

# THE GRANULARITY EFFECT ON PATIENT COMPLIANCE OF TAKING MEDICINE MODERATED BY COMMUNICATOR

Andi Rahmat Saleh\*  
Tantri Yanuar Rahmat Syah  
Universitas Esa Unggul

## Abstract

This research's goal is to measure the influence of granularity towards patient compliance moderated by the communicator. The object of this research is the student who ever get sick and went to the hospital for getting medication from the doctors. The purpose of this research is to find out the compliance of the patient about the time to take a medicine will be better if we used fine granularity (every 8 hours) than coarse granularity (3 times a day). The influence of expert communicators moderated granularity and the compliance. The data analysis method used ANOVA two ways. The result of the research shows that the patient compliance about the time to take a medicine using fine granularity (every 8 hours) is not more better than using coarse granularity (3 times a day), and if the expert communicator using fine granularity (every 8 hours) on drinking the medicine the compliance of the patient is increased. The group of the expert communicator with fine granularity (every 8 hours) tend to have a higher.

Key words: Granularity, Communicator, Compliance.

## INTRODUCTION

Based on Zhang and Schwarz Research in 2012 at the University of Michigan with a total audience of 267 people examined "Granularity of consumers quantitative expression of the word 30 and 31 days compared to the 1-month use of the word". The conclusion of studies 1A audience of more positive thinking when mechanics estimates the car can be repaired longest "30 and 31 days". Meanwhile, when mechanics estimates using the words "one month". The audience responded with the worst perspective. The study will be conducted by researchers is a replication of an earlier study conducted by Zhang and Schwarz in 2012. This study is exploratory and is a fundamental research that departs from a theory. Lately a lot of patients who went to the hospital after getting medication often do not follow the rules or instructions regarding the time to take medication that has been recommended by the doctors. Many hospitals that provide

rules of taking drugs listed on the drug label says "3 times a day". The use of word "3 times a day" effect that many patients taking the medicine becomes irregular and did not follow the rules based on the pharmacodynamics and pharmacokinetics of the drugs process in the human body. Therefore, the role of communicator as a conduit of information is very important in providing good and correct information to patients. As we know every drug has different time to take a medication. There are medications that must be taken every four hours, and there are also drugs must be taken every 8 hours. In general, the drug is taken every 8 hours. If the communicator uses the word "three times a day" often makes the patient becomes more difficult to manage time to take medication. The words "3 times a day" included in the coarse granularity while the word "every 8 hours" included in the fine granularity. Influence of granularity on the adherence of patients to take medicine that is moderated by the

communicator is an issue that will be discussed in this study.

## **LITERATURE REVIEW**

### **Consumer behavior**

According to Schiffman and Kanuk (2004), The definition of consumer behavior is the behavior shown by consumer on finding with purchasing, application, evaluation, and replacement products and services expected to satisfy their needs. Many definition explained about consumer behavior by the experts, one of them is defined by Umar (2003), "consumer behavior is an action which is directly in gain, consume and spend your products and services, including the decision process that precedes the action". Definition of consumer behavior according Kottler (2002) is "The last action of consumer behavior, both individuals and households who buy goods or services for personal consumption". Meanwhile, according to Setiadi (2003) definition of consumer behavior is "a decision-making process and activities of each individual who conducted the evaluation in order to obtain, use, set of goods and services". Consumer behavior is also defined by Swastha and Handoko (2000) is "The activities of individuals who are directly involved in obtaining and using goods and services, including the decision-making process on the preparation and determination of the activities". According Hawkins, Best, and Coney (2001) the definition of consumer behavior is the study of individual, group or organization and the process by which they select, use and dispose of products, services, experiences or ideas to satisfy the needs and the impact of the process consumers and society.

### **Marketing Communications**

By communicating, marketing activities will take place in such a way and will achieve everything you want, one of which is the purchase process. At a basic

level, communication can inform and make potential customers aware of the existence of products offered. Communication can try to persuade consumers of current and potential customers that desire into the exchange relationship. Communication can also be used as a reminder to consumers about the existence of products which in the past never made the exchange transaction on this product. In addition, another role of communication in marketing is to differentiate the products offered by a company with other companies. At a higher level of communication role not only in supporting transactions with inform, persuade, remind, and differentiate products but also offers a means of exchange itself (Schiffman and Kanuk, 2003).

