Original Investigation

# The Influence of Partner's Behavior on Health Behavior Change
## The English Longitudinal Study of Ageing

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**IMPORTANCE** Couples are highly concordant for unhealthy behaviors, and a change in one partner's health behavior is often associated with a change in the other partner's behavior. However, no studies have explicitly compared the influence of having a partner who takes up healthy behavior (eg, quits smoking) with one whose behavior is consistently healthy (eg, never smokes).

**OBJECTIVE** To examine the influence of partner's behavior on making positive health behavior changes.

**DESIGN, SETTING, AND PARTICIPANTS** We used prospective data from married and cohabiting couples (n, 3722) participating in the English Longitudinal Study of Ageing, a large population-based cohort of older adults (≥50 years). Studying men and women who had unhealthy behaviors in 3 domains at baseline (ie, smoking, physically inactive, or overweight/obese), we used logistic regression analysis to examine the influence of the partner's behavior in the same domain on the odds of positive health behavior change over time.

**MAIN OUTCOMES AND MEASURES** Smoking cessation, increased physical activity, and 5% weight loss or greater.

**RESULTS** Across all domains, we found that when one partner changed to a healthier behavior (newly healthy), the other partner was more likely to make a positive health behavior change than if their partner remained unhealthy (smoking: men 48% vs 8%, adjusted odds ratio [OR], 11.82 [95% CI, 4.84-28.90]; women 50% vs 8%, OR, 11.23 [4.58-27.52]) (physical activity: men 67% vs 26%, OR, 5.28 [3.70-7.54]; women 66% vs 24%, OR, 5.36 [3.74-7.68]) (weight loss: men 26% vs 10%, OR, 3.05 [1.96-4.74]; women 36% vs 15%, OR, 3.08 [1.98-4.80]). For smoking and physical activity, having a consistently healthy partner also predicted positive change, but for each domain, the odds were significantly higher in individuals with a newly healthy partner than those with a consistently healthy partner (smoking: men OR, 3.08 [1.43-6.62]; women OR, 5.45 [2.44-12.16]) (physical activity: men OR, 1.92 [1.37-2.70]; women OR, 1.84 [1.33-2.53]) (weight loss: men OR, 2.28 [1.36-3.84]; women OR, 2.86 [1.55-5.26]).

**CONCLUSIONS AND RELEVANCE** Men and women are more likely to make a positive health behavior change if their partner does too, and with a stronger effect than if the partner had been consistently healthy in that domain. Involving partners in behavior change interventions may therefore help improve outcomes.

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Modifiable lifestyles and health-related behaviors are leading causes of morbidity and mortality worldwide.[1-3] Smoking, poor diet, physical inactivity, and alcohol consumption have been identified as particularly important risk factors, accounting for over a third of all deaths in the United States in 2000.[2] Risk can be reduced by adopting healthier lifestyles,[4-11] but many people find it difficult to make lasting changes.[12-14]

A large body of evidence has shown that people tend to exhibit health behaviors similar to those around them, in particular their spouses. Concordance within couples has been documented for a wide range of health-related factors, including smoking,[15-21] alcohol consumption,[16-19,21-23] physical activity,[19,21,24] body mass index (BMI),[17,18,20,25,26] and dietary intake.[18,27,28] Some of this concordance appears to be a result of assortative mating, with individuals selecting mates with behaviors similar to their own.[17-20] There is also evidence that partners influence each other's behavior. A number of studies have shown that spousal behavior status is a strong predictor of health behavior change; with people more likely to improve their behavior if their partner's behavior is healthy, and more likely to adopt unhealthy behaviors if their partner's behavior is unhealthy.[15,22,25,29-39] For example, people are substantially more likely to begin smoking, and less likely to quit, if their partner smokes.[31,32]

Concordance for health behavior change has also been shown, with a change in one partner's behavior predicting change in the other's behavior.[15,22,25,40-42] For example, weight loss intervention studies have found evidence of positive changes extending beyond treated individuals to spouses and other family members,[43-45] indicating that one partner changing their behavior can encourage the other partner to change. However, the influence of a partner who changes to a healthy behavior compared with the influence of a consistently healthy partner is not known. Given that couples tend to report similar readiness to change health risk behaviors and express greater confidence in their ability to change if their partner is also ready to change,[46] one might expect to see more successful behavior change in couples where both partners change together.

