

The Impact of Relational Activities on HMO Organizational Outcomes

William R. Doucette, PhD

Abstract

Objective: To report the findings of an empirical study of health maintenance organization (HMO) organizational outcomes and relational activities in HMO-pharmaceutical manufacturer relations.

Study Design: A mailed survey of a national random sample of 273 HMOs.

Subjects and Methods: Data were obtained from 111 HMOs regarding their inter-organizational relations with a pharmaceutical manufacturer. Respondents reported on 3 relational activities (initiating behavior, flexibility, bidirectional communication) and 4 HMO organizational outcomes (long-term orientation, equity in sharing costs and benefits, commitment between partners, financial performance). Also, 3 control variables were assessed: number of enrolled beneficiaries, HMO type, and estimated annual acquisition costs of pharmaceuticals. Four multiple regression analyses were performed, each with one organizational outcome variable as the dependent variable. Measures of relational activities and the control variables were the independent variables in the regressions.

Results: The response rate was 40.7%. All 3 relational activities showed significant associations with HMO organizational outcomes. Two relational activ-

ities (bidirectional communication, initiating behavior) showed significant and positive associations with a long-term orientation. Independent practice association (IPA)-model HMOs were less likely to report a long-term orientation toward a pharmaceutical manufacturer than other types of HMOs (adjusted $R^2 = 0.40$). Bidirectional communication and flexibility were significantly and positively associated with the equity of costs and benefits (adjusted $R^2 = 0.29$). Commitment had significant positive associations with all 3 relational activities (adjusted $R^2 = 0.50$). All 3 relational activities had significant positive associations with financial performance. HMOs with an annual acquisition cost $> \$2$ million were less likely to report favorable financial performance associated with a pharmaceutical manufacturer than were HMOs with lower costs (adjusted $R^2 = 0.42$).

Conclusion: Relational activities, such as initiating behavior, flexibility, and bidirectional communication, can facilitate positive outcomes for HMOs. It is important for all parties interested in healthcare to recognize that managing care creates a tension between achieving patient outcomes and organizational outcomes.

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From the University of Iowa College of Pharmacy, Iowa City, IA.
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Address correspondence to: William R. Doucette, PhD, University of Iowa College of Pharmacy, S518 PHAR, Iowa City, IA 52242. E-mail: william-doucette@uiowa.edu.

In response to cost pressures, some health maintenance organization (HMO) leaders have sought to maintain competitive advantage by establishing strategic relations with providers and suppliers. Effective working relationships between HMOs and their trading partners offer a viable alternative to costly mergers and acquisitions. For example, HMOs have worked with some pharmaceutical manufacturers to try to control costs driven by new drug thera-

pies and increased use of pharmaceuticals. Even though drug budgets have grown at many HMOs, this partnership approach (eg, risk-sharing agreements and value-added activities) has helped HMOs improve total cost management.

One tactic that businesses use to develop strategic partnerships is based on the principles of *relational exchange*, in which a long-term equitable relationship is developed between parties.

Relational exchange, introduced by Macneil and expanded in the business management literature, is characterized by a long-term orientation, multifaceted relations, recognition of common interests, and reliance on internal mechanisms to resolve conflict.¹⁻⁴

As parties move toward relational exchange, the focus of the relationship moves away from discrete transactions (eg, an insurance claim, a daily drug delivery) toward a long-term exchange relationship.

Although relational exchange has been developed in the business management literature, it has not been widely introduced into the managed health-care area. One objective of this paper is to introduce the relational exchange paradigm into managed care. The concepts will be applied to both providers and suppliers to illustrate the broad potential of this business practice. A second objective is to report the empirical findings of a study of HMO organizational outcomes and relational activities associated with pharmaceutical manufacturer-HMO relations.

Due to the current attention on managing the increasing cost of pharmaceuticals, HMO-pharmaceutical manufacturer dyads are an appropriate context for this study. Relational activities appear to be present in relations between HMOs and pharmaceutical manufacturers, and the resulting organizational outcomes of both parties are important.

... CONCEPTUALIZATION ...

