# MEDICAL EDUCATION (ORIGINAL ARTICLE)

## THE NEED OF INSTITUTING PUBLIC HEALTH EDUCATION PROGRAMS IN KARACHI

**Rabia Bushra, Yousra Shafiq*, Nousheen Aslam**, Sehrish Lakhani***, Mehwish Rizvi, Shazia Alam*****

DOW University of Health Sciences Karachi Pakistan, *Jinnah Sindh Medical University Karachi Pakistan, **University of Karachi, Karachi Pakistan, ***Ziauddin University Karachi Pakistan

## ABSTRACT

***Objective:*** To determine the awareness, need, role, and the effectiveness of the health education programs in improvement of well being of the community/citizens.

***Study Design:*** Descriptive cross-sectional study.

***Place and Duration of Study:*** The study was conducted, from Aug to Dec 2015 at the four districts of Karachi city.

***Material and Methods:*** The instrument of the study was a questionnaire, including basic demographic information of the participants and other 20 items related to need and role of health education programs in control of diseases. A total 250 participants were selected through stratified random sampling design from residential areas of North, South, East and West districts of Karachi. Participants failed to answer item one of the questionnaire were excluded from the study. The data was then analyzed and expressed in percentages and graphs.

***Results:*** Total 189 residents were continued the participation belonging to the age group between 18-65 years. Majority of the respondents (96.82%) were in favor of organizing health education activities. About 75.13% believed that such programs have pronounced effect in management of diseases. Furthermore, participants (51.32%) were willing to attend health seminars/symposiums and workshops to be aware to their medical problems. It was also found that they have basic concept of immunization and harmful effects of smoking on health.

***Conclusion:*** Over all the residents of Karachi were well aware to the health education and its role in improvement of disease status. Residents showed positive response for participation in health education activities to manage their illness or medical problems. However, the present study involves a smaller population subjects. Authors highly recommended the institution of health education programs in hospitals and community to make the people and environment healthy.

**Keywords:** Health education, Health programs, Karachi, Perception, Residents.



## INTRODUCTION

Health has always been an elusive term to define but pragmatically visualized to be a resource to improve the quality of life in people. Quality of health care is a multi-dimensional concept and extensive literature has been documented worldwide. Traditionally it deals with the educational interventions based on medical informations, attitudes and behaviors that are helpful in maintaining physical well-being of populations. The goal of health care providers is deem to increase the effectiveness and accessibility of general public to avail the health care facility[1]. Advance countries of the world have been spending handsome amount to fulfill the health needs and demands of their nationals/citizens. United state of America has also utilizing 18% of its capital for providing healthcare services and facilities[2,3]. Pakistan is considered to be a sixth largest populous and lower middle income country of the world[4]. Pakistan has been spending only 3.75% of the budget on health care coverage from its total Gross Domestic product (GDP). About 60.3% of population has daily revenue of less than 2$. Due to this financial recession people are more

**Correspondence: Dr Rabia Bushra,** Associate Professor, Faculty of Pharmacy, DOW University of Health Sciences, Karachi Pakistan
*Email: rabia_pharmacit@hotmail.com*
*Received: 15 Aug 2016; revised received: 08 Nov 2016; accepted: 01 Dec 2016*

