



INFORMATION SEEKING AND SHARING BEHAVIOR ON TREATMENT OF MEASLES AMONG CHILD CARETAKERS IN TIMUGAN, LOS BAÑOS, LAGUNA, PHILIPPINES

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ABSTRACT

This study aims to analyze the information seeking and information sharing behavior of child caretakers in Brgy. Timugan, Los Baños, Laguna, Philippines and how these affect their choice of health service providers on treatment of measles among their children. Data collected from questionnaires were described and analyzed using frequency counts, mean and percentages, and relationships of variables were tested using Cramer's V test. Findings showed that majority of the child caretakers were female, belonged to 20-40 years age bracket, married, high school or college graduate with monthly income ranging from Php 5,000 to Php 20,000. The family size was relatively small with at least 1-2 children. The child caretakers were found to be (1) knowledgeable on basic information about measles, such as its symptoms, complications, and danger signs; (2) aware of the importance of vaccination in preventing measles; and (3) sought basic information on prevention, complication, and treatment of measles from Brgy. Health Centers, and private hospital was their topmost health service provider. They sought information only if their child had been infected with measles and shared information sought to their family members through face-to-face communication. Information seeking behavior was related to their monthly income, civil status, and number of children.

Keywords: Information seeking, information sharing, measles treatment, seeking and sharing behavior

1.0 INTRODUCTION

In the area of health, effective communication strategies in promoting public awareness are essential as they may help in changing human behavior towards correct health practices. Information is important in communication because it carries the message that needs to be transmitted and understood by its intended users. As a building block of communication, it can affect how a person behaves in a situation. Information seeking is the innate action of an individual in which he/she purposively seeks information to achieve a specific goal (Wilson, 2000), and the moment the acquired information is shared through interpersonal communication using different media platforms or communication channel, this behavior is known as information sharing. It is important to note the credibility of the source to make sure the message being communicated is effective and will reach its desired goal.

This study primarily aims to understand how child caretakers look out for information in providing health care treatments in response to their child's illness. Measles outbreak in the Philippines causes alarming number of child mortality and this can be avoided if the child caretakers are well-informed of health risks brought by this contagious disease. The communication system at the community level may need to be studied in order to know how people seek and share information about certain issues and in this case, the focus of study will be on how caregivers seek and share information on treating child with measles. This study also aims to know the factors that affect the decision-making of the parents or child caretakers in seeking information on probable treatments as well as sharing acquired information.

2.0 LITERATURE REVIEW

The World Health Organization (WHO) started to introduce the Expanded Program on Immunization (EPI) in 1974. But this came to the Philippines only two years after its implementation. EPI program aims to lower the incidence of child morbidity rate among member countries of United Nations. The program offers six vaccinations to combat occurrence of diphtheria, pertussis (whooping cough), tetanus, poliomyelitis, tuberculosis, and measles among children aged 5 years below. Among the diseases mentioned, measles is considered as one of the leading causes of death of infants globally. In the 1980s, around 2.6 million deaths due to measles were recorded globally and because of high child morbidity, this led to a widespread vaccination of infants (WHO, 2017). In the Philippines, measles is also considered a major cause of child death according to the Department of Health (2009) statistics on child mortality. Even if vaccinations are readily available in public health centers, death among children under age of five is still rampant. Because of this, the government led a campaign on measles prevention to inform the public on possible health risks brought about by this disease.

Because of the alarming number of death caused by measles in the past, the Department of Health (DOH) together with HEALTHCOM project launched a national communication campaign in 1990 in support to widespread promotion of immunization program in the country. After the introduction of EPI in the Philippines, child mortality of children under 1 year has decreased gradually, from 70,000 in 1976 to approximately 50,000 in 1986 (NSO & ICF Macro, 2009). Being a developing country, Philippines is more susceptible to measles death whereas remote areas in the country might not be fully informed with the risks brought by deadly disease such as measles. Immunization summary from WHO revealed that in 2010 an estimated 2.3 million birth was recorded and about 2.17 % did not survived. The data also indicated that the mortality rate of children under age of 5 was 29 out of 1000 live births or 2.9 %.

