

Why there is too much focus in academic public health these days on primordial prevention and risk factors rather than on primary prevention and health promotion?

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As per Leavell and Clark's description in the late 1940s, *primary prevention* is applicable at the pre-disease phase, protecting populations so that diseases never occur; *Secondary prevention* aims to halt the infectious disease progress during its early stages to limit its severity and *tertiary prevention* limits impact of advanced disease and focuses on salvaging the patient's quality of life, through rehabilitation⁽¹⁾.

With the focus shifting to Non-communicable Diseases (NCD) in the last 50 years, Strasser suggested that prevention of Cardiovascular Disease (CVD) should go beyond the concept of primary prevention. He coined the term 'primordial prevention' for activities that prevented the appearance of the risk factors by changing the lifestyle⁽²⁾.

In medical colleges, during Community Medicine theory as well as practical examinations, many times, when graduate and postgraduate students are asked questions on the primary level of prevention or health promotion, their answers mainly focus on primordial prevention and the risk factors. They often lack a basic understanding of the related concepts. Naturally, as an examiner, I deduct marks for this lapse.

This trend set me thinking about the reasons for such a performance of the students during examinations. I felt that it was because of some gaps in our teaching. I explored it further by examining the textbooks of public health. As a sample, I went through the concerned chapters of three usually used textbooks. I was surprised to note that there was a complete lack of uniformity in their text regarding the levels of prevention.

In the first textbook, three levels of prevention were described, viz., primary (health promotion and specific protection), secondary, and tertiary. Surprisingly, primordial prevention was positioned between primary and secondary! It was described as "... a primary level of prevention of disease that is with reference to NCD such as obesity, hypertension, diabetes, cancer, coronary artery disease, etc. This consists of elimination or 'modification' of the risk

factors of the disease..."⁽³⁾. The text described two approaches for primordial prevention, i.e., population strategy and high-risk strategy (which I believe should ideally be a part of specific protection).

So, as per this description, primordial prevention is mainly linked with NCD.

In the second book, as a part of Table 10, primordial prevention was listed even before the primary level of prevention! Here, it was described as addressing a phase of disease, i.e., the underlying economic, social, and environmental conditions leading to its causation. Its aim was listed as 'to establish and maintain conditions that minimize hazards to health!' Its target was described as 'total population or selected groups; achieved through health policy and health promotion'⁽⁴⁾.

But, as per the Ottawa Charter of Health Promotion, both education and policy are central to the achievement of individual, community, and national health status. According to this conceptualization, it is possible to distil the concept of health promotion into an essential 'formula', Health Promotion = Health Education x Healthy Public Policy. The last line of the above paragraph, however, lists health policy and health promotion separately!⁽⁵⁾ Also, as per the above description, health promotion is a means to achieve primordial prevention!⁽⁶⁾.

In another paragraph on the preceding page, primordial prevention was described as "A new concept that has received special attention in the prevention of chronic diseases!" It is also labeled as 'primary prevention in the purest sense', that is, prevention of the emergence or development of the risk factors in the countries or population groups in which they have not yet appeared! The text also mentioned, "For example, many adult health problems (e.g., obesity, hypertension) have their early origin in childhood because this is the time when lifestyles are formed (for example, smoking, eating patterns, physical exercise). In primordial prevention, efforts are directed toward discouraging children

from adopting harmful lifestyles. The main intervention in primordial prevention is through individual and mass education.”⁽⁴⁾.

Again, here, the primordial prevention is shown to be mainly linked with chronic diseases, that too with its focus upon 'lifestyle'. Also, the target here was children for instilling a healthy lifestyle. Strangely, here, primordial prevention was shown to be applicable to the countries or population groups in which risk factors had not yet appeared?! It is, rather, a very restrictive definition. Is there any such country in the world? It is not clear if primordial prevention will cease to be applicable when risk factors appear in those countries or population groups?! Moreover, here, primordial prevention seems to have subsumed the concept of primary prevention.

Also, the main interventions in primordial prevention were shown to be 'individual and mass education'?! This kind of statement puts all the emphasis on the people. They are to be blamed if they fail to adhere to any medical/health advice given!

In the subsequent paragraph, primary prevention was described as “Action taken prior to the onset of disease”! By implication, here, primary prevention is a broader domain that subsumes the concept of primordial prevention.

So, the text in both these books complicates the whole issue. In some places, primordial prevention is depicted as a broader concept than primary prevention (which I feel is irrational), while in other places, primary prevention is depicted as a broader concept than primordial prevention (which looks natural).

