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## Article

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Global Business & Finance Review (GBFR)

## Provided in Cooperation with:

People & Global Business Association (P&GBA), Seoul

*Suggested Citation:* Chung, Hyunseung; Park, Seolwoo (2017) : Relationship among patients perception toward service encounters emotional expression, rapport and satisfaction, Global Business & Finance Review (GBFR), ISSN 2384-1648, People & Global Business Association (P&GBA), Seoul, Vol. 22, Iss. 1, pp. 8-22,  
<https://doi.org/10.17549/gbfr.2017.22.1.8>

This Version is available at:

<https://hdl.handle.net/10419/224359>

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## Relationship among Patients' Perception toward Service Encounter's Emotional Expression, Rapport and Satisfaction

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### ABSTRACT

Recently, Korean medical service centers have been impelled to achieve their goals in the rapidly changing health-care environment. Therefore, such centers are required to identify and even predict what their patients really want. Trends in the Korean healthcare market have changed from service that is provider-centered to care that is patient-oriented (client-oriented), also described as patient-centered care. Since medical treatment techniques are similar throughout all medical centers, they must now focus on not only treatment techniques but also service providers' (doctors and nurses) emotional displays. To manage emotions that medical service providers show clients, medical centers are using explicit or implicit display rules. In order to follow these display rules, service providers usually choose two kinds of strategies: surface acting and deep acting. Both kinds of acting that service provider's display can result in client satisfaction. Even if clients hardly experience these as authentic, they can still experience rapport when encountering adequate service-delivery time or frequent meetings with providers. When clients feel rapport with their service providers, this may lead to client satisfaction. The purpose of this study is to examine the clients' perceptions toward displays of medical service providers' emotions and also the relationship between these perceptions and rapport. In addition, how rapport is established between service providers and clients directly influences or mediates client satisfaction. The results show that the perception of deep acting has a positive effect on rapport, and rapport is fully mediated. Finally, the present study shows that rapport can be changed by the amount of encounter time, even if medical service providers express inauthentic emotions. This study uses 172 samples collected from patients who were hospitalized in a medical center. To analyze these samples, SPSS 18.0 and AMOS 18.0 were used to confirm overall model fits, EFA, CFA, and regression analysis was carried out to figure out the moderator effect. In addition, this study adopted several survey items from previous studies such as deep acting, surface acting, time and duration of interaction, and rapport and client satisfaction.

*Key words: Perceived Surface Acting; Perceived Deep Acting; Rapport; Client Satisfaction; Medical Service*

## 1. Introduction

In today's rapidly changing environment, hospitals'

survival has been threatened by the need to achieve their goals. In such an environment, it is necessary to identify and predict what the patient wants in order for the hospital to survive (Britten, Stevenson, Barry, Barber, & Bradley, 2000). In addition, due to the increase in national income, the increase in health expenditures caused by aging populations, and increased concerns about health in general,

Received : Jun. 3, 2016; Revised : Aug. 3, 2016; Accepted : Dec. 5, 2016

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high-quality medical services are required. Furthermore, the trend of medical marketing is shifting its focus from providers to clients or, in other words, to patients, due to the increase in the need and the desire for medical services, namely the number of hospitals. In this context, healthcare providers are required to provide quality services to clients to overcome the challenges in operations, to adapt to changes, and to attract new clients and retain them, and there is a need to understand the determining factors related to clients receiving health care services other than simple medical care and additional services.

Existing medical service providers (hereafter referred to service providers) recognize that technical superiority and quality of medical services are important measures for patients, caregivers, and clients (hereafter referred to clients) in selecting a service. Such superior medical service is considered an objective quality related to client satisfaction, and thus service providers have strived to increase technical superiority (McCue & Barber, 2002). However, the technical superiority of the medical services offered among hospitals is becoming more equitable, and medical practices of service providers are also becoming similar (Kenagy, Berwick, & Shore, 1999). In other words, clients looking for a hospital do not take into account only simple technical superiority in the medical services offered. Factors that make up consumer satisfaction in regard to health services are categorized as facilities aspects, including health care systems and hospital environments, and human aspects, including doctors and nurses. Moreover, important and desirable service factors of a hospital included detailed explanations of a doctor's diagnosis, the kindness of doctors and nurses, and the level of convenience regarding medical procedures.

In accordance with the change in service desired by the client, hospitals have emphasized the human aspects and are therefore self-monitoring the emotions expressed to clients. In order to successfully manage these emotions, an organization uses emotional expression rules that exist in a specific or implicit

form (Rafaeli & Sutton, 1987). To fulfill these rules, service providers select a strategy between surface acting and deep acting.

Surface acting and deep acting expressed by service providers matter because recognized client satisfaction depends on the degree of sincerity of emotion expressed by providers. Recognizing sincerity in emotions expressed by service providers can lead to positive client reactions, whereas failures to recognize sincerity or detecting insincerity may result in an adverse effect. Therefore, the two different types of emotional expression methods and the degree of recognized sincerity are considered important in service marketing and may affect client satisfaction and their intentions to revisit the provider, depending on the degree of recognition by clients.

