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| **STUDENT NUMBER** | UD78080PU87291 |
| **DEGREE** | Doctorate of Public Health |
| **COURSE TITLE** | Nutrition and mental health |
| **STUDY MATERIALS** | The surprisingly dramatic role of nutrition in mental health by Julia Rucklidge/ TEDX Christ Church |
| **QUESTIONS** | 1. Write an essay on the topic of the article. Develop points to make in your essay to summarize and analyze the topic 2. What do you learn from the article? 3. What are the specific details in the article that are highlighted? |
| **YEAR** | August 2022 |

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# **Abstract**

The article/video brought to the lime light the increasing burden of mental illness world-wide using evidence from New Zealand and other European countries. Based on a series of Randomized Control Trials (RCT), the video highlighted the role of optimized nutrition in management of mental related illnesses. With several examples from different studies, the video conferred conviction that optimization of nutrition may play a key role in improving public health for example, could help reduce aggression in prisoners, slow cognitive decline among the elderly, manage/lessen stress, ADHD, autism, anxiety and depression among others.

The video dissected the current medical model approach popularly used in management of mental related illnesses and demonstrated with research that this popularized model not only works for a short term but also exposes the already vulnerable people to other illnesses like bipolar disorder and disability. However, even when what is expected is not achieved; the medical model remains popular, the nutrition-based model with very good results remains unknown and the burden of mental illnesses remains high. The video demonstrated public skepticism about using nature-based solutions to improvement of public health, something that could likely change with continued evidence-based advocacy.

The article called for immediate action; by developing more evidence using gold standard research -RCT to influence the nutrition-based model buy-in by all stakeholders. Mid-wives should start teaching and encouraging pregnant women to embrace nutrition, teachers should consider providing nutrient-rich diet to students, parents should teach children how to cook and eat nutrient rich foods and general everyone should take the responsibility of promoting nutrition for mental health because it is a very cheap and working public health alternative.

# **Introduction**

World over, mental illnesses are worryingly on arise. A trends analysis study for the period 1990 to 2019 showed a global increase in mental disorders from 80.0 million to 125.3 million, with an increase in attributed proportion of Disability Adjusted Years (DALY) from 3.1% to 4.9% (GBD, 2022). Such terrifying trends of mental illnesses pose a threat to achievement of the Sustainable Development Goals (SDGs) agenda. Among the mental illnesses are; anxiety, eating disorder, spectrum, disorder, depression, bipolar disorder, autism, attention deficit hyperactivity disorder (ADHD), schizophrenia, conduct and idiopathic developmental intellectual disability (GBD, 2022). Generally, mental illnesses are associated with premature death and specifically depression is one of the risk factors leading to disability (WHO, 2022). On a positive note, many of mental illness conditions can be treated.

The article of concern herein is a short video by Julia Rucklidge/TEDX Christchurch published in 2014. The video highlights the current burden of mental illnesses and associated health challenges. She equally maintains that most of the mental illness conditions can be treated but differs from the current treatment model which she flaws. In her remarks, she quotes several studies showing the increasing mental illness burden and failure by the responsible stakeholders to contain the challenge which she attributes to among others gaps in the current medical model. She points out that the medical model focuses on psychiatric medication, psychological therapies and other forms of support with hardly any attention to nutrition. She also fouls the education system, quoting her education in clinical psychology where she was taught that only medication in form of drugs and psychotherapy could treat serious mental illnesses, nutrition and diet would play a minute role (Rucklidge & TEDX, 2014).

Mental health affects the way we think, cope up with stress, the way we eat, the choices we make, how we associate with others, our general productivity and overall ability to realize our potential. A person with mental disorder can easily enter into self-isolation, easily be disgusted, resort to drug abuse and in worst case scenario develop suicidal feelings thus the need to accord it the necessary priority issues of mental health (Mental Health, 2022)

# **About the article**

The article/video provides evidence-based teaching for management of mental related illnesses, comparing both the medical model and optimized nutrition. With several examples illustrated below, the video confer conviction that optimization of nutrition may play a key role in improving public health for example, can help reduce aggression in prisoners, slow cognitive decline among the elderly, manage/lessen stress, ADHD, autism, anxiety and depression among others.

## **Perception of scientific natural approaches**

The video narration starts with reference to an incidence that occurred in 1847 where a physician by the name of Semmelweis based on his research findings to advise that “all physicians wash their hands with chlorinated lime before touching a pregnant woman”. His advice was aimed at controlling preventable child bed fever and other nosocomial infections, advancing that with a mere act of hand washing, septicemia would be reduced from 18% to 2%. However, his suggestion was received with hostility from other physicians and henceforth, he was reticulated, dismissed and criticized. Consequently, he broke down, forced into asylum from where he died of septicemia two weeks later at a prime career age of 47. This case right away creates skepticism about the willingness of physicians to take up non-medicine-based interventions as effective public health measures.

