



**Question: What is the relationship between use of diet and weight self-monitoring strategies and body weight outcomes in adults and youth?**

**Table 2.** Summary of studies examining the relationship between self-monitoring strategies of and body weight outcomes in adults and youth

Author, Year Study Design; Cohort Location Risk of bias*	Final N; Attrition Gender, Age (mean), Education Study Duration	Description of self-monitoring	Results	Summary of Findings
<b>Adachi, 2007</b>  <b>Randomized Controlled Trial (RCT)</b>  <b>Japan</b>  <b>10/28</b>	N=183; 11%  100% female, 46y, Education: NR  7 months	<b>Self-monitor: Target goals/behaviors</b>  <b>Study groups:</b>  <i>Group KM:</i> 1-month behavioral modification program (KT program) + 6 months target behavior self-monitoring (target behaviors determined by KT program);  <i>Group K:</i> 1-month KT program only;  <i>Group BM:</i> KT booklet reading + 7 months of self-monitoring of weight and walking steps; and  <i>Group B:</i> KT booklet reading	<b>BMI:</b>  <i>Reduction in BMI significant in all groups at 7 months:</i> Group KM (-1.22±1.16) significantly greater than Groups BM (-0.68±0.88) and B (-0.57±0.93) (P<0.05)  <b>Body weight (weight; kg):</b>  <i>Reduction in Body weight significant in all groups at 7 months:</i> Group KM (-2.9±2.7) significantly greater than Groups BM (-1.6±2.1) and B (-1.4±2.4) (P<0.05)  <b>% weight loss:</b>  <i>7 months:</i> 4.7±4.5% in Group KM,	A significant weight loss was observed in all groups. At 7 months, the mean weight loss was significantly greater with the behavior modification program plus self-monitoring than both booklet groups (with and without self-monitoring). Self-monitoring alone (without the behavior change program) did not lead to significantly greater weight loss, and the behavior change program alone (without self-monitoring) did not lead to significantly greater weight loss.



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		only	<p>3.3±4.3% in K, 2.6±3.4% in BM and 2.2±3.5% in B; group KM was significantly greater than groups BM and B (P&lt;0.05).</p> <p><b>≥5% weight loss (%):</b></p> <p>7 months: KM group: 38.9±14, K group: 31.8±14, BM group: 24.5±13, B group: 20.0±10 (NS);</p> <p><b>≥7% weight loss (%):</b> KM group: 19.4±7, K group: 15.9±7, BM group: 7.5±4, B group: 10.0±5 (NS).</p>	
<p><b>Steinberg, 2013</b></p> <p><b>RCT; Weighing Everyday to Improve and Gain Health (WEIGH) cohort</b></p>	<p>N=87; 4%</p> <p>75% female, 44y, 78% college-educated</p> <p>6 months</p>	<p><b>Self-monitor: Weight Intervention:</b> Participants received a cellular-connected “smart” scale for daily weighing, web-based weight loss graph, and weekly emails with tailored feedback and lessons. Participants were instructed to weigh daily at the</p>	<p><b>Frequency of self-weighing (days/week, intervention vs. control):</b> 6.1±1.1 vs. 1.1±1.5; P&lt;0.0001</p> <p><b>Weight change (intervention vs. control group):</b> Mean (95%CI)</p> <p>3 months: -4.41%(-5.5, -3.3) vs.</p>	<p>A weight loss intervention that focused on daily self-weighing and also included weight tracking, tailored feedback, and skills training via email (no face-to-face contact) produced greater weight loss than control group.</p>



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<b>US</b>  <b>14/28</b>		same time each day using the smart scales. The smart scale displayed current weight and sent it directly to a website. <i>Control:</i> Provided with the scales at baseline for evaluation purposes only and instructed to maintain their current self-weighing habits. Control group participants received no intervention during the study period.	-0.37%(-1.5, 0.76) <i>6 months:</i> -6.55%(-7.7, 5.4) vs. -0.35%(-1.5, .79); group×time interaction: P<0.001;  <b>Percentage achieved 5% weight loss (intervention vs. control group):</b> <i>6 months:</i> 42.6% vs. 6.8%; P<0.0001;  <b>Percentage achieved 10% weight loss (intervention vs. control group):</b> <i>6 months:</i> 7.7% vs. 0%; P<0.0001;	
<b>Wing, 2010</b>  <b>RCT; Shape Up Rhode Island (SURI) cohort</b>	N=112; 13%  90% female, 47y, 63% college degree  12 weeks	<b>Self-monitor: Diet, weight, and exercise</b>  The Shape Up RI (SURI) program was an Internet-based community program that used	<b>Weight loss:</b> <i>SURI enhanced vs Standard SURI:</i> 3.56±3.8kg vs. 1.4±2.7kg; P<0.01;  <b>Weight loss ≥5% of initial weight:</b> <i>SURI enhanced vs. Standard SURI:</i>	Self-monitoring, coupled with video lessons and feedback in a community weight loss program, was associated with greater weight loss over 12-weeks