Furthermore, as the relationship between a service provider and a client is maintained with repeated encounters over a long period, the service provider earns a more profitable service. To maintain this ongoing relationship, a mutual bond should be formed. Such a bond may be reinforced through trust, intimacy, and rapport, and the rapport built between the service provider and the client may improve the quality of mutual interaction. Thus, rapport developed between the service provider and the client is deemed to be critical for client satisfaction.

Hence, this study has the following research purposes. First, the study will investigate the influence of recognition of surface acting and deep acting (sincere emotion and insincere emotion) on the rapport between service providers and clients, and expand the scope of findings using marketing theories accordingly. Secondly, the study will investigate what kinds of changes are observed in relationship formation between clients and service providers depending on the increase in contact frequency or duration with clients in the case of surface acting response (insincere emotion). Finally, the study will investigate the types of behaviors that could help establish rapport between clients and service providers, and how such rapport can result in client satisfaction.

## II. Literature Review

### A. Emotional expression of service providers

According to Hochschild (1979), emotional labor is defined as “the management of feelings and emotions by service providers to fulfill the emotion expression rules.” Service providers express their emotions appropriate to each situation and use their emotions strategically to achieve the desired goal in their task (Sutton & Rafaeli, 1988). The emotional expression rules that must be followed are norms regarding the expectation to express a specific emotion in certain situations by limiting the content and intensity of emotional expression within an organization, and most organizations have representation rules that suggest standards for appropriate emotional expression (Ashforth & Humphrey, 1993).

Since expression rules are created with the goal of managing emotional expression in a specific manner in order to achieve preferred work performances, they determine the appropriate emotions in certain situations and appropriate ways to express and deliver them (Diefendorff & Gosserand, 2003; Diefendorff, Richard, & Croyle, 2006). Ashforth & Humphrey (1993) defined emotional expression rules as “a set of norms expected to express a specific emotion in a specific situation by restraining the intensity and the contents of emotion expression of employees in an organization.” Many organizations regulate the expression of emotions to others by utilizing emotional expression rules. In addition, emotional expression rules provide a standardized reference of appropriate expressions when employees perform their duties (Ekman, 1973). Therefore, emotional expression rules can be specified in the implicit norms required for carrying out effective work performances (Diefendorff & Richard, 2003).

Diefendorff & Richard (2003) asserted that emotional expression rule is implicit, and the expressions of particular emotions required for a given job are diverse and could vary. In addition,

organizations expect employees to express vibrant and amiable emotions when they interact with clients. This positive sentiment can be displaced to clients, exerting a significant impact on client satisfaction. Therefore, organizations attempt to improve their achievements through this process (Pugh, 2001). As important as the role of emotional regulation is, it is essential for employees to understand what is expected by the rule and to be familiar with it (Diefendorff et al., 2006). Emotional expression rules expected by an organization are observed by colleagues and superiors, and then passed on to employees through the processes of training and in-house education.

To fulfill these emotional expression rules, service providers utilize an emotional regulation strategy. An emotional regulation strategy is a performance method by which service providers fulfill emotion expression rules, which are divided into surface acting and deep acting. That is, a service provider selects one of the two behaviors for conducting his or her interactions with clients (Hochschild, 1983). The selected behavior of a service provider tends to be consistently performed since it is chosen individually, and the behavior performance method of each service provider can vary depending on his or her level of sincerity.

The first performance method chosen by a service provider is surface acting, where non-verbal expressions such as facial expressions, gestures, tone of voice, and verbal expressions are utilized to forge an emotion as if one has actually felt it (Ashforth & Humphrey, 1993). Service providers using surface acting try to bring about changes in their inner emotions and cognition accordingly to the emotional expression rule in an attempt to actually experience the feelings required by the rule (Ashforth & Humphrey, 1993; Brotheridge & Grandey, 2002), and through these efforts, they may experience emotional dissonance (Zapf, 2002). Therefore, the implementation of surface acting by service providers is based on insincerity (Grandey, 2003).

The second method chosen by service providers is deep acting, which is defined as an active form

of behavior whereby the provider makes an effort to actually experience the organization's required emotion rather than merely expressing it externally. In other words, deep acting brings about changes in one's inner emotional state rather than forging externally expressed emotions; an example of this could be a nurse's state of mind when she makes an effort to believe that she is in a patient's or a caregiver's shoes in order to feel empathy and true compassion for each of them (Ashforth & Humphrey, 1993). This deep acting is a merger between the inner emotional state and the emotional expression required by the organization, or the result of efforts to combine them that are based on the sincerity of emotions (Grandey, 2003).

