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VIEWPOINT IN MEDICAL SOCIOLOGY

Overcrowding in emergency departments: Revealing the social perspectives through a medical sociological analysis

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Abstract

In the past decade, several studies have evaluated the causes of overcrowding in emergency departments in different healthcare systems. Many of the perspectives, however, have emerged from a biomedically centered conceptual framework. An explanatory model that integrates the concepts and views of medical sociology is generally lacking. This paper argues that a critical and qualitative medical sociological analysis may reveal the salient and multidimensional social factors that underlie emergency department overcrowding. These sociological considerations can assist in understanding the phenomenon and in taking steps to optimize the prevailing conceptual framework. In this paper, the congestion of emergency departments is presented within the sociocultural context of Hong Kong, China, which is a metropolitan city that had nearly 2.2 million recorded emergency attendances at public hospitals in 2017. Evidence from the relevant

literature is used to support this analysis. An interplay of social ideologies and factors at different social levels is identified as contributing to emergency department overcrowding. The factors are discussed at the individual, microsocial, intermediate, and macrosocial levels. The sociological hypothesis is that the overcrowding issue may be multidimensional in nature and that a linear explanatory approach that attributes the root cause to the healthcare system per se may not be adequate. This paper sheds light on the importance of a sociocultural analytical approach for explaining the phenomenon. The diverse sociocultural etiologies should be contextualized when formulating strategies to address the global issue of overcrowding in emergency departments.

KEYWORDS: crowding; emergency care; emergency departments; medical sociology; service utilization.

Riassunto

Nell'ultimo decennio, diversi studi hanno valutato le cause dell'affollamento nei dipartimenti di emergenza in differenti sistemi sanitari. Molte prospettive, tuttavia, sono emerse da un modello teorico concettuale focalizzato su una prospettiva biomedica. Un modello esplicativo che integra i concetti ed i punti di vista della sociologia medica in generale manca. Questo studio sostiene che un analisi sociologica medica critica e qualitativa può rivelare i fattori sociali salienti e multidimensionali che sostengono l'affollamento dei dipartimenti di emergenza. Queste considerazioni sociologiche possono fornirci aiuto nella comprensione del fenomeno e nell'adottare misure per ottimizzare il modello concettuale prevalente. In questo lavoro, la congestione dei dipartimenti di emergenza è presentata nel contest socio-culturale di Hong Kong in China, una città metropolitana con 2,2 milioni di accessi nel 2017. Evidenza dalla letteratura rilevante è usata a supporto di questa analisi. Un'interazione di ideologie sociali e di fattori a

differenti livelli sociali contribuisce all'affollamento dei dipartimenti di emergenza. I fattori sono discussi a livello individuale, microsociale, intermedio e macrosociale. L'ipotesi sociologica è che il problema del sovraffollamento possa essere multidimensionale in natura e che un approccio lineare esplicativo che attribuisca le cause originarie al sistema sanitario di per sè può non essere adeguato. Questo studio accende i riflettori sull'importanza di un approccio analitico socio-culturale per spiegare il fenomeno. Le diverse eziologie socioculturali dovrebbero essere contestualizzate quando si formulano strategie per affrontare il problema globale dell'affollamento nei dipartimenti di emergenza.

TAKE-HOME MESSAGE: Sociocultural factors that occur at different social levels should be considered for the optimization of the current explanatory model of ED overcrowding and they can inform future interventions at the health-policy level. An objective sociological analysis allows clinicians to derive novel insights and sociologically-based interpretations for this global concern.

Competing interests: none declared

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INTRODUCTION

In the past decade, many studies have been conducted to delineate the factors that contribute to the overcrowding of emergency departments (EDs) [1–3]. Although healthcare systems vary considerably within different national and sociocultural contexts, researchers appear to focus on the inadequacies of the service models at the operational level [4–7]. A multitude of strategies have been examined, such as the input-throughput-output conceptual model of ED overcrowding [5], the reinforcement of resource and demand management and the advocacy of operational research [7], the adoption of lean thinking [8], the roles and value of setting up chest pain observation units [9], the establishment of rapid assessment zones [10], and the importance and needs of clinical decision units [9]. Of these, lean healthcare thinking has given rise to further strategies that focus on redesigning the optimal pathways, contributing value steps, and deleting nonvalue steps [11]. A four-hour target has thus been advocated by health authorities to decrease the length of stay in EDs [12, 13]. Despite all of these rigorous system-based measures, the issue remains ubiquitous in diverse geographical regions and, most importantly, it is likely to cause undesirable patient care outcomes [14, 15]. Therefore, there is the imminent need for a conceptual framework that considers the interplay of factors on a broader social scale.

