**RESEARCH LETTER**

**The Association Between Weight Gain Up to Midlife, 30-Year Mortality, and Quality of Life in Older Men**

A recent editorial and articles in the Archives investigated the complex relationships between obesity, mortality, and disability, and studies that take into account the dynamic history of body weight over one's life span were called for. In the follow-up of the Helsinki Businessmen Study, we have combined these aspects (weight gain in midlife, mortality, and health-related quality of life [HRQOL] in old age). We report herein the extended follow-up (now up to 30 years) of these relationships.

**Methods.** This was a prospective cohort study of a socio-economically homogeneous sample of 1657 men (born 1919-1934) who had attended health checks during the 1960s, were free of cardiovascular disease and diabetes in 1974, had no use of regular medication, and could recall their weight at the age of 25 years. Weight gain from age 25 years up to midlife in 1974 was calculated and divided as follows: (1) loss or no change (n=188), (2) 0.1 kg to 4.9 kg (n=246); (3) 5.0 kg to 9.9 kg (n=419); (4) 10.0 kg to 14.9 kg (n=379); (5) greater than 14.9 kg (n=425). Baseline examinations in 1974 included laboratory, clinical, and lifestyle data (body mass index [BMI] [calculated as weight in kilograms divided by height in meters squared], smoking, and alcohol use). The men were also asked to self-rate their health and physical fitness with a 5-step scale. At baseline in 1974, only 6.8% (n=113) of the men were obese (BMI ≥30), which should be borne in mind when comparing our results with the present US population with more prevalent obesity in midlife.

In 2003, survivors were assessed with mailed questionnaires about lifestyle, body weight, and the RAND-36 instrument. The RAND-36 was designed to measure many aspects of health and functioning, including physical and mental health. The RAND-36 instrument is composed of 36 questions that assess six health domains: physical functioning (PF), role physical (RP), bodily pain (BP), general health (GH), social functioning (SF), role emotional (RE), and mental health (MH).

**Results.** During the 30-year follow-up, 534 men (32.2% of the initial 1974 cohort) died. Mortality was 29.6%, 24.8%, 31.9%, 29.3%, and 40.7% from the lowest to the highest midlife weight gain group. Body mass index at age 25 years did not predict mortality. Using the group with weight gain of 0.1 kg to 4.9 kg as reference, we determined that the adjusted mortality risk was significantly (P=.001) increased only in the highest (>14.9 kg) weight gain group (relative risk, 1.63; 95% confidence interval, 1.21-2.20); the 95% confidence interval of the group with no weight gain up to midlife included unity.

In 2003, 837 men (72.2% of eligible participants; median age, 77 years [interquartile range, 73-80 years]) responded to the questionnaire survey including the RAND-36 instrument. The pattern of weight gain from age 25 years to midlife in 1974 was similar among responders and nonresponders. Analyses of the association between the midlife weight gain and the RAND-36 scales in 2003 were extensively adjusted (age, variables measured in 1974, body weight both at age 25 years and in 2003) (Figure). The adjusted analyses showed that a larger midlife weight gain was associated with lower RAND-36 scores (suggesting worse HRQOL) in old age in 2003.

**Comment.** In this homogeneous, mainly nonobese white male cohort followed up to old age, only the largest weight gain (>14.9 kg) from 25 years of age to midlife was associated with a significantly (P=.001) higher long-term mortality. Those with the smallest weight gain (<5 kg) tended to have the best prognosis. Importantly, weight gain up to midlife was sensitively associated with HRQOL later in life. The men with no or minimal weight gain up to midlife consistently had the best HRQOL; a larger weight gain was associated with clearly poorer HRQOL in old age. As the editorial rightly pointed out, weight reduction in old age is a complex issue.

![Figure](https://example.com/figure.png)
vention of overweight earlier in life seems justified also (and especially) from the geriatric point of view.

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Although the article by Back et al1 showed a statistically significant increase in the number of bad news skills and transitional skills acquired, it does not necessarily prove that the course improves communication skills in a clinical context. Before the acquisition of a skills’ set can be concluded to improve communication skills, the skills themselves need to be shown to be effective at improving the patient experience. It is easy to show that after you introduce new behaviors, people will use them more. This does not translate to effective change in communication interaction.

As the authors have themselves pointed out, the cognitive maps used have not been validated in patient outcome studies. The efficacy of training would be better demonstrated by examining changes in the participants’ real practice, using patient satisfaction data as a more representative outcome measure. Until then, it is probably not advisable to promote the usefulness of a technique that has not been shown to be useful at improving communications skills as such and rather allow it to remain a useful technique by which to modify behaviors, the usefulness of which can then be assessed.

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A Partial Solution to a Big Problem

The recent article by Back et al1 provides insight into the efficacy of an intensive physician training program to increase communication skills regarding end-of-life care and delivery of bad news, two of the more complex, daunting, and gratifying tasks that physicians perform on a regular basis. While I applaud their efforts to develop this program and assess its value, 2 things are troubling.

First, this is a stinging indictment of current physicians’ communication skills. As one of many examples from their data, prior to the intervention only 16% of oncology fellows mentioned the word “cancer” to their patients with cancer. This is terrible by any standard. What is worse is that these fellows were selected “based on interest in communication as expressed in a brief personal statement, potential as an educator, and research in communication.”1(p 954) essentially a group already predisposed to doing this “well”!

Second, using a 4-day intensive program to improve communication skills seems somewhat effective but hardly the complete answer to this glaring problem. Of the skills being taught, the majority were learned by only 40% to 60% of the participants (again, highly motivated participants by

Comments and Opinions

Learned Techniques Do Not Necessarily Translate to Real Change

We read with interest the recent work by Back et al3 designing and evaluating the efficacy of Oncotalk, a new residential communication skills workshop. Indeed, discussing bad news remains a challenging area in everyday practice, since few of today’s residents and fellows have received any formal communication skills training.2

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