This study aimed to investigate whether people are more likely to make a positive health behavior change in a given domain if their partner also changes from "unhealthy" to "healthy" in that domain than if their partner has been consistently healthy (eg, whether a smoker is more likely to quit if their partner quits smoking than if their partner was always a nonsmoker). Using prospective data from couples in a large cohort of English older adults, we classified individuals according to their partner's health behavior (consistently healthy, consistently unhealthy, became healthy, or became unhealthy) over 2 time points and examined the influence of the partner's behavior (or change) on the odds of our index case becoming healthy over the same interval. To test the effects robustly, we examined changes in 3 domains: smoking, physical activity, and body weight.

## Methods

### Study Population

Data are from couples in the English Longitudinal Study of Ageing (ELSA),[47] a population-based study of middle-aged and older adults in the United Kingdom. The initial ELSA sample was drawn from households with 1 or more member 50 years or older responding to the Health Survey for England (HSE) in 1998, 1999, and 2001. All household members 50 years or older plus partners who were younger than 50 years or had joined the household since the HSE were invited for interview. From 2002, ELSA participants have been followed up in biennial waves with a computer-assisted interview and self-administered questionnaires. Refreshment samples were recruited at waves 3, 4, and 6. In addition to the data collected at each wave, health examinations were conducted on alternate waves, with nurses visiting the home to collect objective measures of anthropometry. ELSA has received approval from various ethics committees, including the London Multicentre Research Ethics Committee, and full informed written consent has been obtained from all participants.

### Definition of Baseline and Follow-up Time Points

Smoking and physical activity status have been assessed in each wave of ELSA to date (waves 1-6), and heights and weights have been measured in even waves (waves 2, 4, and 6). We therefore assessed smoking cessation and increase in physical activity over a 2-year interval and weight loss over a 4-year interval. For each health domain, we used the first 2 consecutive waves for which both partners had data available, with the first wave constituting the baseline data and the second wave constituting the follow-up data.

### Measures

#### Health Behaviors

Smoking status was assessed with the question "Do you smoke cigarettes at all nowadays? (yes/no)." Among those answering yes at baseline, the mean (SD) number of cigarettes smoked daily was 15.35 (9.50) in men and 14.26 (7.63) in women. Smoking cessation was defined as answering yes at baseline and no at follow-up.

Physical activity was assessed with a question adapted from the Whitehall II study[48]: "Do you take part in any sports or activities that are (vigorous/moderately energetic/mildly energetic)?" Response options were "more than once a week," "once a week," "one to three times a month," and "hardly ever or never." We classified participants as active (moderate or vigorous activity at least once a week) vs inactive (less than this). An increase in physical activity was defined as being inactive at baseline and active at follow-up.

Weight was measured to the nearest 0.1 kg using THD-305 portable electronic scales (Tanita Corporation). Height was measured to the nearest millimeter using a portable stadiometer. At each assessment, the nurses who took the measurements recorded any factors that could compromise measurement reliability (eg, participant was stooped or unwilling to remove shoes). We excluded measurements

judged by the nurse to be unreliable. Body mass index (calculated as weight in kilograms divided by height in meters squared) was used to classify participants' weight status as normal (BMI <25), overweight (BMI 25.0-29.9), or obese (BMI ≥30). Weight loss was defined as a loss of at least 5% of baseline body weight between baseline and follow-up in those who were overweight or obese (hereinafter simply referred to as *overweight*) at baseline.

#### Demographic Variables

Demographic information included each partner's age and sex and household nonpension wealth (a sensitive indicator of socioeconomic status in this age group).