Relational Activities

The relational activities involved in firm-to-firm relations and service encounters between providers and clients have been studied.⁵⁻⁷ A key assumption in this literature is that the nature of interactions between organizations has an important influence on their relationship. One approach to characterizing the interactions between organizations is to frame them as 'exchanges.' This allows us to identify a broad continuum of interactions that ranges from *discrete exchange* to *relational exchange*.^{1-2,8}

Discrete Exchange. Discrete exchange refers to a transaction that is separate from all other relations

between the parties.⁸ A cash purchase of generic aspirin from an out-of-town store is a highly discrete transaction. This simple exchange of money for goods occurs quickly and with limited communication or concern about the identities of the parties involved. In theory, purely discrete exchange relationships are of limited duration, with agreement and performance occurring nearly together. In these exchanges, the relationship focuses on only 2 parties (eg, one buyer, one seller), the rights and duties of the parties are specified, the parties are replaceable, and the goods or services are often readily measured or valued. An HMO's purchase of generic drugs from a secondary supplier is a discrete exchange.

Because there is little consideration of future interactions with discrete exchange relations, any communication focuses on the current transaction, and the need for a fair division of costs and benefits may be limited. In discrete exchange relations, each party maintains autonomy and self-interest, often at the expense of the other. Even with repeated exchanges over time, parties can maintain a high level of discreteness.

Relational Exchange. Relational exchange, in contrast, derives from the historical and social context in which exchange occurs. That is, the history of exchanges, and more importantly the future of exchanges, become meaningful to the parties.¹ In relational exchange relations, the relationship itself becomes a focus; it is something to be developed and maintained. The parties demonstrate "purposeful cooperation," in which flexibility and bidirectional communication become the norm.³ For example, a pharmaceutical manufacturer may work with an HMO to overcome an incompatibility of a new product.

Trading partners can foster relational exchange through joint development of policies and processes that help each party achieve certain goals. For example, a hospital and clinic under separate ownership may work together to develop common electronic patient records to facilitate information sharing. One party often initiates a process in an attempt to gain participation by all parties involved. To be successful, the parties need to share information and be flexible in how their goals are achieved.^{5,6,9,10}

Three activities indicate that a relationship is of the relational exchange type: initiating behavior, flexibility, and bidirectional communication.

- *Initiating behavior* is the extent to which an organization proactively tries to better understand a partner's needs and requirements to help the

partner become more competitive.⁵ In complex settings like healthcare, one partner often does not know what information the other partner needs to improve performance. Initiating behavior should allow a supplier or provider to better understand an HMO's needs and tailor its goods and services appropriately.

A beneficial result of initiating behavior is that the initiator learns about the needs of the partner. This can improve coordination and move the relationship toward relational exchange. Initiating behavior also signals a partner that the initiator is concerned about learning the partner's business and is motivated to act in the partner's interests.⁵ Such a belief can support a dialogue needed for discussion of joint activities between potential strategic partners. Say, for example, an HMO has unusually high costs associated with a particular patient group (eg, diabetics, AIDS patients). A specialized provider network could help develop care plans that better manage the costs of caring for the target group.

- *Flexibility* is the change in practices and policies between trading partners that results from unforeseen changes in conditions.^{6,11} As an organization's environment changes, it is possible that previously favorable agreements can become burdensome. For example, competition might create some favorable alternatives that interest a partner (eg, low prices). Parties that are engaged in relational exchange will discuss adjustments that can be made in light of the new market conditions.
- *Bidirectional communication* is the extent of 2-way communication between partners.¹² The focus here is not on routine exchange of operational information (eg, claim submission/payment between a provider and HMO) but on sharing more sensitive information. For example, an HMO might share information about its costs of caring for diabetic beneficiaries when discussing a diabetes management program with providers. When operational and even strategic needs are shared, it can be easier to convince a partner of the necessity of certain requests. For example, a provider may ask a supplier to repackage products for a new distribution system. Or, an HMO may request providers to collect certain patient outcome information to be used in a quality improvement program.

Organizational Outcomes

Relational activities between trading partners can have an impact on a variety of HMO organizational outcomes. In contrast to patient outcomes of care,

organizational outcomes focus on the HMO as a business. Organizational outcomes include various performance measures such as profitability or cost control, as well as the level of commitment to important stakeholders or relations with providers. The study presented in this paper examined 4 organizational outcomes: a long-term orientation, equity in sharing benefits and costs, commitment between partners, and financial performance.