concerned to expend their money for obtaining health care services[5,6]. It was estimated that about 130 million of our population had pitiable health status in the world. During 2000-01 economic survey, the rate of poverty was found to be 34.4%, improved to 22.3% in year of 2005-06, then greatly declined to 17.2% in 2007-08 and comes to around 12.4% in 2010-11 survey[7]. The low economical status with poor health services consequently has been leading to the higher neonatal, post-neonatal, infant and children under 5 years age mortality rates[8,9]. During Pakistan Demographic and Health Survey (PDHS) 2012-2013, the estimated mortality were found to be 55, 19, 74 and 89 deaths per 1000 live births respectively for neonatal, post-neonatal, infant and children under 5 years age[10]. In this situation, increasing the awareness of health issues by health sessions at community level can also be helpful in setting of healthy environment at physical and social level[11,12]. Improving the excellence of healthcare by knowledge and experience has gathered over several decades. Societal, financial and ecological factors are generally utilized to analyze the healthiness, illness and the disability risk issues of the residents[13]. Despite this wealth of experience, the issue is often confronted by strategy producers at country level both in high-and low income nations. The aim of strategy makers is to know the quality techniques supplemented with existent strategies to produce the best results on the upshots conveyed by their health care frameworks[11-13]. A steady increase in the incidence of preventable medical conditions leading to increased morbidity and mortality has been seen in various region of the world[14]. At present our health framework is being facing trouble in managing developing pressure from the media, government officials and the common society. Another terrible side of the picture is the low literacy rate among the people of Pakistan. This lack of education may indeed constitute additionally the need for health education[15-17]. A strong link has been reported among literacy, medication adherence, and knowledge of disease, positive attitudes and health behaviors resulting in better health outcomes[18,19].

Prevention, health education and health promotion are the different labels of the numerous activities involved in reducing risks and modifying behaviors with the aim of improving the quality of life (QOL). The rationale of the present study is to evaluate the need and the role of health education programs in the management of diseases and improvement of health status in community. Moreover; the perception of the residents to the medical education, their willingness and barriers of participation in health activities were also determined.

## MATERIAL AND METHODS

A descriptive cross-sectional study based on personal interviewing was conducted, from Aug 2015 to Dec 2015 to determine their views about the need and the role of health education programs for better health structure. The tool of investigation was a self explanatory questionnaire consisting of basic demographic information and 20 close ended health related items. The designed questionnaire was translated in Urdu language also to overcome the language barrier. The Participation was entirely on volunteer basis with a guarantee of confidentiality. A total 250 adult participants (male and female) were selected through a stratified random sampling where data collectors have made sub groups of respondents from residential areas of North, South, East and West districts Karachi, Pakistan. Participants were then indulged in the study randomly to obtain views of residents despite of their socio-economical status (higher, middle & lower class). However; 20 respondents were excluded from the study due to incomplete information. Individuals who failed to answer the first item of the questionnaire were not allowed further to fill the survey draft. Descriptive statistics was used to analyze the data. Results were presented in numbers, percentages and graphs.

## RESULTS

About 250 respondents who have given the written consent of participation were included in the study. However; 20 questionnaires were excluded due to incomplete information and so, the response rate of the survey was found to be 92.0%. After the administration of structured forms it was observed that few individuals (18.69%) had no basic idea of health education that's why they did not allow to continue their participation. 189 respondents were found to fill the given questionnaire completely. On this basis the real response rate of the investigation was 75.60%. The male female ratio of the study was 65:124, belonging to the age between 18 to 65 years. The basic demographic information of the participants related to their age, sex and education is mentioned in table-I. The education status and the occupation of the respondents were also identified. It was found that majority of the residents 46.56%were graduates and 20.63% were masters of any field. Only 8.99% and 13.75% were primary pass and matriculate respectively. Majority of the respondents were found to be active and working. The 81.90% subjects were belonged to various occupations and 17.98% were not doing any type of work (students, house wives, retired people).

The main part of the study was to identify the perception of Karachiates for the need and the role of health education programs in management of diseases. Various significant parameters of the study are shown in table-II. Almost all the residents surveyed (96.82%) believed that health education was a need of everyone. Moreover, they (31.74%) realized that such healthy programs must not be restricted to sick peoples only. This reflects a high level of awareness and interest to health education amongst a cross-section of the Karachi