#### Health Conditions

In an older population, it is likely that health events may prompt behavior change in both partners. If one partner has a heart attack or develops lung cancer, both partners may stop smoking. Health scares may motivate both members of a couple to stop smoking, start exercising, or lose weight. Weight loss may also be the result of illness. We therefore included data on number of health conditions in our analyses. Participants reported whether they had ever had physician-diagnosed cancer, diabetes, coronary heart disease, stroke, and myocardial infarction at each wave. To cover any conditions not included in this list, we also used data on self-reported limiting longstanding illness, assessed with 2 questions: (1) "Do you have any long-standing illness, disability, or infirmity? By long-standing I mean anything that has troubled you over a period of time or that is likely to affect you over a period of time." If they responded yes, they were asked (2) "Does this illness or disability limit your activities in any way?" Affirmation of a long-standing illness and any form of limitation classified the participant as having a limiting long-standing illness.

### Inclusion Criteria

Participants were eligible for inclusion in the current analyses if they reported being in a married or cohabiting couple and had data on at least 1 health domain on at least 2 consecutive time points (2 years apart for smoking and physical activity; 4 years apart for weight). Couples who split up during the study interval were not included. Only opposite-sex couples were included owing to the small number of same-sex couples meeting the inclusion criteria (n = 26) and to allow analyses to be stratified by sex within couples.

### Statistical Analysis

Similarity between partners for smoking, physical inactivity, and overweight status was examined in all included couples. Two measures of partner similarity were calculated for each behavior: pairwise concordance rates and tetrachoric correlations. Tetrachoric correlations assume a latent bivariate normal distribution for each pair of dichotomous variables (in this case, the behavior in each partner), with a threshold model for the manifest variables (eg, moderate/vigorous activity at least once a week vs less than this), and provide an indication of effect size.

In couples with at least 1 partner with unhealthy behavior at baseline (ie, who smoked, was physically inactive, or was overweight), we used logistic regression to examine the odds of positive health behavior change (smoking cessation, increase in physical activity, or at least 5% weight loss) between baseline and follow-up in relation to whether their partner had consistently unhealthy behavior, consistently healthy behavior, or unhealthy behavior at baseline and made a positive health behavior change between baseline and follow-up (newly healthy). For example, for smokers, we tested the odds of the index person quitting smoking if their partner was a smoker at both time points, a nonsmoker at both time points, or a baseline smoker who had quit by follow-up. Individuals whose partner moved to less healthy behavior between baseline and follow-up (eg, started smoking) were not included in these analyses owing to low numbers in this group.

We ran 2 models for each domain to investigate differences by partner behavior status; the first compared having a consistently healthy or newly healthy partner with having a consistently unhealthy partner, and the second model compared having a newly healthy partner with having a consistently healthy partner. Analyses were run separately by sex to see if husbands were more affected by wives' behavior than wives by husbands' behavior. All models adjusted for baseline wave, household wealth, and the age of the outcome partner.

To test for confounding by changes in health status, we repeated these analyses, adjusting for the onset of the following conditions between baseline and follow-up in either partner: cancer, diabetes, coronary heart disease, stroke, myocardial infarction, and self-reported limiting longstanding illness.

In addition to exploring the influence of partner's behavior on positive change in the same domain, we also tested for overlap across behaviors; for example whether one partner quitting smoking predicted an increase in physical activity in the other partner. These analyses were restricted to couples with data for both partners in both health domains included in the model at the same 2 consecutive time points. Accordingly, models predicting smoking cessation from physical activity and vice versa were conducted over 2 years, and those that included weight status as a predictor or weight loss as an outcome were conducted over 4 years.

Tetrachoric correlations were calculated using Stata software, version 13.1 (StataCorp LP), and all other analyses were performed using SPSS, version 20 (IBM Corporation). $P < .05$ determined statistical significance.

## Results

Of 5746 couples participating in ELSA, 3722 were eligible for inclusion in these analyses. **Table 1** lists the participant characteristics at baseline. Data on smoking status were available at consecutive waves (baseline and follow-up) for both partners in 3555 couples; data on physical activity were available for 3520 couples; and data on weight were available for 1556 couples.

