

Sense-making Approach in Determining Health Situation, Information Seeking and Usage

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Abstract. The aim of this research is to look at communication as information seeking efforts. In line with this, one of the objectives of the research is to look at factors influencing the seeking of needs and usage of health communication among the public. The research utilises the sense-making approach as its theoretical framework. A survey method was used to gather data from 498 respondents in the district of Kuala Selangor, Selangor. In general, the research indicates a significant relationship between situational factors and efforts towards fulfilling information needs and information seeking. The hypotheses shows that there is a significant relationship between information seeking and information adequacy and also with information usage. Based on the hypotheses test, it can be concluded that an individual's health is a better predictor than demographic variables to determine the individual's information needs, information seeking and information usage. The research findings differ from the approach taken by traditional communication effects research which focuses more on the effect of information on individuals. This research strongly indicates that individuals who face a health situation will actively seek suitable information to overcome their health predicaments. The effectiveness of a communication strategy should not be measured by the conveyance of information but more importantly on how it fulfils the individual's information needs and information seeking at any particular time.

Keywords: Sense-making, Information Seeking, Health Situation, Campaign.

1. Introduction

Mass media is effective in creating awareness about dissemination of information while interpersonal channels are more effective in persuading audience to accept information (Rogers, 1995). Hence, communication campaigns tend to rely on the mass media rather than interpersonal channels. Corcoran (2007) is of the opinion that it is not the characteristics of media that ensures effectiveness of communication campaigns but it is the nature of the media that contributes to the success of a communication campaign. This means media cannot determine the success of a communication campaign if it cannot be accessed and utilized by the audience. Effectiveness of communications campaigns specifically, health communication campaigns need to be measured from many levels: dissemination of information, information reach, understanding of information and behavior (action) undertaken as a result of exposure to communication campaign. A health information officer may measure the effectiveness of communication campaign based on his ability to disseminate information or the sum of information disseminated. But this cannot be construed as effectiveness of the communication campaign. The dissemination of information is the precondition to ensure the success of a health communication campaign. Nevertheless, dissemination of information per se does not determine the objective of the campaign can be achieved. This process is related to what Rogers (1976) identified as large volume error, where the focus is only on the quantity of information disseminated.

A good health communication campaign needs planning on the dissemination of information, organization of information ensuring that it is relevant to the health situation encountered by the audience (Atkin & Wallack, 1990). Dervin (1983) stated that communication will be more effective if the source is knowledgeable on what is required by the target audience and how the audience will utilize the information accordingly each person's unique health context. The current situation experience can be an important indicator to determine the need and usage of the information for an individual.

2. Problem Statement

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The sense making approach focuses on how individual search and use information. Sense making proposes that an individual with experience will look for information that will provide a solution to the problem experienced. If the situation is unique, information search is the best indicator for the communication campaign planner. According to Atkin and Wallack (1990) an individual will only focus towards relevant information for him or herself. The information must be relevant and useful for an individual before they focus, evaluate and apply the information received. Information deemed irrelevant will be ignored. Thomas (2006) du Pre (2004) and Corcoran (2007) stated that each individual have different problems and health issues in accordance to their specific time and space. Individuals are guided by their individuality in their quest for information search thus determining the acceptance and usage of the information from the mass media.

In fact, a number of studies have found that the individual situation is a good predictor in information seeking compared to variables such as gender, age, income, education and race (Dervin 1983). Apart from that, an individual will not pay attention to information unless it is relevant to him/her. The information must be relevant to an individual before he/she decides to pay attention to evaluate and use it. Information that is considered not relevant to self and family and other close friends will be ignored. This behavior according to du Pre (2004), Thomas (2006) and Corcoran (2007) is due to the fact that everybody has different problems and health issues at varying times. This is because the target audience has individual choices and is psychologically able to choose and expose themselves to a situation where they would accept or remember a message from the mass media.

Based on the above situation, it is assumed that if a person is going through a health problem they will be more motivated to search for information. At this instance an individual need to be discerning in the information search, knowledgeable about the source of information, the process to acquire useful information to resolve the health situation experienced. Thus, the objective of the information search needs to be identified and any obstacles in information search need to be overcome. Therefore, the problem statement of this study is; what are the factors that motivate towards the activities of information search and observing the relationship between information search and needs, usage and substantial health information that will contribute to behavior modification.

3. Objectives of Study

The objectives of the study are as follows:

- To identify psychological factors that motivates towards search for health information.
- To determine the relationship between variables such as individual situation, information need, information seeking and usage of health information.

