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Introductory Chapter: Wellness for Education

Blandina Bernal-Morales

1. Introduction

Access to education is a human right, and it belongs to the 2030 Agenda for Sustainable Development “to promote social and labor inclusion, helping to reconcile economic growth, equality and participation in society”. So, one of the priorities on education for health and well-being according to United Nations Educational Scientific and Cultural Organization (UNESCO) is to ensure adequate learning environments to children and young people with a new vision in the next years [1]. The organizations do their work, meanwhile professors and researchers at schools and education institutions are doing their best to reach educational goals.

It is unquestionable that education has changed fast in the last year, however, its purposes are the same: the integral development of individuals, the betterment of society as a whole in which people are aware of their rights and duties. This commitment in education is unattainable without proper health because cognitive function is closely related to the function of many organs and tissues in our body, but mainly to brain processes.

2. Health impact on performance

Now more than ever physical and mental health has gained a priority place worldwide. This is why the generation of knowledge is very important to make it reach everyone in a fast and accessible way. Particularly, research about the acquisition of knowledge and goals by students is one of the most studied topics about academic achievement. This is why this second book was elaborated. First, I must say that the first book of *Health and Academic Achievement* published a couple of years ago, collect evidences about physical and psychological health related with performance in student population [2]. Authors presented studies where school was the place full of children and young people where face-to-face social interaction prevailed. Now, conditions have changed and the systematic studies about how challenging times impact the academic performance are just being generated. It is well-known that particularly mental health and academic achievement are inversely related. The time when this relationship develops is not fully understood and studies are scarce. A recent longitudinal study investigated whether mental health predicts academic performance in childhood and adolescence and, vice versa. With the control for a variety of variables, mental health problems at age 3 and age 12 increase the risk for performing below or completing school. Academic performance during adolescence did not increase the risk for mental health at age 20 probably because of a considerable drop-out rate and long-time span between variables. Despite this, relationship between mental health and academic achievement motivates awareness to provide attention to education [3]. In addition, there is

an increased need of residential mobility for better education or job opportunities. Moving experiences impact health and academic achievement. High resilience and higher family income mitigate the poorer mental health and the lower academic performance in university students who live moving experiences after age 6 and age 12 [4]. But even if residential mobility occurs at the beginning of university times, it could undermine self-identity, and social behaviors in students. Therefore, also socialization skills must be correctly developed in order to cover one of diverse aspects related to health and academic performance.

Adolescents who graduate from high school and decide to continue to the university live a transition period which make young people to face separation from family and be responsible for their new lifestyle. Meanwhile, during this late adolescence the brain is undergoing accelerated growth and shows increased sensitivity to stressors related to financing studies, making new friends, living in a new environment. With reference to the above, there is an important finding in freshmen that increase in about 8% their depressive and anxiety symptomatology scores after completion of the first year of university. In that longitudinal study depression and anxiety symptoms were associated with lower grades so it is suggested to include strategies to facilitate transitions through university and community based clinical programs [5]. There are of course additional elements contributing to a lower academic achievement like problematic smartphone use, alcohol consumption and impulsivity [6]. The sources of stressors in high school adolescents can slightly be different from university students. For example, being a bully victim at age 16–19 is strongly associated with mental health, sleep problems and lower academic performance [7]. In addition, having chronic health conditions like asthma, mental health diagnosis, and attention disorders during kindergarten to secondary is negatively associated with attendance and grade point average [8]. Appropriated sleep is essential for ensuring a good health since differences in sleep timing like bed time, rise time, mid-point of sleep and sleep duration in school-age children and youths show associations with low academic performance, depressive symptoms, high risk of substance use, overweight/obesity, behavioral problems and suicidality [9, 10]. From preschool age the first predictor of school failure and health outcomes maybe absenteeism. Many reasons including individual, family and school factors can contribute to poor attendance that is why pediatricians could promote school attendance, and reduce chronic health disparities [11]. Like the aforementioned and other interesting proposals of preventing and attending health issues could take many books and papers to write.

The negative impact of mental health on academic stress or vice versa is common to find in literature despite that it should not occur, in an ideal scenario, however, there are many strategies to reduce the negative relationship among them. First, prevention of mental disorder and promotion of good mental health is the key to reduce the increasing rates of students affected. It is interesting that empirical research to strengthen good mental health receive less research than the prevention of poor mental health. One problem is the consensus of the concept of good mental health in young population. There is an interesting proposal about it as a state of well-being to cope with normal and destructive stressors, to be resilient and productive. Authors propose at least 14 core domains to operationalize the purposes of interventions in promoting it such as mental health literacy, attitudes towards mental disorder, self-perception an values, cognitive skills, academic/occupational performance, emotions, behaviours, self-management strategies, social skills, family and significant relationships, physical health, sexual health, meaning of life, and quality of life [12]. In particular, academic performance obtained from school records of knowledge, attendance, adjustment and adaptation could affect mental health that in turn has an influence on scholar performance but this domain of

academic performance and the others are recommended to be investigated in order to find the most effective intervention. Nowadays education online predominates at home and is the only way for a while, the question is how to maximize academic achievement or learning outcomes. In a simple concept, online education pretends learning and teaching in digital environment. But limited findings do not permit conclusions of the relationship between academic performance and online learning. The challenge to learn disciplines that implies technical skills has been overcome [13, 14] but the research of critical success factors for the effective implementation of e-learning and teaching must be mandatory since lack of training can prevent the optimal use of digital resources, and the investment of school, university or other educational settings has an important role to motivate students and instructors [15] even in emergency remote teaching [16].