Marketing communications is defined as the process of disseminating information about the company and what was to be offered to the target market (Sulaksana, 2003). Meanwhile, according to DeLozier (1994) in the book *Synergy Marketing Communications: Integration of Advertising, Public Relations and Promotion*, marketing communications is the process of delivering and blend stimuli to the target market that aims to evoke the response and interest in the product and build a channel to receive, interpret and perform action against the message of the market for the purpose of adjusting the company's current ideas and identify new opportunities in communication. Communication is an important aspect in the overall mission of marketing as well as determinants of successful marketing. Determination of anyone who becomes the target of communication determine the success of communication. By targeting the right, the communication process will run effectively and efficiently (Sutisna, 2001).

### **Health Communication**

Health communication is the process of delivering health messages by the communicator via the channel or specific media to the recipients with the aim to

encourage human behavior achieved prosperity as a force that leads to the state intact healthy physical, mental (spiritual) and social. Health communication is narrower than a human communication in general. Health communication is closely related to how individuals in society seek to maintain their health, dealing with various issues related to health. In health communication, focus include transactions specifically health relationship, including the various factors that come into effect on the transaction in question. In the level of communication, health communication refers to areas such as national programs and world health, health promotion, and public health plans. In the context of small groups, health communication refers to areas such as meeting to discuss the treatment planning, the staff report, and the medical team interaction. In the context of interpersonal, health communication, including in human communication that directly affect the professionals and professionals with clients. Komunikasi kesehatan is seen as part of the relevant areas of science, the focus is more specific in terms of health care. Type, the type of communication Basically communication is used to create or enhance the relationship between human activity or group. This type of communication consists of verbal communication with words and non-verbal communication is called body language.

Verbal communication, covering many aspects such as: Vocabulary (communication will not be effective if the message conveyed with the difficult words, because the word is important in communicating), racing or speed (communication will be effective and successful if the speed of speech can be regulated, not too fast or too slow), tone of voice will dramatically affect the meaning of the message so that the message would be another meaning when pronounced with a different tone of voice. Tone of voice that is not proportional is an obstacle in communication, Humor can increase a happy life. Dugan (1989), notes that the

laughter can help relieve stress and pain. Humor have physical and psychological relationships and should bear in mind that humor is the only interlude in communicating, short and clear (communication will be effective when delivered briefly and clearly, directly on the subject matter, making them easier to understand), timings or the right time is critical to note because communication would mean that if someone is willing to communicate, which means that can provide the time to listen or pay attention to what is said.

Non-verbal communication is a message delivered without words and non-verbal communication gives meaning to verbal communication. The examples of non-verbal communication is: facial expressions (the face is a rich source of communication, because the facial expression reflects the atmosphere of one's emotions), from eye contact (natural signals to communicate). Making eye contact during interaction or debriefing means that the person involved and appreciate his interlocutor with a willingness for attention not just to listen. Through eye contact also provides an opportunity for others to observe others. Touch is a form of personal communication, given a touch more spontaneous than verbal communication. Some messages such earnest attention, emotional support, affection or sympathy can be done through a body posture and gait is the way a person walking, sitting, standing and moving an expression of himself. Posture and gait reflects the emotion, self-concept, and the level of the health. Voice can be groan, a sigh, a cry also one expression of feelings and thoughts that can be used as communication. When combined with all other forms of non-verbal communication to hiss or sounds can be a very clear message.

Gesture is a motion that can confirm the talks. The gestures as part of the total communication such as knock-knock, moving the feet or hands during talk shows,

someone in a state of confusion or stress as an attempt to relieve stress. Communication is a complex process that involves behaviour and allows individuals to connect with other people and the surrounding world. According to Potter and Perry (1993), communications occur at three levels, namely intrapersonal, interpersonal and public. Interpersonal communication is the interaction that occurs between at least two people or in small groups, particularly in nursing. Interpersonal healthy communications allows solving problems, ideas, making decision, and personal growth. Communication as the process of having a form of communication based on the medium that is direct communication (direct communication without using tools). Form of words in communication, movements and use special meaning cues, for example, we speak directly to someone in front of us. For example: A ----- B. Indirect communication (typically using tools and mechanisms for doubling the number of the message recipient (target) or to face geographic barriers, for example when using the radio, books, etc.). Example: "Dispose of trash in its place". Communication as a process based on the size of the target consists of mass communication. Mass communication is a communication with the target is a group of people in large numbers, who generally not known. Good mass communication has been prepared with clear terms of message, uncomplicated and straightforward, easily understandable language / understood, form a good image, forming special groups, such as groups of listeners (radio). The group communication is a communication that targets a group of people who can generally be counted, known, immediate and reciprocal communication. The example is the nurse health centre with the visitors. Individual communication a face to face communication probably via telephone. Examples between nurses and patients.