In the 1998 National Demographic and Health Survey (NDHS), which is done every five years, the infant mortality rate in the country or the probability of a child dying before reaching the age of one year old was 35 deaths out of 1000 live births; while the children under 5 mortality rate was 62 deaths out of 1000 live births (NSO, DOH, & MI, 1999). Also in the same year, the Philippines' Measles Elimination Campaign was launched to reduce measles death by 2008. The campaign lasted for 7 months which targeted children 9 months to 14 years of age. Measles death in the country decreased except in the National Capital Region.

After Typhoon Haiyan (Yolanda) hit the country in 2013, DOH immediately launched a campaign for free mass immunization and vitamin A supplementation of children under five years old in Tacloban City in Leyte. In the Philippines, the out-of-pocket health expenditure is 54% which means that for every dollar spent on health, 54% comes from people's own pockets (Asian Development Bank, 2011). Some poor households cannot afford to go to public hospitals because of lack of money, the disease is left untreated. DOH launched a monograph report in 1995 on the information, education, and communication (IEC) campaign and found that the reasons for not consulting professional doctors were as follows: financial problems, self-medication, and seeking faith healers. Instead of seeking professional advice, child caretakers then seek quack doctors, *hilots*, and *herbolarios* as treatment to their sick children. This practice was mostly done in rural areas wherein availability of hospital and other health care units is out of reach for some households. For worst cases, others sometimes leave their children untreated because of financial problem. Some of them rely on self-medication by seeking advice from their friends and relatives which are often not effective because the information that is passed on to them even worsen the condition of the sick child (Quizon-Ang, 1995).

2.1 Information seeking

Bates (2002) devised the "Modes of Information Seeking" diagram (see Fig. 1) that explains the nature of information related to behavior exhibited by an individual in a given situation. The degree to which an individual is exposed to information can be "directed" and "undirected" while the behavior they exhibit after acquiring the information is either actively acting on it or passively working on it.

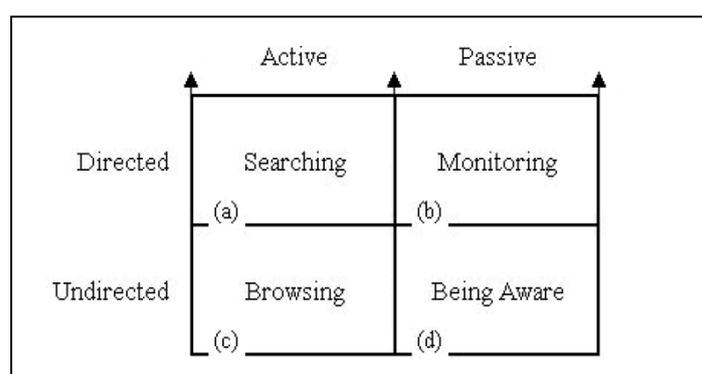


Figure 1: Models of Information Seeking by Bates (2002)

In this model, four types of behavior are reflected on the degree of their exposure on the information and how they work towards it. On the fourth quadrant, labeled as "d", regardless how the individual is exposed to information, he/she passively acts on it but no action was taken. The 2nd and 3rd quadrant, labeled "b" and "c" respectively, oppositely complementing each other, as explained by Bates (2002):

Monitoring is directed and passive, while browsing is undirected and Active. In monitoring, we maintain a back-of-the-mind alertness for things that interest us, and for answers to questions we have. We do not feel such a pressing need that we engage in an active effort to gather the information we are interested in; we are content to catch as it goes by, so to speak (p. 5).

On the other hand, browsing, as explained by Bates (2002) is having no special information need or interest on the subject matter but is actively exposing himself/herself to the information which may/may not be deemed relevant to him/her.

In the 1st quadrant, searching is the direct exposure to information and immediately seeking for it. It indicates that a person is more likely to take actions in seeking for it and reacts on the information that has been acquired directly. Being interested in the information adds up to their active seeking for it.

Wilson (1999) explains in his model of information behavior the relevance of the information to an individual and how he/she seeks information based on his/her needs. This model also involves “other people” in the information search process which shows that information-seeking behavior arises as a consequence to the need perceived by an information user which is often satisfied through seeking various information sources which can be either formal (mass media and institutional health providers) and informal (interpersonal).