## B. Rapport

Although studies on the concept and the factors of rapport are still incomplete (Gremler & Gwinner, 2000), potential clients are highly likely to recognize rapport (Weitz, Castleberry, & Tanner, 1992). Its importance is particularly emphasized within the service sector for several reasons. First, since service is characterized by being delivered through human interaction, it is important to establish rapport during the interaction between the client and the service provider. In addition, according to Gutek, Bhappu, Liao-Troth, & Chrry (1999), a service exchange involves various relationship factors. Lastly, rapport may have a significant influence in various service situations in marketing (Gremler & Gwinner, 2000).

In spite of a variety of potential roles that rapport could play in marketing services, the existing service marketing literature lacks a clear concept of rapport. Weitz et al. (1992) defined rapport as "finding a harmonious and close relationship based on mutual trust," and LaBahn (1996) explained that "The relationship with service providers may form a sense of empathy, and clients should recognize the pleasantness provided by the service provider" in research on the relationship between advertising agencies and clients. According to Dell (1991),

rapport was defined as a client's generally pleasant emotion in an interaction with a seller, which involves mutual benefit and comfort. Ashforth & Humphrey (1993) emphasized the sincerity of the service provider. On top of that, rapport is researched and defined in various fields related to educational background, relationships with roommates, therapist-patient interaction, qualitative data collection, business interactions, etc., and lastly, rapport is defined in medical dictionary as a harmoniously matched relationship between doctor and patient.

Based on these definitions, a common theme of rapport is revealed that is described based on emotions such as long-term understanding driven by repeated interactions between service providers and clients, and such emotions appear in the form of harmonious relationships (Gremler & Gwinner, 2000). In view of this point, Gremler & Gwinner (2000) has described rapport in two dimensions. One is the "pleasant relationship" and the other is the "personal bond." Within their research, rapport that develops between a service provider and a client has been proven to create loyalty and client satisfaction through word-of-mouth.

### 1. Enjoyable Interaction

A pleasant relationship, one of the components of rapport, represents interpersonal relationships occurring in the service provision process, which is primarily considered to be a cognitive evaluation of clients by service providers accompanying emotion (Gremler & Gwinner, 2000). Moreover, a pleasant relationship exerts a greater effect on the service interaction since more emphasis is placed on the service provision process rather than on the service result (Bitner & Hubbert, 1994).

The primary purpose of service marketing is to elicit client satisfaction. In service marketing, the final outcome of the service, in other words, functional quality, is as important as technical quality, implying the process that technical quality is functionally transferred to clients (Gronroos, 1984). In that sense, a pleasurable relationship, one of the components

of rapport, can be regarded as a functional quality, and since the provision and the consumption of services occur at the same time, the client can be satisfied by the interpersonal relationship (Gremler & Gwinner, 2000). This also means that a pleasant relationship can lead not only to satisfaction in the service process but also to dissatisfaction in the service results. However, dissatisfaction with the results does not always include dissatisfaction with the entire service; therefore, relationship formation in the process of service delivery and a pleasant relationship play a significant role for service providers (Gronroos, 1984).

## 2. Personal connection

The significance of rapport plays a major role in relationship formation between clients and service providers. According to Gremler & Gwinner (2000), rapport may be established regardless of the number or duration of meetings between clients and service providers. In particular, since service is intangible, the quality recognized by clients will also be the quality of service that they recognize (Parasuraman, Zeithaml, & Berry, 1985). Therefore, when service providers maintain harmonious relationships with clients and share emotions, the quality of interactions improves, leading to an increase in positive relationships.

Personal bonds improve interpersonal relationships. Service providers and clients too can experience the formation of personal bonds through repeated mutual exchange activities, and such personal bonds lead to relationship maintenance or relationship development by creating a sense of mutual kinship between clients and service providers. Such a psychological analogy plays an important role in personal bonds. Common interests may broaden understandings and bridge interpersonal differences, and in regard to relationships, may strengthen the cohesion between service providers and clients and develop intimacy (Goodwin, 1996).

Gremler & Gwinner (2000) argued that rapport is consistent with pleasant relationships and personal

bonds. However, since the correlation coefficient of personal bonds and pleasant relationships is over 0.80, it is difficult to interpret the two variables as separate (Macintosh, 2009). In addition, the identification of the correlation of the two variables prior to conducting this study resulted in a value over 0.80, which is similar to Gremler & Gwinner (2000). Therefore, this study will interpret them as a single variable rather than two different concepts of rapport.

## C. Client Satisfaction

The definition of client satisfaction has been proposed in various ways by different researchers. Hunt (1977) defined satisfaction in the service environment as the evaluation of emotions. Accordingly, satisfaction represents the degree of positive sensation experienced by clients at the time of service. According to Oliver (1997), clients identify the actual performance of a product through its usage after they have purchased the product or service; then, they make comparisons based on their expectations. If the actual performance of the product or service is higher than their expectations, satisfaction increases, and if not, dissatisfaction increases. In addition, satisfaction is influenced by whether clients' expectations are met and the efforts that companies make to achieve their clients' expectation, rather than by the qualitative standards of the product or service, and that satisfaction is a holistic concept rather than a simple evaluation based on the product or service purchase experience.