3. Invitation

The study of health and academic achievement needs to go on. There is a vast field of research but also of practical solutions to apply on education issues. Health is increasingly seen as a more integral aspect with emotional well-being. Simultaneously, better academic performance from early age would ensure better stress-coping strategies for the future. Reading about academic achievement allows to comprehend implications for health professionals, administrators, and educators.

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References

- [1] UNESCO. Education 2030 Incheon Declaration. 2016. Document code ED-2016/WS/28.
- [2] Bernal-Morales B (Ed). Health and academic achievement. Edit Intech, 2018. UK. DOI: 10.5772/intechopen.68719.
- [3] Agnafors S, Barmark M, Sydsjö G. Mental health and academic performance: a study in selection and causation effects from childhood to early adulthood. *Social Psychiatry and Psychiatric Epidemiology*. 2020. DOI: 10.1007/s00127-020-01934-5.
- [4] Li M, Li WQ, Li LMW. Sensitive periods of moving on mental health and academic performance among university students. *Frontiers in Psychology*. 2019; 10:1289. DOI: 10.3389/fpsyg.2019.01289.
- [5] Duffy A, Keown-Stoneman C, Goodday S, Horrocks J, Lowe M, King N, Pickett W, McNevin SH, Cunningham S, Rivera D, Bisdounis L, Bowie CR, Harkness K, Saunders KEA. Predictors of mental health and academic outcomes in first-year university students: Identifying prevention and early-intervention targets. *British Journal of Psychiatry Open*. 2020; 6(3), E46: 1-8.
- [6] Grant JE, Lust K, Chamberlain SR. Problematic smartphone use associated with greater alcohol consumption, mental health issues, poorer academic performance, and impulsivity. *Journal of Behavioral Addictions*. 2019; 8(2): 335-342. DOI: 10.1556/2006.8.2019.32.
- [7] Hysing M, Askeland KG, La Greca AM, Solberg ME, Breivik K, Sivertsen B. Bullying Involvement in Adolescence: Implications for Sleep, Mental Health, and Academic Outcomes. *Journal of Interpersonal Violence*. 2019. DOI: 10.1177/0886260519853409.
- [8] Carter-Pokras OD, Bugbee BA, Gold RS, Lauver PE, Aiken R, Arria AM. Utilizing student health and academic data: a county-level demonstration project. *Health Promotion Practice*. 2021; 22(2): 193-203. DOI: 10.1177/1524839919862796
- [9] Sun W, Ling J, Zhu X, Lee TM, Li SX. Associations of weekday-to-weekend sleep differences with academic performance and health-related outcomes in school-age children and youths. *Sleep Medicine Reviews*. 2019; 46: 27-53. DOI: 10.1016/j.smr.2019.04.003.
- [10] Hedin G, Norell-Clarke A, Hagell P, Tønnesen H, Westergren A, Garmy P. Insomnia in relation to Academic Performance, Self-Reported Health, Physical Activity, and Substance Use Among Adolescents. *International Journal of Environmental Research and Public Health*. 2020; 17(17):6433. DOI: 10.3390/ijerph17176433.
- [11] Allison MA, Attisha E, AAP COUNCIL ON SCHOOL HEALTH. The Link Between School Attendance and Good Health. *Pediatrics*. 2019;143(2):e20183648.
- [12] Fusar-Poli P, Salazar de Pablo G, De Micheli A, Nieman DH, Correll CU, Kessing LV, Pfennig A, Bechdolf A, Borgwardt S, Arango C, van Amelsvoort T. What is good mental health? A scoping review. *European Psychopharmacology*. 2020; 31: 33-46. DOI: 10.1016/j.euroneuro.2019.12.105.
- [13] Stevens NT, Holmes K, Grainger RJ, Connolly R, Prior AR, Fitzpatrick F, O'Neill E, Boland F, Pawlikowska T, Humphreys H. Can e-learning improve the performance of undergraduate medical students in Clinical

Microbiology examinations? BioMed Central Medical Education. 2019; 19: 408. DOI: 10.1186/s12909-019-1843-0.

[14] McGann KC, Melnyk R, Saba P, Joseph J, Glocker RJ, Ghazi A. Implementation of an E-Learning Academic Elective for Hands-On Basic Surgical Skills to Supplement Medical School Surgical Education. Journal of Surgical Education. 2020; S1931-7204(20)30447-5. DOI: 10.1016/j.jsurg.2020.11.014.

[15] Naveed QN, Qureshi MRN, Tairan N, Mohammad A, Shaikh A, Alsayed AO, Shah A, Alotaibi FM. Evaluating critical success factors in implementing E-learning system using multi-criteria decision-making. PLoS One. 2020. 15(5):e0231465. DOI: 10.1371/journal.pone.0231465.

[16] Shim TE, Lee SY. College students' experience of emergency remote teaching due to COVID-19. Children and Youth Services Review. 2020; 119:105578. DOI: 10.1016/j.childyouth.2020.105578