

DOES BETTER EDUCATION LEAD TO BETTER HEALTH?

MAURICE CAUCHI

It is well known that education is very important in ensuring a better job, a better salary and in general a more satisfying social life. Perhaps less well appreciated is the effect that education has on the health of the individual.

The level of education is definitely correlated with life expectancy. A report by the Robert Wood Foundation in the US (2013)¹ shows that life expectancy is higher in college graduates compared to those who did not finish high school (79.7 versus 72.9 years respectively for males, and 83.5 versus 78.4 years in females). In Europe a higher education seems to add an extra three years to life expectancy².

Differences in life expectancy have been attributed to various factors. In the US, one of the most 'unequal' countries on earth, these differences have been seen as indicating racial differences. However, they are much more significantly correlated with the level of education. Michael Marmot in his book *The Health Gap*³ emphasizes that "So-called racial differences in health are related to degrees of social disadvantage and discrimination."

In Europe, there is quite a significant difference in life expectancy between the various countries. At age 25, a time when peri-natal mortality rates are no longer relevant, citizens of most countries in the EU can expect to live another 60 years.

Perhaps more significantly, within any one country, the difference in life expectancy between those with a minimal or no education compared to those with a higher education can vary by 20 years or more⁴. These differences are particularly marked in eastern European countries (including Estonia, Hungary, Romania, Poland, Czech Republic and Croatia), where the difference between life expectancy of the poorly educated can be 20-30 years less than those with a tertiary education. Western European countries, including Malta, have much smaller differences between the two groups. To note also that women in general not only seem to have a longer life expectancy, but also that the difference between those with lower education and those with a higher education is not so marked.

Moreover, as the Robert Wood Foundation report remarks, there is a definite probability of propagating parental characteristics to the future generation. The level of education reached by children had a direct correlation with that of their parents.

How does education exert such a powerful effect on life expectancy?

A number of health conditions, which may be responsible for reducing life expectancy, seem to correlate with level of education. For instance, the Robert Wood Foundation report shows that:

- Those with a college education had a reduced risk for diabetes, heart disease and being overweight;
- A higher level of education seems to reduce the incidence of smoking. Those with a higher education (16 years of education or more) seem less likely to smoke compared to those with those with a lower level of education (11 years or less). In most western countries, the proportion of those who smoke is much higher in those with a lower education level compared to those with a higher education. In the US, for instance, those with a lower education level are two-and-a-half times more likely to be smokers compared to those with a higher education: a ratio of 2.5. In other countries this ratio varies from 2.3 in Canada, 1.35 in Netherlands, 1.60 in England and 1.14 in Italy. Curiously, in a couple of European countries, those with a higher education tend to smoke more than those with a lower education, with ratios for France being 0.60, and for Spain 0.90². The above figures apply to the male population. While in general, the proportion of women smokers in the community is less than in males, the effect of education on smoking is the same in women as in males. (To note that in some countries, like Spain, Italy, France and Japan, women with a higher education smoke more than those with a lower education. There is no clear reason for these intriguing differences).
- There seems also to be a direct correlation between lack of education and the tendency to develop obesity. In several countries in Europe, both males and females who are better educated tend to be less obese². So there seems no doubt that education has a very beneficial effect in preventing obesity, with all its accompanying health issues.
- The mortality rate in infants of mothers who did not have a college education was approximately double that for those with a college education (8.1 per 1,000 live births compared

to 4.2/1000 respectively). If this difference is significant for developed countries it is far more significant for developing countries where infant mortality rates for those with no education can reach over 100 per 1000 live births⁵. In particular, as Marmot emphasizes “The mother’s education is a much stronger predictor of infant mortality than is household income or wealth”³.

- Fertility rate seems to be affected by the degree of education: women with more education have fewer children. In Nigeria, for instance, the average number of births varies from 6.1 in those women with no education to 4.2 in those with a secondary or higher education³.
- Education is empowerment: a situation unheard of in a western society is the degradation that absence of an education can lead to. Women in sub-Sahara regions were asked if it was acceptable for husbands to beat their wife if they refused to have sex with him! Nearly half of uneducated women in Ethiopia agreed that this is acceptable, compared to only 11% with a secondary or higher education. Marmon interprets this as meaning that education makes women less vulnerable, which presumably would tend to reduce domestic violence³. He concludes that: “... a focus on educating girls is the best single contributor to empowerment of women, with improvements in national and community development and health for women and their children.”

