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Analysing and Comparing the Prevalence of Common Medical Conditions Literature Review

Michael Halim
University of Salford, MSc Biomedical Science,
Greater Manchester, United Kingdom

Abstract:- Notable studies have pointed out the growing prevalence rate for common medical conditions. Among these featured in the studies include zoonotic diseases, retinitis pigmentosa, cleft lip, and palate, which affect millions of people worldwide. In addition, other scholars have expounded on diabetes, cancer, the outbreak of Covid-19 and ultimately demonstrated that how the world responds to the pandemic has consequences. As such, to uphold a state of normalcy, it is recommended that academia, governments, and the health industry work together to develop and test vaccines speedily. Moreover, herd immunity, which was also applicable in fighting measles, rubella, and influenza, should always be sought as an effective and ideal preventive strategy.

I. INTRODUCTION

Many scholars have articulated the prevalence of common medical conditions. Some studies have explained cancer with reference to hemangioblastomas which occurs at any age and causes different symptoms like tumours that appear or disappear depending on the location and size of the tumour (Halim and Halim, 2020). Some studies have discussed diabetes, more specifically, Type 2 Diabetes, which is the most common type of insulin-related disease. Halim et al. (2021) also explained that zoonotic diseases are more prevalent in urban areas. On the other hand, studies have recently focused on Covid-19 with a keen interest in how herd immunity can be achieved. With this in mind, the literature review provides an insight into the various medical conditions shaping the scope of scientific knowledge.

II. LITERATURE REVIEW

Studies by Halim et al. (2021) and Zhang et al. (2018)show the prevalence of various medical conditions. Halim et al. (2021) found that zoonotic diseases, especially in urban settings, have increased over the years. Zhang et al. (2018) established that retinitis pigmentosa, a heterogeneous retinal disorder, is more prevalent today, affecting roughly 2 million people worldwide. Also, Trivosa, Halim, and Yongyan explained that cleft lip and palate remain a common congenital malformation in the maxillofacial and oral regions. On the other hand, since 3000 B.C, there have been various global pandemics, including the most recent Covid-19 outbreak, that has come in handy in proving that how the world responds to the pandemic has consequences (Halim, 2021). In agreement, a recent report by Halim (2021) denotes that to return to normalcy, different governments, academia, and the health industry must work together in developing and testing vaccines speedily. However, considering that the SARS-CoV-2 keeps mutating, there is significant doubt whether the available vaccines would be effective enough to prevent the different emerging strains of the virus.

Besides Covid-19, Halim, and Halim (2019), Dong et al. (2016), and Halim believe diabetes is among the most prevalent diseases. The studies show that diabetes keeps increasing in different areas of the world, with Type 2 Diabetes Mellitus being the most common type of insulin-related disease. In this case, the body's resistance to insulin is caused by the disruption of the dissemination of glucose to the surrounding tissues due to vasodilation of the blood vessels. Similarly, Halim and Halim (2020) established that the mortality associated with Type 2 Diabetes Mellitus is mainly due to hyperglycaemia, a core factor that brings about inflammation. Both inflammation and oxidative stress contribute to the pathogenesis of type 2 diabetes mellitus. In addition, Xie et al. (2021) contend that reactive oxygen species are involved in the onset and progression of diabetes. The study's experiment shows that the redox state affects blood glucose levels in diabetic rats, and oxidative stress can potentially aggravate diabetes.

Halim and Halim (2020) show that cardiometabolic complications can be caused by an individual's lifestyle, such as smoking and poor diet. This is also the case, according to a study by Li et al. (2016) that aimed to find out why antioxidants inhibit cancer cells. Like Halim et al. (2021), the study established that NAC interventions cause a difference in the telomerase activities in cancer and normal cells subject to an imbalance in the redox homeostasis. Expanding on the statement, another study denoted that hemangioblastomas occur at any age with different symptoms like the tumours appearing or disappearing depending on the location and size of the tumour (Halim, Halim, and Trivosa, 2019). In the same breadth, Halim and Halim, Halim, and Trivosa (2019) discussed the role of the P53 tumour suppressor gene. Halim said that the P53 tumour suppressor gene is widely known to damage nuclear metabolism in the body and increase the number of chronic illnesses.

In addition, another study denoted that the NBAS gene plays a significant role in retinal homeostasis, making it indispensable to closely observe and investigate ocular abnormalities among SOPH patients (Thong et al., 2021). Thus, the different types and the overwhelming number of cancer cases across the globe have prompted scholars to pursue more effective therapies than traditional treatments. For instance, Halim (2021) proposes PARP inhibitors such as Talazoparib, Olaparib, and Rucaparib that use the concept of synthetic lethality to kill tumour cells. On the other hand, according to Halim et al. (2021), unlike cancers, the treatment of degenerative mitral valve diseases, which have

been increasing in prevalence, involves surgical procedures such as Conventional Surgery (CVS) and Minimally Invasive Surgery whose outcomes in terms of effectiveness differ. Patients who have undergone MIS have low postoperative infection rates and can return early to their normal activities, in addition to incurring low costs.

Molecular analysis of biomolecules is applicable in many research areas encompassing genetic disorders (Halim, 2020). This is true considering the various studies that have proven this assertion, although with considerable precautionary measures. To begin with, Yuan et al. (2019) and Gong et al. (2019) suggested that it was not suitable to switch patients in SSRI mono therapy with early non-improvement in anxiety and insomnia. According to Halim, Halim, and Trivana (2020), herd immunity, having been applied in the fight against diseases such as measles, rubella, and influenza remains the most suitable practical preventive measure. Nevertheless, studies by Halim, Halim, and Trivosa (2020) and Halim, Halim, and Tjhin (2021) contend that there is a need for more research on the efficacy of specific treatments and therapies.

III. CONCLUSION

To conclude, the literature has outlined and discussed the increasing prevalence of various common medical conditions over the years and the measures and treatments that have been implemented to counter them. Undoubtedly, research on more effective treatments is required to reduce their prevalence, so as to reduce the mortality rate, improve patients' overall quality of life, and relieve the healthcare and economic strain on the world as a whole.

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