

When Pain Can be Managed by Managing the Communication: The Influence of Indirect Providers on HCAHPS

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Abstract

In a culture saturated with concerns regarding the comfort and extension of life, many healthcare providers and researchers focus their attention on methods of drug use to affect positive outcomes in the management of pain. However, there is a gap in the literature that is experiencing a resurgence regarding the importance of interpersonal communication and factors external to medicines that play significant roles in affecting patient post-experience surveys regarding pain management, therefore affecting hospital HCAHPS scores and bottom lines. As the second phase of a multi-level analysis, this study utilizes a HCAHPS mixed-methods approach within the hospital setting to assess the importance of interpersonal communication in generating positive patient perceptions regarding healthcare providers' management of pain. Results of this 12 month mixed-methods study indicate that patient environment, influence of external providers, the discharge process, and language barriers as contributing factors in patient perceptions of pain management, even greater than the administration of pain medication.

Key Words: HCAHPS, pain management, interpersonal communication competence, patient environment, external providers, discharge process, language barriers

Introduction

The current literature provides a wealth of information regarding the extension of life, and with this knowledge comes an increase in the average American life span. Recent research however, has changed its focus from the quantity of life, rather than the quality of life. The role of medication in the provision of healthcare is a common theme within these studies, though there is little focus on the importance of interpersonal communication and how this can or should replace the use of medications. Communication between not only healthcare providers and patient, though not to say can or should replace the use of medications, but indirect provider and patient plays a significant role in the perception of patient care and pain management.

The existing literature shows interest in discussing communication between the practitioner and patient as well as indirect provider and patient in healthcare pain management as having a minor role. We contend creating positive patient perception of practitioner pain management plays a far more central role in interpersonal communication. Therefore, the purpose of this study is to highlight the role of interpersonal communication in the process of patient pain management.

Review of the Literature

The healthcare sector is ever-advancing, and human beings are now living longer than their ancestors. With these longer life spans comes a quality of life humans have come to value, and in the healthcare business when patients with chronic or short-term conditions need to manage pain, an

important aspect is to maintain this quality of life. In recent years, several studies have been conducted with an aim in improving and devising new strategies in the field of pain management. Highlighted in this section of our study is some of the influential studies in the field, which help us to better understand issues and challenges in relation to pain management. Further, these studies provide the opportunity to move forward in developing new approaches and possibilities to look into this important area of research.

In reviewing the literature on pain management, it was observed that while some researchers urge for more attention to the perception of pain in everyday healthcare (Carolyn, 2010), others believe the root cause of the problem to be a lack of healthcare provider empathy. Banja (2008) argues that the power relationship between a doctor and a patient may lead to certain hurdles in pain management. A doctor may lose empathy toward a patient if a patient often complains, is rude, or questions a doctor's treatment.

Researchers believe asking the right question about pain based on a patient's physiological and psychological needs as well as history may improve overall pain management results (Barkin, 2010). Further, Barkin suggests that the answer perhaps not only lies in clinicians listening to patients, but should listen and give attention as well to those who accompany the patient (i.e. family):

Clinicians must know the right questions to ask when reviewing the patient's medical, surgical, and psychiatric history, but they must also be able to listen carefully to the patient's responses and to those who accompany the patient. Clinicians must know the right questions to ask when reviewing the patient's medical, surgical, and psychiatric history, but they must also be able to listen carefully to the patient's responses and to those who accompany the patient.

Barkin, challenging the typical 10-point rating scale, adds the assessment of pain should go beyond the scale necessitating "ongoing bilateral communication between the pharmacist and the prescriber(s) to ensure adequate pain control while reducing the risk of adverse effects and medication misuse, abuse, or diversion" (p. 11).

Canaday (2009) believes one of the factors hindering effective pain management treatments is miscommunication: "Communication between the patient, pharmacist, and prescribing physician is essential to avoid misunderstandings and prevent inappropriate medication use" (p. 44). The focus of

the pain management debate has been shifted however by some researchers from clinicians and pharmacist perspective to the patients' perspective (McHugh, 2001). There is plenty of evidence that patients with chronic pain complain that they feel their caregivers do not believe them (Clarke and Iphofen, 2008). Researchers argue healthcare professionals can show belief of their patients by simply adopting means such as active listening and being non-judgmental.