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US  5/28		<p>team-based competition to encourage increased physical activity and weight loss.</p> <p><b>Study groups:</b></p> <p>1) <i>Standard SURI</i>: Had access to all of the components of the intervention based on the Diabetes Prevention Program and were provided with a directory of informative publicly available Web sites</p> <p>2) <i>SURI enhanced</i>: Participants were given printed food diaries and a calorie reference book to use for self-monitoring; participants were instructed to report their daily weight, calories, and fat grams, steps, and exercise minutes via website</p>	40.5 vs. 13.2, P<0.01	than a control group in a similar weight loss program that did not emphasize self-monitoring.
De Niet, 2012	N=141; 1%	<b>Self-monitor: Diet and exercise</b>	<b>BMI-SDS changes:</b>	No evidence that the use of



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<b>RCT</b>  <b>Netherlands</b>  <b>10/28</b>	64% female, 10y, NR  12 months	<b>After 3 months of intensive weight loss intervention, children and parents randomized into 2 groups for 9 months of less intensive follow-up:</b>  <i>Intervention:</i> Received SMS maintenance treatment (SMSMT); requested to send weekly self-monitoring data on a five point Likert scale on: physical activity and healthy eating pattern. Researchers sent tailored feedback to the participant based on the self-monitored data to provide tips on how to improve health-related behaviors. <i>Control:</i> No SMSMT	<i>SMSMT vs. non-SMSMT:</i> NS at 3, 6, 9 and 12 months <i>Within SMSMT, 3 vs. 12 months:</i> NS	SMSMT positively influences BMI-SDS during the weight maintenance phase following a 3-month intensive weight loss intervention.
<b>Bartfield, 2011</b>  <b>PC; PREMIER</b>	N=507; 0%  61% female, 50y,	<b>Self-monitor: Diet and exercise</b>  Active intervention groups of	<b>Average food records per week and odds of ≥5% weight loss:</b> 6 months (OR, 95% CI); 18 months	Higher levels of attendance, food record completion, and recorded days/week of



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<b>(2° analysis of RCT)</b>  <b>US</b>  <b>0/24</b>	30% graduate school  18 months	PREMIER trial combined: (Intervention group based on established, traditional lifestyle recommendations; Intervention group based on established lifestyle recommendations plus adherence to the DASH diet)  Participants were instructed to record food intake and physical activity minutes daily using a Food and Fitness Diary.	(OR, 95% CI)  <1 per week: 1.0; 1.0 1-2.9 per week: 6.3 (2.7, 14.5); 5.5 (3.3, 9.4) 3.0-4.9 per week: 14.2 (6.0, 33.6); 14.5 (6.4, 32.9) ≥5.0 per week: 53.1 (19.6, 144.1); 16.5 (6.0, 45.4)	physical activity were associated with increasing odds of achieving and maintaining 5% weight loss
<b>Burke, 2012</b>  <b>PC (2° analysis of RCT); Self-Monitoring and Recording Using Technology (SMART)</b>	N=180; 14%  85% female, 47y, 15.7 y mean education  24 mo	<b>Self-monitor: Diet</b>  <i>Study groups:</i> Personal Digital Assistant alone (PDA), PDA with daily tailored feedback (PDA+FB), conventional paper diary (PR) (There was no control group without a focus on self-monitoring.)	<b>Weight change over time (within group):</b> PDA+FB 2.32% (P=0.02); PR and PDA groups NS.  <b>Weight differences among groups over time:</b> NS.  <b>Adherence and weight loss:</b> A greater proportion of participants in the PDA groups compared to	Adherence to self-monitoring was associated with greater weight loss. A greater proportion of participants adhered to self-monitoring in the PDA+FB group than PDA alone or paper diary.