To confuse the issue further, primary prevention has been described in Table 10 as addressing a phase of the disease with a focus on 'specific causal' factors⁽⁴⁾.

This is not logical. How can we describe primary prevention as addressing 'a phase of disease'? The book text should be clear about whether specific causal (risk) factors are to be addressed by primordial or primary prevention.

Again, in Table 10, the aim of primary prevention has been listed as, “To reduce the incidence of disease”. Its target has been described as “Total population, selected groups and individuals at high risk; achieved through public health programs⁽⁴⁾”. It is thoroughly confusing! When we describe primary prevention as "Action taken prior to the onset of disease”, its aim should be 'to prevent' rather than 'reduce' the disease incidence (because, the disease is yet to occur), and primary prevention should be based on generic civic measures rather than on disease-specific public health programs exclusively!

Apparently, as per these books, primordial prevention is NOT APPLICABLE to communicable diseases! It is projected as being mainly operating through lifestyle modification for NCDs.

To top it all, the third book audaciously declares, “Primordial prevention is the real prevention, which does not allow people to fall sick!” This book even describes, rather 10 illogical risk factors, including unsafe water etc! The moot question is – how do we explain 'unsafe water' as an unhealthy lifestyle or a risk factor?! The text goes on to enlist all actions of health promotion (described below) under primordial prevention. This book mentions- “Once the risk factors have emerged in the community, primary prevention has the prime place, with the aim of controlling/modifying the risk factors⁽⁶⁾”.

So, here, the primary prevention seeks to act on the risk factors, which is quite a strange stance. Rather, it turns the whole public health teaching thus far, upside down.

Clearly, the authors of most of the books in our discipline have diverse understanding/opinion about these concepts. In the recent past, there seems to have been a deliberate attempt to change the meaning and contents of the concept of health promotion. There has been undue focus on primordial prevention and risk factors.

The dictionary meaning of the word 'primordial', incidentally, is – 'existing at or since the beginning of time or the world; earliest⁽⁷⁾'.

So, logically, primordial prevention should have been there from the very beginning, or it should be the first level of prevention. As explained above, both these assertions are unlikely.

Apart from the textbooks, even some journal articles have now started commenting on the issue, further confusing the matter. This is evident through their text like, “Primordial prevention prevents the appearance of the mediating risk factors in the population, focusing on aspects of social organization and aiming to modify the conditions that generate and structure the unequal distribution of health-damaging exposures, susceptibilities and health-protective resources among the population. It addresses broad health determinants rather than preventing personal exposure to risk factors, which is the goal of primary prevention.”⁽²⁾.

Another confusion, in this context, is the definition of a risk factor, i.e., any attribute, characteristic, or exposure of an individual that increases the likelihood of developing a disease or injury, e.g., high blood pressure, underweight, tobacco and alcohol consumption, unsafe sex, etc.⁽⁸⁾. Clearly, focus here is individual. It contradicts primordial prevention as addressing broad health determinants rather than preventing personal exposure to risk factors, as mentioned in the preceding paragraph.

Simultaneously, health promotion is now being described as a social, educational, and political action that enhances public awareness of health, fosters healthy lifestyles and community

action in support of health. These kinds of definitions may lead to a background for eventual VICTIM BLAMING with too much focus on human behavior, advocacy, lobbying, and empowerment. All this emphasis implies that individuals and communities themselves must work for improving a lot and for improving their surroundings. Indirectly, these definitions try to absolve the governments of their responsibilities in ensuring the creation and provision of health promotional infrastructure for the general public⁽⁴⁾.


As per the health promotion concept, governments must ensure clean water, clean air, clean surroundings, regular electricity and water supply, good roads, adequate medical and educational institutions, green covers, good transport systems, parks, playgrounds, etc. for the citizens. None of these are directed towards a particular disease. These seek to improve the living conditions of the whole population. As against the description of primordial prevention, health promotion is meant to address both communicable and non-communicable diseases. In fact, health promotion is essentially GOOD LIVING⁽⁹⁾.

In India, as of now, we need not copy the definitions used by the Western Countries. For our country, the language used to define the concept of health promotion should be such that it highlights the role of the government in providing basic amenities. The time for health activism is not yet ripe in India⁽⁹⁾. To conclude, primordial prevention should just be viewed as a sub-component of primary prevention, somewhere between health promotion and specific protection. This is because health promotion is applicable before the emergence of risk factors when specific protection will become operative. Primordial prevention, thus, will prevent the emergence of risk factors through health education, behavior change, and lifestyle modification.

Thus, we need to correct the sequence of various levels of prevention related concepts in public health as - primary prevention > health promotion > primordial prevention > specific protection.

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