



DEPARTMENT OF MANAGEMENT AND ORGANIZATIONS OF PUBLIC
HEALTH SINGLE METHODOLOGICAL SYSTEM

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Abstract: Background: Every individual mode of health education has its own merits, drawbacks as well as their own sphere of effectiveness. A specific mode of communication is more useful in a specific setting on a specific group than others. To search for optimum mode of communication for a specific audience is a major area of research in health education. The issue of imparting health education to a gathering of educated people, representing different fields of knowledge has remained a relatively less lighted aspect of health education research. In this backdrop this study was initiated for making a comparative assessment of different methods of dissemination of health education among educated people.

Methods

A cross-sectional interviewer administered questionnaire survey was conducted involving 142 randomly selected subjects during the last session of a five-day conference having health as main theme when the opinion of the delegates regarding different communication methods was asked for. Collected data was analyzed not only to find out the optimum mode of education dissemination

in such a setting but also to find the contribution of different factors in the preferences of the study subjects.

Results

The participants opted more (60%) for focused programs of smaller audience (sectional program). In both broad area (main program) and focused area programs (sectional), the participants preferred lectures (62% and 65.7% respectively). Specific topics were preferred both in lectures (67.6%) and symposia (57.7%). In the exhibition, exhibits seemed to be more attractive (62%) than the posters. Qualification has emerged to be a contributing factor in peoples' choice towards

sectional programme and also in their affinity to symposia. Increased age was a significant contributor in participants' preference towards specific topics. Physical barriers of communication appeared to be a problem in the main program as well as in the exhibition.

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Conclusion

This study concluded that while planning for health education dissemination in an educated group a focused programme should be formulated in small groups preferably in



the form of lectures on specific topics, more so while dealing with participants of higher age group having higher educational qualification.

Background

Health education is a process by which individuals and groups of people learn to behave in a manner conducive to the promotion, maintenance or restoration of health.

Communication in relation to health education involves different modes like lectures, group or panel discussions, symposia, poster or exhibit presentation etc. Every individual mode of health education has its own merits, drawbacks as well as their own sphere of effectiveness. In addition it has to overcome the barriers of communication. Research on the effectiveness of different modes of health education dissemination is already in progress to examine the utility of a specific mode of communication in a specific setting on a specific group. It has been observed that different educational methods may be specially suitable for different groups of people depending upon their age, sex, educational qualification, background and nature of job. Comparative assessment of effectiveness of different educational methods has also been done on some target groups in different communicational settings.

Imparting health education to an educated group is a special area of interest because of the fact that this educated group may have a major role in the propagation of the achieved knowledge in future. This is why communication of health education in a gathering of educated people (e.g. conferences) should have separate specifications in relation to its content and mode of communication. Naturally, this becomes an arena and area of special interest and not much of research is undertaken in this aspect till date. In this backdrop this cross-sectional study was initiated during a scientific conference for making a comparative assessment of different methods of dissemination of health education among educated people.

Methods

This study was conducted in a scientific conference where 2250 scientists from different branches of science gathered. It was a mega event having health as the theme and experts of various fields attended this conference from different

parts of the globe. This conference was organized by one of the scientific bodies of the country and this conference aimed at disseminating health related issues among the scientists, science managers, policy makers, students and general public. This conference is an annual event (largest scientific gathering of the country), which undertakes an issue every year as the theme and communicates the messages on the theme.

This activity being the oldest of the country also is well known for its impact on building awareness and opinion among the scientific community as well as general public. In this way it has not only generated scientific movement in the past involving common mass also but also many times it has substantially

influenced policy making. Various aspects of health promotion, health technology, implication of health in nation's development etc. were discussed and three modes of education dissemination were used; lecture, symposium and exhibition. The conference



activity had two divisions; main program and sectional program (fourteen sections were there). Main programme consisted of de liberation containing discussion on different aspects of science and health, addressing the conference participants at large whereas sectional programmes dealt with a section of the attendees and focused only the issues related to the specific section. Main program consisted of lectures, symposia and an exhibition whereas the sectional program consisted of lectures and symposia. In the main program, lectures and symposia were of two types; some were based on specific topics and some were based on relatively broader topics. So far as the lectures are concerned, specific topic lectures included presentation like "cholera-epidemiology, genetics and vaccine development", "role of a tool box of diagnosis for tuberculosis in endemic country", "disease elimination: the experience" etc. and broader topic lectures were like "health science and our future", "role of public health in national economics" etc. In case of symposia, the specific topic symposia dealt with the issues like "challenges in combating malaria", "high altitude dysfunction" etc. and the broader topic symposia were on the topics like "environment & health", "bridging the gap between health science and society". Each of these symposia

consisted of three or more deliberations from different speakers talking on different aspects of the topic. For example the symposium on "combating malaria" contained topics like "control.

Topics of lectures and symposia of sectional programs were specific to the concerned section. For example, lectures of medical science section consisted of lectures like "factors other than iodine deficiency in endemic goiter", "mechanism of action of entertain of vireo cholera", etc. and lectures of environmental science section contained lectures like "biomonitoring of health effects of urban air pollution", "arsenic exposure and effects on liver", etc. Similarly, symposia of medical science section had topic like "development of ergonomics " and symposia of environmental science included topics like "environmental endocrine disruptors and reproductive health". These symposia again consisted of different speakers' deliberations on various aspects of the topic of the symposia.