Table 1. Index and Partner Participant Characteristics at Baseline[a]

| Characteristic | Men (n = 3722) | Women (n = 3722) |
|---|---|---|
| **Demographics (n = 3722)** | | |
| Age, mean (SD), y | 63.05 (8.54) | 60.60 (8.25) |
| Wealth quintile[b] | | |
| 1 (Poorest) | 490 (13.2) | 490 (13.2) |
| 2 | 616 (16.6) | 616 (16.6) |
| 3 | 769 (20.7) | 769 (20.7) |
| 4 | 884 (23.8) | 884 (23.8) |
| 5 (Richest) | 963 (25.9) | 963 (25.9) |
| **Health Behaviors[c]** | | |
| Smoking status (n = 3555) | | |
| Nonsmoker | 3061 (86.1) | 3028 (85.2) |
| Smoker | 494 (13.9) | 527 (14.8) |
| Physical activity (n = 3520) | | |
| Active | 2421 (68.8) | 2271 (64.5) |
| Inactive | 1099 (31.2) | 1249 (35.5) |
| Weight (n = 1556) | | |
| BMI, mean (SD) | 27.85 (3.93) | 27.74 (5.08) |
| Normal weight | 353 (22.7) | 504 (32.4) |
| Overweight/obese | 1203 (77.3) | 1052 (67.6) |
| Comorbid conditions (n = 3722) | | |
| Cancer | 154 (4.1) | 203 (5.5) |
| Diabetes | 310 (8.3) | 174 (4.7) |
| Coronary heart disease | 409 (11.0) | 171 (4.6) |
| Stroke | 135 (3.6) | 62 (1.7) |
| Myocardial infarction | 229 (6.2) | 61 (1.6) |
| Limiting long-standing illness | 1114 (29.9) | 1082 (29.1) |

Abbreviation: BMI, body mass index (calculated as weight in kilograms divided by height in meters squared).

[a] Unless otherwise indicated, data are reported as mean number (percentage) of index participants.

[b] Wealth is calculated at the household level so does not differ between partners.

[c] Information on all health behaviors was not available for all participants so numbers may not sum to the total sample number. Valid percentages are presented for ease of interpretation.

There was a strong correlation between partners' smoking status ($r$ = 0.600), and moderate correlations for physical activity ($r$ = 0.478) and weight status ($r$ = 0.311) at baseline. Concordance ranged from 67% (weight status) to 84% (smoking status).

Over the study interval, 175 individuals (17% of smokers) quit smoking, 1037 (44% of inactive individuals) became physically active, and 335 individuals who were overweight (15% of overweight individuals) lost at least 5% of their baseline body weight. **Table 2** summarizes the logistic regression models testing whether partner's health behavior was associated with positive health behavior change in men and women who were unhealthy at baseline.

Model 1 compared the 3 groups with the consistently unhealthy partner as the reference group for each domain. For smokers, having a consistently healthy (nonsmoking) partner was associated with significantly higher odds of quitting smoking (odds ratio [OR] range for men and women, 2.06-3.84) (**Figure**, A). For inactive individuals, having a consistently active partner was associated with higher odds of becoming physically active (OR range, 2.75-2.92) (Figure, B). However, having an unhealthy partner in either of those domains who became healthy was associated with even higher odds of positive change (smoking OR range, 11.23-11.82; physical activity OR range, 5.28-5.36). For individuals who were overweight, having a partner whose BMI was consistently in the normal range did not increase the odds of losing weight, but having an overweight partner who lost weight was associated with 3 times higher odds of weight loss (OR range, 3.05-3.08) (Figure, C).

Model 2 specifically tested whether the influence of a partner who became healthy was statistically stronger than the influence of a partner who was consistently healthy. For each health behavior, men and women were significantly more likely to make positive changes if their partner also changed their health behavior over the same period than if their partner was consistently healthy (OR range, 1.84-5.45). Adjusting for the onset of chronic health conditions in either partner did not change the results (eTable 1 in the Supplement).

Analyses testing for crossover between the different health behaviors revealed that a change in partner's behavior in one domain did not predict positive change in other domains in either men (eTable 2 in the Supplement) or women (eTable 3 in the Supplement), indicating that the effects were behavior specific.

## Discussion

Using prospective data from a large population-based sample of older adults, this study examined the influence of one partner's health behavior change on the likelihood of the other partner making positive changes to the same health behaviors compared with having a partner who had consistently healthy behavior. Analyses covered 3 domains: smoking, physical activity, and weight status.