In general, clients' satisfaction with service providers is derived from the process of comparison between expectations and actual performance. That is, when performance exceeds expectations, satisfaction increases, and when performance falls below expectations, satisfaction is reduced (Oliver, 1980). In addition, depending on setting the basis of the criteria for experience as a one-off transaction or multiple transactions, client satisfaction perspectives are divided into transaction-specific and cumulative. The former is an evaluation of the

performance of a transaction in comparison to expectations based on the expectation-mismatch paradigm, and the latter is an evaluation of transaction performance based on cumulative experiences over time (Cronin & Taylor, 1992; Anderson, Fornell & Lehmann, 1994).

### III. Hypothesis and Research Model

#### A. The relationship between emotion expression and rapport of service provider recognized by client

Service providers strive to provide client satisfaction through interactions with customers. In addition, through the interactions between service providers and clients, service providers can have a great impact on psychological influence as well as on customer service at the point of contact of service, which ultimately can bring about significant effects on client-oriented behavior. The emotion expression of service providers through emotion regulation rules enhances the effectiveness of the service organization by granting “predictability” in the customer-interaction process (Ashforth & Humphrey, 1993). Moreover, expressing positive emotions to clients increases the possibility of their responding through positive emotion in a reciprocal dimension (Côté, 2005) and may serve as momentum for experiencing positive emotions through physiological mechanisms (Adelmann & Zajonc, 1989).

In a study by Grandey (2003), it is revealed that since deep acting involves expressions of actual inner feelings by regulating one’s emotion, it is positively related to effective client service, whereas surface acting is negatively related to client service, and inconsistencies of emotions derived from surface acting and conflicts may negatively influence customer orientation.

Therefore, customer-oriented behaviors of employees represent service quality in service contact through to customer satisfaction, and satisfaction

pursued by a service company may be determined not only by the result of rational thought processes but also by emotional phenomena. Therefore, the service provider may predict that there is a very close relationship between his or her own emotional expression and customer-oriented behavior.

Deep acting and surface acting both possess the ultimate goal of positive emotional expression. However, surface acting and deep acting provided by service providers may not always be equally recognized by different clients, and both behaviors may not always induce positive responses from clients. If the sincerity of a service provider’s positive emotion expression is recognized by a client, the client will show a positive response, and furthermore, deep acting with sincerity should bring about a larger positive response than surface acting. Henning-Thurau, Groth, Paul, & Gremler (2006) also showed a larger recognition of client satisfaction and rapport when service providers show sincerity rather than simply offering a smile. According to Grandey (2003) and Grandey, Fisk, Mattila, Jansen, & Sideman (2005), service providers who express their emotions through deep acting are more likely to be recognized as being more sincere from the client’s perspective than service providers who express their emotions through surface acting. Based on the existing research data, we created the following hypothesis.

**Hypothesis 1:** Perceived surface acting affects rapport negatively.

**Hypothesis 2:** Perceived deep acting affects rapport positively.

Existing studies on emotional expression of service providers claim that when service providers use surface acting, it is not possible to elicit a positive response from clients, and difficulties forming bonds and establishing rapport may follow (Henning-Thurau et al., 2006). However, by studying relationships among clients, Gfeller, Lynn, & Probbles (1987) asserted that rapport is improved by opening oneself to the subject, increasing the contact period, and giving verbal assurance. In addition, Harrigan &

Rosenthal (1983) emphasized that without rapport, patients would not be able to be satisfied in doctor-patient relationships, and the increased frequency of contact with the doctor reduces the possibility of the patient choosing an alternative doctor. Furthermore, Krizer (19990) found a relationship between empathy and sincerity in the establishment of rapport by studying interactions between doctors and patients.

Such rapport established in accordance with the flow of time is due to the emotional contagion that occurs in unconscious manner (Barsade, 2002). This emotional contagion is achieved through harmonizing or naturally imitating the other person's behavior, voice tone, or facial expression over time or as frequency of contact increases, and eventually draws empathy from the emotions of the other to one's own emotions (Hatfield, Cacioppo, & Rapson, 1994). In other words, as the frequency or number of meetings increases between service providers and clients, the emotion of the service provider is transferred to the client, causing his or her emotional change. That is, even if a service provider displays surface acting, the increase or decrease of frequency of meeting with clients or spending time having conversations with them may induce emotional changes in the clients. In other words, even if a service provider does not show sincerity, lengthy conversations or frequent meetings may create a mutual sense of fellowship, and this, in turn, could help to form a mutually pleasurable relationship. That is, even if the service provider does not show sincerity for a long time, conversations with customers or frequent meetings with them can form a mutual bond, and give rise to a mutually pleasant relationship. Therefore, even if the customer is aware of surface acting by the service provider, it is expected to make a difference in degree depending on rapport. In this study, based on previous studies, the following hypothesis was proposed.