The exhibition contained two types of materials: posters and exhibits. Posters were prepared on the topics like "prevention of dust related diseases", "how to combat diarrheal diseases?" etc. Exhibits were models/instruments, which were displayed and demonstrated for easy conveyance of the related messages. Exhibits contained "spirometer – an instrument early diagnosis of morbidity related to dust related diseases", "model showing transmission of malaria from mosquito vector to

human host" etc. This cross-sectional interviewer administered questionnaire survey was conducted during the last session of this five-day conference when the opinion of the delegates regarding different programs was asked for. Necessary ethical clearance was obtained from the institutional ethics committee of Tashkent State dentistry institute, for the purpose of this study. While calculating the sample size for this study we presumed the lowest choice prevalence to be 10% (as there was no available literature of this nature) and accordingly we calculated the sample size for prevalence study using acceptable range 5–



15%. Thus the minimum sample size for 5% level of significance was calculated as 130. We set our target as 150 subjects. Selection of subjects was done by using random numbers generated by Microsoft Excel Software. Initially 3 sections (out of 14 sections) were selected randomly and 50 participants from each section were approached for the study. Of the 150 persons approached for study, 142 agreed to participate. All the participants were enquired about their choices in

relation to all the different aspects of the conference. Along with descriptive analysis of the data, univariate analysis was done initially. Afterwards

logistic regression technique was applied to obtain contribution of different factors in the choices of the participants. As we intended to identify the most suitable mode of communication for each division/section of this conference (e.g. lectures, symposia), it was essential to ensure that the findings should be on the basis of merits/demerits of the mode of communication only. For this reason, while going for multivariate analysis, our intention was to observe whether the decision of choices made by the study participants was independent of the factors that might affect the choices (e.g. age, qualification, background, presence of physical barriers of communication, coherence among speakers, etc.). These variables were introduced as covariates in the logistic regression model and the choices of the study participants (e.g. section programmers better, lecture, better, specific topic better etc.) were introduced one by one as the outcome variable. In this way the role of the possible interfering factors on each of the choices of the participants could be evaluated. In our analysis we accommodated all variables together in the logistic regression model to obtain the contribution of every individual variable adjusting for the effects of other variables.

Results

Mean age of the study subjects was 33.2 years. 67.6% of the subjects were males and 32.4% of the participants were females. 25.4% subjects were more than 40 years of age. 52 subjects had higher qualification whereas 44 subjects had higher designation. 16.9% subjects were attending alone whereas rest were along with their friends. Only 16 persons had some difficulty in understanding communication in English language. Medical background was found in 8 subjects and 20 subjects had their origin in rural areas. 54.9% participants reported presence of noise-congestion-invisibility and 69% talked about lack of coherence among the speakers of the symposia. So far as choice of the participants is concerned, 86 subjects opined that sectional programmers was better than the main programmers. When assessment of main programmers was asked for 62% subjects remarked that lectures were best, whereas 29.2% and 13% participants were of the opinion that exhibition and symposium was best. Regarding the sectional programmers, it was observed that 65.7% subjects liked lectures rather than symposia. In case of lectures and symposia of main programmers, 96 and 82 subjects respectively liked specific topics better. In the exhibition, exhibits seemed to be more attractive (62%) than the posters shows the contribution of different factors in determining the choices of the participants. Age of the participants had significant effect in their choices in relation to assessment of lectures and



symposia of main programmers (multivariate analysis). In case of both lectures and symposia of main programmers, significantly positive regression co-efficient showed that specific topic was better for advanced age people. Higher qualification was a significant contributor in preferring sectional programmers as such and also in preferring symposia of the sectional programmers rather than the lecture (univariate analysis).

On multivariate analysis, it was found that higher qualification was a stronger contributor for preference of sectional programmers. But in case of preference of symposia of sectional programmers it became a weaker contributor. On this analysis, higher qualification was also observed to be a significant contributor in case of preference of symposia of main programmers. Medical background could not show any significant effect in case of any of the choices except for preference of even though the content of all the communications were health related issues. Absence of barriers like noise-congestion-invisibility was a significant contributor (multivariate analysis) while preferring sectional programmers as such and also for preference of exhibits. Coherence among the speakers appeared to be the most important factor while assessing symposia of both main and sectional programmers (univariate analysis). The significance of this factor increased many folds when the data was subjected to multivariate analysis.

Discussion

Sectional programmers were being attended by concerned audience in the form of a relatively smaller group and the topics were specific to the concerned section. This may have been the reason of participants' preference towards sectional programmers over main programmers (main programmers was addressing a broader audience of non-specific nature). In main as well as sectional programmers, lectures were preferred over symposia. This may be due to the fact that educated mass may have liked a comprehensive communication by a single deliverer more than a non-coherent message from multiple communicators (69% of subjects reported that there was poor coherence among the speakers of the symposia). For example a comprehensive lecture on "cholera – epidemiology, genetics and vaccine development" by a single deliverer has been more acceptable and useful than a symposium on "challenges in combating malaria" where different aspects of the topics were dealt with by different experts. This may have been due to the fact that the audience have liked a focused discussion a limited topic rather than a composite message on different aspects of a relatively larger area at a time.

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