## **Logic of Conversation**

These pragmatic inferences can be conceptualized in context of Grice's (1975,1978) logic of conversation. Grice, a philosopher of language, suggested that conversations proposed of four maxims. First, a maxim of relation requires speakers to provide only information that is relevant to the aims of ongoing conversation; hence, speakers contributions come with a "guarantee of relevance" (Sperber and Wilson, 1986) unless marked otherwise. Second, a maxim of manner encourages speakers to do their best to be understood by the recipient; this implies that utterances should not be more complex than needed for the task at hand. Third, a maxim of quantity asks speakers to provide as much information as the recipient needs but not more and not less. Finally, a maxim of quality urges speakers to only say things they know to be true and accurate. All four maxims bear on how speakers should communicate quantitative information. Specifically, speaker should only provide truthful information (maxim of quality) that is relevant to the purpose of the conversation (maxim of relation), and they should do so in a manner that is easy to understand (maxim of manner) by providing the relevant level of detail but neither more nor less detail than needed (maxim of quantity). Observance of these maxims is considered cooperative conversational conduct, and most forms of uncooperative conduct involve violations of more than one maxim.

Violations of these maxims are common in everyday conversations, as Grice (1975) acknowledged. Nevertheless, a large body of linguistic and behavioral research (for reviews, see Clark (1985), Clark and Schober (1992), Levinson (1983), McCann and Higgins (1992), Schwarz (1996), and Strack and Schwarz (1992) shows that recipients interpret speakers utterances "on the assumption that they are trying to live up to these ideals" (Clark and Clark 1977). Even when recipients doubt that the speaker is

cooperative, they first need to comprehend what the speaker intended them to infer before they can make meaningful corrections for the suspected intention to mislead (Gilbert, 1991 and Schwarz 1996) unless the statement pertains to highly accessible and specific knowledge of the recipient (Richter, Schroeder, and Woehrmann 2009). Accordingly, Grice's tacit assumptions of cooperative communication govern the conduct of conversation in daily life and guide speakers design of their own messages as well as listeners inferences from these messages (Grice, 1975 and Levinson, 1983).

Implications of Grice's (1975) logic of conversation extend beyond prototypical "conversation". Although Grice's initial analysis focused on personal "conversations". Although Grice's initial analyses focused on personal conversation, later work showed that the maxims of cooperative conversational conduct guide pragmatic inferences in all communicative contexts (for a discussion, see Levinson, 1983). In fact, their impact on recipients interpretation of a "speaker" is present. This is the case because the presence of the speaker allows for queries and enables the collaborative negotiation of meaning when an utterance remains ambiguous (Clark and Schober 1992). Such opportunities are missing when the speaker is absent, which forces recipients to draw on general principles of conversational conduct and language use to infer what the communicator may have intended to convey. Accordingly, Gricean inference effects are particularly pronounced in settings that preclude the mutual negotiation of meaning, as has been observed in standardized research settings, where experimenters and interviewers are often discouraged from providing explanations and where self-administered questionnaires are presented in the absence of any person who could be asked for clarifications (Schwarz, 1995, 1996; Strack and Schwarz 1992). The same

communicative constraint applies to most marketing communications, from product descriptions and reviews to company announcement and advertisements (Xu and Wyer 2010); throughout they lack opportunities for consumer queries and hence encourage pragmatic inferences based on message and context characteristics. We acknowledge the impersonal nature of these "conversations" by referring to the participants as communicators and recipients rather than speakers and listeners.

### **Granularity Effects**

The above reasoning implies that Gricean considerations will effect communicators choice of the granularity in which they express quantitative information as well as recipients inferences from this choice. In general, quantitative communications provide more information when the quantity is expressed in fine grained rather than coarse forms. This is most apparent when the information is communicated in the form of an interval, for example, when the information is communicated in the form of an interval, for example, when a price estimate is expressed as "\$5,000-\$6,000" or "\$1,000-\$10,000," Here, the choice of interval width conveys the communicator's confidence in the accuracy of the estimate. Not surprisingly, recipients prefer narrow intervals, which provide more information. Moreover, they are willing to sacrifice formal accuracy for informational value. For example, when the true value is \$22.5 billion, 80% of participants prefer the estimate "\$18-\$20 billion" over the estimate "\$20-\$40 billion," even though the latter interval includes the correct value, and the former does not (Yaniv and Foster, 1995).

