Suggestion for Implementing M-Skin Healthcare for the Elderly Population in Bangladesh

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Opinion

With the advancement of medical science, the population of aging people is increasing more than before worldwide, especially in developing countries. In 2050, 80% of older people will live in low-and middle-income countries [1-3]. Between 2015 and 2050, the proportion of the world's population over 60 years will nearly double from 12% to 22%. It is also anticipated that five developing countries: Bangladesh, India, Pakistan, China and Indonesia will cover around 50 percent of the world's elderly population by 2025 [1-4]. Like other developing countries, Bangladesh has made some progress in health in recent times. Most of the health indicators show steady improvement and the health status of the whole population has bettered. However, the skin health care system for the older people in Bangladesh cannot claim its partnership in this progress. It remains static because skin care services are still grounded in the century-back conception which has failed to reach the whole elderly population.

Nearly all skin problems increase in old age because of altered immune response, reduced elasticity and increased fragility. Along with xerosis, cutaneous malignancies and skin injuries, a large number of aging populations in Bangladesh are suffering from infectious and contagious skin diseases. At present, 80% of the elderly population, who are mainly poor, live in remote and rural areas and have little access to proper skin care. They have to depend partly on a few registered doctors or on other informal healthcare providers, family members and friends, who do not have basic dermatology knowledge. Skincare at this level consists mainly of a prescription having a cocktail of oral and/or topical antihistamine-antibiotic-antifungal-steroid combination and a common ban on food [5]. Moreover, myths, misconceptions, self-care, overlooked by the family members, etc. are also marked in this elderly community in Bangladesh. A combination of faulty disease recognition, poor or maltreatment and incorrectly explained treatment regimens without health education often results in persistent disease load, wastage of resources and sometimes hazardous treatments. So, the present scenario of skin care for the elderly population in Bangladesh is disappointing.

Telemedicine is a remote clinical service that communicates between the patient and the healthcare provider, using electronic audio and visual means. The visual nature of dermatology makes this discipline an obvious candidate for telemedicine techniques and the feasibility and reliability of tele dermatology are already well established [6-8]. Most medical research focuses on delivering two types of tele dermatology: Store-And-Forward (SF) and Real-Time (RT) [9-10]. In the SF technique-the primary care provider (First Contact) takes still digital images generated by a digital or mobile camera and information from the patients-which are transmitted to the service coordinator (Mid Contact) who carries out quality control checks and then forwards these messages to a consultant dermatologist (End Contact). Upon receiving a clinical response from the dermatologist, the service coordinator returns the message to the

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referring primary care provider. Store-and-forward systems of tele dermatology often give high levels of diagnostic accuracy and are cheaper and more convenient for the healthcare provider [11]. In Real-Time (RT) tele dermatology, doctors and patients interact in real time through an audio-visual communication link. It is clinically workable but not cost-effective compared with conventional dermatological outpatient care [12]. Our recommendation for Bangladesh would be an admixture of both SF as a basic tele dermatology tool and RT by audio communication-which often helps to get more specific information and greater patient satisfaction and the ability to have some sort of interaction with the consulting doctor. We would also like to suggest a little modification in the conventional SF process. This would include rather of a health care worker, patient him or herself, family member(s), or friend(s) who will act as a first contact and be responsible for making an audio communication with the consulting dermatologist and there will be no service coordinator (Mid Contact). Though, as a first contact, straight inclusion of patients can be debated, Qureshi et al. [13]. illustrated that dermatology outpatients would be knowledgeable and capable of participating in tele dermatology services [13]. Some patients might not feel comfortable taking part in traditional SF through media on the grounds of confidentiality, especially elder females in Bangladesh, who might prefer their images to be captured by themselves or by near relatives. Mobile phones are very appropriate for tele dermatology. The ubiquitous presence of mobile phones in Bangladesh could be a great untapped potential and hope for initiating tele dermatology programs [14]. A suitable app should be developed that will be easy to use, faster and must maintain confidentiality. What would the model be for service delivery? Charity or commercial? It would be better to start the programs by the charity in full or partially by the government hospitals followed by private or social business models.

As the proposed modified tele dermatology process will engage mobile phones and deal with the elderly population, it may be called m-skin healthcare for the elderly. It will not mean to be a replacement for traditional face-to-face consultation. Still, a face-to-face consultation is the main element of skin healthcare and is unlikely ever to be swapped away by teleconsultation. But constraints on time and resources will make it even more expensive and unreachable in the future. By apprehending the potentiality, many countries are now implementing tele dermatology programs to provide skin care services to areas where facilities are inadequate. Bangladesh cannot claim an exception to this either. Despite our economic, cultural and technical limitations, understanding the present skin health status, we have to move forward with m-skin healthcare-which could be an effective solution for Bangladesh. An m-skin healthcare initiative for the elderly through condition management, post-hospital care and assisted living could enable improvements in healthcare, quality of life and continuum of care and avoid age-related discrimination and stigma.

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