In fact, the role of social interventions in addressing the overcrowding of EDs is emphasized in the literature [16]. However, a medical sociological analysis of this pressing issue has received minimal attention [17]. The most recent synthesis of the literature investigating the causes of ED overcrowding was undertaken a decade ago [7]. Additionally, as the majority of sociological

studies in the domain of emergency medical services were conducted during the 1990s and in the West, various sociocultural factors may have limited the generalizability of the findings to Asian settings [18–26]. This probably explains why the sociocultural perspective has been included in the conceptual understanding of ED overcrowding in the recent biomedical literature only to a small extent.

As a complement to the established biomedically centered framework, this paper attempts to determine the sociological factors to better inform the understanding of this complex issue. Contextualized within the sociocultural setting of Hong Kong, the overcrowding of EDs is analyzed using a medical sociological approach. A narrative analysis is performed following a review of the identified social factors and observations in the relevant health sociology literature.

DISCUSSION

Social analyses have been widely performed in order to understand various health behaviors and patterns, in which issues of concern can be dissected as being associated with the personal troubles of the milieu (i.e., regarding the individual's self and social life, about which the individual is directly or personally aware) and progressively examined at a more macro level that relates to public issues of social structure [27]. Rather than adopting a linear interpretative approach, a medical sociological analysis allows clinicians and policymakers to factor in the social forces involved in this global phenomenon [28]. This paper follows the analytical framework suggested by Charles Wright Mills in 1959 [27], and the findings are presented at different social levels.

By definition, ED overcrowding exists when there is no space left to meet the timely needs of the next patient requiring emergency care [29]. In Hong Kong, which is a metropolitan city in the

Pearl River triangle in China, nearly 2.2 million emergency patients were attended to in 2017; this number is estimated to increase to approximately 3.4 million by the end of 2029 (a 47% increase) [30]. Previous studies have found that ED overcrowding is attributable to individual, microsocial, intermediate, and macrosocial factors [31]. These factors may alter the illness experience and subsequently encourage help-seeking behavior by increasing ED utilization, which results in overcrowding.

First, it should be recognized that the overcrowding of EDs emerges in the context where biomedicine remains the mainstream of emergency care for acute conditions in the mentality of the local population [32]. Though health concepts are socially and culturally constructed, the characteristics of the conditions that biomedical doctors perceive as an emergency may not be agreed with by the general public [33]. For example, some somatic symptoms in children, such as an increase in body temperature to 37.8 °C, are considered ‘urgent’ because some traditional Chinese parents relate fevers to intellectual impairment. Similarly, a study reported that about two-thirds of patients perceive a minor cut to be ‘serious’ when the cut appears to be deep [34]. These examples demonstrate that the perceived gravity of a condition is built on socially constructed health beliefs and cultural values of Chinese society. Although healthcare professionals think that some conditions should be managed by general practitioners, the general public still opts to consult emergency medicine specialists. Therefore, ED overcrowding may be explained by the misaligned social understanding of symptom severity between the healthcare professionals and general public.

Beyond the individual level, the overcrowding of the ED due to the overwhelming number of non-urgent consultations may be accounted for at the microsocial level [35]. Some patients

present themselves to the ED to obtain a medical certificate. The general public appears to be attracted by an emerging ideology that EDs represent convenient portals for legitimizing sickness (and obtaining the privileges associated with illness). The reinforcement of such a social ideology may encourage the misuse of ED and lead to inappropriate and excessive use [36].

At the intermediate social level, the implications of the mass media (i.e., a social agent) should be factored in as well [37]. The ways in which ambulance services are portrayed in certain local soap operas may convey imprecise messages regarding the use of this transportation during emergency situations. A common public misconception is that patients escorted by ambulances have a shortened waiting time in the ED. To some of the general public, these escorted patients may seem to receive medical attention more readily. In contrast, ambulatory patients are often kept waiting for long hours following triage. Considering the vast broadcasting network and the mass media's large audience, it is plausible that the overcrowding problem in EDs is related to, or possibly aggravated by, the indiscriminate use of the ambulance service [38].