Whereas interval estimates convey the intended level of precision through the width of the interval, explicit precision information is missing when the communicator offers only one quantitative values, Thus providing a point estimate.

Nevertheless, recipients are aware that estimates come with a certain degree of uncertainty. Hence, you would not consider it misleading if a friend who is driving from another city said, "I'll be there in 2 hours", even though she is aware that it may take her as little as 1.5 hours or as much as 2.5 hours to arrive. On the other hand, you might wonder what happened to her if she told you in the same circumstance that she will arrive "in 115 minutes" but has not yet shown up 30 minutes later. As this example illustrates, point estimates come with an implied interval, and the size of this interval varies with the level of granularity in which the estimate is expressed. Accordingly, cooperative communicators should satisfy the Gricean request for simplicity, informativeness, and truthfulness by using a level of granularity that takes their own knowledge into account, conveying neither more nor less information than they can warrant.

We assume that recipients are sensitive to communicators' choice of granularity and take it into account when they interpret communicators' utterances. Hence, we predict (i) the recipients perceive the same quantitative estimate as more precise when it is expressed in fine-grained rather than coarse units, resulting (ii) in narrower interval estimates (study 1). The effects should not be observed when recipients doubt that the speaker is a cooperative communicator. While many variables can undermine recipients' perception of communicators' cooperativeness (Levinson 1983; Schwarz 1996), some are particularly relevant in the present context. The most germane variable is the perceived likelihood that the communicator's factual knowledge warrants the precision entailed in his or her utterance: does the communicator really know what he or she is talking about? A second general credibility is the reason to believe that the communicator may be deliberately misleading? In either case, the assumption of cooperative conversational conduct does not apply, and recipients should hesitate to

draw pragmatic inferences from the format of the utterance. This predicts (iii) that the otherwise obtained when recipients suspect that the implied precision of the communicator's utterance exceeds the required knowledge (study 2) or that the communicator may not be trustworthy (study 3). Finally, consumers' pragmatic inferences are likely to have behavioral consequences. If the same estimate is perceived as more precise when conveyed in fine-grained units, consumers should (iv) be more confident that the product delivers what it promises when the quantitative promise is expressed in fine rather than coarse units, affecting their product choice (study 4).

While we assume that these granularity predictions hold for all expressions of quantity, the present studies test them in the domain of time estimates. Consumers' perceptions of time are an important element in many aspects of consumer behaviour, from planning (Leclerc, Schmitt, and Dube, 1995; Ulkumen, Thomas, and Morwitz 2008) and waiting (Kumar, Kalwani, and Dada, 1997) to service and product evaluation (Mogilner, Aaker, and Pennington 2008).

## **Compliance**

Compliance is derived from the word obedient, according to the Indonesian general dictionary, it means abiding love and obedience to orders or rules, and disciplined. Compliance means docile nature, obedient, subject to the doctrine or rules. Compliance is the degree of the patient's behavior were directed against the instructions given in the form of any well-defined therapeutic diet, exercise, medication or keep an appointment with a doctor (Stanley, 2007). Compliance is a change in behavior from behavior that does not adhere to behavior that obeys the rules (Green in Notoatmodjo, 2003). Compliance theory has been studied in the social sciences especially in the field of psychological and sociological greater emphasis on the importance of the

socialization process in influencing compliance behavior of an individual (Saleh, 2004). According Lunenburg (2012) theory of compliance (compliance theory) is an approach to organizational structure that integrates the ideas of the classical model and management participation. Meanwhile, according to Kelman (2011) compliance interpreted as a compliance that is based on the expectation of a reward and effort to avoid potential penalties.

Compliance theory could encourage someone to better comply with current regulations, as well as companies that seek to submit financial statements in a timely manner because in addition to a company's obligation to submit financial statements on time, will also be very beneficial for the users of financial statements (Sulistyo, 2010). Compliance is a level of someone in implementing the rules and behavior suggested (Smet, 1994). Compliance is divided into two, full compliance (total compliance) and non-compliance (non-compliance).