**Hypothesis 3:** The interaction time between service provider and customer will have a moderating effect on the relationship between perceived surface acting

and rapport.

More specific,

**Hypothesis 3a:** Although service provider does perceived surface acting, a greater of meeting frequency with customer, rapport will be increased positively.

**Hypothesis 3b:** Although service provider does perceived surface acting, a greater of meeting duration with customer, rapport will be increased positively.

## B. Relationship between client-recognized rapport and client satisfaction

In Dewitt & Brady's study (2003), even in the case of service failure, when rapport between clients and service providers is established, dissatisfaction or complaints about service failures appear to be less important than when rapport is not established, and no further reduction in repurchase intention was shown. In addition, according to Gremler & Gwinner (2000), the formation of humanistic fellowship and rapport with pleasurable interaction is shown to positively influence service quality satisfaction of clients and the loyalty effect of word-of-mouth. Moreover, the study by Macintosh (2009) indicates that there is a significant relationship between trust and client satisfaction inasmuch as clients and service providers recognize personal bonds and pleasurable relationships, and this result emphasizes the significant influence of rapport between service providers and clients on positive relationship.

Rapport is the main factor in the relationship between the service provider and the client, and it is believed to be important in improving each one's quality of life. In addition, according to Berrios-Rivera, Street, & Garcia (2006) and Sheppard, Zambrana, & O'Malley (2004), doctor-patient or nurse-patient rapport may lead to mutual trust, and client satisfaction, if based on this trust, is achievable regardless of the capabilities of the doctor or nurse. Based on the preceding research data, the following hypothesis is formed in this study.

**Hypothesis 4:** As rapport customer perceives is higher, customer satisfaction will be higher.

### C. Research model

This study aims to observe the regulatory effects of the duration and frequency of meetings between service providers and clients, considering the impact of the service provider's emotions recognized by clients and their effect on rapport and client satisfaction. The research model based on this is configured in <Figure 1>.

## IV. Method

In this study, a survey was conducted with patients who were hospitalized for more than two days in general hospitals in Korea. Using the convenience sampling method, 180 surveys were collected. By excluding data with careless responses or missing values, data from a total of 172 surveys were used in the actual analysis.

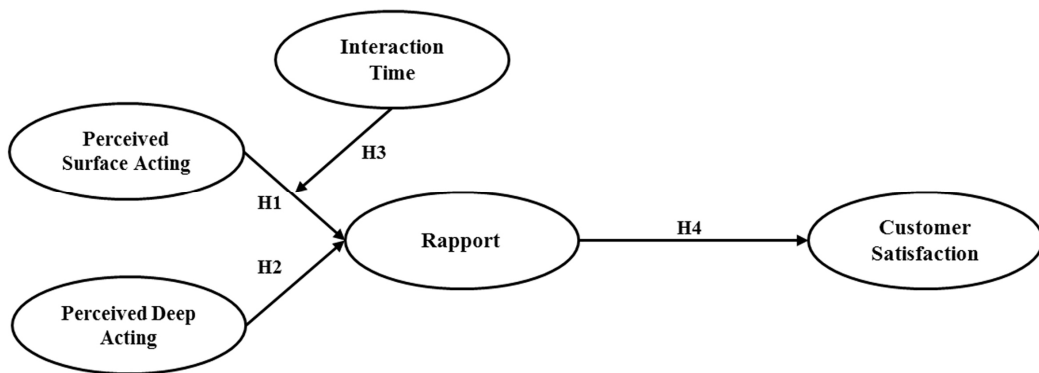
Based on a demographic analysis of the participants, 44.8% were male and 55.2% were female, and their age distribution was as follows: 28.4% less than 30 years old, 25.6% in their 30s, 23.3% in their 40s, and 22.6% over 50 years of age.

The number of visits was evenly distributed as 14.7%, 20.0%, 29.4%, 15.3%, and 20.6% for the first visit, 2–3 visits, 4–5 visits, 6–9 visits and more than 10 visits, respectively.

We used validated questionnaires from previous studies for verification of the hypotheses we proposed earlier in this study, and questionnaires were confirmed by a preliminary survey based on a graduate-student population.

### A. Measurement

All of the measures were scales consisting of five-point Likert-type questions (1–disagree strongly to 5–agree strongly). To measure the concepts of perceived surface and deep acting, seven and four items, respectively, were compiled based on the previous literature (Hochschild, 1979, 1983; Diefendorff, Croyle & Gosserand, 2005). To measure rapport as defined by Gremler & Gwinner (2000), eleven items are used. In relation to interaction frequency and time duration, the study developed a measure reflecting the definition of the construct as adapted from Diefendorff et al. (2005) and two items were used for each. A question on client satisfaction is derived from Gremler & Gwinner (2000), and five items were developed.