2.2 Information sharing

Information sharing is being influenced by the underlying factors of information behavior (Meyer, 2009). In general, the behavioral responses of an individual affect the information sharing activities of the person. Meyer (2009) says that information behavior includes the emotions, feelings, actions, and reactions displayed by the person when he/she is exposed to information. However, the responses may differ depending on the cognitive state of mind, experience, and levels of knowledge. In a development context, information sharing is often given emphasis in cultural studies for a better understanding on the use of the information systems. The information system used in modern society has a big difference with that of the traditional societies, and because of this, it may have an implication on the information sharing for development.

In indigenous communities, sharing of information is often restricted and being decided upon their leader unlike in modern societies in which information can be freely shared through various communication platforms. People from indigenous communities do not adopt information easily because of some issues on its credibility and cultural values. This is where norms and values affect the perception of an individual to such information. The credibility of the information influences the decision of an individual whether to accept the information being shared. This is often observed in groups, unlike in the modern society wherein the decision is made solely by the individuals. In this study, the information sharing behavior is also viewed upon the influential factors that affect the information seeking behavior of the individuals.

3.0 RESEARCH DESIGN

Survey study and correlations were used to examine the data and identify the relationship of variables. The data were explained through descriptive statistics, such as mean, percentage, and frequency counts. Correlation study was used to determine the effects of the variables to each other. The study was conducted in Rural Improvement Center (RIC) – Timugan, a child day care center located in Brgy. Timugan, Los Baños, Laguna, Philippines where the locale was found to have children under 5 years of age.

This study primarily entails to analyze the socio-demographic characteristics of the respondents that can affect their behavior or actions in acquiring information about measles and share it to others. A correlation analysis determines if the succeeding factors in socio-demographics influence the sharing and seeking behavior of the participants. For the 2nd level of analysis, another correlation analysis was done to assess if the respondents' information seeking and information sharing behavior affects their choice of health service provider for the medical treatment.