Long-Term Orientation. Long-term orientation is an expectation of continued relations and a focus on future goals.¹³ Trading partners with a short-term orientation rely on market efficiencies to maximize returns from each transaction, while those in long-term relations depend on relational exchanges to maximize their returns over a number of transactions.¹³ In this context, a long-term orientation applies to given trading partners, rather than a more general organizational orientation, as firms can develop and maintain a durable relationship only when both recognize its inherent value.

Trading partners with a long-term orientation recognize that, in addition to short-term goals, more distant objectives can be obtained through continued interactions. Some advantages of a long-term orientation could include access to products in short supply, advanced notice of upcoming changes, and reduced uncertainties through improved joint planning.¹³ In addition, rather than simply discussing operational activities (eg, using the lowest-priced cephalosporin), the partners can begin addressing larger, more complex problems that could require a new approach by both partners (eg, antibiotic resistance).

Equity. Equity is the equitable allotment of both parties' inputs and outputs,³ or a fair sharing of costs and benefits by the provider or supplier and the HMO. Trading partners perceive equity when they believe that the benefits they receive from a business relationship are proportional to their investments.⁴ A belief in equity supports frank discussion of both short- and long-term exchange possibilities. When a firm views a trading partner as fair, it will be more willing to take actions that promote the growth of relational exchange. For example, an HMO may be more willing to share cost information or plans for expansion with a partner who has treated it equitably.

Commitment. Commitment is an enduring desire to maintain a valued relationship,¹⁴ and it is a key quality of durable, cooperative business relationships.¹⁵ Commitment between the provider/supplier and HMO has been linked with functional conflict (ie, useful resolution of problems) and cooperation.¹⁵ A firm becomes committed to a trading part-

ner only when the business relationship generates sufficient value to the firm; thus, commitment should exist only for important trading partners. Commitment to a trading partner can manifest through pledges or credible commitments, which are actions that bind a firm to a trading partner.^{16,17} For example, an integrated healthcare delivery system might select a particular system for electronic patient records and be committed to the vendor for support services.

Commitment to a trading partner suggests that the partner provides a high level of value to the committed party. A committed trading partner is likely to engage in useful discussion of problems between the partners, attempting to resolve conflict to the benefit of both parties.¹⁵ For example, an HMO might discuss its preferences for limits on the interactions between its prescribers and representatives of a pharmaceutical manufacturer. Successful resolution of this issue can be influenced by the presence of commitment between the parties.

A committed partner also is likely to adhere to specific requests or policies.¹⁵ Such adherence can improve cooperation between the trading partners. For example, suppose that an HMO requests that a provider collect certain provider performance information (eg, Health Plan Employer Data and Information Set [HEDIS] indicators). A committed partner might open a dialogue about the use of such information and even suggest additional information that would assist the HMO. Better coordination should positively impact the cost effectiveness of the care process.

Financial Performance. The ability to work together to address long-term issues and to engage in other joint activities can translate into enhanced financial performance, and firms are willing to search for and develop strategic partnerships that they believe will enhance financial performance.¹⁸ It is reasonable for a firm to increase its level of exchange with a trading partner that is contributing to positive financial returns. Such an expansion of exchange is likely to continue as long as the benefits provided by the trading partner exceed their associated costs.¹⁹ In some cases the relationship will become characterized by relational exchange.

... METHODS ...

An assumption for this research was that relational activities would be positively related to HMO

outcomes. That is, greater levels of initiating behavior, flexibility, and bidirectional communication would be associated with a long-term orientation, perceptions of equity, commitment, and favorable financial performance. It was believed that the current nature of relations between HMOs and pharmaceutical manufacturers would provide an informative context to investigate the hypothesized links between relational activities and organizational outcomes.

Pilot Study

To become familiar with issues specific to HMO-manufacturer relations, a pilot study was conducted. Twelve people familiar with HMO-manufacturer relations were interviewed in person or by telephone. Those interviewed included employees of pharmaceutical manufacturers, HMOs, pharmacy benefits managers, and several pharmacy-related associations. The pilot study resulted in refined measures and a confirmation that pharmaceutical manufacturers were engaged in relational activities with some of their HMO trading partners.