## **HYPOTHESIS DEVELOPMENT**

The observed effect of granularity is consistent with Grice's (1975) logic of the conversation, which licenses its conclusions go beyond the literal meaning of utterance of communicator. This conclusion is based on the tacit assumption that communicator is cooperative and present information in a form that meets the principles of conversational behavior. Once this assumption is questionable, recipients no longer rely on utterance speech of communicator to interpret its meaning (Dodd and Bradshaw, 1980; Schwarz et al, 1991; Smith and Ellsworth, 1987). Given consumers realize the company has an incentive to influence them (Friestad and Wright, 1994), some people may wonder, however, whether they apply the assumption of cooperativeness for marketing communications. Empirical answers they do for success, many misleading explanations marketing

communications (Boush, Friestad, and Wright, 2009).

This is not surprising since the reception assumptions cooperativeness is the standard that underlies all communication in everyday life and although we suspect attention mislead we need to implement the conclusions Gricean to determine whether the communicator wants us to conclude before we can correct it (Gilbert, 1991; Schwarz, 1996) unless the message is communicated directly contrary to specific knowledge and very easily accessible from the recipients (Richter et al, 2009). While many variables can weaken the perception of recipients of cooperative communicator (Levinson, 1983; Xu and Wyer, 2010), both are very relevant in the context of marketing, knowledge specific topics of communicator (Study 2) and a common belief (Study 3).

Results of this study confirm that there is an interaction between the granularity with the source of information, but in the study 2 this research was conducted in a laboratory setting, and dependent variables are measured using estimates (perception). The follow up on this study will be done by using the context in actual situation, and dependent variable is measured by the real measurement. The settings situation will be applied at a polyclinic in Balaraja General Hospital, where participants are people who will consult (the patient). The information is about to the time of taking a medicine, the information provider is a specialist (expert) or medical degree (not experts). The dependent variable being measured is a patient compliance explained by specialist or medical degree about the time of taking a medicine. Therefore, to prove whether patients more adherent for the time of taking medicine with coarse granularity (3 times daily) or fine granularity (every 8 hours) and have a higher degree of precision when described by a specialist rather than medical degree the authors put forward several hypotheses:

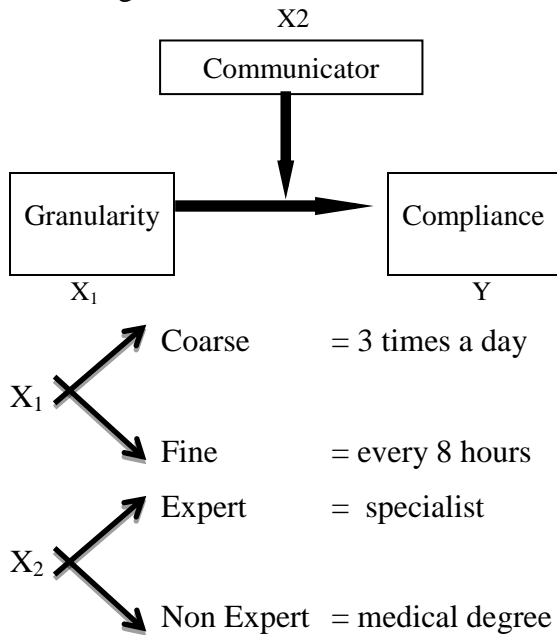
**Hypothesis 1:** the level of patient compliance for drinking medicine by using

fine granularity (every 8 hours) is greater than coarse granularity (3 times daily).

**Hypothesis 2:** expertise communicator moderates granularity and compliance.

**HYPOTHESIS**

The research explained one out of several variables, can be seen from the following model:



This study will analyze the effect of granularity on the time for taking a medicine using fine granularity (every 8 hours) and coarse granularity (3 times daily) moderated by communicators experts (specialists) and communicators who are not experts (medical degree) will see its influence the patient compliance on the time for taking a medicine. Taking. To see the effect of fine granularity and coarse granularity to the patients compliance moderated by communicator. ANOVA is used as a means of data analysis in this study by comparing activities, as to know the results of relevant research.

**MEASUREMENT**

This kind of research is a causal research has purpose to determine the difference by manipulate one or two variables or by using control towards other

connecting variables. The method used in this causal research is experiment or trial. Design study that would be used on this research is between subject 2 x 2 (communicator: coas vs specialists) x (granularity: fineandcoarse) as factors of experiment.