In addition to the mass media, the health institution policies of the Hospital Authority play a crucial role in how social resources are allocated to support emergency services in comparison with the services provided by other specialty areas. Based on a review of published studies, the skewed distribution of social resources toward the care of chronic illnesses may be one of the social causes of ED overcrowding [39, 40]. In Hong Kong, non-urgent medical problems are supposed to be managed in various general outpatient clinics (GOPCs). Nevertheless, the Hospital Authority established a quota system in place of GOPC appointments. Patients who perceive themselves to have urgent medical needs are, therefore, required to compete with those who have other chronic illnesses in order to secure a slot in the ED. From the sociological point

of view, the outpatient care system may actually be resourced to primarily entertain the needs of patients with chronic illnesses. Under the current GOPC model, patients who are in genuine biomedical need of emergency or urgent medical care may be marginalized. Furthermore, the opening hours of the majority of GOPCs and private clinics frequently follow ordinary business hours (i.e., from 9 a.m. to 5:30 p.m.). Therefore, during non-business hours, both low and high-income patients are more likely to visit an ED in a public healthcare system to receive medical care [41–43]. Thus, ED overcrowding may be seen as a form of social adaptation that results from under-resourced GOPC services [30].

Lastly, factors that operate at the macrosocial level should not be overlooked. Under the capitalist ideology, the local healthcare system is not free from the influence of consumerism [44]. Some patients may believe that they are literally consumers after settling the ED consultation fee. They expect the ED to provide fast and high-quality service. In a similar vein, taxpayers in this class-divided society may argue that the EDs, which operate on a government-funded basis, are socially obliged to meet their ‘urgent’ needs. As a result, the indiscriminate use of the ED service at the territory-wide level is reinforced under the ideology of consumerism.

Although medical pluralism exists in Hong Kong, the biomedical sector has been the primary player in the provision of emergency healthcare services to the general public [36]. Apart from visiting public hospital EDs, the local population has limited choices for medical support in emergency situations. Presently, most private hospitals that are frequented by upper income individuals with medical insurance offer a limited scope of emergency medical services. Under the profit-oriented corporatization of medical care, emergency consultations in private hospitals are frequently conducted in the outpatient department. By paying an additional amount on top of

the general consultation fee, patients do not have to wait for a longer period to receive medical attention. On the surface, corporatization helps with diverting patients from EDs in public hospitals to the GOPCs in the private care setting and it alleviates the overcrowding issue. However, lower income individuals are marginalized under such a service model. As a result, the increasing social demand for timely and efficient emergency care in the public healthcare system is minimally addressed at the macrosocial level [45]. This healthcare burden on society continues to challenge the ED service capacity within the public healthcare system.

CONCLUSION

Studies have indicated that the overcrowding of EDs is a worldwide phenomenon. Whilst a multitude of quantitative research studies have aimed to single out certain system-related variables as the major causes, the findings do not seem to contribute substantially to the generation of novel emergency service models. With this issue currently unresolved, it is helpful to consider the matter of overcrowding in a broader context and from a medical sociological perspective.

This paper explored several factors at different social levels in terms of how they relate to ED overcrowding. At the individual level, the misaligned social understanding of symptom severity between healthcare professionals and the general public was explored in relation to the social construction of health. At the microsocial level, the role of biomedicine in legitimizing sickness was discussed with the evolving social ideology that the ED is a convenient portal for obtaining sick leave certificates. Furthermore, at the intermediate social level, ED overcrowding might be attributable to the influence of the mass media on emergency service utilization and the social inequalities in resource allocation by institutional policies. At the broadest social dimension, the

ideology of consumerism and the corporatization of medical services under the capitalist economy were contextualized to account for health-seeking behaviors and the utilization patterns of the emergency service.

Clearly, the social, historical, and cultural factors within each healthcare system and country are unique. Based on this objective sociological analysis in the Asian context, it is recommended that sociocultural factors that occur at different social levels should be considered and addressed for the optimization of the current explanatory models and constructs of ED overcrowding. In this way, the findings from this analysis and similar analyses conducted in other settings may inform future social interventions at the health-policy level.

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