Research Design and Sampling

For the main study, an initial systematic random sample of 450 HMOs was drawn from a listing of HMOs published by InterStudy.²⁰ Each HMO was contacted by phone to identify a key informant in the pharmacy area (eg, pharmacy director) and to determine the HMO's involvement with pharmaceutical manufacturers. This process reduced the original sample to 278 contacts for a mail survey. The primary reason for the reduction in sample size was due to key informants being responsible for multiple HMOs. Another reason for the reduction was that some HMOs had little direct contact with pharmaceutical manufacturers. Only a small number of HMOs refused to participate, and they typically cited policies against survey participation.

Data Collection

A survey consisting of a pretested, 4-page questionnaire along with a personalized cover letter and a postage-paid envelope was mailed to the HMOs. The respondents could complete a respondent information card requesting a copy of the report and a \$20 incentive. Respondents were assured of confidentiality. About 10 days after the initial mailing, a follow-up postcard was sent to remind informants to return the survey. After another 10 days, a second survey packet was sent to those informants who had

not replied. No further contact was made following the mailing of the second survey.

Measures

All 3 of the relational activities and all 4 HMO outcomes were assessed with a multi-item measure, ranging from 3 to 6 items (see the Appendix for sample items). Respondents were asked to evaluate their HMO's relations with one of their top 3 pharmaceutical manufacturers. The measures used a variety of different 5-point scales. Where available, previously published measures were adapted to reflect HMO-manufacturer relations. In most cases, new measures were developed and modified slightly through the pretest. Also, reliability was assessed prior to testing the associations between relational activities and HMO outcomes.

Several control variables also were measured, including the number of beneficiaries enrolled, primary HMO type, and an estimated annual acquisition cost of the manufacturer's pharmaceuticals dispensed to the HMO's beneficiaries. Another item asked about the key informant's influence in selecting a pharmaceutical supplier. This item was intended to indicate the potential reliability of the respondent.

Data Analysis

To assess the reliability of the measures, coefficient alpha was calculated for each of the 7 multi-item measures. To test the associations between relational activities and HMO organizational outcomes, 4 multiple regressions were performed, each with a different HMO outcome as the dependent variable. The same set of independent variables was used in each regression model: initiating behavior, flexibility, bidirectional communication, 2 dummy variables for number of enrolled beneficiaries (<100,000; 100,000 to 300,000 vs >300,00), one dummy variable for HMO type (independent practice association [IPA] vs non-IPA), and one dummy variable for estimated annual acquisition cost (>\$2 million vs ≤\$2 million).

... RESULTS ...

Of the 278 surveys mailed, 5 were returned as undeliverable and 119 (43.6%) total responses were received.

Eight responses were incomplete due to company policy or lack of time. Thus, 111 (40.7%) completed surveys were analyzed. About two thirds (n = 73) of the respondents had a lot of or total influence in selecting a legend drug supplier for their HMO.

The means, standard deviations, and reliability estimates of the multi-item measures are shown in Table 1. All measures exceeded the desired reliability minimum of 0.70.²¹ Table 1 also shows the distributions for the control variables. The respondents were almost evenly divided among the 3 categories of enrollment, while more than half of the respondents were from IPA-model HMOs. Similarly, just over 50% of the respondents rated relations with a pharmaceutical manufacturer in which annual acquisition costs exceeded \$2 million. The Pearson correlations among the measures of the relational activities ranged from 0.33 to 0.46.

All 4 of the regression models were statistically significant and had an adjusted R² that ranged from 0.29 to 0.50. As shown in Table 2, two of the relational activities (bidirectional communication and

Table 1. Descriptive Statistics of Measures

Measure (No. of Items)	Mean (%)	Standard Deviation	Reliability
Initiating Behavior (6)	22.23	4.02	0.81
Flexibility (3)	10.53	2.18	0.88
Bidirectional Communication (3)	11.73	1.81	0.80
Long-Term Orientation (3)	11.96	1.86	0.87
Equity (3)	9.30	2.33	0.85
Commitment (3)	10.57	2.14	0.80
Financial Performance (3)	10.09	2.13	0.82
Enrollment			
< 100,000	37 (33)		
100,000 to 300,000	38 (34)		
> 300,000	36 (33)		
HMO Type*			
IPA	59 (53)		
Network	17 (16)		
Staff	15 (14)		
Group	11 (10)		
Other	8 (7)		
Estimated Acquisition Cost*			
< \$500,000	15 (13)		
\$500,000 to \$2 million	34 (33)		
> \$2 million	56 (54)		

*Total is less than 111 due to missing data.