**Figure 1.** Research Model

## B. Assessment of reliability and validity of measurement scales

Before testing each hypothesis, the reliability and validity of measurement scales developed for each stage were run through SPSS 18.0 and AMOS 18.0. Two procedures were conducted to purify and identify the dimensions of the scales: an exploratory factor analysis and reliability tests. As shown in Table 1, Cronbach's alphas for all factors were found to be larger than .6 (ranging from .675 to .959) and all constructs were deemed reliable. To check convergent validity, we had to check averaged variance extracted (AVE) and composite reliability (CR). AVE should

be higher than .5 and CR should be higher than .6. All constructs have higher than .5 AVE (ranging from .502 to .894) and .6 CR (ranging from .610 to .899).

The overall structural model was supported by the data with the Satorra-Bentler Scaled  $\chi^2$  (398) = 698.934 ( $p < .001$ ); GFI = .807; CFI = .935; IFI = .936; TLI = .924; RMSEA = .066 so that overall model fits are suitable for the model.

Discriminant validity was assessed by comparing squared correlations among the constructs against variances extracted by their respective factors (Hair, Black, Babin, & Anderson, 2010). As shown in Table 3, all squared correlations were less than the variances

**Table 1.** Construct Reliability and Validity

Construct	Items	Loading	Cronbach's Alpha	AVE	Composite Reliability
PSA	SA1	0.783	0.879	0.502	0.874
	SA2	0.598			
	SA3	0.834			
	SA4	0.588			
	SA5	0.861			
	SA6	0.64			
	SA7	0.6			
PDA	DA1	0.795	0.86	0.596	0.855
	DA2	0.783			
	DA3	0.792			
	DA4	0.722			
Rapport	RA1	0.823	0.952	0.644	0.692
	RA2	0.872			
	RA3	0.852			
	RA4	0.855			
	RA5	0.846			
	RA6	0.643			
	RA7	0.742			
	RA8	0.796			
	RA9	0.76			
	RA10	0.844			
	RA11	0.764			
Satisfaction	SF1	0.916	0.959	0.894	0.899
	SF2	0.914			
	SF3	0.935			
	SF4	0.961			
	SF5	0.998			
Frequency	FR1	0.889	0.858	0.858	0.863
	FR2	0.958			
Time	DU1	0.656	0.675	0.534	0.61
	DU2	0.799			

$\chi^2$  (398) = 698.934 ( $p < .001$ ), GFI = .807, NFI = .863, IFI = .936, TLI = .924, CFI = .935, RMSEA = .066

**Table 2.** Test of discriminant validity

	PSA	PDA	Rapport	Satisfaction	Frequency	Time
PSA	<b>.502</b>					
PDA	.49 (.24)	<b>.596</b>				
Rapport	.33 (.11)	.70 (.49)	<b>.644</b>			
Satisfaction	.35 (.12)	.63 (.40)	.69 (.48)	<b>.894</b>		
Frequency	.06 (.00)	.29 (.08)	.31 (.10)	.18 (.03)	<b>.858</b>	
Time	.23 (.05)	.52 (.27)	.57 (.32)	.51 (.26)	.43 (.18)	<b>.534</b>

Note. The figures in the sub-diagonal are correlation coefficients (squared correlations) and the bold figures in the diagonal represent variances extracted.

extracted. This result implies that the variances shared among variables (squared correlation coefficients) were less than the variances explained by each construct (variances extracted), showing that all indicators are better explained by their respective constructs than other constructs explaining indicators in different construct. The test shows that all constructs adopted in the current study are different from one another and thus have discriminant validity (Koo & Lee, 2011).

### C. Testing of hypotheses

#### 1. *The moderating effect of meeting frequency and duration on the relationship between perceived emotional acting behavior and rapport*

To test this hypothesis, we used hierarchical regression analysis with SPSS 18.0. Gender, age, educational status, income, visit frequency, and marital status are used as control variables to test this regression analysis. First, we input control variables that are able to affect compounding in the

**Table 3.** The moderating effect of meeting frequency and duration on the relationship between perceived emotional acting behavior and rapport

Variables	Model 1	Model 2	Model 3
constant	2.563***	0.022	-0.143
Gender	-0.059	-0.063	-0.065
Age	0.125	0.06	0.036
Marriage	0.05	0.111	0.104
Income	0.155	0.023	0.046
Education	0.058	0.088	0.093
Visit experience	0.107	0.042	0.055
PSA		-0.004	0.015
PDA		.529***	.539***
Frequency		0.005	0.021
Time		.278***	.283***
PSA * Frequency			0.01
PSA * Time			-.125*
R <sup>2</sup>	0.094	0.578	0.591
Adjusted R <sup>2</sup>	0.061	0.552	0.56
$\Delta R^2$		0.484	0.013
F	2.856*	22.060***	19.115***

\*\*\*p < .001; \*\*p < .01; \*p < .05

analysis to interrupt unnecessary effects in model 1. In model 2, we input independent variables to test H1 and H2. Finally in model 3, we tested the moderating effects of meeting duration and frequency to test H3a and H3b (Table 3). As a result of regression testing, the interaction graph is shown as Figure 2.

