

Health from Psychological Perspective - Winning the Losing Game

Colonel (Dr) Siti Nordiana Dollah¹, Brigadier General Dato' (Dr) Rozali Ahmad² & Dr Mohammad Arif Shahar³

¹Department of Psychiatry, Armed Forces Hospital Tuanku Mizan, Kuala Lumpur

²Department of Military Medicine, Armed Forces Hospital Tuanku Mizan, Kuala Lumpur

³AVISENA Specialist Hospital, Shah Alam, Selangor

ABSTRACT

Non-communicable diseases (NCDs) significantly affect the general as well as the military population. Despite advances in the science of prevention and management, incidence of NCDs and its complications continue to escalate. Regardless of rigorous medical screenings, periodic medical check-ups, adherence to a high standard of discipline and intense physical activity, military population does not appear to be spared from this problem. Since NCDs are largely a lifestyle disease, behaviour modification is one of the most important, if at all, a critical factor that contributes to the success of NCDs' management. This article explores the importance of psychology in human behaviour related to NCDs; misconceptions about behaviour change and elucidate to how health psychology ought to be integrated into its management.

KEYWORDS: Health Psychology, Behaviour Change, Non-Communicable Diseases

INTRODUCTION

Non-communicable diseases (NCDs) are the leading cause of death and morbidity globally, including Malaysia. Despite the advancement of pharmaceutical technology and arduous measures taken in combating NCDs, the prevalence of NCDs and their risk factors are increasing especially diabetes, obesity and depression¹. The military does not appear to be spared from this problem; regardless rigorous medical screenings, periodic medical check-ups, adherence to a high standard of discipline and intense physical activity.

NCDs are strongly inter-connected and highly co-morbid. The four major groups of NCDs; cardiovascular diseases, cancer, chronic respiratory diseases and diabetes share the same risk factors, namely tobacco and harmful alcohol use, unhealthy diet, poor and physical inactivity. Individuals with mental disorder are more likely to have a medical condition². Those with Type 2 Diabetes Mellitus (T2DM) are at increased risk of depression or anxiety and vice versa³⁻⁵. Depression and anxiety disorders increases the risk of CVD and adverse cardiac-related outcomes, similarly the other way round.⁶⁻¹⁰

Multiple biological theories have been outlined to explain the association between these disorders including insulin resistance (IR), hypothalamic-pituitary-adrenal axis dysfunction, autonomic nervous system imbalance, endothelial dysfunction, platelet over-activity, inflammation, oxidative stress, chemical imbalance, hormonal imbalance, neurodegenerative theory etc. Most of the treatment approach are focusing on fixing this flaws. Unfortunately, the medications seems to improve the targeted condition while at the same time making the other conditions worse.

Anti-depressant may induce diabetes and weight gain on patient with T2DM^{11,12}. Anti-hypertensive drugs such as reserpine and alpha-methyldopa can induce or worsen depression^{13,14}. Beta-Blockers have also been implicated, yet, it remains controversial.¹⁵ β -blockers and thiazide diuretics were found to worsen insulin resistance or glycemic control which may be associated with an accelerated risk for cardiovascular events in the long term.^{16,17} Statins are effective in lowering cholesterol levels and adverse cardiovascular outcomes, but increases diabetes risk.^{18,19} Anti-depressant and other psychotropic drugs has been found to cause metabolic changes such as weight gain, dyslipidaemia, hyperglycaemia and hypertension.²⁰⁻²³ These practices appear to be "robbing Peter to pay Paul" – or as the Malay proverb goes "gali lubang tutup lubang" with no end to the underlying problems. While less than 25% of diabetic patient achieve ADA target of glucose control of A1C of less than 7%^{24,25} and only one-third of patient with depression achieved remission with antidepressant²⁶.

With the current strategies for management of NCDs, there are significant increase in life expectancy throughout the world. Nonetheless, there are also continuous upsurge in NCDs. The continuous up rising trend not only results in financial burden with economic implications, but also leads to heavy emotional burden to the medical practitioners. Do we not consider this as failures? Do we not think that now is the time to re-examine the clinical practices and beliefs that guide the current approach to NCDs?