**Tabel.1**  
**The number of respondents in each cell**

Manipulation	Specialist	KOAs
Fine granularity (Every 8 hours)	A (30)	C (30)
Coarse granularity (3 times a day)	B (30)	D (30)

**METHOD**

The number of the involved populations in the research's known, it's all indonesians who ever go to the clinic at the Balaraja General Hospital. Sample's determination from the population are using table's development from experts, one of them are Haair, et als. Minimum amount of sample of experiment is 15 from each group. So on experimental design, the amount of samples in this research is 120 people and 30 people each group. Sample's status is the student of SMAN 18 Tangerang.

Data analysis technique used in the research are ANOVA and General Linier Model (GLM) because independent variable is using categorical data and dependent variable is using single continues data which have goal test if on average, more than one samples have equal population's variants.

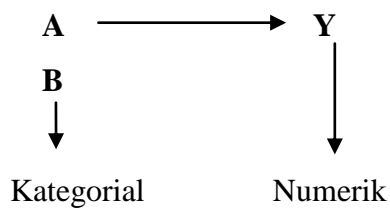
**RESULTS**

Initial analyzes of research done by categorizing each answer the participants into a symbol numbers. For example, the variable granularity, the 'fine granularity' with the number "1", the group 'granularity rough' with the number "2". While the variable communicator, a group of specialist encoded with the number "1", the coas with the number "2". After giving an



answer code on each participant, researchers examined the answers manipulation check. Participants who do not provide the appropriate answer sheet manipulation expectations in check are not included in hypothesis testing. In this study, a descriptive analysis is used to describe the granularity profiles in each group. This analysis is required to test the uniformity (homogeneity) granularity profiles on variables between subject groups. Because the independent variables using categorical data, using a single dependent variable and the data continues there is a moderating variable, then the method of analysis performed in this study is the ANOVA.

Testing the hypothesis ANOVA main goal is to test hypotheses about differences between the mean deviation (adjusted means) dependent variable. ANOVA was used to test the difference in average more than 2 samples



The sequence is sequential (chronological order) The order is a sequential (sequence of Time) “The granularity effect on patients compliance of drinking medicine moderated by communicators”. The population is a student of SMAN 18 Tangerang. Indicator of the problem is patient compliance. Being a factor which is granularity (A) which consists smooth (A = 1) and coarse (A = 2). While the communicator (B) consists Specialist (B = 1) and coas (B = 2). In the Testing hypotheses 1 There is difference in the mean deviation of compliance (Y) between the cells formed by the granularity Where is (a)  $ij = 0$  and  $H_i$  is not  $H_o$ . Hypotheses with Tests performed using a statistical test-F in line item shows that value  $F_o = 1,729$ , Sig = 0.191. If The Mean Value –P

> 0.05, then  $H_o$  rejected. Finally The data does not support the hypothesis proposed.

Testing the hypothesis in the second test to review each  $\beta_2$ ,  $\beta_3$  Especially for review of mean deviation of patients compliance will increased if the specialist using fine granularity than using coarse granularity. Testing the hypothesis by using statistical t-test two parts in line (granularity = 1) (communicator = 2) results obtained for = 2,834, Sig = 0.0025 The Mean Value  $p < 0.005$  Then the data is rejected. So the data support the hypothesis 2.

In this study, hypothesis 1 is thought that the level of patient compliance on taking medication using a fine granularity (every 8 hours) is better than using coarse granularity (3 times daily) showed hypothesis 1 is not proven. Hypothesis 1 is not proven because of the testing results of hypothesis 1 is not significant. The result is not significant probably because of the respondents used a third degree of student with an average age of 17-18 years. The peer don't have sufficient knowledge and understanding about health and hospital. Finally, it influence the result of the questionnaires distributed by the researchers.

In this study, hypothesis 2 is thought that the expert communicator moderate granularity and compliance, showed hypothesis 2 is proven. The hypothesis 2 is proven because of the testing results of hypothesis 2 is significant. Communicators effect (specialist) which provide information about the time on taking medicine by using fine granularity, patient will be more obedient. Its probably happened because of the patient have a serious illness and needs to be treated properly and appropriately, finally the patient will be more obedient. Another reason why the patient compliance increase when the specialist give the information about taking medicine every 8 hours is their trust and confidence.