The video went ahead to highlight the time bomb problem of mental illness, emphasizing that it is one of present-day epidemics whose most suitable solution could be optimizing nutrition. Appreciating how radical the idea could be, comparing it to the 19th century call by Semmelweis for all physicians to wash their hands to prevent childbed fever which ended up disastrous especially to the proponent. The video emphasized that, even without approval by all, there is enough gold standard Randomized Control Trial (RCT) research evidence positioning these non-medicine-based interventions as scientific solutions, very safe and cost-effective preventive measures for promotion of public health.

## **Illustrating the burden of mental illnesses using the case of New Zealand**

In the video, research findings from an RCT research carried out in 2013 in New Zealand are discussed with clear evidence pointing to the increasing burden of mental illness. The study highlighted that;

1. By 2013, there was a 3-fold increase in ADHD. NHS indicated that, ADHD is a behavioral disorder characterized with concertation hardships, restlessness and impulsive actions (NHS, 2021).
2. Rates of psychiatric illnesses in children doubled in the 5 years preceding the study.
3. Autism increased by 20-fold and bipolar disorder in children increased by 40-fold.
4. Number of people with disability increased by 4-fold and specifically disability was closely linked to psychiatric illness as the major underlying factor

## **Optimization of nutrition in management of mental illnesses**

After showing the magnitude of the problem, the video gave examples from southern Alberta Canada where families successfully treated bipolar, depression and psychotic disorders using optimized nutrition. It was emphasized that this was not a new finding but rather a practice that existed for two decades prior. Julia a clinical psychologist by then found out about the practice from her PhD supervisor and this inspired her to venture into RCT researches to validate claims and provide information that would be helpful for the cause of public health globally. She began her journey into nutrition and mental health research over 20 years ago and has published over 20 journal articles in reputable journals like the British journal of Psychiatry. All her studies have showed positive results favoring optimization of nutrition for mental health enhancement as opposed to using antidepressant and antipsychotic drugs or any other drugs that may be prescribed by the physicians. One of her grate studies was the randomized placebo control trial published in 2014. This study provided evidence that use of micronutrients mainly vitamins and minerals in the treatment of ADHD among adults not only helps towards recovery of people from depression, hyperactivity and impulsivity but also improves their general health.

Another study quoted in the video showed the high likelihood of trauma victims to suffer from mental illnesses. However, the study went ahead to recommend that in case of a trauma say earthquake, victims should be given micronutrients as supplements in the right doses daily for at least a month and this could reduce chances of mental illness from 65% to less than 18%. Relying on over-the-counter supplements may not be a solution because they are packaged in relatively lower doses with limited nutrients. Evidence from the study recommends that each person should be given at least 15 pills containing over 30 nutrients daily without changing the dose.

## **Issues and concerns about the medical model**

The video also uses several other studies to justify that, overreliance on medication i.e., prescribing anti-depressants and anti-psychotics to mental illness patients may only provide a short-term relief, with high chances of relapse and even patients developing other health complications. One of the studies quoted indicated that, children treated with anti-depressants are 3 times likely to develop bipolar disorder compared to those not treated. Besides, their recovery rates are very low and they face a high likelihood of suffering from relapse. To supplement this evidence, my step sister is suffering from psychotic disorder and when introduced to antipsychotic medicine, she started isolating herself, eating and sleeping a lot and gradually gained a lot of weight from 48kg to 96kg in a period of 4years. Every time she stops the medication, the disorder relapses meaning that she has to survive on this medication for the rest of her life and with the weight gain risk, she is likely to become obese and develop more complications.

# **Learnings from the article**

There were several learnings from the video for personal, family and general public health. I realized that nutrition is a modifiable risk factor for development of mental problems and that everyone has a role to play as a mother/father, sister, as a leader and a person of influence in fighting mental health using nutrition.

## **Increasing burden of mental related illnesses**

The burden of mental related illnesses such as depression, ADHD and stress is increasing. To support the assertion, WHO quoted by Kelli in 2021 highlighted depression and anxiety as the commonest mental illness conditions and if nothing is done, depression could become one of the leading health challenges world-wide by 2030 (Kelli, 2021). On a sad note, the world seems not ready to address it. Sole mandate is left to medical professionals who also employ the medical model as a “gospel truth” without due consideration of the role nutrition can play. Thus, instead of reducing the mental health related disease burden is increasing.

## **Skepticism about efficacy of natural science approaches**

Skepticism about efficacy of natural science approaches is embedded in history. It was the case for promotion of handwashing among physicians as a way of improving hygiene before touching pregnant mothers and protect bedside fever but this was right away from objected way back in 1847. Another evidence showed that, it took the British government over 264 years to appreciate and put into action RCT research findings on scabies mortality for sailors. Amidst all this, optimization of nutrition for mental health enhancement has been around as a public health approach but has hardly gained any recognition. A question remains on how long it will take for society to appreciate and put into action use of optimized nutrition for control and possible elimination of mental illnesses that has turned into an epidemic. Regardless, the struggle to convert the public to embrace nutrition optimization continues.