Table 2. Regression Results for Long-Term Orientation

Independent Variable	β	t Value	P Value
Initiating Behavior	0.33	3.81	<0.01
Flexibility	0.05	0.57	0.57
Bidirectional Communication	0.43	4.87	<0.01
Low Enrollment	-0.14	-1.38	0.17
Medium Enrollment	-0.06	-0.66	0.51
IPA HMO	-0.18	-2.35	0.021
High Acquisition Cost	-0.09	-0.97	0.33

Model: Adjusted R² = 0.40; F value = 11.23 (P<0.01).

Table 3. Regression Results for Equity

Relational Activities	β	t Value	P Value
Initiating Behavior	-0.16	-1.61	0.11
Flexibility	0.35	3.46	<0.01
Bidirectional Communication	0.36	3.49	<0.01
Low Enrollment	0.02	0.15	0.88
Medium Enrollment	0.17	1.58	0.12
IPA HMO	-0.04	-0.42	0.68
High Acquisition Cost	0.02	0.24	0.81

Model: Adjusted R² = 0.29; F value = 6.91 (P<0.01).

Table 4. Regression Results for Commitment

Relational Activities	β	t Value	P Value
Initiating Behavior	0.23	2.85	<0.01
Flexibility	0.20	2.42	0.018
Bidirectional Communication	0.47	5.72	<0.01
Low Enrollment	0.09	0.96	0.34
Medium Enrollment	0.16	1.89	0.06
IPA HMO	-0.07	-1.05	0.30
High Acquisition Cost	0.02	0.26	0.80

Model: Adjusted R² = 0.50; F value = 16.44 (P<0.01).

initiating behavior) were significantly and positively related to a long-term orientation (adjusted R² = 0.40). Also, IPA-model HMOs were significantly less inclined to have a long-term orientation than other types of HMOs.

The regression for equity, shown in Table 3, had an adjusted R² of 0.29. Two relational activities (bidirectional communication and flexibility) were significantly and positively associated with perceptions of equitable division of costs and benefits. No control variable was significant in this model.

Commitment had significant positive associations with all 3 relational activities in the regression model (Table 4), which had an adjusted R² of 0.50. None of the control variables showed a significant correlation with commitment.

The regression model for financial performance (Table 5) had an adjusted R² of 0.42. All 3 relational activities showed significant positive associations with financial performance. Also, respondents with annual acquisition costs greater than \$2 million had a significant negative correlation with financial performance (compared with HMOs with lower dollar volumes.)

... DISCUSSION ...

All 3 of the relational activities showed significant associations with HMO organizational outcomes. Bidirectional communication had a significant positive correlation with all 4 of the HMO outcomes. Both initiating behavior and flexibility were significantly positively associated with 3 HMO outcomes.

Bidirectional Communication. Bidirectional communication had an influence on a broad array of HMO organizational outcomes and had a direct impact on the financial performance of HMOs. Trading partners that engage in bidirectional communication are better able to plan joint activ-

ities, which can improve day-to-day operations. In addition, such a dialogue can create expectations of future interactions, contributing to commitment to strategic, long-term relations between the partners.

Bidirectional communication can also support open discussion of the objectives and concerns of HMOs and their partners. By giving voice to both parties, it is likely that bidirectional communication will produce more equitable solutions to problems. Because both parties can participate in shaping the relationship, each party will tend to view the costs and benefits associated with the relations to be fair. For example, an HMO and a pharmaceutical manufacturer could begin interactions with a list of goals desired from their partnership. Then, discussions could help identify which of the goals are feasible, given resources and organizational priorities. Further communication would help develop action plans through which the mutually agreeable goals can be pursued.

Bidirectional communication is likely to start as formal, focused exchange of information but can progress to informal discussion of evolving issues.¹² Regular contact can be important to supporting useful bidirectional communication. For example, account managers from manufacturers invest time in opening and maintaining lines of communication with important decision-makers at HMOs. It is sensible for representatives of HMOs to make similar investments to gain access to influential people within their trading partner organizations.

Initiating Behavior. Initiating behavior had significant, positive associations with long-term orientation, commitment, and financial performance.