**Table-I: Demographic information of residents.**

| **Age (years) of residents** | | |
|---|---|---|
| **Age groups** | **Number of respondents** | **Percentage (%)** |
| 18-25 | 19 | 10.05 |
| 26-35 | 34 | 17.98 |
| 36-45 | 49 | 25.92 |
| 46-55 | 62 | 32.80 |
| 56-65 | 25 | 13.22 |
| **Sex of residents** | | |
| Male | 65 | 34.39 |
| Female | 124 | 65.60 |
| **Level of education of residents** | | |
| **Groups** | **Number of respondents (n)** | **Percentage (%)** |
| Primary | 17 | 8.99 |
| High School | 26 | 13.75 |
| Intermediate | 19 | 10.05 |
| Bachelor's Degree | 88 | 46.56 |
| Master's Degree | 39 | 20.63 |
| **Occupation of residents** | | |
| Professionals | 16 | 8.46 |
| Business/Admin/Management | 49 | 25.92 |
| Teaching | 32 | 16.93 |
| Others | 26 | 13.75 |
| Labors/workers | 37 | 19.57 |
| None | 29 | 15.34 |

population. The one of the most disappointing finding was that about 74.07% of the residents and their family members had never participated in health education programs.

The medical problems of the respondents were also determined (if any). The commonest health conditions reported by the residents surveyed included pain category (19.57%) and the second most common was heart diseases/ hypertension (16.40%). The details of residents' fig-1. Being a middle income country, Pakistan has been facing many challenges in healthcare units. Cost was found to be the one of the prime hurdles in approaching health grooming session by respondents. About 68% of the population agreed that they should not afford paid health promotion activities but will surely participate if such would be made cost free. The opinion for the language barriers is shown in fig-2.

**Table-II: Resident's perception for the need and the role of health education programs.**

| S. No | Items/Stem | Residents (n) | | Percentage (%) | |
|---|---|---|---|---|---|
| | | Yes | No | Yes | No |
| 1 | Concept of health education | 189* | 43 | 82.17 | 18.69 |
| 2 | Need for the health education | 183 | 6 | 96.82 | 3.17 |
| 3 | Is Health education is confined to patientssolely | 60 | 129 | 31.74 | 68.25 |
| 4 | Role of hospital/institute in orientation of health education | 163 | 26 | 86.24 | 13.75 |
| 5 | Had ever attended health education activity | 49 | 140 | 25.92 | 74.07 |
| 6 | Effectiveness of attended Health education in past (if positive for item 5) | 38** | 11 | 77.55 | 22.44 |
| 7 | Residents' willingness to attend health seminar/ symposium | 131 | 58 | 69.31 | 30.68 |
| 8 | Residents' willingness to attend health education classes if offered at local hospitals | 97 | 92 | 51.32 | 48.67 |
| 9 | Opinion to attend the cost-free health education if offered | 126 | 63 | 66.66 | 33.33 |
| 10 | Role of health education in disease management | 142 | 47 | 75.13 | 24.86 |
| 11 | Residents' awareness to immunization | 104 | 85 | 55.02 | 44.97 |
| 12 | Awareness of harmful effects of smoking on health | 115 | 74 | 60.84 | 39.15 |

* Indicates those participants who continued the study, ** Those answer "yes" to question-5

**Table-III: Distribution of health problems among residents.**

| S. No | Health Problem(s) | Respondents (n) | Percentage (%) |
|---|---|---|---|
| 1 | Heart Disease or Hypertension | 31 | 16.40 |
| 2 | Diabetes Mellitus | 9 | 4.76 |
| 3 | Kidney/Renal Disease | 3 | 1.58 |
| 4 | Asthma or other respiratory problem | 10 | 5.29 |
| 5 | Allergy | 13 | 6.87 |
| 6 | Headaches/migraine/joint pain/backache/pain at body side | 37 | 19.57 |
| 7 | Other | 7 | 3.70 |
| 8 | No Problem indicated | 79 | 41.79 |

illness are provided in table-III. Additionally the role of the media in promotion of health education was also investigated and presented in

## DISCUSSION

The importance of health guidance and promotion is not a ne w concern globally.