## **Nutrition matters**

The video creates evidence-based advocacy that a well-nourished body and brain is better to withstand mental challenges and recover from illness. It calls for adoption of nutrition in the struggle to curb mental related disorders. Evidence cited shows that over 60-80% of the people enrolled to micronutrients intervention respond positively with high likelihood of total recovery as opposed to use of drugs that are associated with short-term relief, possibility of relapse and increasing the risk of other illnesses like disability. The video further uses another research to demonstrated how cheap micronutrients have a high potential to completely eliminate hallucinations and disillusions yet costly medication has very minimal chances of success

## **Nutrition therapy is cheaper than medical model**

Nutrition is fairly a cheap option compared to medication thus a good public health intervention and questions remain why it has remained unpopular yet it can even be promoted from a cost saving perspective. With continued evidence-based advocacy, there is a ray of hope that nutrition therapy will be embraced. Recently, nutritional psychiatry has been recognized as an emerging area of research especially studies that look at the role of nutrition in management of mental health challenges (Kelli, 2021).

# **Specific highlights from the article**

The article/video provides the status of mental health related problem, gaps in what is currently being done at a time when the world is suffering from the mental disorder epidemic and what can be done differently for a better world. This article answers pertinent questions on whether nutrition helps in prevention and treatment of mental health problems. Below is a detailed illustration of the highlights.

## **Questioning the efficacy of medical model**

Mental related illnesses are on increase world-wide despite the popularized treatment. Question asked herein is that if treatment works why the increase in disease cases and why the high relapse rate. In effort to answer such pertinent questions, proponents of the natural nutrition model discredit the medical model and call for its modification to embrace optimized nutrition in management of mental illnesses. Different studies have been used demonstrating the effectiveness of nutrition and gaps in the medical model when it comes to treatment of mental illnesses.

To conclude on combining both nutrition and the medical model in management of mental related illnesses the video emphasized the need for RCT research into the subject matter. This would inform future actions.

## **Processed food, a risk factor for mental illness**

Apparently, there is a high consumption of processed food and in some developing countries like Uganda it is taken as a symbol of wealth. However, the video warned that; the more we eat processed food, the higher the chances of mental related illnesses such as depression and almost all studies available have not showed any dietary positives from processed foods. The video thus recommended eating fresh foods such fish, vegetables, olives and nuts among others. In addition, the video called on the public to choose now, prioritize lifestyle factors such as exercise, health eating and supplements where necessary, psychological treatment and save medication where the above approaches have failed.

## **Way forward**

If nutrition works, then shouldn’t it be covered in our healthcare system? Skepticism continues and this calls for more research into the discipline to provide more evidence and create a platform for public buy-in. However, given the already highlighted benefits with hardly any known side effects, the nutrition-based model is worth promoting and thus;

1. Mid-wives could be used as champions in promotion of the nutrition-based model for management of mental related illness. Mid-wives can start by teaching pregnant women about the importance of nutrition, emphasizing that nutrition depleted mothers give birth to nutrition depleted children with high chances of mental health disorders.
2. The rest of us in our respective capacities can teach people including our close associates, family members, workmates and other that cheap processed food is not cheap because the cost goes into personal health, public and environmental health. We need to teach children to cook and eat nutrient rich foods that could be a big milage to saving the future generation. School and parents should seriously reconsider children menu.
3. Physicians should carry out medical model evaluation and consider whether the treatment they give contribute to the poor long-term outcome of mental illnesses using the already available RCT researches.

# **Conclusion**

The study highlights the challenge at hand which is mental illnesses that are on a rise globally, how it is currently managed mainly using the medical model that disregards optimization of nutrition, consequences resulting from the current interventions i.e., rising rates of secondary illnesses associated with mental illness and the fact that recovery under the current medical model emphasized is on a short-term basis but worst results such as premature death are accrued in the long term.

The video goes ahead to advance and call for adoption of optimized nutrition for management of mental illness, highlighting the fact that it is not a new advance but it has been in place for decades though physicians have not embraced it. Using several RCT researches the video provides evidence, showing that optimization of nutrition works moreover with hardly any long-term negative consequences.

Cost saving should be the first evidence for society to embrace optimized nutrition as a public health intervention aimed at avoiding, optimizing, treating or and lessening mental illness with a ripple effect to slow down cognitive decline, reduce aggression, anxiety, depression, stress and ADHD among others. Besides, it contributes to heart health. Eating well when appropriate can improve mental and overall health of the people. Thus, the need to take universal prevention serious by optimizing nutrition for the vulnerable. Do not wait for calamities to befall in order to modify lifestyle.

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