In the current managed care environment, administrators need data to improve the cost effectiveness of care. For instance, credible information about the safety and effectiveness of alternative drug therapies needs to be available to ensure that practice guidelines and formularies, which are being used to influence the choice of drug therapy, don't jeopardize the quality of care. By demanding initiating behavior from key suppliers and providers, HMOs can improve the information available to HMO decision-makers during their deliberations. The availability of accurate drug information should translate into cost-effective care, which

can enhance the financial performance of the HMO.

One common concern is that suppliers that know too much about an HMO could gain undesired influence over HMO decisions (eg, formulary decisions). HMOs can address this concern by managing a supplier's access to prescribers through various types of restriction. Another approach has been to use academic detailing to make prescribers aware of the HMO preferences for treatment choice. Open communication between trading partners about this issue is consistent with relational exchange.

Flexibility. Flexibility had positive associations with commitment, financial performance, and equity. A key question for suppliers and providers is how to gain the relational benefits of flexibility without paying too high a price in terms of adjusting contracts. Just as contracts and rebates have become a normal course of business for HMOs and their trading partners, contract adjustments may also become a normal course of business for preferred managed care partners. In lieu of financial concessions, however, these adjustments may center around non-financial benefits for the HMO. Such benefits must create genuine value for the HMO and can be developed with the input of HMOs and their customers (payers and patients). For example, a select group of wraparound services could be developed as a substitute for price adjustments.

Control Variables. Two of the three control variables had significant associations with an HMO outcome. First, IPA-model HMOs had a significantly lower level of long-term orientation than other HMO models. Because IPA-model HMOs are organized

Table 5. Regression Results for Financial Performance

Relational Activities	β	t Value	P Value
Initiating Behavior	0.32	3.75	<0.01
Flexibility	0.28	3.21	<0.01
Bidirectional Communication	0.28	3.21	<0.01
Low Enrollment	-0.08	-0.85	0.40
Medium Enrollment	0.03	0.36	0.72
IPA HMO	-0.09	-1.22	0.22
High Acquisition Cost	-0.18	-2.05	0.043

Model: Adjusted R² = 0.42; F value = 12.17 (P<0.01).

strictly through contract, they may be accustomed to provider turnover. Thus, IPA-model HMOs may be less likely to have a long-term orientation toward suppliers. The dynamic nature of such HMOs could be a predominant characteristic of their interorganizational relations.

Second, this study also showed that HMOs with annual acquisition costs over \$2 million had lower financial performance than those with lower annual acquisition costs. High acquisition costs could be a result of an inability to negotiate lower prices, which would be reflected in poorer financial performance. In addition, high acquisition costs are likely to be considered a cause for poor HMO financial performance. It is important to note that the financial performance data reported here are perceived (by the respondent). As a result, while these data are useful for analyses within a given case, comparisons between cases is more difficult. Future research using objective financial performance data could address this issue.

HMO Organizational Outcomes. While improving patient outcomes is imperative, HMO organizational outcomes also need attention. Such organizational outcomes are likely to impact decisions about patient care as decision-makers balance their responsibilities to patients and other stakeholders (eg, payers, stockholders).

Managed care decision-makers include both practitioners and administrators, and they are concerned with improving patient outcomes (eg, better health) and meeting organizational objectives (eg, profitability, cost control). For example, a pharmacy and therapeutics (P & T) committee will try to balance considerations of effectiveness, safety, and cost when selecting drugs for a formulary. It is important for all parties interested in healthcare to recognize that managing care creates a tension between patient outcomes and organizational outcomes such as those studied here. This study highlights several organizational outcomes that could be researched as possible influences on patient outcomes.

The regression results show that initiating behavior and bidirectional communication were positively associated with long-term orientation, and that IPA-model HMOs were less oriented to long-term relationships with pharmaceutical manufacturers. The dynamic nature of IPA-model HMOs appears to limit their long-term orientation. A long-term orientation suggests that an HMO and a trading partner expect to continue relations, with a focus on future goals. Such an orientation can allow the partners to address larger issues that often take time and money

to resolve. For example, it is likely to take considerable effort to develop an information system that integrates supplier, provider, insurer, and patient information to assist with treatment decisions and patient outcomes monitoring.