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<b>US</b>  <b>5/24</b>		All participants were provided with standard behavioral weight loss intervention including group sessions, goal setting, and self-monitoring.	paper group was adherent >60% of the time (PDA vs. paper diary, P=0.03; PDA+FB vs. paper diary, p=0.01) and lost more weight than those who were <30% adherent (P<0.001).	
<b>Krukowski, 2013</b> <b>PC</b> <b>US</b> <b>2/24</b>	N=147 92%, 46y, 69% college graduates 6 months	<b>Self-monitor: Dietary intake, physical activity and weight</b> Enrolled in 6-month on-line comprehensive behavioral weight loss Intervention; included weekly group “chat” sessions and online self-monitoring; participants received weekly individualized counselor feedback on self-monitoring and progress toward meeting exercise and dietary intake goals.	<b>Self-monitoring as predictor of 6 month weight loss:</b> $\beta=-0.11$ , (P<0.001)  Each 10% increase in weekday log-ins associated with a 1% increase in weight loss ( $\beta=-0.1$ , P<0.001)  Each 10% increase in weekend log-ins, weight loss increased by 0.9% ( $\beta=-0.09$ , P<0.001).	Frequency of online self-monitoring provided as a component of a comprehensive on-line 6-month behavioral weight loss intervention was positively associated with weight loss.
<b>Harrison, 2014</b>  <b>PC (2° analysis)</b>	N=202; 11%  100% female	<b>Self-monitor: Weight</b>  Intervention group received a	<b>Weight gain at 28 weeks gestation by self-weighers (kg):</b> <i>Intervention</i> 5.66 (2.6), <i>Control</i> 7.03 (3.56)	Self-weighing, as part of a behavioral lifestyle intervention focused on



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<b>of RCT)</b> <b>Australia</b>  <b>0/28</b>	(pregnant), 32y, NR  ~34 weeks (From 12 to 15 weeks pregnant – 6-week postpartum)	four-session behavior change program, emphasizing self-monitoring behaviors. Participants were given a gestational weight gain chart and encouraged to self-weigh regularly.  <b>Control group:</b> Received one brief non-interactive education session.	(P=0.02)  <b>Postpartum weight retention by self-weighers (kg):</b> <i>Invention</i> -0.57 (3.94), <i>Control</i> 1.48 (5.49) (P<0.05), <i>Between-group difference:</i> 2.14 kg (95% CI, 0.04 to 4.42)  <b>Weight gain at 28 weeks and postpartum weight retention by non-weighers, control vs. intervention:</b> NS	healthy gestational weight gain and self-monitoring, had a beneficial effect on gestational weight gain and reduced weight retention at 6 weeks postpartum compared to a control group that received only one brief educational session.
<b>Kong, 2012</b>  <b>PC; Nutrition and Exercise for Women (NEW) cohort (2° analysis of RCT)</b>  <b>US</b>	N=123; 14%  100% female, 58y, 65% college degree  12 months	<b>Self-monitor: Weight and diet</b>  Data from 2 of 4 weight loss intervention groups from original cohort (diet group and diet and exercise group).  Self-monitoring behaviors assessed included self-weighing, submission of	<b>Self-monitoring of diet:</b>  Women at the 75th percentile of number of food journals submitted had a 3.7% greater weight loss than those at the 25th percentile (P<0.0001); Women who were at the median number (i.e., 17 booklets) of food journal booklets submitted at 6 months lost	Self-monitoring strategies such as keeping food journals and counting calories resulted in more weight loss in post-menopausal women.  There was no difference in weight loss based on self-weighing frequency (daily or



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0/24		completed food journals, and calorie counting. Participants were encouraged to self-weigh at home at least weekly for 12-months, record all foods eaten daily on paper diaries (7 days of entries per booklet) and submit one booklet per week to the study dietitian for the first 6-months or until they reached the 10% weight loss goal.	significantly more weight (mean 12.8%, 95% CI 11.3 to 14.2) than those below the median (mean 8.2%, 95% CI 6.6 to 9.8; P<0.0001). Women who reported yes to monitoring energy intake most days of the week experienced greater weight loss (mean 11.7%, 95% CI 10.2 to 13.1) than those who reported no (mean 9%, 95% CI 7.2 to 10.8; P=0.03). <b>Self-monitoring of weight:</b> Most participants (88%) reported weighing themselves at least weekly; responses collapsed into two categories: daily or more (N=45) and less than daily (N=78). No significant difference in adjusted mean percent weight change was observed in the daily or more vs the less than daily group.	more vs less than daily).
Linde, 2005	N=992; 19%	<b>Self-monitor: Weight and exercise</b>	<b>Self-weighing frequency:</b> Time* treatment interaction	The control group with no education or lottery



