Chronic Illness, Impairment and Disability: The Sociomedical Perspective

Eric O Aigbogun1, and Osborne Osuegbu2

1Research Department, Regions Stroke and Neuroscience Hospital, Mgbirichi, Imo State, Nigeria
2Department of Preventive and Social Medicine, College of Health Sciences, University of Port Harcourt, Rivers State, Nigeria

Abstract
Chronic illness, impairment, and disability are often perceived as a chain reaction, where the illness causes impairment and disabilities. However, this may not always be correct because the fact that an individual is living with a long-lasting health disturbance (psychological or physical), does not imply that the chronic illness will introduce functional limitation that causes a disabling condition. The link model emphasises that an impairment is a deviation from normal, and not necessarily a functional limitation, which is graded based on perceived consequences; ranging from minor to severe and extreme, with the sever and extremes (but not minor) consequences leading to a disabling state or condition. The model also suggests a measure of disability - graded based on the extent of unfitting. However, the state of disability arising from an impairment caused by a chronic illness must be measured against what the individual termed as normal in the absence of the illness; else, the chronically ill individual would have been ascribed a condition based on dissociated social perception. Based on the sociomedical context of the link model, it is inappropriate to assume a direct relationship between chronic illness and disability, rather the severity of impairment arising from a chronic illness defines the extent of disability. The relationship between chronic illness, impairment, and disability is similar to mixing colours, where the end product is the extent of interaction between the intermediates. Thus, impairment is the describing factor for the perception of the disabling state of any chronic illness.

Keywords: Chronic Illness; Impairment; Disability; Link Model

INTRODUCTION
According to the College of Family Physicians of Canada [1], chronic illness is the lived experience of long-lasting health disturbance; physical or psychosocial, independent of the mode of existence; communicable or non-communicable disease, condition, syndrome, or disorder; and the
The concept of impairment is quite simple and straightforward, however, that of disability changes with respect to the defining angle. The medical perspective of disability has evolved over time. Before the 19th century, disability was a term used to describe a legally induced disadvantage, which prevents participation in some areas of the community’s social, political, or economic life [18]. The concept as at time included naturally and artificially induced disabilities. For example, according to the legal theory of such times, successful domestic arrangements required husband and wife to be as one person, with the decision resting only on the shoulders of the male. So, it was apparent that married women were explicitly disabled by law from the management or disposition of property [18-20]. As the 20th century unfolded, abnormal biological functioning began to be equated as a general matter with disabling defectiveness that does not just make the individual disadvantaged, but also, except ameliorated or corrected, the individual remains socially unstable with reduced chances of survival [21,22].

Chronic illness, impairment, and disability: links and disconnects

According to the Centers for Disease Control, the risk of chronic illness increases with age, and the public health implications of chronic illness in aged adults are significant [23]. It may not be surprising to know that 80% of older adults live with one chronic illness, while those with a combination of two or more is about 50% [24]. Arthritis, cardiovascular disease, and diabetes are ranked highest among older adults (Administration on Aging, 2007) [25]. Studies have shown that race and ethnicity are factors of chronic illness across the globe; with races of African-descent having the highest rate of prevalence, while Asian descent tends to have lower rates. Latinos, on the other hand, are associated with high rates of diabetes, when compared to whites and Asian Americans and comparable rates of other chronic illnesses [11,26].

Often times, with chronic illness comes functional limitations (impairment) and disability [27]. Thus, for
older adults, there is severe constriction of their physical being, productive activity, and social interaction [28-30]. Superficially, when one refers to another as being impaired, it seems more like a minor difficulty in use and thus does not seem like a term requiring modification, however, to Jones [17]. this word is to some extent culturally determined; because he sees it as a socially constructed idea of deviation from the norm. Jones provided an example of an abnormality turned cultural determinant for success. In a South American tribe, the skin lesion “dyschromic spirochaetosis” which colours the skin is regarded as a desirable characteristic to the extent that those few members of the tribe who escaped the infection were unable to get marriage [31]. However, for an outsider, that is a disfiguring impairment [31].

Countless times, medicine and clinical practices have termed certain accompanying inability as an impairment. This to some physical sociologist has not gone down well, as the term “impair” would illustrate a weakness. However as illustrated in the fiction, in The Country of the Blind, by H G Wells [32]. In the story he narrated how a mountain-<ref>eer found himself in an isolated valley, housing people with anophthalmia; although he could see, he was so clumsy that functioning effectively with complete sight was a limitation in that society. That fiction illustrates the dangers of latch-<ref>ing onto the wrong impairment. The people of the valley do not understand that it is his senses other than sight which is at fault, but assumes that his impairment is that he is different from them; simply because he has eyes. Therefore, the only way to fit in- “be cured of his impairment” is simply to pull out his eyes, only then will he be sane and be an admirable citizen [32].