Another important factor which is often ignored in the debate of pain management is that of gender consideration. Frantsve and Kerns (2007) highlight the challenges female patients face when communicating pain concerns with providers. They suggest that perhaps a collaborative treatment in decision-making might help improve overall pain management. While gender consideration is an important issue, racial and ethnic factors may also contribute significantly in the overall pain care experience. Green et. al. (2003) argues that pain has significant socioeconomic, health, and quality-of-life implications, and the evidence in their study suggest that racial and ethnic minorities tend to be under-treated for pain compared with non-minorities. Emphasized in the study was the need for improving training for healthcare providers in order to alleviate these challenges.

While none of these studies review the role of communication in pain management specifically, they do imply the way communication remains an important factor in pain management to be considered in order to devise strategies. Some researchers, for example, describe communication issues a misinterpretation of pain while others describe it as a lack of empathy, necessity to consider race, gender and ethnicity, and asking the right questions. It can be observed that these considerations involve communication as a central, not a minor issue to consider. The role of communication is one of evident importance pertaining to multiple aspects of patient perceptions of pain management. Strong interpersonal communication skills are necessary in all factors related to a patient's overall hospital experience, including those interactions related to indirect healthcare providers, the discharge process, and non-native speaking practitioners. This investigation, for those reasons, aims at studying the role of communication in pain management as the most important aspect of pain management. It is imperative that healthcare providers develop strong interpersonal communication competence in order

to positively affect patient perceptions of pain management.

Interpersonal Communication Competence and Perception

Interpersonal communication competence discusses one's knowledge of and ability in enacting a variety of communication tactics which depend on a situation or context. Being able to interpret the situation accurately and utilizing the corresponding interpersonal communication skills appropriately, raises the level of competency he or she may have perceived (Hample, 2005). There is a number of interpersonal communication competencies, including cognitive complexity (Burlison & Caplan, 1998), level of skill in behavior performance (Burlison, 2007), empathy (Wiemann & Backlund, 1980; Lakey & Canary, 2002), ability to self-monitor (Spitzberg & Cupach, 1981; Vangelisti & Daughton, 1994), and commitment or level of care regarding the relationship (Hart, Carlson, & Eadie, 1980) to name a few.

The foundational model of interpersonal communication competence involves three major components of motivation, knowledge, and skills (Spitzberg & Cupach, 1984). For the scope of this study, we hope to focus on interpersonal communication skills and the effectiveness of skills training, incorporated in the subset of intercultural communication competence (Kealey, 2015; Spitzberg, 2015). Both healthcare and indirect providers can increase patient and family perceptions of his or her interpersonal communication competency through efforts to increase empathy, improve self-monitoring, and implementing the appropriate communication style in each situation (Litchfield & Johsdottir, 2008; Donaldson & Crowley, 1978).

A thrust within the healthcare sector to provide a more structured approach which encompasses and strengthens interpersonal interaction between the healthcare provider, patient, and family member has been thrust forward in the past decades (Alligood, 2010; Ritter-Teitel, 2002). For healthcare providers as well as indirect providers, there remains a challenge to view patients as people first and patients second; in this environment it is hard to separate the two. Within this paradigm, providers are able to make sense of their role of caregiver through the lens of interpersonal communication competence skills (Greene et al., 2012; Zolnieriek, 2013) in what Kim (2010) refers to as the healthcare metaparadigm. In this metaparadigm, providers must focus on

empathy and the development of interpersonal relationships with patients as a foremost responsibility (Clark, 2010; Crowe, 2000; Wager & Whaite, 2010). When interpersonal communication skills are practiced proficiently, provider and patient enter into an interpersonal relationship through what Ruesch (1961) deemed therapeutic communication (Doheny et al., 2007).

Both the patient and his or her present on the scene family's perception of care immediately begins when a healthcare provider or indirect provider enter a hospital room to provide care or to provide a service. The process of building perceptions involves selection, organization, and interpretation. Swann (1984) states that judgements regarding social roles after selecting on what to focus (caregiver's behavior, indirect provider's language barrier frustration) deciding if this behavior fits social norms by building expectations about the caregiver and the indirect provider based on stereotyped, and organizing and making sense of the interaction with the patient in the given context. Additionally, to understand the behavior of the healthcare provider, attribution helps us rationalize what has been observed (Kelley, 1967). However, the process of building and understanding perceptions through this process does not always give an accurate picture. In some cases, Ross (1977) stated we tend to ascribe less than favorable behaviors to their internal characteristics as opposed to external factors. Thus we must take into consideration respective external stimuli, including responsibilities, into the perception-building of healthcare and indirect providers.