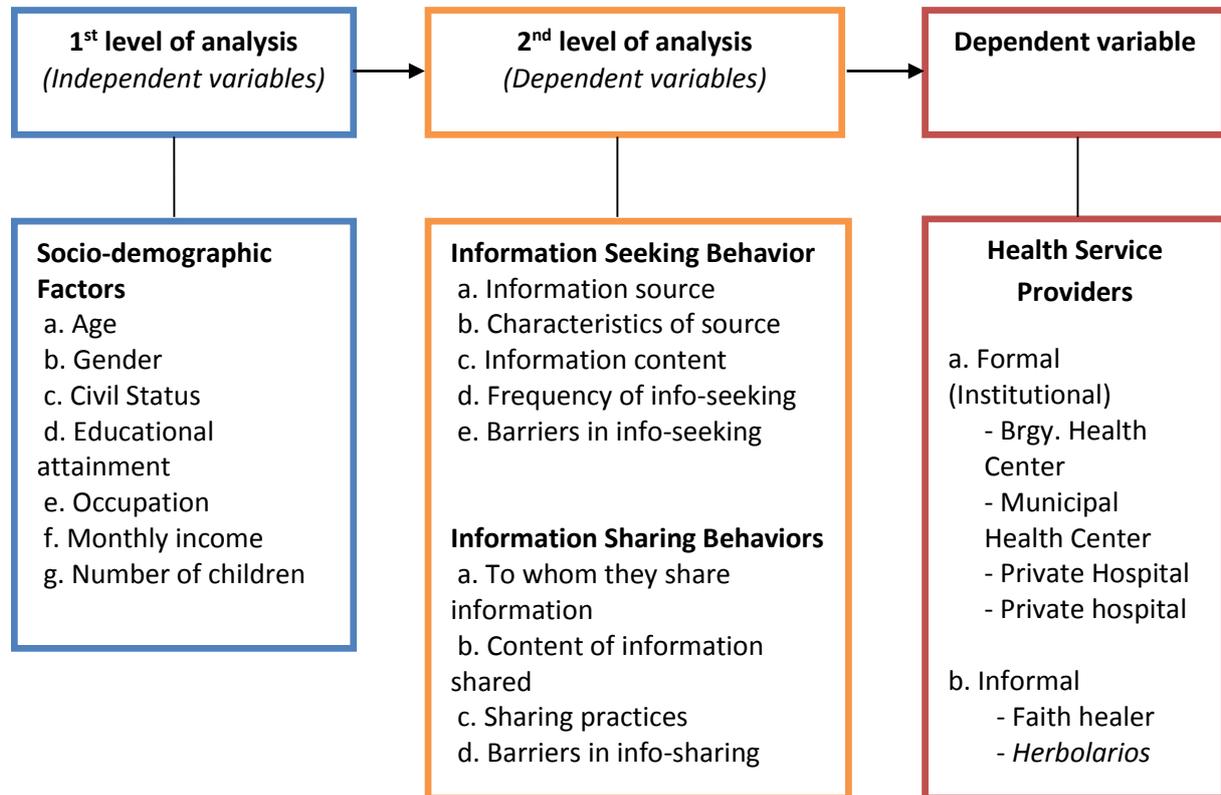


Figure 2: Framework of the study

The child caretakers were surveyed using a questionnaire which covered the following information, behavior and practices: (a) Description of the socio-demographic characteristics of the child caretakers; (b) Knowledge on treatment of measles; (c) Information seeking behavior/practices of the child caretakers; (d) Information sharing behavior/practices of the child caretakers; and (e) Child caretaker's choice of health service providers sought to treat measles. The study instrument was divided into 4 parts: *Socio-demographic characteristics, background on measles treatment, information seeking behavior, information sharing behavior and choice of health service provider*. The researcher employed mean, percentage, and frequency counts since the variables were mostly nominal. On the other hand, Chi-square test of independence was used to test whether or not the variables have relationship; however, it does not indicate the nature of relationship. To assess the nature and significance of the relationships of the variables, *Cramer's V* measured the association for nominal variables (Pearson, 2011) which is based on the value of chi-square. The *Cramer's V* is used to measure the relative strength of the association between the variable using the formula proposed by Frankfort-Nachmias and Leon-Guerrero (2000), $Cramer's V = \sqrt{\frac{X^2}{N \times m}}$. A specific range of value was used to know the nature of relationship between the associations between the nominal variables.

Table 1: Cramer's V range of values used in this study.

Range	Interpretation
0.00 - 0.20	Weak
0.21 - 0.40	Moderate
0.40 - 0.60	Strong
0.61 - 1.00	Very Strong

4.0 ANALYSIS AND DISCUSSION

4.1 Sociodemographic characteristics

Seventy-six percent or majority of the child caretakers are 20 – 40 years old which shows that the age distribution is mostly composed of young to old adults (see Table 2). Specifically, many were in 20 – 30 (39%) and 31 – 40 age brackets (37%) which imply that child caretakers are young, hence, they are more engaged in seeking information activities. In the National Demographic Health Survey (NDHS) conducted in 2008 (NSO & ICF Macro, 2009), the trend for the age consists of younger age structure specifically in rural areas, which is also reflected in this study. Sixty-eight per cent (68%) of child caretakers were found to be married. This is quite expected since many of them were parents of the children attending the day care center. Also, the Philippines is known as a Catholic or Christian country and Filipinos' have strong belief in the sacrament of matrimony. About 34% of the child caretakers at the time this research was conducted were earning from Php 5,000 to Php 20,000 income bracket per month and 29% of them were earning below Php 5,000 per month. These findings suggest that the child caretakers are really not well-off. The fact that their children below 5 years old are in the day care center already suggests their financial capacity, otherwise, their children must have been enrolled in private schools. Majority of the respondents (68%) have 1-2 children with them in their home. This is also reflected in the NDHS survey which tells that married women tend to limit child bearing because they have become knowledgeable or educated to family planning methods. Since they have small number of children, it tells that the child caretakers have relatively small family size.

Table 2: Socio-demographic characteristics of the respondents.

Summary of socio-demographic characteristics		
Age range	Frequency n=68	Percentage (%)
20-30	28	39
31-40	25	37
41-50	10	16
51-60	2	3
61 and above	2	3
No answer	1	2
Civil status		
Married	47	68
Single	20	30
Widow	1	2
Monthly income		

5,001-20,000	23	34
Less than 5,000	20	29
20,001-30,000	9	13
30,001-40,000	2	3
No income	11	16
No answer	3	5
Number of children		
1-2	46	68
3-4	15	22
5 and above	4	6
None	3	4

4.2 Information seeking behavior

The source of information is important in determining and understanding the information seeking behavior of the respondents. The information sources were categorized as follows: (a) broadcast/mass media, (b) printed media, (c) internet and social media, (d) institutional health providers, (e) interpersonal, and (f) group discussion. As shown in Table 3, the child caretakers sought multiple sources of information when it comes to knowing information about measles. The most sought source was the group of institutional health providers, particularly the Brgy. Health Center. Majority of the respondents (53 out of 68) sought information on measles treatment. Aside from institutional health providers, the next most sought information source was the broadcast/mass media. This was followed by family under the category of interpersonal sources of information. The least information source sought was group discussion.