The explanatory power of each model of hierarchical regression analysis is increased and all models are significant. In the results, none of the control variables affect rapport ( $R^2 = .094$ ,  $p < .001$ ). There is an effect of perceived surface acting and perceived deep acting on rapport in model 2. The goodness of fit of model 2 is higher than model 1 ( $\Delta R^2 = .484$ ,  $p < .001$ ). As a result, perceived surface acting does not affect rapport ( $\beta = -.004$ ,  $p = n.s.$ ). Thus, H1 is rejected. However, perceived deep acting affects rapport significantly and therefore H2 is accepted ( $\beta = .529$ ,  $p < .001$ ). This means that there would be a relationship between the customer and rapport if the service provider takes action deeply and emotionally.

Finally, we tested the behavior of perceived surface acting according to the meeting frequency and duration between service provider and customer. In model 3, we conducted regression analysis after controlling variables affecting the moderator effect and find that the explanatory power of the model

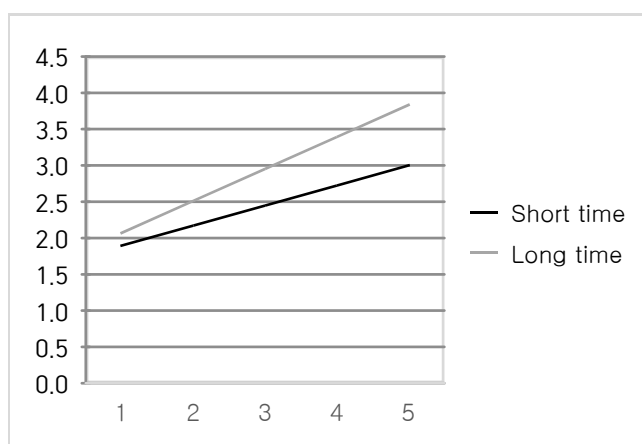
is higher ( $\Delta R^2 = .013$ ,  $p < .001$ ).

As a result, there is no significant effect between meeting frequency and the service provider's behavior ( $\beta = .010$ ,  $p = n.s.$ ). By contrast, even if a service provider takes the action of surface behavior, there is a significant effect that longer meeting times between the service provider and the customer, will result in greater rapport ( $\beta = -.125$ ,  $p < .05$ ). Thus, H3a is rejected but H3b is accepted. This result is shown in Figure 2.

## 2. The relationship between rapport performed from service provider and customer and client satisfaction

Next, we try to find the effect of the relationship between rapport, which is performed from service provider and customer, and customer satisfaction. To test this relation we take same method as prior test. In model 1 and 2, we control variables affecting compounding again. The result is following as table 4.

The explanatory power of the model increases step by step, and model 3 has a higher goodness of fit so this model is also significant ( $\Delta R^2 = .237$ ,  $p < .001$ ). Once, all control variables in model are not significant. In model 2, there is a significant effect between perceived deep acting and customer satisfaction ( $\beta = .604$ ,  $p < .001$ ). In addition, we tested the relationship between rapport and client



Interaction time (Low): Mean - 1 Standard deviation  
Interaction time (High): Mean + 1 Standard deviation

**Figure 2.** The interaction between perceived surface acting and interaction time on rapport

**Table 4.** The relationship between rapport performed from service provider and customer and client satisfaction

Variables	Model 1	Model 2	Model 3
constant	2.967***	0.365	0.267
Gender	0.018	0.029	0.062
Age	0.099	-0.016	-0.016
Marriage	-0.035	0.058	-0.049
Income	0.109	0.034	-0.015
Education	0.069	0.096	0.033
Visit experience	0.072	0.012	-0.021
PSA		0.051	0.06
PDA		.604***	0.124
Rapport			.706***
R <sup>2</sup>	0.037	0.415	0.651
Adjusted R <sup>2</sup>	0.002	0.386	0.632
$\Delta R^2$		0.378	0.237
F	1.043	14.430***	33.650***

\*\*\*p &lt; .001; \*\*p &lt; .01; \*p &lt; .05

satisfaction, and we found that the relationship is significant in model 3 ( $\beta = .706$ ,  $p < .001$ ). Thus, H4 is accepted. In other words, if rapport between the service provider and customer is established, client satisfaction will be higher.

