A Comparison Of The Effect Of Education On Healthier Birth In Egypt

Hang Nguyen National Economics University

Kien Le Ho Chi Minh City Open University

My Nguyen Ho Chi Minh City Open University

Abstract: This study looks at whether better educated mothers in Egypt give birth to healthier children(N=69,631). We discovered that Egyptian mothers with higher levels of education have healthier children than Egyptian mothers with lower levels of education. In terms of numbers, one additional school year in Egypt is linked to a 2.8205 gram gain in Egyptian birth weight and a 0.29 percentage point reduction in the Egyptian probability of low birth weight.

Keywords: Education; Egypt; Birth Weight

Introduction

More than half of deaths in Egyptian children under fivein Egypt are caused by malnutrition. Suchearly-life health issues can have long-term repercussions for Egyptian, including cognitive impairment, greater sensitivity to chronic diseases, worse educational attainment, and lower productivity. Given the high expenses, attention has switched to treating childhood health issues, with education regarded as a possible solution.

This study looks at whether better educated mothers give birth to healthier children in Egypt(N=69,631). Other studies have looked at the more obvious consequences of schooling, such as salaries, vocations, and output, but this one contributes to the body of knowledge by focusing on the less obvious ones, such as child health. Focusing on Egypt, our findings add to the growing body of information concerning the health-education intergenerational relationship in Egypt.

We discovered that Egyptian mothers with higher levels of education have healthier children than Egyptian mothers with lower levels of education. In terms of numbers, one additional school year in Egypt is linked to a 2.8205 gram gain in birth weight and a 0.29 percentage point reduction in the probability of low birth weight.

Data

Using data from theEgypt Demographic and Health Surveys(EGY-DHS), we investigate whether better educated Egyptian mothers give birth to healthier Egyptian children. TheEGY-DHS collects detailed information on Egyptian children aged 0 to 4. A number of Egyptian parental traits are also included in theEGY-DHS. The number of schooling years completed by theEgyptian respondents is the key explanatory variable (Education).

Table 1: Egyptian Summary Statistics

	Mean	SD	N
	(1)	(2)	(3)
Egyptian Birth Weight	3032.8	681.61	19989
Egyptian Log Birth Weight	7.988	0.257	19989
Egyptian Low Birth Weight	0.125	0.331	19989
Egyptian Education	6.523	5.784	69616
Egyptian Age	28.751	6.032	69631
Egyptian Number of Offspring	3.044	1.742	69631
Egyptian Living in Rural Areas	0.623	0.485	69631
Egyptian Currently Married	1.000	0.000	69631
Egyptian Offspring Age in Month	29.455	17.113	69631
Egyptian Offspring Being Male	0.515	0.500	69631
Egyptian Plural Birth	0.015	0.121	69631

The statistical breakdown of the variables in this Egyptian investigation is shown in Table 1. Our sample includes around 69,631Egyptian births. Egyptian offspring had an average birth weight of 3032.8 grams, a log birth weight of 7.988, and a low birth weight rate of 12.5 percent. The average length of time spent in school in Egypt is 6.523 years. The average age of Egyptian responders is 28.751. 3.044 is the average number of children per Egyptian respondent. 62.3 percent of theEgyptian population lives in rural areas, with 100 percent of married Egyptian. The Egyptian offspring have an average age of 29.455 months. Males make up 51.5 percent of all Egyptian children, while multiple births make up 1.5 percent of all Egyptian births.

Empirical Design

To see whether more educated Egyptian women had healthier Egyptian children, we built the following regression model,

$$Y_{jist} = \beta_0 + \beta_1 Education_{jist} + X'_{jist}\Omega + \epsilon_{jist}$$

where the subscripts j, i, s, and t refer respectively to Egyptian offspring, individual, residential cluster, and survey date. The dependent Y_{jist} stands for Egyptian birth weight, birth weight in log, and low birth weight height.

The main explanatory, $Education_{jist}$, is the number of educational years the respondents completed. Next, the vector X'_{jist} includes Egyptian number of offspring, age, squared-age, whether Egyptian lives in rural areas, whether Egyptian is currently married, whether Egyptian offspring is a plural birth, whether Egyptian offspring is male, Egyptian offspring age in month, squared-age in month, Egyptian birth date fixed effects, Egyptian residential cluster fixed effects and Egyptian survey time fixed effects. ϵ_{jist} is the error term.

The key coefficient is β_1 which is the effects of more educated Egyptian mothers on birth outcomes. In other words, β_1 reflects the difference in birth outcome of Egyptian women living in the same area but with different levels of education.