Table 3. Sources of information on measles treatment

Information source	Frequency (n= 68)
A. Mass media	
Television	43
Radio	10
B. Printed media	
Newspaper	5
Poster	7
Leaflets	6
Brochures	3
C. Social media	
Internet	9
D. Institutional health providers	
Brgy. health center	53
Municipal health center	14
Public hospital	11
Private hospital	17
E. Interpersonal	
Family	19
F. Group discussion	4

It is also important to note the characteristics of the information sources because it helps to understand why caretakers seek the information from them. It was found that most of the respondents sought information which they think are reliable and credible enough to believe in (see Table 4). Respondents explained that doctors and health care workers as institutional

health provider were their most reliable sources of information because these people are professionally trained for the job because they know what to do and what advice to give based on the symptoms observed during the diagnosis. Hence, the credibility of information is anchored on the professional expertise of the information source and this is further reinforced by the fact that the institutional health providers can give complete and accurate details about the disease, have had experience on treatment of such disease, and have back up of health care facilities needed for the treatment of the disease.

Table 4. Characteristics of information sources sought for measles treatment

Characteristics	Frequency (n=68)
Reliability and credibility of information source	33
Complete and accurate details	14
Complete health care facilities	4
Had experience on treating the disease	3
No response	10

The information most frequently sought by the respondents dealt on prevention, symptoms, complications and treatment of measles. These are all basic information that would enable them to take the necessary precaution. Choice of health service provider for treatment of measles was determined greatly by the caretakers' preference for their sick children to be given proper medication. This was something they could not compromise with proximity and cheaper cost of treatment. Hence, private hospital stood out as the top service provider of their choice. Similar studies conducted with the same locale as this research revealed that information dissemination strategies used by the Los Baños Municipal Health Office include printed media like leaflets and posters (Manzanilla, 2005; Canas, 2007). Also, interpersonal communication is also used as a communication strategy among health care workers who are mostly assigned in *barangay* health centers. Subido (2005) studied the information seeking behavior of dumagats (an indigenous group in the Philippines) and it was revealed that the group sought basic information on prevention and treatment of diseases through interpersonal communication (face-to-face).

4.3 Information sharing behavior

It was found that 65 out of 68 (96%) of the respondents share information about measles while 3 out of 68 (4%) did not share at all. They usually share the information at home with their family members (53 responses, see Table 5) which include siblings, in-laws, and other immediate family members.

Table 5. Places or venues for sharing information on measles.

Information sharing spaces	Frequency (n=68)
House	53
Municipal Health Center	28
School	5
Brgy. Health Center	3
Hospitals	1
Others (social media, text message)	2

They also share information with their friends and neighbor but to a lesser extent. Since Filipinos are family-oriented and have strong family ties, it is expected that they would prefer

to share relevant information within them. Families are also viewed as a support system for financial, physical, and moral support.

The most shared information about measles dealt on prevention, symptoms, complication, and treatment. This was followed by information about vaccination schedule, where to avail vaccination and the age of the child being vaccinated, all of these are equally important information that others need to know more on the preventive side, rather than on treatment of measles. This suggests that respondents value these kind of information that will help them protect their children from measles which would later on suffice information on the actual treatment they would want to provide to their children. Since majority of the respondents share information about measles, their practices or means of sharing information was also looked into. Responses were grouped into two categories: (a) interpersonal/face-to-face interaction and (b) interaction through communication platform. It was found that most of them share information through personal or face-to-face conversation under the category of interpersonal interaction. The least sharing practice under this category was the group discussion in the *barangay*. On the other hand, telephone calls under the category of communication platform was mostly used in sharing information while internet social networking sites was the least used communication platform (see Table 6). Being a small community of caretakers in the same *barangay*, the common medium for information sharing would definitely be more of interpersonal. They are typically neighbors, friends or relatives. Hence, their physical and social proximity to each other would favor and trigger more face-to-face interaction.

