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# Perceptions and Opinions towards Cell Phone use as a Risk Factor of Brain Cancer among University Students

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## Abstract

**Objective:** The objective of this study was to explore the perceptions and opinions towards brain cancer related to cell phone use among university students.

**Methodology:** This study was conducted among 24 medical science students from Management and Science University (MSU), Shah Alam, Malaysia in the academic year 2010/2011. Universal sampling was used to conduct focus group discussions. This study was approved by the ethics committee of Management and Science University (MSU). Consent was obtained from all participants before the group discussions began. Students were divided into 2 focus groups; each group consisting of 12 students. The facilitator asked probing questions and directed the group discussions in which all participated in the focus group discussions. The students were invited to participate, and two round tables were arranged. Participants were set according to the preference place. The participants asked mainly about if regular use of hand phone cause brain cancer or not and the precautions that should be considered while using hand phone. Finally, what are the practices usually you use while using h/p? There were two groups because the themes have already been saturated, that is, there is no new themes generated if we conduct more focus-group discussions. The data obtained were classifed into various themes and analyzed manually.

**Results:** A total number of 24 medical science students participated in this study. Majority of them were Malays and females. All of the participants reported that they have one cell phone and some of them mentioned that they have two cell phones. Majority of them dial and receive calls about one hour per day and 540 hours per year. The majority of the participants mentioned that there is no relationship between brain cancer and hand phone use.

**Conclusion:** This study showed that the majority of the university students reported that there is no relationship between brain cancer and hand phone use.

**Keywords:** Perceptions; Cell phone; Brain cancer; Malaysia

## Introduction

e worldwide use of cell phones has rapidly increased over the past decades. According to data from the International Telecommunication Union, the number of worldwide mobile cellular subscribers was 12.2 per 100 inhabitants in 2000 but grew to 49.5 per 100 inhabitants in 2007 [1]. e growth of mobile communication has been remarkably rapid. According to the International Telecommunication Union, in 1998, there were 318 million mobile phone subscriptions in the world. A decade later (2008), there were 4.1 billion-out of a world population of 6.7 million people. Mobile phone consumption crosses national and demographic boundaries, with some of the most rapidly-growing use found in newly-developing parts of the world in which conventional landlines (and even running water) are luxuries. e arrival of the cellular phone and its rapid and widespread growth may well be seen in historical context as one of the most signi cant developments in the elds of communication and in information technology over the past two decades. e growth has been phenomenal by any standards and Rice and Katz [2] claim that there are now worldwide more mobile phone subscribers than xed line subscribers and probably TV owners. By 1999 there were just under 500 million mobile telephones being used worldwide, yet US mobile users alone have increased from 109 million in 2000 to 148.6 million in 2002 [3]. Since the introduction of cellular telephone service in the United States in 1984 [4] the number of subscribers has increased substantially every year. By the end of 1999, there were more than 86 million cellular telephone users [5].

Mobile phones are multifunctional devices. Depending upon the national context (and particular service provider), they may be used for making purchases from vending machines, paying tax bills, pointing the way towards Mecca inciting rites [6], or accessing mobile news. But primarily, they are employed for communication, most o en by talking or doing text messaging. Access to landline phones has increased the chance of survival during a medical emergency by reducing the response time of health professionals [7]. When a landline is not possible, the mobile phone has been used to the same bene t [7]. Mobile phones may manage our social interactions, such as arranging events or initiating contact [8].

Some of the bene ts of mobile phone can take and make calls at any time and any place [9]. Indeed, other bene ts of mobile phone usage could be described as more psychological and social than technical or practical. For example, Leung and Wei [10], in Hong Kong, list seven factors of grati cation sought through mobile phone ownership: fashion/status, a ection/sociability, relaxation, mobility, immediate access, instrumentality and reassurance. Additionally, [3] research with American college students found the main reasons for purchasing a mobile to be safe (for when driving at night), for cost e ectiveness, for instant information (e.g., phone numbers), for social interaction with friends and family, and for privacy.

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reported that there is no relationship between brain cancer and hand phone use.

### Recommendation

It is clear that cell phones may represent a danger to health, and users should be educated about the risks and encouraged to limit exposure. Since WHO warning that cell phone is one of the risk factors of brain cancer, precaution is better than cure. Therefore cell Phones Company should look for a fashionable design and easy use for the ear phone to encourage more people to use it. Further quantitative studies are needed to explore the practice among university students.

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