Even with the defined limitations attributed to impairments, is it usually possible to define the loss of function, the impairment. Is impairment always disabling? [17]. Although impairment and disability have similar forms (that is could be temporary or permanent), one must be careful in clarifying the definitions; impairment is an abnormality in anatomy, which could be psychosocial or structural, whereas, abnormality is so defined when there is a restriction to function within the range considered normal for a human being. Now, these definitions construct a picture of what is normal and it permits a bit of digression. Let us look at an important aspect of “NORMAL”. There is an ethical debate on the need to allow life-threatening congenitally abnormal children exist at free will, despite the socioeconomic and psychological impact on their parents [33-35]. Some school of thought believes that their “condition in existence” should be naturally determined and not termed abnormal as it is a social construct concept that discriminates what is normal from abnormal [36]. In buttressing this point, society defines the mentally afflicted as insane; but have we thought about what they feel about the normal? In the world of the “insane”, nakedness is normal and thus wearing of a dress is societally unfit. In this context, you will agree that society largely defines what is normal, abnormal and societally unfit.

In a BBC Radio Interview “No Triumph, No Tragedy” on the 4th of June, 2000, Harris and Reindal used achondroplasia as an example to distinguish and relate impairment and disability, Harris did nor deny that he was chronically ill, but he claimed that achondroplasia is not a disability. However, he accepted that there is indeed an impairment. In achondroplasia, there is a failure of growth in the long bones, which for Harris is rarely disabling, and, in present-day Britain, rarely handicapping [15]. Shakespeare, a sociologist with achondroplasia did not share the same view with Harris, Shakespeare was of the opinion that a disabled person is one who feels himself to be disabled.

The observable end point for any illness or impairment is the disabling feature. Often times the clinical manifestation of an illness is accessed by the level to which the individual is unable to function normally “DISABILITY”. However, in an attempt to understand the relativity of disability, a recent article identified three (3) models; the theological model of disability, the medical model of disability, and the social model of disability [37]. The theological model of disability is the oldest model that exists [38] and it references disability as an act of God [37]. The proponents
hinged on biblical teachings and events that ascribes certain conditions as punishment from God or demonic possessions [39]. With significant leap in medical science around the mid-1800s, the medical model of disability gradually ousted the theological model. The medical model ascribed all disabilities to medical conditions [40]. For medical professionals who strictly follow this concept, their orientation makes it compulsory that people with disability must evidently display such attributes (play the sick role) if they would receive help or medical assistance. However, Llewellyn., et al. [41] pointed out that ‘many disabled people are not sick, but have impairments without health problems’; therefore, this makes it difficult to access the desired help. The advent of the social model of disability, put the medical model in a “contest of definition”; with the medical model of disability perceived to be limited in definition [42]. Those that belief in the social models of disability, sees it as a socially constructed phenomenon such that the society was responsible for disabling people with impairments, and therefore the required solution must be directed towards societal change rather than the rehabilitation or adjustment of the individual [43,44].

The perspective of a medical professional with a socially constructed mind

As a sociomedical scientist, I agree that chronic illness often leads to impairment; ranging from minor to severe and extreme (Figure 1); however, these impairments will only be disabling when the individual feels he is not able to meet up with what he terms “normal”.

Unarguably, there are certain clinical or medical conditions that come with physical and psychological impairment; and even to the patient, his/her response will suggest the inability to function within the patient’s perception of normalcy and thus, needs assistance to carry out minor routine tasks. However, there is the other situation where there is/are no outright indication(s) that the individual is disabled but may be impaired.
The link model suggests and emphasises that an impairment is a deviation from normal, and not necessarily a functional limitation, which is graded based on perceived consequences; ranging from minor to severe and extreme, with the sever and extremes, but not the leading to a disabling state or condition. Thus, disability would also be graded based on the extent of unfitting. However, the state of disability arising from an impairment caused by a chronic illness must be measured against what the individual termed as normal in the absence of the illness, or else, the chronically ill individual who be ascribed a condition based on dissociated social perception. The constructed limitations ascribed to the impairment and disability create a series of questions – To what extent is chronic illness associated with impairment? Can we truly define impairment as loss of function? And, does all impairment lead to disability?

To this effect, it will not be incorrect to state that no linear correlation exists between chronic illness and disability, but a component of the extent of impairment defines the disabling state. Unsurprisingly, this view is shared by Nagi [45] Verbrugge and Jette [46] and Goering [47].

CONCLUSION

The relationship between chronic illness, impairment, and disability is similar to mixing colours, where the end product is the extent of interaction between the intermediates; chronic illness as the base colours, the shades of colours mixed as the degree of impairment and the level of interaction produces the end product (disability) which is defined by its characteristics. Thus, impairment is the describing factor of how the manifestation of chronic illness is perceived as disabling.

In finding a balance to the heated debate about this ethico-moral and sociomedical constructed disadvantaged status, caution must be applied in describing how certain chronic illnesses are linked with impairment and disabilities.


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