For example, it can be considered as rude when a housekeeping employee enters a patient room, immediately views the patient but does not physically stop to speak before changing out trash bins and wiping down the bathrooms. Though the indirect provider is practicing his or her professional skills in maintaining patient room cleanliness standards, he or she is failing to fulfill his or her role by not managing patient-perceptions through the mastering of effective interpersonal communication skills. While the reality of this scenario is that the indirect provider is listening to the patient speak while also performing workplace duties, onlookers (typically family and friends) can falsely attribute this behavior to a lack of concern.

Influence of Indirect Providers

Communication in a healthcare facility is essential for what researchers have deemed necessary in patients' satisfaction, loyalty, and

health (Gremigni, Sommaruga, & Peltenburg, 2007). While communication between healthcare provider and patient is frequently the focus of study, often patients visiting a healthcare facility will encounter professionals other than their healthcare provider who may influence the quality of their experience. These include: laboratory technicians, medical assistants, patient service receptionists, desk personnel, etc. who handle both health support and clerical/administrative support (Hall & Dornan, 1988). These positions have also come to be known as Indirect Providers.

While all of these positions work together to make a health facility function effectively, it is also essential that communication skills centered on the patient and their satisfaction are applicable to not only the healthcare provider, but also the indirect provider (Durieux, Bissery, Dubois, Gasquet & Coste, 2004). Research conducted and reports done focus on the healthcare direct provider's communication, while remaining staff performance is a much-overlooked area of the healthcare system analysis (Gramigna, 2005; Gremigni, Sommaruga, & Peltenburg, 2007).

Discharge Process

Perhaps the lasting impression, this is a critical time for healthcare facilities to communicate effectively and meet the needs of patients for their satisfaction but also pain management. Researchers Strong and Bettin (2015) observed that a number of factors were identified and must be included to effectively communicate how a patient should progress through the discharge process, the steps required to be met before discharge necessitated clarification and better explanation, and a "patient-centered" (p. 53) communication style would help meet the needs of patients. In keeping the patient's needs at the center of the discharge process, and perhaps better training in effective communication, higher satisfaction and pain management scores could be achieved.

The discharge process is complex and vulnerable, leading to numerous potential pitfalls. From healthcare institution admittance through the discharge process, opportunities abound for miscommunications leading to perceptions of poor pain management if interpersonal communication factors are not adequately considered. Such poor communication and inadequate collaboration during this process often result in inefficient care and otherwise preventable medical errors (Zinn, 1995; 2002). Communication is a vital component in this process, yet existing studies fail to recognize the

"complexity involved in communication channels amongst the many providers involved in this process" (Pinelli, Papp, & Gonzalo, 2015, p. 1299). Developed communication between providers, indirect providers and patients are necessary for the improvement of the discharge process as a whole.

Language Barriers

Effective healthcare is being challenged due to the language barriers of those trying to provide care, and those patients needing it. Of the 291.5 million Americans 5 years of age and over, 60.6 million people speak another language at home other than English (United States Census Bureau). Though there are federal and state laws provided to ensure healthcare access for those individuals unable to speak English in the United States, there is quality missing in these interactions (Chen, Youdelman, Brooks, 2007; Zuniga, Seol, Dadig, et al., 2013). In many cases, hospitals have the resources to provide interpreters to those who have the need for them, though this does not always mean the problem has been solved. Binder, Borné, Johnsdotter, & et al. (2012) found in their survey of immigrant Somali women in an obstetric center in London that in many cases, the interpreter could literally cause a division between the physician and the patient by focus being on the translation rather than the care. Additionally, it can lead to opportunity lost for the healthcare provider and patient to connect on a level beyond words, "where smiles and warm gestures can establish trust and rapport" (Binder, Borné, Johnsdotter, & et al., 2012, p. 248).

Beyond just a meaningful connection based on trust and rapport, language barriers in healthcare can pose additional problems. In a study conducted regarding the sometimes life-threatening miscommunications in healthcare, researchers argued communication in a healthcare setting is important because negative consequences, sometimes including that of greater psychological stress to the patient, can occur due to insufficient communication, medically significant communication errors, and misunderstandings of potential health risk (Meuter, Gallois, Segalowitz, Ryder & Hocking, 2015). Therefore, the following research question is primarily focused on an investigation into the important role indirect providers play in the healthcare institution's pain management scores.

Research Question

RQ: *How does communication that is not directly associated with healthcare and the management of pain influence HCAHPS pain management scores?*

Due to the nature of this study and its reliance upon both quantitative and qualitative data analysis, we are hypothesizing that HCAHPS scores will increase over the course of this study. More specifically, if indirect providers implement guided interpersonal communication skills, we believe HCAHPS scores related to pain management will improve.