## MANAGERIAL IMPLICATION

The Hospital should provide kind of training for its specialists to provide information about the time of taking a medicine every 8 hours, finally the patient compliance will increase. Training for the specialists can be done briefly or approximately 1 hour in order to inform the information about taking the medicine every 8 hours will increase the patients compliance. The pharmacy have to make improvements to the information system on time for taking a medicine. The director of the hospital must socialize this information about taking the medicine by using words every 8 hours to all staff. The effect of the words is the patients get the certainty of time so that the effectiveness of the medicine can be achieved and public health will be increased. In the Hospitals the organizational structure will provide information about the time of taking medicine is a part of pharmacy services unit named medicine information service unit (PIO). PIO or medicine information service is the part of the organizational structure in the pharmacy which has a duty to explain the patient in detail about how to take a medicine, when to take a medicine, side effects of the medicine, medicine interactions of the medicine, and the medicine safe way home. In the a pharmacy there is a service specific units named IEC (counseling, information and education). Where the role of the IEC conducted by a pharmacist. The pharmacist will get the value SKP By doing KIE that it will be collected every 5 years to improve their competence and enable them to take care of their pharmacist's license back.

## CONCLUSION

Based on preliminary, theory, methodology, and data analysis showed that the study measured the effect of granularity on the compliance of patients taking the drug were moderated by the communicator. This study uses data analysis ANOVA for making the decisions that are aligned with existing theories, it

can be concluded that the results showed that the hypothesis 1 said that the alleged level of patient adherence for time to take medication using granularity fine (every 8 hours) is better than coarse granularity (3 times daily) was found not proven because the results were not significant. So the first hypothesis is rejected. The next conclusion to hypothesis 2 which states that allegedly moderate granularity communicator expertise and adherence turned out after the data analysis found significant results so hypothesis 2 is accepted. Based on the testing of hypothesis 2 looks the groups who is communicate with a specialist with fine granularity showed that patients compliance on taking a medicine will increase than when the groups who is communicate with specialist with coarse granularity.

## REFERENCES

- Alo, L. (2008). *Dasar-Dasar Komunikasi Kesehatan*. Yogyakarta: Pustaka Pelajar.
- Amstrong, G. & Kotler, P. (2002). *Dasar-dasar Pemasaran*. (Alexander Sindoro & Benyamin Molan, Penerjemah). Jakarta: Penerbit Prenhalindo.
- Arifin, Z. (2009). *Evaluasi Pembelajaran, Prinsip, Teknik, Prosedur*. Bandung: PT. Remaja Rosdakarya.
- Swastha, B. & Handoko, H. (2000). *Manajemen Pemasaran Analisis Perilaku Konsumen*. BPEE, Yogyakarta.
- Boush, D. M., Friestad, M. & Wright, P. (2009). *Deception in the Market Place*, London: Rou.
- Clark, H. H. & Schober, M. (1992). Asking Questions and Influencing Answers. In J. M. Tanur (Ed). *Questions about Questions*. New York: Russell sage.
- Clark, H.H. & Clark, E.V. (1977). *Psychology and Language*, New York: Harcourt, Brace, Jovanovich.