However; relatively a little literature has been documented in Pakistan. Health education or promotion basically deals with the strategies to improve the health status of public[20]. The present study deals with the need of health education programs and the residents' perception in improving their health profiles. The cosmopolitan city of Pakistan, Karachi was selected to conduct the survey since this area of Pakistan has overall high rate of literacy.

In the present study males were more participating than females; even few females were initially refused to take part in the study. However; it seems to be more beneficial to educate women since in our cultural dominant females are supposed to be responsible for knowledge transfer and care to their family and off springs. The respondents were of different age groups and engaged in various occupations. The majority of the subjects were graduates having bachelor's degree in any field. A very few participants had only primary education. It was observed that the role of health education was better understood by qualified participants (bachelors and masters). Becker and co-workers also reported that improvement in the education could directly raise the health status of population especially seen in developing countries[21]. Another study also discussed the facts of education and health that considered being valuable for economic growth of anystate of the world[22]. Afzal et al., demonstrated the strong correlation between education and development of nation state during the survey conducted to assess the economical status of Pakistan[23]. Many 10th grade passed participants also mentioned that they wished to continue their education but owing to their job responsibility they were failed to chase their dreams. This reflects the poor economical status of the respondents also.

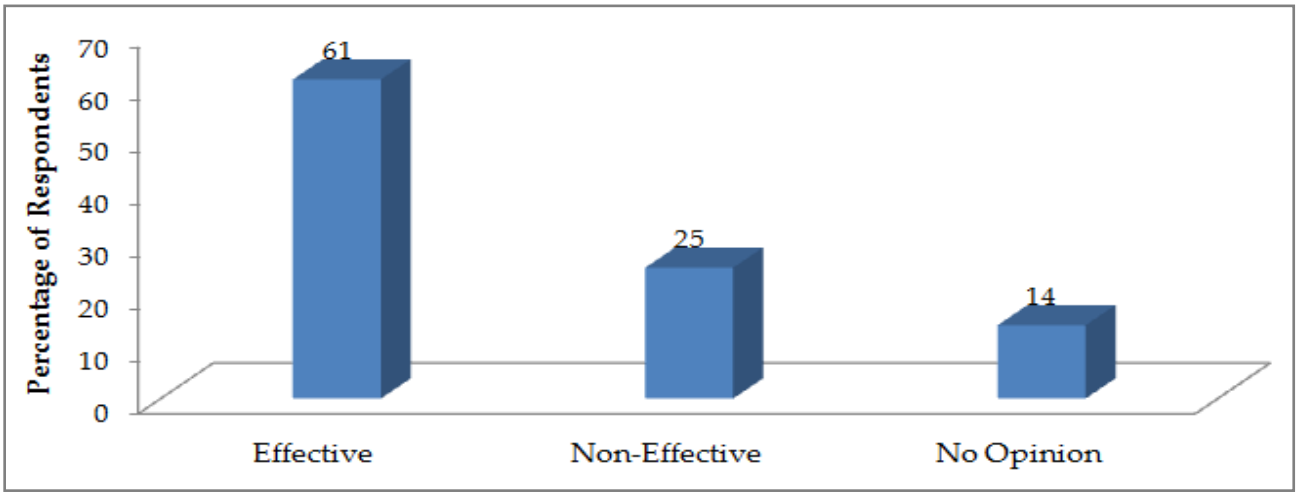


**Figure-1: Resident's opinion to the role of mass media in promotion of health education.**

Pakistan being a low income country affords a limited and small portion of its budget on health. Owing to poor socio-economic status and cost burden consequently result in