The government of Malta is well aware of the impact that education has on health and the relevance of these two considerations on the Maltese society. The 2014 budget shows that Malta spends 6.0% of its income on health and 5.8% on education (compared to the EU average of 7.2% and 4.9% respectively)⁶.

The number of Maltese persons enrolled at the university has been steadily increasing over the last couple of decades, from around 6,000 in 1995 to over 14,000 in 2013⁷. This means that the proportion of 30-34 year olds holding a higher qualification rose from 9.3% in 2002 to 26% in 2013. Conversely, the proportion of 18-24 year olds who left school early (lower secondary education) has dropped from 53% in 2002 to 21% in 2013. However, this still does not compare favourably with the EU average where there was a higher proportion of 30-34 year olds who had a higher qualification in 2003 (37%), and a lower proportion of early school leavers (12%). In view of the importance of female education, it is gratifying to see that in Malta, in 2013, female participation in higher education was higher than that of men (29.5% compared to 22.6% in 30-34 year olds, respectively)⁸. Indeed, in 2013, the proportion of early school leavers was less in females compared to males (18% compared to 23%)⁷.

So there can be no doubt about the effect of education on health and related social issues. While such deprivation is more obvious in developing countries, it also affects a considerable proportion of the population in so-called developed countries, particularly where inequality is rampant and enormous differences exist between rich and poor. As mentioned in the previous instalment⁹, such pockets of inequality can be seen also in Malta.

Social deprivation, poverty and exclusion often lead to a poor education which in turn leads to health issues. “[T]he more education you have the better your health.”³

The manifestations of inequality maybe more nuanced than used to be the case in the past: a simple formula which takes into account only family income may not give a whole picture of the degree of need. Deprivation in a western country does not simply refer to hunger or homelessness. It also involves inability to have resources that are considered standard within a community. These include: ability to pay rents, having a telephone and a colour TV like everybody else, have a meat or fish dinner two or three times a week, as well as other amenities including a family car, a washing machine etc. In Europe, it has been shown that deprivation of these items is associated with a worse health status³.

A ‘health development index’ (HDI) developed by the UN, based on measures such as national income, education and life expectancy found that education and health have a big impact on HDI while income does not³.

How does all this affect busy medical practitioners who are not expected to be social workers and who have rarely been educated in social issues as they affect health?

What the above information seems to suggest is that in our efforts to diagnose the root cause of disease we would do well to assess also the level of education of our patients. Perhaps in our history-taking, in addition to the standard list of items known to impact on health, like ‘weight,’ ‘age,’ etc, we should add ‘education level,’ seeing that it is such a determining factor in normalising health issues. ❄

REFERENCES

1. Robert Wood Johnson Foundation. *Why Does Education Matter So Much to Health?* Health Policy Snapshot Series. 2013. Available from: <http://www.rwjf.org/en/library/research/2012/12/why-does-education-matter-so-much-to-health-.html>
2. National Research Council (US) Panel on Understanding Divergent Trends in Longevity in High-Income Countries; Crimmins EM, Preston SH, Cohen B (eds). *Explaining Divergent Levels of Longevity in High-Income Countries*. Washington (DC): National Academies Press (US); 2011. Available from: <http://www.ncbi.nlm.nih.gov/books/NBK62362/table/ch9.t3/?report=objectonly>
3. Marmot M. *The Health Gap: The Challenge of an Unequal World*. Bloomsbury. 2015.
4. <http://ec.europa.eu/eurostat>
5. Commission on Social Determinants of Health. *Closing the gap in a generation: health equity through action on the social determinants of health*. Geneva, World Health Organization. 2008. Available from: http://www.who.int/social_determinants/final_report/csdh_finalreport_2008.pdf
6. The Malta Business Weekly. *Malta spends more on health than on education but double that on social protection*. Reported on the Malta Independent website on Friday, 25 March, 2016. Available from: <http://www.independent.com.mt/articles/2016-03-24/local-news/Malta-spends-more-on-health-than-on-education-but-double-that-on-social-protection-6736155350>
7. National Commission for further and higher education. *Higher Education Strategy for Malta*. Ministry for Education and Employment. 2015. Available from: <https://ncfhe.gov.mt/en/resources/Documents/Strategy%20Documents/Higher%20Education%20Strategy%20for%20Malta.pdf>
8. National Statistics Office. *Malta in Figures 2014*. Available from: https://nso.gov.mt/en/publications/Publications_by_Unit/Documents/D2_External
9. Cauchi M. Healthy, Wealthy and Wise. The Synapse Medical Magazine 2016; 15(5):7-8.