- DeLozier (1994). *Sinergi Komunikasi Pemasaran: Integrasi Iklan, Public Relations, dan Promosi*. PT Mizan Pustaka.
- Effendy, U. O. (2005). *Ilmu Komunikasi*. Bandung : Penerbit Alumnii.
- Friestad, M.&Wright, N.P (1994). 'The Persuasion Knowledge Model: How People Cope with Persuasion Attempts'. *Journal of Consumers Research*.
- Gilbert, D. (1991). 'How Mental Systems Believe'. *American Psychologist*.
- Grice, H .P. (1975). Logic and Conversation in Syntax and Semantics. In P. Cole & J. L. Morgan (Ed). *Vol. 3 Speech acts*. New York: Academic Press.
- Hair, J.F. Jr., Anderson, R.E., Tatham, R.L., & Black, W.C. (1998). *Multivariate Data Analysis 5th Ed.*, Englewood Cliffs, New Jersey: Prentice Hall.
- Hawkins D.I., Best R. J & Coney K.A. (2001). *Consumer Behaviour*. (8<sup>th</sup> Ed). Von Hoffman Press: United States.
- Umar, H., (2003) *Study Kelayakan Bisnis*, Edisi kedua, Gramedia Pustaka Utama, Jakarta.
- Jufri, A. (2013). *Makalah Komunikasi Kesehatan*.  
<http://andryjufri.blogspot.com/2013/01/makalah-komunikasikesehatan.html> – diakses pada tanggal 14-september-2015
- Kotler, P., Keller. K.L., (2007). *Manajemen Pemasaran* (12<sup>th</sup> ed.) (Benyamin Molan, Penerjemah). Jakarta: Penerbit Erlangga..
- Levinson, S.C. (1983). *Pragmatics*, Cambridge: Cambridge University Press.
- Lunenberg, 2012. 'Compliance Theory and Organizational Effectiveness'. *International journal of Scholarly Academic Intellectual Diversity*
- Notoatmodjo, S.(2003). *Pendidikan dan Perilaku Kesehatan*. Jakarta : PT Rineka Cipta.
- Maulana, A. (2012). *Pengembangan Komunikasi Kesehatan Perlu Ditingkatkan*.  
<http://www.unpad.ac.id/2012/10/pengembangan-komunikasi-kesehatan-perlu-ditingkatkan/> - diakses pada tanggal 14-september-2015
- Mogilner, C., Jennifer, L.A., & Pennington, G. (2008). *Time Will Tell: The Distant*. Stanford University.
- Papil, O. (2001). *Perkembangan Pada Remaja*. Rhineka Cipta.
- Potter, P.A & Perry, A.G. (1993) *Fundamental of Nursing Concepts, Process and Practice* (3<sup>rd</sup> ed). St.Louis: Mosby Year Book
- Richter, T., Shroeder, S., & Woehrmann, B. (2009). 'You Don't Have to Believe Everything You Read: Back Ground Knowledge Permits Fast and Efficient Validation of Information'. *Journal of Personality and Social Psychology*.
- Saleh, R. (2004). *Studi Empiris Ketepatan Waktu Pelaporan Keuangan Perusahaan Manufaktur di Bursa Efek Jakarta*. Simposium Nasional Akuntansi VII.
- Stanley, M. (2007). *Buku Ajar Keperawatan Gerontik (Gerontological Nursing : a health promotion/ protection approach)* (2<sup>nd</sup> ed). Jakarta: EGC.
- Schiffman, L. G., & Kanuk, L.L. (2004). *Consumer Behaviour*, Fifth Edition. New Jersey: Prentice-Hall Inc.
- Schwarz, N. (1996). *Cognition and Communication: Judgemental Biases, Research Methods and the Logic of Conversation*, Hillsdale, NJ: Erlbaum.
- Setiadi, N.J. (2003). *Perilaku Konsumen: Konsep dan Implikasi Strategi dan Penelitian Pemasaran*. Jakarta: Kencana Prenada Media Group.
- Setiadi, N. J. (2003). *Perilaku Konsumen: Konsep dan Implikasinya untuk Strategi dan Penelitian Pemasaran*. Jakarta: Prenada Media.
- Sperber, D., & Wilson, D. (1986). *Relevance: Communication and*

- Cognition*, Cambridge, MA: Harvard University Press.
- Strack, F., & Schwarz, N. (1992). Communicative Influences in Standardized Question Situation: The Case of Implicit Collaboration. In G. Semin & K. Fiedler. *Language, Interaction and Social Cognition*. Beverly Hills, CA: Sage.
- Sukardi. (2010). *Evaluasi Pendidikan, Prinsip dan Operasionalnya*. Jakarta : PT. Bumi Aksara.
- Sulaksana, U. (2003). *Integrated Marketing Communication*. Yogyakarta: Pustaka Pelajar.
- Sutisna. 2001. *Perilaku Konsumen & Komunikasi Pemasaran*. Bandung: PT Remaja Rosdakarya.
- Uchjana, O. (2003). *Ilmu Komunikasi: Teori dan Praktek*. Bandung: Remaja Rosdakarya.
- Xu, A. J & Wyer Jr, R.S. (2010). 'Puffery in Advertisements: The Effect of Media Context, Communication Norms, and Consumer Knowledge'. *Journal of Experimental Research*.
- Yaniv, I. & Foster, D.P. (1995). 'Graininess of Judgement Under Uncertainty: An Accuracy-Informativeness Trade-off'. *Journal of Experimental Psychology*.