Methods

This study utilizes a mixed-methods approach by way of a standardized assessment methodology that incorporates both empirical and qualitative data collection. For purposes of this study, patient feedback was solicited via Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) scores regarding pain management. The HCAHPS initiative uses a standardized survey instrument and data collection methodology for measuring patient perspectives on hospital care (Hospital Consumer Assessment of Healthcare Providers and Systems, 2015). This study utilizes already collected quantitative and qualitative data regarding pain management from discharged patients. This study focused on two specific questions regarding how the pain was managed and how much the hospital staff appeared to provide for a patient's pain over the course of a calendar year. As many as 1,773 participants (approx. 147/month) completed the survey for question number one and 1,778 (approx. 147/month) completed for the second question.

Procedures

This study was conducted in partnership with a Southwestern United States hospital. Operating six hospitals and 36 health clinics in North, Central, and Northeast Texas, this hospital conglomerate is a significant provider of healthcare to a large population. As the largest multi-specialty healthcare group in its area of Texas, this hospital has over 300 healthcare providers in 38 specialities throughout its network.

With 474 beds, this hospital is placed it within the HCAHPS category of *large hospital*, which includes all hospitals over 450 beds. The hospital currently holds a 73 percent in pain management scores, while the national average is only 71 percent and an overall hospital rating of 79

percent, while the national average is at 71 percent. These scores become especially important for hospitals for two reasons. First of all, the federal government provides medicare funding to hospitals based largely on these externally appropriated scores that influence the hospital's percentile ranking as they relate to similar hospitals. Secondly, these scores are important because consumers can easily access hospital scores via medicare.org, allowing the consumer to compare hospitals in his or her area and choose which one they would like to visit.

Due to the importance of HCAHPS scores on hospital federal funding, hospital administrators launch a work group to initiate pain management tactics that might increase patient perceptions of pain management, thus increasing HCAHPS scores regarding pain management. This work group first met in the Fall of 2014, one year prior to the collection of data, allowing the work group time to create and integrate pain management strategies across their healthcare system.

HCAHPS scores are calculated by way of patient perception surveys collected from a randomized portion of post-hospital stay patients. These surveys are sent and collected via mail and include a list of questions followed by a section where patients can write in additional comments. It is important to note here that in some cases, patient family and/or friends complete these surveys on behalf of the patient. During these continual meetings of the hospital work group, nurses, doctors, and administrators continually monitored HCAHPS scores to garner knowledge of any change in patient perceptions regarding pain management.

One of the first steps this work group took involved educational sessions with healthcare practitioners (nurses and doctors) to create a better understanding of the analgesic guide and the pain menu. More specifically, administrators ensured doctors were aware of alternative methods of pain management and how to assist patients in better understanding how to describe their pain through the pain menu. In turn, healthcare providers spent more time with each patient, making sure he or she understood that there was more than one method available regarding the implementation of their pain management strategy.

Healthcare providers were also encouraged to and implemented strategies to increase their transparency with patients through open communication and to increase the amount of time they spent with each patient. For example, once

patient pain levels were discussed, the practitioner would clearly state that it is going to take some time for him or her to get the medication order in and for the hospital pharmacy to get the medication to the nurse's station and then for the nurse to bring the meds to the patient. The practitioner would then, instead of just walking out, ask if he or she could provide anything during this wait that could create a more comfortable atmosphere for the patient (i.e. warm compress or an extra pillow).

Data Collection and Analysis

Instrument

Quantitative and qualitative data was collected via Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) surveys, a nationally standardized method of healthcare assessment used by the federal government in the process of funding allocation. This 32 question survey provides hospitals and patients with information regarding overall hospital quality of care. Of the 32 survey questions, this study focused on the two dealing with pain management. The first question asked if patient pain was managed while at the hospital and the second question asks if hospital staff did everything they could to minimize pain. These questions are administered via a randomly assigned post-

discharge mail survey and data is collected to ensure confidentiality via the Press Ganey Corporation. When compiled, results from these two questions provide hospital administrators information regarding the hospital's overall pain management proficiency.

Questions are asked on a likert scale and patients must rank the hospital as *always* caring for specific needs in order for the hospital to receive credit. Customer service surveys provide hospital administrators quantitative and qualitative data, known as HCAHPS scores. This data both helps administrators understand their patient scorings on a scale of zero to 100 in specific area and ranking percentiles to comparative hospitals. Quantitative scores are then made available via medicare.org for public information and hospital rankings.