Consistent with a wealth of previous research,[15-28] there was moderate to strong concordance within couples for each domain at baseline. There was also an influence of partner's behavior on change over time. Having a partner who was consistently healthy was associated with greater likelihood of positive change for smoking and physical activity, although it had no significant effect on weight loss. However, having a partner who made a positive change to their behavior was associated with substantially higher likelihood of the index participant doing so as well. Although concurrent changes in health behaviors in couples have been reported by a number of other studies,[22,40-45] only 2 prior studies have examined the influence of consistently healthy vs newly healthy partners on health behavior change (one in physical activity and the other across multiple behaviors)[40,41]; and neither study specifically tested the difference between these partner behavior patterns. In one of these studies,[41] a pattern of results similar to those in the present study was observed for changes in smoking, with higher odds of change in individuals whose partner stopped smoking than in those whose partner had never smoked. However, neither study showed a substantial differ-

Table 2. Logistic Regression Models Examining the Influence of Partner's Health Behavior on Positive Health Behavior Change Among Index Men and Women With Unhealthy Behavior at Baseline

| Partner's Health Behavior[a] | Index Men | | | | Index Women | | | |
|---|---|---|---|---|---|---|---|---|
| | Total, No. | Changed to Healthier Behavior, % | OR (95% CI) | *P* Value | Total, No. | Changed to Healthier Behavior, % | OR (95% CI) | *P* Value |
| **Smoking** | | | | | | | | |
| Model 1 | | | | | | | | |
| Stable smoker | 194 | 7.7 | 1 [Reference] | NA | 195 | 8.2 | 1 [Reference] | NA |
| Stable nonsmoker | 262 | 23.3 | 3.84 (2.09-7.06) | <.001 | 293 | 17.4 | 2.06 (1.13-3.77) | .02 |
| Quit smoking | 31 | 48.4 | 11.82 (4.84-28.90) | <.001 | 30 | 50.0 | 11.23 (4.58-27.52) | <.001 |
| Model 2 | | | | | | | | |
| Stable nonsmoker | 262 | 23.3 | 1 [Reference] | NA | 293 | 17.4 | 1 [Reference] | NA |
| Quit smoking | 31 | 48.4 | 3.08 (1.43-6.62) | .004 | 30 | 50.0 | 5.45 (2.44-12.16) | <.001 |
| **Physical Activity** | | | | | | | | |
| Model 1 | | | | | | | | |
| Stable inactive | 363 | 25.9 | 1 [Reference] | NA | 356 | 24.4 | 1 [Reference] | NA |
| Stable active | 350 | 54.0 | 2.75 (1.98-3.81) | <.001 | 480 | 52.1 | 2.92 (2.12-4.00) | <.001 |
| Became active | 266 | 67.3 | 5.28 (3.70-7.54) | <.001 | 273 | 65.6 | 5.36 (3.74-7.68) | <.001 |
| Model 2 | | | | | | | | |
| Stable active | 350 | 54.0 | 1 [Reference] | NA | 480 | 52.1 | 1 [Reference] | NA |
| Became active | 266 | 67.3 | 1.92 (1.37-2.70) | <.001 | 273 | 65.6 | 1.84 (1.33-2.53) | <.001 |
| **Weight** | | | | | | | | |
| Model 1 | | | | | | | | |
| Stable overweight | 718 | 9.9 | 1 [Reference] | NA | 759 | 14.8 | 1 [Reference] | NA |
| Stable normal weight | 269 | 12.6 | 1.34 (0.86-2.08) | .20 | 133 | 15.8 | 1.08 (0.65-1.80) | .77 |
| Overweight and lost weight | 151 | 25.8 | 3.05 (1.96-4.74) | <.001 | 110 | 35.5 | 3.08 (1.98-4.80) | <.001 |
| Model 2 | | | | | | | | |
| Stable normal weight | 269 | 12.6 | 1 [Reference] | NA | 133 | 15.8 | 1 [Reference] | NA |
| Overweight and lost weight | 151 | 25.8 | 2.28 (1.36-3.84) | .002 | 110 | 35.5 | 2.86 (1.55-5.26) | .001 |

Abbreviations: NA, not applicable; OR, odds ratio.