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<p><b>PC (2° analysis of RCT); Pound of Prevention (POP) cohort</b></p> <p><b>US</b></p> <p><b>4/24</b></p>	<p>81% female, 35y, 88% at least some college</p> <p>3y</p>	<p>Treatment conditions:</p> <ol style="list-style-type: none"> <li>1) Educational weight control intervention</li> <li>2) Educational intervention plus a lottery incentive for returning monthly self-monitoring postcards,</li> <li>3) Minimal contact control condition.</li> </ol> <p>Self-weighing was measured by asking participants "How frequently do you weigh yourself?" at baseline, 12 months, and 24 months. Response options were never, about once a year or less, every couple months, every month, every week, and every day; instructions stated, "Weighing yourself is an excellent monitoring activity. ... Weigh</p>	<p>(P=0.001); The control group decreased weighing frequency over 3y, and both intervention groups increased weighing over time;</p> <p><b>Self-weighing frequency and weight loss:</b> P=0.0002 and P&lt;0.0001 at 12 and 24 months:</p> <p>Daily weighing associated with weight loss, all other weighing categories (never, every other month, monthly, weekly) associated with weight gain</p>	<p>decreased weighing frequency over time, and both intervention groups (education and education with lottery) increased weighing over time; Daily weighing at 12 and 24 months was associated with weight loss; All other weighing categories (weekly, never) were associated with weight gain</p>



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		yourself at least once a week."  Walking was assessed by self-reported number of walking episodes per week; self-monitoring postcards sent monthly.		
<b>Ma, 2013</b>  <b>PC (2° analysis of RCT)</b>  <b>USA</b>  <b>6/24</b>	N = 133  47%, 53.5y, 98.5% college-educated  15 months	<b>Self-monitor: Target goals/behaviors, weight, and physical activity</b>  Both groups received 12-session lifestyle balance program and set weight and physical activity goals and tracked progress using the Heart360° website with 12 month follow-up  <b>Study groups:</b>  <i>Coach-led arm:</i> Lifestyle program delivered in weekly	<b>Self-tracking entries and amount of weight loss:</b>  <i>0 to 3 months:</i> Self-directed ( $\beta=-0.02$ , $P=0.001$ ) vs. coach-led ( $\beta=-0.02$ , $P<0.001$ ) interventions; <i>3 to 15 months:</i> NS	Self-monitoring as a component of a comprehensive lifestyle balance program was positively correlated with amount of weight loss at 3 months. This trend continued 3 to 15 months, however the association was not significant.



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		group visits followed by coach proactive review of self-tracking records and individualized progress feedback, behavior change and maintenance coaching and problem solving assistance every 2-4 weeks. <i>Self-directed arm:</i> Lifestyle program delivered via take-home DVD; after 12 weeks, coach e-mailed a biweekly self-monitoring reminder.		
<b>Peterson 2014</b>  <b>PC; Treatment of Obesity in Underserved Rural Settings (TOURS) cohort</b>  <b>US</b>	N=220; 6%  100% female, 59y, 21% education >16y  18 months (6-month intervention, 12-month extended care)	<b>Self-monitor: Diet</b>  During the extended-care program, participants were provided with paper self-monitoring forms and instructed to complete records at least three days each week (one weekend day and two weekdays), including the type,	<b>Women who self-monitored consistently (50% or more of the extended-care year) lost weight (-0.98± 6.67%), while less consistent participants gained weight: 5.1±6.59%, t(218)=6.78, P&lt;0.001;</b>  Adherence to daily caloric intake goals partially mediated the moderation of frequency of self-	The association between high total frequency of self-monitoring and reduced weight regain was moderated by weekly consistency of self-monitoring; Increased frequency produced beneficial effects on weight change only when coupled