Health Goals and Challenges

Health is a result of a complex combination of biological, psychological, social and spiritual factors^{27,28}. Biological factors are referring to inherited personality traits and genetic conditions. Behaviours include lifestyle variables such as tobacco use, risk taking, alcohol consumption, diet, and exercise. Social and spiritual conditions include social support systems,

family relationships, cultural beliefs, socioeconomic status and religious practices. There are spectacular interplay between these factors, for example the effect of psychological stress and sleep deprivation on body system include glucose metabolism and immune function. These four dimensions are interconnected, interacted affecting each other. This biopsychosocial and spiritual model reconceptualises the patient as a human being and values patient's autonomy as an essential contributor to accurate diagnosis, health outcomes and care.

Emotional eating, psychosomatic illness, unexplained medical symptoms are the examples of condition linking people's emotions to their behaviour and its consequences. Tobacco and harmful alcohol use, unhealthy diet, poor eating habit, poor stress management, physical inactivity and lack of sleep are examples of lifestyle and behaviour which contribute to the increasing trend of NCDs.

The intervention for NCDs is not as simple as we think. The biomedical model has been extremely effective at providing an understanding of NCDs. Scientific breakthroughs in genetics and molecular biology will provide new opportunities for success in detecting and treating NCDs. However, it cannot address behavioural issues which is the root cause of NCDs, its risk factors and treatment adherence. Stress reduction, weight loss, smoking cessation, eating habit and dietary choice are beyond medications prescription. Adopting this model into clinical practice not only provide the optimum care for the patient but also benefit the medical practitioner.²⁹

The main challenge is to develop the integration of health psychology within the clinical practice of medicine. Clearly, there is a need for this integration. The clinical practical guidelines often mentioned non-pharmacological intervention including behavioural counselling, but rarely offer guidance on how to apply the methods. In fact, the behavioural component is barely brief and simple. Most medical schools' curriculum have only minimal content relevant to behavioural science. Psychological and mental health elements are often aloof from the clinical world. Sometimes they are viewed as of little clinical importance.

The science of mind and behaviour

Human is not merely a physical and biological being. There are also a nonphysical, functional part of human being, a mind which is responsible for feeling, thinking and behaviour regulation. Human mind default setting is egocentric which is selfish and self-validating. Egocentric mind strive for pleasure, not healthy and meaningful life. Understanding the basis of human mind is crucial for medical practitioner - not only to deliver the best of care for their patient - but also to achieve their own health goal. The way the human mind works can be self-destructive. Being aware of our own thoughts, feelings and emotions; understand how these could influence our interactions with others are the fundamentals of therapeutic care.

Food and feeding behaviour: Food is rewarding and pleasurable. When we deprive ourselves of certain kinds of food, they may actually become more pleasing. We'll find it even tastier when we

are not eating them for a certain period; more rewarding when we eventually have them. High sugar, salt and fat maximize the taste of the food; that is why it is called highly palatable. Eating highly palatable food alters our brain chemistry in a way that we want more and more. The food industry use the basis of psychological science to promote their products with complimentary support from healthcare team. The combination of high palatable food and the unhealthy food campaign is excellent to maintain these behaviours. In other words, simply reminding people to avoid unhealthy diet will reinforce unhealthy eating behaviour. It is a human nature to do something opposite to what is being told. This is called psychological reactance, coined by Jack Brehm³⁰. The story of "Prophet Adam and forbidden fruit" is a message for humankind to be aware of this human tendency.

Psychology of choice: When confronted with a choice between simple or complex solutions, we tend to favour the complex. Contemporary approaches to biomedical research glorify the role of genetics and molecular biology. In Malaysia, a large amount of resources are devoted to biomedical research and intervention than a simple, low cost behavioural research. The status quo trap biases us toward maintaining the current situation even when better alternatives exist³¹. The policymakers and medical authorities remain in the status quo despite substantial evidences including systematic randomized clinical trial demonstrating that psychological and behavioural intervention were more cost-effective than pharmacological intervention and surgery³²⁻³⁹.