Table 6. Sharing practices of the respondents

Information Sharing Activities	Frequency N=68
A. Interpersonal interaction	
Personal conversation	59
Group discussion in <i>barangay</i>	6
B. Interaction through a communication platform	
Telephone calls	5
Internet social networking sites	3
No response	1

4.4 Relationship between Socio-demographic Characteristics, Information Seeking, and Information Sharing, and Health Service Provider Sought

Frequency counts and percentages were used to describe the socio-demographic characteristics, information seeking and sharing behavior, and the choice of health service providers among the respondents. To analyze if there is a significant relationship among the mentioned variables, the researcher used *Cramer's V* as the statistical tool in measuring the association among the mentioned variables. Table 7 summarizes the significant relationships among the variables under study.

Table 7. Variables with significant statistical results

Independent Variable	Dependent Variable	Cramer's Value	Interpretation
A. Socio-demographic characteristics	Information seeking		
Monthly income	Source of information	0.3190	Moderately

				associated
	Civil Status	Characteristics of information source	0.3781	Moderately associated
	Number of children	Information sought	0.2426	Moderately associated
B. Socio-demographic characteristics		Information seeking		
	No. of children	Reason for seeking health service provider	0.2691	Moderately associated
C. Information seeking		Choice of health service provider		
	Reason for seeking health service provider	Choice of health service provider	0.4374	Strongly associated

The result of the statistical test showed that the following variables are associated with each other at 10% level of significance: 1) monthly income and source of information on measles; 2) civil status and characteristics of information sought; 3) number of children and information sought about measles; 4) number of children and reason why they sought the health service provider; and 5) reason why they sought health service provider and choice of health service provider.

Monthly income and source of information on measles were strongly associated with each other with a Cramer's value of 0.3190 (see Table 7). This means, the higher the income, the stronger is the tendency to seek information from the institutional health service providers. As the income becomes higher, the child caretakers' preference for better health service also increases, in as much as they already can afford to pay. Civil status and characteristics of information were found to be strongly associated with each other. That is, married respondents tend to seek for information sources that are credible and therefore, would not risk the health of their children and would get the most reliable information about the illness. The number of children was also associated with the information the caretaker sought. The more children they have, the higher is their tendency to seek for information about the prevention, symptoms, complications and treatment of measles. With more children to raise and protect, they would prefer to have as much information about the disease to prevent anyone from their family to get sick. Lastly, moderately association was observed with the reason why they sought the health service provider with their choice of health service provider. Since the respondents aim to seek for proper medication for their children, it would be their tendency to look out for a health service provider who could give them proper medical attention.

5.0 CONCLUSION

The information seeking behavior exhibited in this study was influenced by the child caretakers' socio-demographic characteristics (monthly income, civil status, and number of children) whereas the information they sought regarding measles was shared with their family members at the comfort of their homes and this behavior was brought by strong family kinship which is evidently part of the Filipino culture. Based on the results of this study, it is recommend that information, education, and communication (IEC) materials should provide

information that tailor fits the profile of the audience. Since most of the respondents from this study were married, IEC materials and immunization campaign should target households in order to effectively deliver information on proper precaution and prevention of measles in the community.

On the other hand, it was also observed that child caretakers sought an institutional health service provider, private hospital, to treat their child infected with measles. This was driven by their eagerness to give immediate medication and the needed attention in treating child affected with measles. Results of this study could serve as a guideline for the child caretakers in choosing the right health care service provider to treat the illness of their child. Moreover, health service providers, can benefit from this study as they can be more competent in the healthcare services they offer to their patients as well as help them plan an effective strategy to minimize epidemic outbreaks such as measles. Major results of this study, specifically on the information seeking and sharing behavior of the child caretakers, could help communication researchers figure out the factors that influence the behavior and strategize health-related campaigns as well as strengthen existing government programs and policies in combating outbreaks. Information seeking behavior include sources of information which in this study was identified as the health centers in local *barangays*. Alongside house-to-house visit as recommended earlier, *barangay* health centers could be a strategic location to further disseminate information about prevention of epidemic diseases such as measles. Furthermore, on the information sharing behavior, the study revealed that information is being shared within the family members, thus, for future research, analyzing family networks could help in better understanding the nature of information dissemination within a community.

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