This study also showed that equity is positively associated with flexibility and bidirectional communication. Equitable relations are likely to be stable, and this can help reduce the costs associated with changing partners. Practitioners and patients can also gain from stable relations between an HMO and a provider or supplier. For example, having the same supplier will allow physicians to know which medical device (eg, a prosthetic hip) will be used in a procedure. Similarly, patients can be concerned when a generic drug having a different appearance is dispensed to them because a supplier was changed.

The regression analysis showed that all 3 relational activities were positively associated with financial performance. That is, an HMO's financial performance deriving from a particular manufacturer was enhanced by the presence of each relational activity. Flexibility could have a direct impact on financial performance because an adjustment could involve costs or prices, to the benefit of the HMO. Initiating behavior and bidirectional communication could improve financial performance by increasing the cost effectiveness of care involving drug therapy. For example, changes could be made to use a more costly (and effective) drug that reduced the total costs of care. The financial performance associated with every trading partner is essential, as HMOs are likely to pay special attention to partners that noticeably increase or decrease their performance. The HMO's challenge, however, is to be able to evaluate all the costs and benefits associated with its many providers and suppliers.

Another issue is the extent to which these findings can be generalized to managed care organizations (MCOs) other than HMOs. While caution is needed when extending the results of any research, it is possible to make some generalized statements. For instance, pharmaceutical manufacturers are likely to perform relational activities for any MCO that can significantly impact the use of its drug products. Also, all MCOs are likely to have some interest in a range of organizational outcomes, including those investigated here. Variability in organizational characteristics (eg, ties to integrated care systems, size, scope, extent of physician governance) makes further generalization difficult. Future research is needed to improve our understanding of how organizational features can affect

interorganizational relations and organizational outcomes for MCOs.

It is possible that the positive organizational outcomes associated with relational activities may not hold true for all trading relationships. For example, there may be some threshold above which positive outcomes result from relational activities. Below the threshold, the costs of the relational activities may exceed any positive outcomes. Research on the influence of characteristics of interorganizational relations on the link between relational activities and organizational outcomes would help refine the use of relational activities as an approach to establishing strategic relations.

Study Limitations

This study provided a cross-sectional view of the associations between relational activities and HMO outcomes. As such, causality cannot be inferred. Rather, guiding inferences can be made. A longitudinal study of relations between HMOs and their trading partners would allow better understanding of the influences of relational activities on organizational outcomes.

We used assessments from a single key informant to represent organizational-level variables. While this is an accepted method, there is some concern about how well the pharmacy directors' responses represent the HMO experience. Because this study focused on relations with pharmaceutical manufacturers, it is likely that the pharmacy directors provided reliable data. Future research might involve multiple informants, such as medical directors and even practitioners.

... CONCLUSION ...

MCOs and their trading partners are likely to continue to seek strategic alliances where deemed appropriate. Relational activities, such as initiating behavior, flexibility, and bidirectional communication, were identified as facilitating positive outcomes for HMOs. Recognition and study of organizational outcomes, such as those investigated here, can help foster a useful dialogue about the challenges faced by healthcare practitioners and administrators.

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Appendix. Sample Items for Measures

Initiating Behavior*

Keeping in mind your overall relationship with this manufacturer, please indicate the *extent* to which it ...

- provides patient outcome information regarding the use of its products
- shows an interest in helping you become more competitive

Flexibility†

This manufacturer will modify contractual terms in order to work through problems that arise.
This manufacturer will make adjustments to contracts with us in the face of problems or special circumstances.

Bidirectional Communication†

Our relations with this manufacturer are characterized by open communication by both parties.
Our HMO and this manufacturer keep each other well informed.

Long-term Orientation†

We expect to be using this manufacturer's products for a long time.
Our relations with this manufacturer will not end soon.

Equity†

We share costs and benefits equitably with this manufacturer.
Expenses and profits are allocated justly between us and this manufacturer.

Commitment†

We have a strong sense of loyalty to this manufacturer.
We are very committed to this manufacturer.

Financial Performance†

Our profit level for this manufacturer's products has been acceptable.
Our cost savings associated with this manufacturer have met our expectations.

*SCALE: 1 - Not at all/5 - To a great extent

†SCALE: 1 - Strongly Disagree/2 - Disagree/3 - Neutral/4 - Agree/5 - Strongly Agree