Behaviour change: Changing is difficult: Human beings seem to be hard-wired to resist change. Some people find change more difficult than others. Even minor changes can be alarming for those people. Change involves loss and discomfort. Practicing healthy lifestyle behaviour may bring the loss of pleasurable feeling from comforting food. Changing the way of consultation may bring the discomfort feelings of incompetence while learning something new.

What needs to be changed?

The first step is to have an accurate understanding on health concept. Health is a goal, not an automatic possession. Health is something that we need to earn. The next step is to recognise the potential of health psychology and behavioural science for enhancing the prevention and management of NCDs.

There are substantial evidence showing that psychological and sociological factors contribute to NCDs in great proportions. To ignore what we already knew leads to much wasted effort and money. In order to maximise the potential efficacy of interventions, it is necessary to have a scientific understanding of behaviour change. Behavioural change is not just about telling people what to do and what not to do.

The common misconception about behaviour changes:

a) We take for granted that human behaviour is just a common sense. By common sense we mean that understanding human behaviour is so obvious that it needs little or no serious

action. We opt to think that every doctor can teach their patient to change. The real fact is that a simple advice and patient education rarely achieve their goal. The clinician should learn and practice a *comme il faut* skill in adopting behaviour approach strategies in managing patient with chronic diseases.

b) We assumed that knowledge and information drive behaviour. Traditional medical models placed medical practitioners in a position of expert role, while patients have an information deficit. The patient come to see medical practitioners to consult them for their expertise. In return they get information in the form of a diagnosis from which treatment ensues. This model works pretty well for patients with acute conditions but less effective for the chronic conditions where patients often have access to information and other expertise⁴⁰. This model not only less effective in changing of behaviour, but also leads to negative outcomes in medical encounter⁴¹. The patient who feel unheard, disrespected, rejected may refused to adhere to treatment; subsequently leans towards poorer health outcome. Meanwhile, the medical practitioners may perceive themselves as a failure, dissatisfied with reduced sense of self-efficacy. Knowledge alone does not drive the behaviour. Providing information and unsolicited advice may create more resistance to change.

c) We presumed that, if people know what is good for them and what they need to do to protect their health, they will do it. Based on this assumption, since past few decade, health campaigns promoting healthy behaviours and discouraging unhealthy ones have become a major tool for public health practitioners. Large amounts of money, time, and effort are spent each year in various campaigns to get the public to eat healthy, get moving, stop smoking; while paradoxically contribute to growth for unhealthy food products in the markets.

d) We labelled people who did not change despite having the knowledge is either consumed in denial, have no insight or not motivated. It is assumed that if we tell people in more coercive way, urging more willpower, they will change. However, this is clearly not the case. It is not only ineffective and draining act, but may lead to the destruction of therapeutic relationship.

e) We believed that change is motivated by discomfort. This is based on the assumption that if you can make people feel bad enough, they will change. This model also assumes that if we tell people the negative consequences of eating too much or exercising too little, they will change their behaviour accordingly. This is also clearly not the case. People don't change because they haven't suffered enough.

Concluding Remarks

The purpose of health care is to improve the well-being of the population. Although many components of health are determined by genetic factors, the importance of environmental exposures, psychological and social factors can never be emphasized; or even perhaps, it has a lot more to do with our lifestyle (i.e. environments) rather than genetics. Health psychology offers an extensive literature that address many of these issues.

Take Home Message

The path to wellness is complex. Human behaviour plays a significant role in illness and health. Clearly, genetics and molecular biology hold the key to understanding many important diseases. However, a simple, low cost behavioural technologies can have a profound impact in managing and preventing NCDs. The integration of health psychology in medical practice is the future of NCDs management.

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Correspondence: Colonel (Dr) Siti Nordiana Dollah, Tuanku Mizan Armed Forces Hospital, Kuala Lumpur, Malaysia. Telephone: +60192117577. Email: drdiana2012@gmail.com