Results

Results of this study indicate that when appropriate communication skills are utilized in the healthcare setting, patient perception of pain management changes. Moreover, from figures one and two, it is evident that there was a significant increase in patient perceptions of pain management provided by the hospital. Therefore, our hypothesis that HCAHPS scores will increase over the course of this study is affirmed.

Figure 1 Depiction of Pain Management Scores across One Year: Regarding Question One

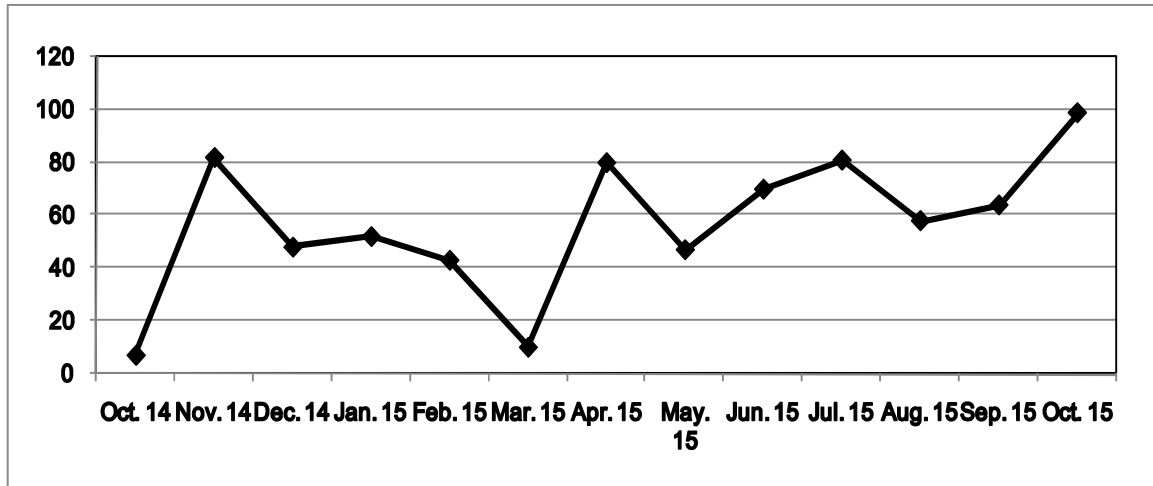
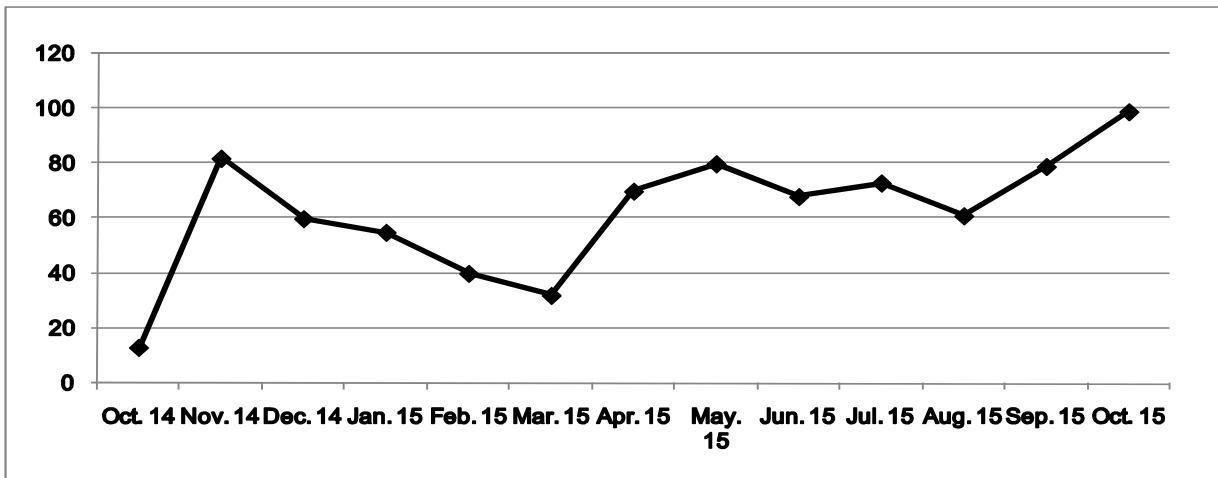


Figure 2 Depiction of Pain Management Scores across One Year: Regarding Question Two