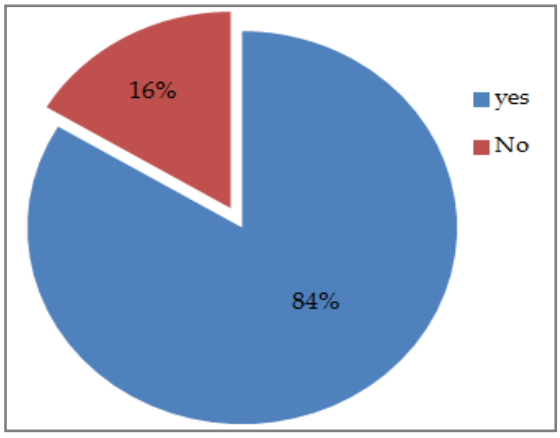


**Figure-2: Language barrier in attending health education activities.**

increased mortality in our country. However, care providers played a significant role in reduction of deaths due to many communicable and non-communicable diseases via conducting health sessions[23]. In the present study majority of the respondents (96.82%) felt the need of instituting the health education programs to spread the knowledge and information among public. They had vision that these health education activities are useful for sick and healthy individuals equally. They believed that hospitals, clinics and institutes have vital role in exacerbation of many common diseases like flu, cough, fever, throat inflammation, burns, allergy, asthma and many others. Moreover; 86.24% were of the opinion that hospitals and clinics should offer health education programs. This finding confirms the residents' receptiveness towards health education programs. It has been documented that many common preventable diseases affects the young age group in countries having poor socio-economic profiles, than other developed regions, consequently leading to high mortality and increase disease burden[24,25]. However; preventive measures and health promotion activities have been presenting significant role in reduction of health related issues of population[26].

In this study, despite the high level of awareness, it was disappointing to know that only 25.92% of the subjects were not ever participated the health education program. However; who had attended was believed in the effectiveness of such activities in management of their medical problems. It was also mentioned by them that lack of participation was owing to cost and language barriers. However; if these seminars, symposiums, workshops would be offered free of cost and near to their residential areas then respondents were found to be more interested to participate. Few of them were complaining that health education is not being adequately provided by the healthcare providers.

The commonest health problems of participants were also investigated and the pain and heart diseases/hypertension were estimated to be more prevalent. They were satisfied with the treatment provided and their physicians as well. Some residents want to know their underlying disease in detail also and their physicians have not enough time to answer their quarries. They also believed that life-style and behavioral modifications could results in better disease control and same conditions could either be prevented by taking tips via health education programs. More than half of the residents were aware about the basic health including immunization (55.20%) and deleterious effects of smoking (60.84%) on health. Although the population has shown awareness of the risks associated with tobacco consumption but still cigarette smoking is common globally particularly in Pakistan[27]. The majority of the residents surveyed (61%) were of the opinion that the mass media was effective for presenting health education programs. It is documented that the mass media, especially television, has been shown to be an effective medium for the propagation of health education. The contribution of media campaigns in reduction of many health risk behaviors including hypertension, addiction, tobacco cessation, blood disorders consequently improving general population survival was also stated in literature[28].

The above discussed findings are certainly significant reflecting the perception of residents about the health education. Overall, the residents were interested to participate and to learn the management strategies for their medical problems. If health care providers organize such programs then it would be definitely result in reduction of morbidities and mortalities.

## CONCLUSION

The limitation of the foregoing survey is based on the utilization of a relatively small group of subjects selected from a much larger population. Authors highly recommend the organization of health promotion sessions for the control of various preventable diseases that plays a significant role for the betterment of the public health. Furthermore; since the residents belong to

various cultural backgrounds the education should be offer in their languages for better understanding.

## CONFLICT OF INTEREST

This study has no conflict of interest to declare by any author.