[a] Model 1 compared all 3 groups, with the consistently unhealthy partner group as the reference category; model 2 compared the consistently healthy and newly healthy partner groups, with the consistently healthy partner group as the reference category. All models are adjusted for baseline wave, household wealth, and the index partner's age.

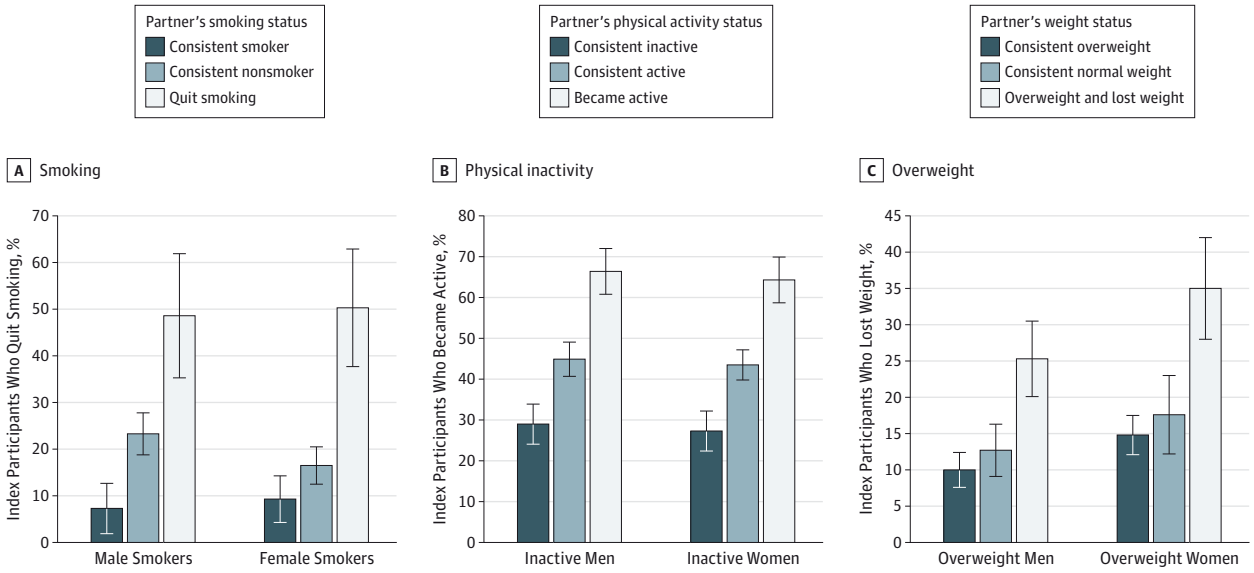
ence between having newly healthy and consistently healthy partners for physical activity.[40,41]

We observed higher concordance for smoking than for physical activity or weight status at baseline and found partners' behavior to be a much stronger influence on men's and women's smoking than on the other behaviors. That the effect was larger for smoking is not surprising because it is a more cue-associated behavior than the others. An individual trying to quit smoking while their partner continues to smoke may find it more difficult owing to the constant exposure to the behavior they are trying to avoid; whereas for someone trying to be more active or lose weight, seeing their partner not exercising or staying the same weight may be less salient. Differences in effect size across behaviors were also observed in a previous study of partner influence on multiple health behaviors, which found a greater influence of partners' behavior on change in more cue-associated behaviors (ie, smoking and drinking vs exercising).[41]

Another difference between the behaviors examined in the present study was that having a partner with a healthy BMI at both times was not associated with higher odds of weight loss, while having a consistently healthy partner predicted change in both other behaviors. This might be because having a nonoverweight partner is less salient than having one who does not smoke, or it might be because weight loss was the only behavior that could not be changed instantaneously. It is also possible that having a partner with a consistently healthy BMI influenced weight at a subthreshold level (ie, was associated with <5% weight loss), and a significant association would become evident over a longer follow-up.