4. Sense-Making

Dervin's Sense Making Theory (1983) states that sense making is applied with four elements i.e a particular situation at a particular time and a gap which means when a problem arises, a gap is identified as the difference between the existing situation and an ideal situation, outcomes, effects of sense making, a bridge and some fillers to close the gap between the situation and the outcome. The strength of Dervin's model is in the methodology especially in the relationship between behavior and information seeking whereby this model guides us in examining the situational problem and the level of information use to reduce uncertainties, confusion and the type of outcome as a result of information use.

This model has also been consistently used in micro time, based on the time limit for interviews with indicators of interview questions which is very helpful in providing information service and disseminating information. For the purpose of this study, the researcher used the information seeking model that was introduced by Brenda Dervin known as Sense Making Information Seeking model. This is a generic model explaining the behavior of information seeking among members of the public. Dervin (1998) introduced four constructs in information seeking, namely situation, gap, bridge and outcome.

According to Dervin (1998) when a person is faced with an uncertainty in making a decision or how to solve a problem due to the absence of information (gap), he/she will look for a way to bridge the gap (getting

information) which usually results in an outcome. In her model information seeking, Dervin proposes four attributes namely situation, gap, bridge and outcome in the information seeking process in order to make a decision or to reduce uncertainties. The behavior of information seeking can be clearly explained through this model. For instance, if a person is suffering from heart problem (situation) but does not have the information on how to cure the ailment (gap), the individual will seek relevant information from various sources such as the mass media, Health Ministry, shaman (witch doctor) friends (bridge) to enable him/her to cope with it or practice a healthy lifestyle (outcome).

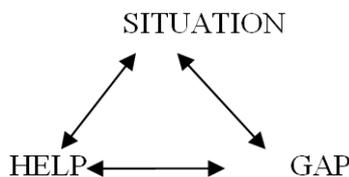


Fig. 1: The sense-making triangle: situation–gap–help (source: Dervin 1998, 69)

5. Methodology

This study adopted the administrative survey method. The study was undertaken in five constituencies in Kuala Selangor, Selangor, Malaysia. The district of Kuala Selangor was chosen as this area has been identified as having a significant number of people suffering from heart conditions in the state of Selangor. (Selangor State Health Office Report, 2011). This area also has a representative composition of the Malaysian society made up of Malays, Chinese and Indians. Cluster sampling was utilized in this study. Respondents identified must be 30 years old and above from Kuala Selangor. They came from the five constituencies of Kuala Selangor. The location of study was determined based on clusters. Kuala Selangor was also selected as a pioneer area for study on health situations and the practice of healthy living of the population. Kuala Selangor is expected to be representative in depicting individual health situation, risks perception, self motivation self efficacy in the practice healthy living and the effects of health communication campaigns. A total of 520 questionnaires were distributed. 498 questionnaires were deemed usable and were processed using Statistical Package for Social Science (SPSS) Version 18. The questionnaires comprised of open ended and close ended questions. The utilization of close ended and structured questions were easily managed.

6. Findings

Four hypotheses were proposed and tested yielded the determining factors towards health information seeking among the respondents and their tendency towards behavior modification. Hypothesis 1 tested the relationship between information need variable and psychological and health situation. There was a significant relationship between health situation and information need ($\chi^2 = 49.7$ $p = 0.013$). Analysis also found the relationship between information need and extrinsic motivation ($\chi^2 = 18.323$, $p = 0.005$), self monitoring ($\chi^2 = 16.072$, $p = 0.013$) and self efficacy ($\chi^2 = 28.910$, $p = 0.00$). The study results showed there were no significant relationships between information need and detrimental perception ($\chi^2 = 8.150$, $p = 0.227$), experience perception ($\chi^2 = 11.434$, $p = 0.076$) and intrinsic motivation ($\chi^2 = 11.434$, $p = 0.076$).

This indicates that health situation is a better variable than others to predict the benefits of information usage. Hence, health situation of an individual dictates the information needs whether for purposes of to prevent, treatment or solving health issues being experienced. This study shows that information need is not influence by risks perception. Further analysis also indicated that there is no relationship between self-motivation as a subset of intrinsic motivation with information need. Generally, according to this study, information need is not influenced by intrinsic motivation but is influenced by extrinsic motivation. Analysis of relationships revealed that there is a relationship between self efficacy under the self monitoring dimension and information need. Therefore, self efficacy influence information need for individual experiencing health problems.