Furthermore, we tested to learn whether or not rapport is mediated between both perceived surface and deep acting and client satisfaction. To test the mediating effect, our research followed Baron and Kenny's method (1986). According to this method, we found that perceived surface acting does not affect rapport and client satisfaction directly but perceived deep acting affects rapport ( $\beta = .529$ ,  $p < .001$ ). In a second step in Baron and Kenny (1986), perceived deep acting affects client satisfaction significantly ( $\beta = .604$ ,  $p < .001$ ). Lastly, under controlling independent variable and as a result of the regression analysis between mediation variable and dependent variable, perceived deep acting does not affect client satisfaction ( $\beta = .124$ ,  $p = n.s$ ), and there is a significant relationship between rapport and client satisfaction ( $\beta = .706$ ,  $p < .001$ ). For this reason, we found that rapport has a full mediation effect between perceived deep acting and client satisfaction.

## V. Conclusion

This study investigated the relationship between rapport and the recognition of clients of behavior of expressed emotion by health care service providers, and the influence on client satisfaction of rapport established between health care service providers and clients. In addition, we explored the changes according to meeting frequency and meeting duration between health care providers and clients. This study formed a total of five hypotheses, and three of them were supported, whereas two were rejected.

For hypothesis 1, it is found that there is no influence on client recognition of surface acting presented by health care service providers, and on the contrary, client recognition of deep acting presented by health care service providers is shown to have a positive influence on the establishment of rapport. For underlying reasons, it is possible that, for the case of hospitalized clients, health care service providers always represent affected behaviors, and due may be due to dissatisfaction with overall health care services. For the case of clients visiting hospitals or hospitalized clients, general dissatisfaction with the service provided by doctors and nurses is

prevalent, with distrust related to services and behaviors other than medical treatments. In addition, clients visiting hospitals recognize the indifference of doctors and nurses related to factors other than health care services. Based on these research data, hospitalized clients seem to not recognize surface acting since doctors and nurses are generally indifferent to emotional expression methods and thus have no influence on rapport formation.

However, if deep acting is shown by service providers, in other words, if sincerity is demonstrated, then clients seem to expect to establish rapport with service providers. In addition, rapport between service providers and clients influences client satisfaction, and if deep acting is shown from service providers, client satisfaction is derived and mediated by rapport. In other words, it seems that clients hope to form pleasurable relationships with their doctors and a sense of bonding. In the case of hypothesis 4 in our study, rapport formed with service providers was found to fully mediate client satisfaction. Considering these remarks, demonstrating sincere behavior to clients may result in their general satisfaction. Thus, Hospitals should not only emphasize the quality improvement of health care services offered but also the management of human resources. That is, if doctors and nurses are required to be trained as accurately recognizing the emotional expression rules suggested by hospitals and conducting behaviors with sincerity to clients, overall client satisfaction should increase.

Verification hypotheses 3-1 and 3-2 showed that, even if doctors and nurses show surface acting, longer meeting durations can elicit the formation of rapport, whereas meeting frequency had no influence. Patients generally recognize that meetings with health care service providers will be brief. Therefore, patients may perceive a deficiency of conversation with health care service providers when they are receiving simple medical services, as there is not enough time to form certain kinds of relationships with health care service providers. From the perspective of the hospital, it is important to attract as many clients possible in order to be profitable. It is considered better to build

a future of loyal clients rather than one-time visits by establishing rapport with clients. In many studies, client satisfaction has been shown to influence loyalty increase and positive word-of-mouth. Considering these factors, although establishing rapport with clients cannot influence a current sales increase, it is likely to do so in the future. Therefore, it is suggested that hospital health care providers implement a sufficient amount of time to meet with clients and share conversation in order for hospitals to improve their client base.

## Limitations and Suggestions

This study has several limitations and suggests future research. First, this is a cross-sectional study; thus it is impossible to strongly discuss the causal relationships among recognized emotional expression, surface acting, and deep acting and client-recognized rapport and satisfaction. However, if a longitudinal study were conducted, a more accurate exploration of the relationship between various factors and emotional expression rules would be possible. Therefore, it is necessary to accurately verify the causal relationship between expression rules and various result variables through longitudinal study variables in future research.

Second, this study was based on self-reported questionnaires. Therefore, the problem of common method variance may occur. Common method variance results in a distortion of the results by inflating the correlation between variables (Leong, Furnham, & Cooper, 1996). Therefore, further research is required that uses a methodology that can minimize common method variance. In addition, if surface acting, deep acting, and rapport recognized by service providers are compared with those recognized by clients, a more objective evaluation would be possible.

Third, this study was based on patient samples collected from a single hospital. If this research model is conducted in other service sectors or other hospitals, different results may be identified. Thus, there is

a need to validate this research model as generalized through conducting research across a wide range of service industries.

Finally, this study was conducted only with patients who were hospitalized for more than two days. Patients who are hospitalized longer are deemed to have a different emotional state than that of general outpatients. Thus, if only outpatients who need simple medical treatment at the hospital were asked to complete the questionnaire, the results might be different. Moreover, questionnaires completed by patients visiting private hospitals rather than general hospitals might show different results from those of our study, thus it seems necessary to extend the study.

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