

The Cost Bubble in Medical Education: Will It Burst and When?

Summary

There has been a much recent debate about the cost of medical education and the burden of student debt that occurs as a result. There has been speculation that the cost of medical education now exceeds its value and that a financial bubble might be occurring. A bubble occurs when the cost of a commodity exceeds its intrinsic value and yet purchasers continue to buy the commodity at the inflated price. The current financial circumstances of medical education have much in common with financial bubbles in the past. Medical student debt is being driven by excessive financial liquidity. Students who invest in medical education are doing so largely on the basis of what the incomes of health-care professionals have been in the past – rather than what they might be in the future. Furthermore, students know that they are largely insulated from consequences of their investment in medical education going wrong. There are multiple circumstances in which graduates do not have to pay back their loans. If the cost bubble in medical education were to burst, it would have sudden and serious consequences for multiple stakeholders in this field. It would be wiser to use means at our disposal to slowly deflate the bubble.

There has been a much recent debate about the cost of medical education and the burden of student debt that occurs as a result.^[1,2] There has even been speculation that the cost of medical education now exceeds its value and that a financial bubble might be occurring.^[3] Certainly, it is worth reflecting on the experiences of health-care professional learners over the past 30 years. When I entered medical school, I was in the fortunate position of having tuition fees paid by the state and of receiving a maintenance grant as well. On graduation, I had little debt and started on a modest salary which quickly grew and had much potential for further long-term growth. The only real investment that I made was my time, and thus, the only cost was opportunity cost. A 1st year student in economics would have been able to tell me that this was a low-cost high-return strategy.

Today, medical students must take out loans to pay tuition fees and to live. They graduate with debts of tens of thousands of pounds. On graduation, they still receive a modest salary, but the potential for growth is not what it was. The economic recession has meant that health-care professionals' wages have stagnated over the past 5 years. A student economist would

therefore take a different view of this initial investment in medical education. It is undoubtedly less attractive in terms of returns than what it was in the past. Inevitably, it is the case that if current trends continue, the cost of medical education will become greater than financial returns that would accrue. If and when that happens, the bubble will burst.

A bubble occurs when the cost of a commodity exceeds its intrinsic value and yet purchasers continue to buy the commodity at the inflated price. Bubbles are usually only diagnosed in retrospect – once they have burst. Before they burst, there may be warnings, but these often fall on deaf ears – mainly due to the difficulties of assigning an innate value to a commodity. Hence, can we say definitively now that there is a bubble in medical education? There is no way to prove this one way or another – however, we can look to see whether the current economic conditions underlying medical education have much in common with circumstances that existed in past bubbles.

One common feature of past bubbles is that they were preceded by excessive financial liquidity. In essence, this means that banks were too willing to lend at low rates of interest and that this borrowed money fueled the bubble. Here, there are definite parallels with modern medical education. Undergraduate medical education tuition fees are expensive – however, because the government issues low-interest long-term loans to all those who go to university; the person paying will naturally not be as concerned as if they were paying themselves. There is even a degree to which the availability of loans just encourages the universities to increase their fees even higher. A further aggravating factor is that the borrower knows that they will not have to start to repay their loan until they start earning at a certain level.

There are psychological factors that drive bubbles as well. One of these is termed extrapolation. This means that purchasers will pay increasing amounts for a commodity because its value or price seems to be continually rising, and therefore, it seems that the value will continue to rise forever. In the context of medical education, a parallel to this mindset may be that in the past, medical education was worth a high price because of the long-term economic returns. However, with year-on-year pay freezes for physicians during these times of economic restraint, it seems unwise to assume that past performance in terms of earning potential is a strong predictor of future growth. Moreover, this could lead to a bubble.

Another cause of bubbles is the herd phenomenon. In this phenomenon, purchasers tend to follow the market – in essence, they follow the herd. This in turn serves only to inflate the bubble. This phenomenon may occur in medical education. There may be a tendency to believe that the most expensive course is the best and therefore the one most worth having.

This may be especially true of medicine – one of the most expensive courses – not least because of its length.

Another phenomenon that can cause bubbles is that of moral hazard. Essentially, this means that people will make risky investments if they know that they will be protected from the consequences of their investments going wrong. In undergraduate medical education, students take out a large loan to invest in their education, but they are protected to a large degree from things going wrong. If they cannot get a job, they do not have to pay back the loan. If they cannot get a sufficient high-paying job, they do not have to pay back the loan. If they leave the country, they do not have to pay back the loan.

Finally, bubbles seem to occur when purchasers are overly optimistic. They constantly invest in the hope of even better returns. Is the same true of medical education? Certainly, it seems logical to invest in medical education in the hope that purchasers of healthcare will pay a great price for health-care professionals. However, inevitably, a point is reached where healthcare becomes too expensive and purchasers will not pay for it anymore. The health-care professional is thus left with an education which is worth less than the price that they paid for it.

Certainly, there is evidence that the current rise in the cost of medical education has much in common with financial bubbles in the past – albeit in different circumstances. Asch *et al.* have reported that different specialties within medicine may be at different risks of developing a bubble.^[3] General practice and psychiatry may be at most risk as the earning potential in these specialties is not as great as it is in some of the surgical- or procedure-based specialties. The risk of a bubble developing is different in different countries. This is because countries have different systems of healthcare and health-care professional education. The risk is greatest in countries with high-cost healthcare and high-cost health-care professional education. However, there are international trends in this regard that are affecting an increasing number of countries – and these problems do not just affect medical education. They are part of wider issues with neoliberal politics and economics and the collapse of the middle classes as a whole.^[4] The world faces many challenges in facing up to these problems over the next 10 years.

Hence, if medical education is approaching a financial bubble, what if anything can we do about it? There is no evidence-based answer – mainly because we have not been in this position before. However, if we act according to first principles, there may be some steps that can be taken to lessen the factors that are driving the bubble.

There are multiple factors but at the core of many is the problem of the cost of healthcare itself. Health-care costs have

risen massively in recent years, and the rises in costs have not always been accompanied by a corresponding rise in quality or outcomes.^[5] If we can develop models of lower cost healthcare, then payers (governments or patients) will be winners as long as quality is maintained.^[6]

Lower cost healthcare will inevitably mean lower wages for doctors and health-care professionals. This in turn will drive down tuition fees. Hence, it will matter less to doctors that their earning potential is less as they will have less debt. Inevitably, medical education itself will become lower cost – but there is no reason to believe that medical education cannot be low cost and high value.^[7] This might mean new delivery mechanisms of education such as e-learning or basic simulation– however, the delivery mechanism will be less important – the main thing is the maintenance of quality.^[8]

Low-cost and high-value education will happen eventually – the only question is whether it happens slowly as a result of a proactive and planned readjustment of the system or whether it happens suddenly and unexpectedly. A sudden and unexpected collapse would hurt students, health-care professionals, medical schools, health-care institutions, and patients? Surely, it is time to first warn everyone and then slowly let the air out of the bubble?

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