## REFERENCES


1. Campbell SM, Roland MO, Buetow SA. Defining quality of care. Soc Sci Med 2000; 51(11): 1611–25.
2. International Monetary Fund, The Economics of Public: Health Care Reform in Advanced and Emerging Economies. Web pag http://www.imf.org/external/pubs/ft/survey/so/2012/BOK042512A.htm, accessed on: September 2016.
3. WHO. World Health Statistics. WHO Press, Geneva 27. Webpage 2011.
4. Sumner A. Global Poverty and the New Bottom Billion: What if three-quarters of the World's Poor live in middle-income Countries? IDS Working Papers 2010; 1-43.
5. Anwar S, Sun S. Financial Development, Foreign investment and economic growth in Malaysia. J Asia Economics 2011; 22(4): 335-42.
6. Bernstein J. Changes in health care financing and organization (HCFO). Impact of the Economy on Health Care 2009.
7. Pakistan Economic survey. Poverty and Social Safety Nets 2014; pp. 231-43.
8. Nuwaha F, Babriye J, Ayiga N. Why the increase in under five mortality in Uganda from 1995 to 2000? A retrospective analysis. BMC Public Health 2011; 11: 725.
9. Ayenigbara GO, Olorunmaye VB. Investigating the Causes of Infant Mortality in Akoko South West Local Government Area of Ondo State, Nigeria. Public Health Research 2012; 2(6): 180-84.
10. Pakistan Demographic and Health Survey. Preliminary Report. National Institute of population studies, Islamabad, Pakistan 2013.
11. Baker DW. The meaning and the measure of health literacy. J Intern Med 2006, 21: 878-83.
12. Haleem A, Siddiqui MI, Khan AK. School-based strategies for oral health education of adolescents - A cluster randomized controlled trial. BMC Oral Health 2012; 54: 1-12.
13. Nutbeam D. Health literacy as a public health goal: A challenge for contemporary health education and communication strategies into the 21th century. Health Promotion International 2000; 15 (3): 259-67.
14. Khan KS. Setting health care priorities in Pakistan JPMA 1995; 45: 222-27.
15. McCormack L, Haun J, Sørensen K, Valerio M. Recommendations for advancing health literacy measurement J Health Communication 2013; 18 (1): 9-14.
16. Cutler DM, Fung W, Kremer M, Singhal M, Vogl T. Early life malaria exposure and adult outcomes: Evidence from malaria eradication in India. Am Econ J Applied Economics 2010; 2(2): 196-202.
17. Cutler D M, Lange F, Meara E, Richards-Shubik S, Ruhm CJ. Rising educational gradients in mortality: The role of behavioral risk factors. J Health Eco 2011; 30(6): 1174-87.
18. Barro RJ, Lee JW. A new data set of educational attainment in the world, 1950–2010. National Bureau of Economic Research, 2010; Working Paper 15902.
19. Parker R. Health literacy: A challenge for American patients and their health care providers. Health Promotional Intl 2000; 15(4): 277-83.
20. Prasla M, Prasla SA. School health promotion-International perspectives and role of health care professionals. J Ayub Med Coll Abbottabad 2011; 23(1): 150-53.
21. Becker GS, Philipson TJ, Soares RR. The quantity and quality of life and the evolution of world inequality. Am Economic Rev 2005; 95(1): 277-91.
22. Afzal M, Arshed MG, Sarwar K. Education, Health, food infaltion and economic growth in pakistan. Pak Econ Soci Rev 2013; 51(2): 109-38.
23. Afzal M, Farooq MS, Ahmad HK, Begum I. Relationship between school education and economic growth in Pakistan. ak Econ Soci Rev 2010; 48 (1): 39-60.
24. Flaskerud JH, DeLilly CR. Social determinants of health status. Issues Ment Health Nurs 2012; 33(7): 494–97.
25. Dupas P. Health behavior in developing countries. Ann Rev Eco 2011; 3: 1-39.
26. WHO. World Health Statistics 2010.
27. Nizami S, Sobani Z A, Raza E, Baloch N A, Khan JA. Causes of smoking in Pakistan: An analysis of social factors. JPMA 2011; 61: 198-201.
28. Wakefield M A, Loken B, Hornik RC. Use of mass media campaigns to change health behavior. Lancet 2010; 376(9748): 1261-71.