Why might having a partner who becomes healthy be more influential than a partner who is consistently healthy? One possibility is that partners make a decision to change together. A recent study assessed married couples' readiness to eat more healthily, lose weight, and exercise more, and their confidence in their ability to make these changes.[46] Men and women who indicated readiness to change their behavior were less confident that they could change if their spouse was in a lower stage of readiness to change, suggesting that people feel more able to change their behavior if their partner is also motivated to change. Alternatively, successful behavior change in one partner may encourage the other to try to change their behavior.

Figure. Proportions of Index Study Participants Who Changed From Unhealthy to Healthier Behavior in Each of 3 Domains by Partner's Domain Status




A-C, "Consistent" indicates the same domain status at follow-up as at baseline; all values are mutually adjusted for baseline wave, household wealth, and age of the index partner; error bars indicate 95% CIs. C, "Lost weight" indicates that the partner lost at least 5% of baseline body weight.

This could be the result of an active effort on the part of the "follower," with the "leader" inspiring them to change, or it could be a passive effect whereby the follower changes without consciously trying to, for example losing weight through eating the same lower-calorie meals as the leader. The finding that having a consistently healthy partner was associated with greater likelihood of behavior change suggests that a leader-follower model may be true in some couples, with the unhealthy partner changing their behavior to match the healthy partner. However, in our study, having a partner who took up healthy behavior was a much stronger influence on behavior change across all behaviors, suggesting that the majority of couples change together—whether the change is initiated by one partner and the other follows suit or it is a mutual decision to become more healthy.

The present findings have implications for the design and delivery of interventions aimed at reducing the risk of morbidity and mortality. Given that partners have a mutual influence on one another's behavior, behavior change interventions could be more effective if they targeted couples as opposed to individuals. Consistent with this, findings from the weight loss literature indicate that involvement of spouses in behavior change interventions may improve effectiveness.[49] Our results suggest that similar benefits could be obtained by involving partners in interventions to help people quit smoking or become more physically active. In addition, a "halo" effect has been shown in studies treating only one person in a couple, with spouses of individuals randomized to lifestyle interventions achieving significant weight loss and making positive dietary changes that were not observed in spouses of controls.[43-45] Significant weight loss and improved eating behavior have also been documented in obese spouses of patients who have undergone bariatric surgery.[50] This has important implications for assessment of cost-effectiveness of interventions, since providing treatment or support to help one individual to change their behavior may have a no-cost impact on their partner's behavior.[51]

Our study had a number of limitations. Although weight status was objectively measured, we relied on self-reports of smoking and physical activity. Changes were analyzed over several years, so we would have missed short-lived changes during the interval. Concordance for weight change would be underestimated for partners who lost less than 5% of their body weight. It was not possible to determine whether couples who both changed their behavior did so at the same time, or whether one partner changing their behavior prompted subsequent change in the other. Data were not available on behavior prior to marriage or cohabitation, so we were unable to assess whether mate selection itself was due to unseen traits that might have influenced change (and response to spousal change) later in life. To study change in behavior over time, our analyses were limited to couples with data for both partners on at least 2 consecutive waves. Couples in which a partner had died, dropped out of the study, or did not have data on the relevant health domain were therefore not included. Also excluded were couples who split up over the study interval, which may have influenced our results, since previous research has found that social relationships in which members are dissimilar are more likely to dissolve than if members are similar.[52,53] The analyzed samples were slightly younger and wealthier than the total ELSA sample, in line with retention in other longitudinal studies,[54] so the results may not be representative of all couples in this age range. In addition, because we used an older sample, our results may not apply to younger couples.

## Conclusions

We found that men and women are strongly influenced by their partner's behavior in relation to making health behavior changes. Individuals whose partner's behavior became healthy were significantly more likely to improve their own behavior than those with a partner who was always healthy. This suggests that people may be more successful in changing their behavior if their partner does it with them.

### ARTICLE INFORMATION

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*Study concept and design:* Jackson, Wardle.
*Acquisition, analysis, or interpretation of data:* Jackson, Steptoe, Wardle.
*Drafting of the manuscript:* Jackson, Wardle.
*Critical revision of the manuscript for important intellectual content:* Jackson, Steptoe, Wardle.
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