The second hypothesis tested the relationship between information search, information need and psychological and health situation. There is a significant relationship between types of health information

needs and search for health information ($\chi^2 = 137.062$, $p = 0.00$). Hence, information search is influenced by information need. Study shows there is a significant relationship between individual health situation and information seeking $\chi^2 = 32.03$, $p = 0.043$. Based on chi square analysis, there is a significant relationship between risks perception and perception of severity and information seeking ($\chi^2 = 10.43$, $p = 0.034$) but there is no relationship with experience perception ($\chi^2 = 7.885$, $p = 0.096$). The study showed there is a relationship between information search and intrinsic motivation ($\chi^2 = 11.29$, $p = 0.023$) but no relationship between extrinsic motivations. Therefore, risks perception is a good predictor in determining the effort on information seeking influenced by intrinsic motivation but free of extrinsic motivation. The chi square test showed that there is a relationship between information seeking and self monitoring ($\chi^2 = 23.54$, $p = 0.00$) and self efficacy ($\chi^2 = 10.16$, $p = 0.038$) therefore, information seeking is influenced by self efficacy a dimension of self monitoring of an individual.

The third hypothesis is about the saturation of information and its relationship with information search, psychological and health situation. Relationship analysis indicates a positive relationship between information seeking and saturation of information ($\chi^2 = 15.45$, $p = 0.050$). In terms of health situation and sufficient information there was no significance ($\chi^2 = 7.840$, $p = 0.098$). Intrinsic motivation was also found having no significant relationship with sufficient information ($\chi^2 = 0.761$, $p = 0.684$), extrinsic motivation ($\chi^2 = 1.280$, $p = 0.527$) and self monitoring ($\chi^2 = 1.080$, $p = 0.583$). But there was significance in the relationship between sufficient information and experience perception ($\chi^2 = 6.276$, $p = 0.043$) and self efficacy ($\chi^2 = 9.805$, $p = 0.007$).

The fourth hypothesis tested the relationship between usage of information and psychological and health situation. There is a significant relationship between sufficient information and usage of information ($\chi^2 = 53.240$, $p = 0.00$). There is also a significant relationship between information usage and health situation ($\chi^2 = 40.56$, $p = 0.004$) and risks perception ($\chi^2 = 103.4$, $p = 0.000$). There is also a significant relationship between experience perception ($\chi^2 = 16.85$, $p = 0.002$), intrinsic motivation ($\chi^2 = 27.84$, $p = 0.000$), extrinsic motivation ($\chi^2 = 14.72$, $p = 0.005$), self ($\chi^2 = 12.63$, $p = 0.013$) and self efficacy ($\chi^2 = 19.94$, $p = 0.001$). This study supports Dervin (1983) proposition that health situation is a good indicator in assessing changes in health information search behavior.

7. Conclusion

Every individual will seek information because they want to close the gap between information and existing knowledge or knowledge required. Information seeking is critical because the individual is focused on relevant information that can be utilized to resolve the current situation. Information required to close the gap is also different based on the time and space factors. This is because information required is based on 'needs basis' from time to time to close the information gap in the individual's life.

The finding of this study provides an impetus on how to develop an effective health communication campaign and how to evaluate a communication campaign. The success of a communication strategy should not just be measured based on the effectiveness of information dissemination. But most important is the extent of information dissemination that enables the targeted individual to deal with his/her current health situation. Communication should be perceived as something to be manipulated in order to influence the target audience. This study was also able to identify the relationship between health situation and information needs. The findings support that the health situation should be utilized to predict the type of information being searched by individual with health situations.

There were also significant relationships between psychological factors such as, risks perception, self motivation and self efficacy with information needs. Further the study found significant relationship between information needs and information search. But there were no significant relationship between risks perception and information search. There were also no significant relationship between self motivation and information search. Nevertheless, there is a significant relationship between self efficacy and information search and between information saturation and information usage.

An important finding of this study was, there were no one variable that could predict the consistency of information search. Information need is an important variable to determine what type of information will be

required by individual having health issues. Without knowledge of individual needs it will be difficult to plan a communication program that is relevant to a health issue. This lack of knowledge results in the ineffectiveness of the dissemination of information which is usually, inappropriate, congruent and fulfilling individual needs.

Information needs is a very good predictor of the information being searched but not the best variable for search of health information. Information usage is a good variable to predict information search on health situations. Communication planner still needs specific individual information to execute a strategic communication campaign. Nevertheless, four important variables that can be considered reliable for the strategic health communication planner are health situations, information needs, information search and sufficient information.

In conclusion, behavioural changes related to health involve early planning by observing information seeking factors and beliefs pertaining to health among the audience and their orientation toward health thus determining behavioural modification. Findings of this study are relevant to health communication in its effort to develop a behavioural model which explains how an individual's health situation affects information seeking behaviour and thus develops a need to modify planned behaviour. The findings also indicate that behavioural modification must take into consideration situational dimensions and barriers in obtaining information and physical obstacles among audience since these are the determining factors for an individual when trying to decide whether to accept or reject change in behaviour.

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