaluators to conduct more effectiveness studies. When the Task Force recommends an intervention, evidence gaps highlight missing information that would help users determine if the intervention could meet their particular needs. For example, evidence may be needed to determine where the intervention will work, with which populations, how much it will cost to implement, whether it will provide adequate return on investment, or how users should structure or deliver the intervention to ensure effectiveness. Finally, evidence may be missing for outcomes different from those on which the Task Force recommendation is based.

Identified Evidence Gaps

The results from this review indicate that behavioral interventions aimed at reducing screen time are effective at reducing screen time and improving weight-related outcomes. However, important research issues remain.

- Studies do not usually make a distinction between recreational screen time and other, possibly desirable forms of screen time, such as computer use for school work, or “exergaming” (e.g., Dance Revolution™, Wii™, etc.). Further differentiation of sedentary versus non-sedentary screen time would be beneficial.
- Studies do not always report other sedentary behavior such as reading, arts and crafts, or quiet play in addition to or separate from screen time. What is the relationship between screen time and other sedentary behaviors?

Additional research is needed to identify how screen time affects health outcomes.

- What is the mechanism for screen time being associated with weight-related outcomes (e.g., advertising of food, snacking/eating while watching TV, etc.)?
- Not all screen time is undesirable (e.g., when computers are used for school work). What factors cause it to become excessive?
- What is the relationship between screen time and other health outcomes?

Increased consensus about screen time measures would be useful.

- Increased consensus about “best measures” for weight-related outcomes, physical activity outcomes, and nutrition-related outcomes would improve comparability between studies.
- Increased consensus about how screen time is measured (number of hours vs. % at a certain threshold; TV only vs. all kinds of screen time; weekend vs. weekday use)

Behavioral interventions aimed at reducing screen time should be applicable in most school settings; however, possible differences in the effectiveness for specific subgroups of the population often could not be determined. Several questions about applicability remain.

- Are behavioral interventions aimed at reducing screen time as effective in preschool children, high school children, and adults as they are for elementary and middle school children?
- Are behavioral interventions aimed at reducing screen time as effective in different socioeconomic, gender, racial or ethnic subgroups?
- Are intervention effects sustained once intervention activities cease?

Search Strategy

Search Terms

The articles to be reviewed were obtained from systematic searches of multiple databases, reviews of bibliographic reference lists, and consultations with experts in the field. The following databases were searched for English-language studies published between 1966 and the second week of July 2007: Medline, CINAHL, EMBASE, PsycINFO, and Cochrane Library.

Screen time search: an example from MedLine

1. ("screen time" or "screen use" or "screen usage").tw.
2. television/
3. video games/
4. (vcr or dvd\$).tw.
5. ((television or tv) adj (view\$ or watch\$)).tw.
6. ((view\$ or watch\$) adj (television or tv)).tw.
7. ((video game\$ or videogame\$) adj play\$).tw.
8. (play\$ adj (video game\$ or videogame\$)).tw.
9. or/1-8
10. 9 and health education/
11. 9 and "health education".tw.
12. 9 and exp health promotion/
13. 9 and intervention studies/
14. 9 and exp health behavior/
15. 9 and life style/
16. 9 and intervention\$.mp.
17. 9 and (trial\$ or study or studies).mp.
18. 9 and program evaluation/
19. 9 and pc.fs.
20. or/10-19
21. 20 and (exp overweight/ or exp obesity/ or body mass index/ or skinfold thickness/ or waist-hip ratio/ or bmi.tw. or obes\$.tw. or weight\$.hw,tw. or body fat.tw. or overweight.mp.)
22. 20 and (physical activity.tw. or motor activity/ or exercise\$.mp. or physical fitness/ or "physical education and training"/ or exp sports/)
23. 20 and (diet\$ or nutrition\$ or food\$).hw,tw.
24. 20 and ((reduc\$ or restrict\$ or decreas\$ or limit\$) and (television or video\$ or screen)).mp. [mp=title, original title, abstract, name of substance word, subject heading word]
25. 21 or 22 or 23 or 24
26. limit 25 to (humans and english language and yr="1966 - 2007")

27. (computers/ or user-computer interface/ or attitude to computers/ or internet.mp.) and (exp child/ or adolescent/ or exp adult/)
28. 27 and health education/
29. 27 and "health education".tw.
30. 27 and exp health promotion/
31. 27 and intervention studies/
32. 27 and exp health behavior/
33. 27 and life style/
34. 27 and intervention\$.mp.
35. 27 and (trial\$ or study or studies).mp.
36. 27 and program evaluation/
37. 27 and pc.fs.
38. or/28-37
39. 38 and (exp overweight/ or exp obesity/ or body mass index/ or skinfold thickness/ or waist-hip ratio/ or bmi.tw. or obes\$.tw. or weight\$.hw,tw. or body fat.tw. or overweight.mp.)
40. 38 and (physical activity.tw. or motor activity/ or exercise\$.mp. or physical fitness/ or "physical education and training"/ or exp sports/)
41. 38 and (diet\$ or nutrition\$ or food\$).hw,tw.
42. 38 and ((reduc\$ or restrict\$ or decreas\$ or limit\$) and (computer\$ or internet\$)).mp.
43. 39 or 40 or 41 or 42
44. limit 43 to (humans and english language and yr="1966 - 2007")
45. 44 not 26
46. exp mass media/ or "mass media".tw. or billboard\$.tw. or exp serial publications/
47. 46 and ((reduc\$ or restrict\$ or decreas\$ or limit\$) and (television or video\$ or screen or computer\$ or internet)).mp.
48. limit 47 to (humans and english language and yr="1966 - 2007")
49. 48 and (exp overweight/ or exp obesity/ or body mass index/ or skinfold thickness/ or waist-hip ratio/ or bmi.tw. or obes\$.tw. or weight\$.hw,tw. or body fat.tw. or overweight.mp.)
50. 48 and (physical activity.tw. or motor activity/ or exercise\$.mp. or physical fitness/ or "physical education and training"/ or exp sports/)
51. 48 and (diet\$ or nutrition\$ or food\$).hw,tw.
52. or/49-51
53. 52 not (26 or 44)

Disclaimer

The findings and conclusions on this page are those of the Community Preventive Services Task Force and do not necessarily represent those of CDC. Task Force evidence-based recommendations are not mandates for compliance or spending. Instead, they provide information and options for decision makers and stakeholders to consider when determining which programs, services, and policies best meet the needs, preferences, available resources, and constraints of their constituents.

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