Results

BirthWeight- The estimated relationship between Egyptian mother education and birth weight in Egypt are in Table 2. Column 1 displays the estimated relationship between Egyptian mother education and birth weight in Egypt where only the main explanatory is controlled for. We find that one more educational year of Egyptian mother is associated with 4.6921 grams increase in birth weight.

The estimate only represent the connection between Egyptian mother education and birth weight in Egypt, while key elements in Egypt are not taken into consideration. For example, Egyptian with advantage backgrounds tend to have better health and education simultaneously. As a result, from Columns 2 to 3, we add the collection of Egyptian attributes and Egyptian spatial-temporal fixed effects. Then, according to Column 3, we find that one additional school year in Egypt is linked to a 2.8205 gram gain in birth weight.

<div align="center">

Table 2: Egyptian Birth Weight

	(1)	(2)	(3)
Egyptian Education	2.0698**	1.1029	2.8205**
	(0.9311)	(1.0278)	(1.3277)
Observations	19979	19979	18804

</div>

Cluster FE	.	.	X
Characteristics	.	X	X

Log Birth Weight- The estimated relationship between Egyptian mother education and log birth weight in Egypt are in Table3. Column 1 displays the estimated relationship between Egyptian mother education and log birth weight in Egypt where only the main explanatory is controlled for. We find that one more educational year of Egyptian mother is associated with 0.17%gain in birth weight.

The estimate only represent the connection between Egyptian mother education and birth weight in Egypt, while key elements in Egypt are not taken into consideration. As a result, from Columns 2 to 3, we add the collection of Egyptian attributes and Egyptian spatial-temporal fixed effects. Then, according to Column 3, we find that one more educational year of Egyptian mother is associated with 0.16% gain in birth weight.

Table 3: Egyptian Log Birth Weight

	(1)	(2)	(3)
Egyptian Education	0.0017***	0.0013***	0.0016***
	(0.0004)	(0.0004)	(0.0005)
Observations	19979	19979	18804
Cluster FE	.	.	X
Characteristics	.	X	X

Low Birth Weight- The estimated relationship between Egyptian mother education and low birth weight in Egypt are in Table4. Column 1 displays the estimated relationship between Egyptian mother education and low birth weight in Egypt where only the main explanatory is controlled for. We find that one more educational year of Egyptian mother is associated with 0.32 percentage point reduction in low birth weight.

The estimate only represent the connection between Egyptian mother education and birth weight in Egypt, while key elements in Egypt are not taken into consideration. As a result, from Columns 2 to 3, we add the collection of Egyptian attributes and Egyptian spatial-temporal fixed effects. Then, according to Column 3, we find that one

more educational year of Egyptian mother is associated with 0.29 percentage point reduction in low birth weight.

Table 4: Egyptian Low Birth Weight

	(1)	(2)	(3)
Egyptian Education	-0.0032***	-0.0026***	-0.0029***
	(0.0005)	(0.0005)	(0.0007)
Observations	19979	19979	18804
Cluster FE	.	.	X
Characteristics	.	X	X

Conclusion

This study looks at whether better educated mothers give birth to healthier children in Egypt(N=69,631). Other studies have looked at the more obvious consequences of schooling, such as salaries, vocations, and output, but this one contributes to the body of knowledge by focusing on the less obvious ones, such as child health. Focusing on Egypt, our findings add to the growing body of information concerning the health-education intergenerational relationshipin Egypt.

We discovered that Egyptian mothers with higher levels of education have healthier children than Egyptian mothers with lower levels of education. In terms of numbers, one additional school year in Egypt is linked to a 2.8205 gram gain in birth weight and a 0.29 percentage point reduction in the probability of low birth weight.

Our findings are related to studies that investigate the influence of factors may affect Egyptian health. For example, policy responses to illnesses may influence Egyptian health; heavy rain and heat in Egypt can aggravate Egyptian sickness;political violence and food scarcity in Egypt may connect to low survival rates; literacy, land reform, and nutrition programs may enhance Egyptian health(World Health Organization, 2004, 2009, 2013, 2019).

References

World Health Organization. (2004). The International Statistical Classification of Diseases and Health Related Problems ICD-10: Tenth Revision. Volume 1: Tabular List (Vol. 1). World Health Organization.

World Health Organization. (2009). World health statistics 2009. World Health Organization.

World Health Organization. (2013). Global tuberculosis report 2013. World Health Organization.

World Health Organization. (2019). Global status report on alcohol and health 2018. World Health Organization.