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2/24		amount, caloric content, and time of consumption for all foods and drinks consumed. Participants were encouraged to self-monitor more frequently if they found it useful.	monitoring by consistency and percent weight change.  <b>Interaction between frequency and consistency of SM on percent weight change:</b> <i>Total effect</i> = -0.0014, P<0.001; <i>direct effect of the interaction term</i> = -0.0001, t(219) = -2.12, P=0.035; <i>total indirect effect</i> z = -4.3475, P<0.0001, with a point estimate of -0.0007 and a 95% bias-corrected and accelerated bootstrap CI of -0.0012 to -0.0004.	with high consistency (>3 days/week).  The favorable effect of high frequency/high consistency self-monitoring on weight change was partially mediated by participants success in meeting daily caloric intake goals.
<b>Steinberg, 2014</b>  <b>PC (2° analysis of RCT); Shape cohort</b>  <b>US</b>  <b>8/24</b>	N=86; 6%  100% female, 35y; 7% college degree  18 months	<b>Self-monitor: Target goals/behaviors</b>  <i>Study groups:</i> Shape intervention: behavior change goals identified via algorithm; self-monitoring of these goals via weekly Interactive Voice Response (IVR) phone calls; tailored skills training	<b>IVR completion rate ≥80% vs. &lt;80%:</b>  <i>Weight loss:</i> -1.97kg, SE=0.67 vs. 0.48 kg, SE=0.69; P=0.01;  <b>Change in weight (kg, mean (95% CI)) at 6 and 12 months:</b> <i>6 months:</i> NS; <i>12 months:</i> -2.45 (-4.37 to -0.54)	High adherence to IVR self-monitoring (IVR completion rate ≥80%) was associated with greater weight and BMI loss.



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		materials; monthly counseling calls with a registered dietitian; and, YMCA membership. Participants self-monitored their goals via weekly IVR phone calls where it asked how many days this past week they achieved each of their assigned behavioral goals.  <i>Usual care group:</i> Participants received routine standard of care from their providers.	<b>Change in BMI at 6 and 12 months (mean (95% CI)):</b> <i>6 months:</i> NS <i>12 months:</i> -0.94 (-1.64 to -0.24)	
<b>Turk, 2013</b>  <b>PC; SMART cohort (2° analysis of RCT)</b>  <b>US</b>  <b>4/24</b>	N=192; 9%  85% female, 47y, 16y mean education  6 months	<b>Self-monitor: Diet and exercise</b>  <i>Study groups:</i> Paper diary, no feedback; PDA, no feedback; PDA with daily tailored feedback.  All participants were provided with standard behavioral weight loss intervention	<b>Feedback and adherence to Self-Monitoring:</b>  Receiving daily feedback messages significantly increased self-monitoring adherence ( $\beta=0.14$ , $SE=0.04$ , $P=0.002$ ); Mean adherence to self-monitoring for those who did not receive daily feedback was lower (64%, $SD=31\%$ )	Self-monitoring adherence mediated the effect of participant feedback on weight loss; Daily feedback group had higher adherence to self-monitoring and greater weight loss than those not receiving daily feedback.



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		<p>including group sessions, goal setting, and self-monitoring.</p> <p>Self-monitoring was defined as daily recording of all eating (calorie and fat gram) and activity behaviors and adherence was defined as recording at least 50% of the weekly goal.</p>	<p>than those who received daily feedback (78%, SD=27%) (<math>\chi^2(1)=11.1, P&lt;0.001</math>).</p> <p><b>Self-monitoring adherence and weight loss:</b></p> <p><math>\beta=-11.78, SE = 1.24, P&lt;0.001</math>; the effect of feedback on weight loss was mediated by self-monitoring adherence (M=-1.66, 95% CI=-2.67, -0.67, i.e., indirect effect).</p> <p><b>Feedback and weight loss:</b></p> <p>Participants who did not receive daily feedback lost less weight in kilograms (M=5.0 kg, SD= 5.6) and percent weight loss (M=5.5%, SD=6.2%) compared to those who received daily feedback (M=7.0 SD=6.5 and M= 7.3%, SD=6.6%), (<math>\chi^2=3.87, P&lt;0.05</math> and <math>t(207) = 1.97</math>,</p>	



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			P<0.05, respectively); After adjusting for self- monitoring adherence, the effect of feedback group on weight loss was no longer significant ( $\beta=-0.20$ , SE=0.81, P=0.80)	
<b>Turner-McGrievy, 2013</b>  <b>PC (2° analysis of RCT)</b>  <b>US</b>  <b>8/24</b>	N=78; 19%  70-87% female, 41 – 47y, >88% college degree  6 months	<b>Self-monitor: Diet and exercise</b>  <i>Intervention groups:</i> Weight loss intervention delivered by audio podcast only or by the same podcast plus mobile diet monitoring using a diet and physical activity monitoring app as well as moderator and social support; Participants in both groups collapsed and categorized by their chosen self-monitoring method for PA and diet (app, website or paper journal).  All participants were	<b>Diet monitoring method and self-monitoring frequency:</b> NS  <b>Diet monitoring method and BMI:</b> NS  <b>Self-monitoring frequency and weight loss over the 6-month:</b> The more days of dietary self-monitoring was associated with greater weight loss (F (6.95)=73.54; P<0.001)	Method of diet self-monitoring (paper, app, or website) was not related to self-monitoring frequency or BMI, but frequency of self-monitoring (regardless or method) was associated with greater weight loss at 6 months.



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		encouraged to self-monitor and report self-monitoring behaviors and body weight each week via an online questionnaire. The Podcast group received a book with calorie and fat gram amounts of food to assist them in monitoring their dietary intake. The Podcast+Mobile group was instructed to download a diet and physical activity monitoring application (app).		
<b>VanWormer 2012</b>  <b>PC; Health Works trial (2° analysis of RCT)</b>  <b>US</b>	N=1,222; 31%  61% female, 44y, 60% college degree  2y	<b>Self-monitor: Weight</b>  Part of a workplace environment intervention (Health Works), assessed self-weighing frequency at baseline and 24-month follow-up using a single-item, self-reported measure that asked "How often do you weigh yourself?" with	<b>Self-weighing frequency and weight change at 24 months:</b>  <i>Daily:</i> $\beta \pm SE = -1.79 \pm 0.48$ , $t = 3.76$ , $P < 0.001$ , <i>Weekly:</i> $\beta \pm SE = -0.92 \pm 0.40$ , $t = 2.29$ , $P = 0.022$ ;  Reported daily and weekly self-weighing lost on average 1.8kg and	More frequent self-weighing was associated more favorable weight change. Weight change and self-weighing frequency was modified by baseline BMI category.



**Question: What is the relationship between use of diet and weight self-monitoring strategies and body weight outcomes in adults and youth?**

**Table 2.** Summary of studies examining the relationship between self-monitoring strategies of and body weight outcomes in adults and youth

Author, Year Study Design; Cohort Location Risk of bias*	Final N; Attrition Gender, Age (mean), Education Study Duration	Description of self-monitoring	Results	Summary of Findings
7/24		seven response options: never, about once a year or less, every couple of months, once a month, once a week, once a day, or more than once a day. These were collapsed into three categories: Daily, Weekly, or Monthly or less.	0.9kg, respectively, more than those who self-weighed monthly.  <b>Significant interaction between follow-up self-weighing frequency and baseline BMI (P=0.005):</b> Greatest weight loss seen in participants who were obese at baseline and reported self-weighing daily at 24 months; largest weight gain seen in those who were a healthy BMI at baseline and self-weighed monthly at 24 months.	
<b>VanWormer, 2009</b>  <b>PC; Weigh By Day</b>  <b>US</b>  <b>7/24</b>	N=100; 53%  91% female, 47y, 47% college degree  <i>Treatment:</i> 6 months <i>Follow-up:</i> 12 months	<b>Self-monitor: Weight</b>  Participants received a home-telemonitoring scale and were instructed to self-weigh daily. Scale automatically transmitted weight data to counselors. Self-weighing frequency was defined as the percentage of days self-weighed (i.e., total	<b>Frequent self-weighing (≥weekly) and &gt;5% weight loss at follow-up vs. infrequent self-weighing (&lt;weekly):</b>  <i>6 month:</i> OR=11.1 (95% CI=3.0-41.2); P<0.001 <i>12 month follow-up:</i> NS	More frequent self-weighing was associated with higher odds of losing greater than 5% of baseline weight at 6 months, but not at 12 months.



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		number of days self-weighed divided by the total number of days in the active treatment phase. Frequent self-weighing was defined as having self-weighed at least once per week for at least 24 of the 25 treatment weeks. Treatment also included up to 10 counselor calls from a dietitian and a manual focusing on diet and exercise strategies.		
<b>Wing, 2008</b>  <b>PC (2° analysis of RCT)</b>  <b>US</b>  <b>4/24</b>	N=261; 17%  82% female, 51y, NR  18 months	<b>Self-monitor: Weight</b>  <i>Intervention (2 groups: face-to-face and internet):</i> Instructed to weigh themselves daily and gauge whether changes in eating and exercise habits were warranted. Weight submitted weekly via phone (face-to-face group) or Internet (Internet group). Researchers provided	<b>Weight regain with self-weighing frequency:</b> Between group variation, P=0.0009  <i>Changes in self-weighing frequency and weight gain:</i> Control group NS, intervention arms P=0.0005, between intervention arms NS; 1 unit increase in self-weighing frequency associated with -0.98kg (95% CI=0.43, 1.53) weight regain in	Frequency of self-weighing associated with improved weight loss maintenance in intervention groups.



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		<p>reinforcers and individual counseling based on weight results through phone or email. Lessons provided in-person or by phone on issues related to maintenance of weight loss and recommended strategies by NWCR to maintain weight loss</p> <p><i>Control:</i> Received newsletter only</p>	<p>intervention groups.</p> <p><i>Longitudinal regression model (0-6 months), Between groups:</i> NS.</p> <p><i>Longitudinal regression model (6-18 months), Time*Group (intervention vs. control):</i> <math>\beta</math>:-0.03 (SE=0.02; P=0.03)</p> <p><i>Weight regain:</i> Higher rate of weight regain in control group compared to combined intervention group (P=0.03)</p>	
<p><b>Wing, 2004</b></p> <p><b>PC; Diabetes Prevention Program (DPP) (2° analysis of RCT)</b></p> <p><b>US</b></p> <p><b>2/24</b></p>	<p>N=1,035; 5%</p> <p>68% female, 51y, NR</p> <p>Mean 3.25y</p>	<p><b>Self-monitor: Diet and exercise</b></p> <p>All participants from one arm of DPP intervention</p> <p>Participants were instructed to self-monitor minutes of physical activity and fat grams consumed every day during the core curriculum, then 1 week per month until study completion.</p>	<p><b>Weight loss:</b></p> <p><i>At core completion,</i> 6.5 kg (SD=4.7) or 6.9% (SD=4.5) of body weight</p> <p><i>At final intervention visit,</i> 4.5 (SD=7.6) or 4.9% (SD=7.4)</p> <p><b>Achieving weight loss goal:</b></p> <p><i>At core completion,</i> 49%;</p> <p><i>At final intervention visit,</i> 37%.</p>	<p>Self-monitoring fat intake was significantly related to achieving and sustaining weight loss.</p>



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		Participants were assigned to meet with the case manager 16 times over the first 6 months to complete a core curriculum. Follow-up contacts occurred at individual sessions or group classes at least once every 2 months.	Success at meeting the weight loss goal at the end of the core curriculum and at the final intervention visit was predicted by the number of times fat grams were self-monitored (OR=1.08 per one record increase, P<0.0001 at end of core; OR=1.02, P=0.0005 at final visit).	
<b>Johnson, 2011</b>  <b>Retrospective Cohort Study</b>  <b>UK</b>  <b>2/24</b>	N=3,621; 0%  82% female, 36 y, NR  Approx. 6 months	<b>Self-monitor: Diet and exercise</b>  Nutracheck is a platform for food and exercise online diaries. The users report height, weight, activity levels and desired weight loss and the system provides personal daily targets. The website also offers weight charting software, access to health and nutritional information, and an active online social community to	<b>Association between food diary engagement and percentage weight loss (<math>\beta</math> (P-value)):</b>  <i>Women:</i> 0.36 (P<0.001) <i>Men:</i> 0.30 (P<0.001)  <b>Association between food diary adherence (tertile) and &gt;5% weight loss:</b> Ref low adherence; OR (95% CI), P  <b>Women:</b>	Use of self-monitoring tools were predictive in context of commercial, online weight control program.



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		provide support and motivation.	<i>Med adherence: 2.54 (1.91-3.36), P&lt;0.001</i> <i>High adherence: 5.05 (3.51-7.26), P&lt;0.001</i>  <b>Men:</b> <i>Med adherence: NS</i> <i>High adherence: 3.48 (2.03-7.49), P&lt;0.001</i>	

\* Based on NEL Bias Assessment Test; lower values represent less bias