Results depict a gradual increase in overall hospital pain management scores over the course of one year. Within the period of just over a year, scores for question one went from seven to 99 and 13 to 99 for question two. It is also apparent from the quantitative results that pain management scores did not consistently climb across this period. During a post hoc interview with a hospital administrator, it was revealed that during early spring, when the dip in scores occurred, there was a hospital-wide issue with a shortage of nursing staff. It is assumed that pain management scores may have reflected the fact that the hospital maintained the same number of

patients during a period of less nursing staff. A second potential reason for dip in the scores at this time is that the hospital was closing a portion that is only used temporarily during a peak in hospital occupancy. Once this season has ended, the hospital's protocol is to move patients from the overflow area back to traditional rooms, which can create patient dissatisfaction.

Discussion and Conclusion

As a follow up to our previous investigation into the role of interpersonal communication in affecting HCAHPS pain management scores (see

Velten, Arif, & McCoy, 2016), it is important to remember the significant role communication plays not only in our everyday lives, but also our healthy life styles. This is especially true in the healthcare communication sector; research in this field typically focuses on communication between the practitioner and patient, failing to recognize the significant role indirect providers play in patient pain management scores. Often, patients are surrounded with family and friends, and often times these family members and friends have the ability to communicate information more effectively to practitioners.

In practice, the level of communication that takes place between the two parties determines the overall hegemony of this partnership. Thus, any chances of lack of communication or even miscommunication may adversely affect the overall perception of cure, but also such scenarios can result in distrust and skepticism of the treatments being suggested by the healthcare providers. That is why the findings of this study emphasize upon the practitioner's interpersonal communication competence as well as its role in creating an atmosphere of trust and confidence in which both patient and family/friends share a sense of satisfaction in pain management.

Furthermore, data analysis regarding qualitative responses from discharged patients revealed communication-related themes. Participant comments centered on food service, frustrations with hospital financial planning, and inability to effectively communicate clearly with and understand medical staff. Excluding only two comments regarding specific cases of tangible pain medication issues, all other comments focused instead on care from the interpersonal communication perspective; thus, positive communication earned positive feedback and negative interpersonal interactions garnered the opposite perceptions of pain management. Therefore, a positive trend was discovered dictating that positive interpersonal interactions between healthcare provider and patient led to positive patient perceptions of pain management and vice versa. The implications of this study place high importance on interpersonal communication skills development in healthcare if hospitals wish to raise HCAHPS scores. For the purpose of simplicity, thematic content is fleshed out below.

Patient Environment

The findings in this study showed that in several cases pain management was affected by factors such as environment and cleanliness of the facility, their rooms, and how they perceived the housekeeping staff to be attending to such duties. For example, one patient wrote "ICU was miserable and filthy with sticky urine on the floor and no privacy when using the inconvenient toilet" while another wrote "...the whole time I was there they didn't clean it or pull the trash I had to tell the nurse". Conversely, one patient noted, "I tell all my friends and family I felt that I was a guest in a very nice exclusive hotel instead of a hospital".

Though the patient responses are mixed, with both positive and negative cases on both sides of environment and cleanliness, it is apparent from their responses pain management is reflected in areas and matters pertaining not only to patient care. It was also found in many cases that not only was the patient-provider relationship important for pain management, but also those of other hospital staff. This is evident in one patient's response about her stay:

"...my room custodian was precious She welcomed me to...[the hospital], made sure my room was clean – asked if it was OK to clean or if she needed to come back at a better time. She also offered to come back if I needed her. She made me feel like I was part of the...[hospital name] family!!"

Influence of Indirect Providers

In relation to the first theme discussed, the influence of indirect providers (non-nursing staff) seemed to have much influence over the perception of care given, even though this was not patient-provider care concerning pain management. For example, one patient said, "My only real complaint I have was with the food...If I did not order (a meal) they would just send whatever. I was unable to keep it down" and another patient stated, "People that answer room service, do not understand your request as good as they should and too many errors are made". While again some patient responses fell both on the negative and positive end of the survey, it seems as though indirect providers have much influence over the pain management scores. Additionally, a patient noted, "the food was superior to any other hospital food" while another felt as though food "was late and things that

should be hot, were cool. Things that should have been cool was hot...The ice had melted in the tea and the popsicles thawed and fell off the stick."

Though seemingly ineffectual, this information gives much insight into issues perhaps in a lack of training of non-patient care staff. Again in a nod to the perception of patient care, when patients felt as though they were receiving good service, it seemed to them as though their pain was being managed at a more successful rate.

Discharge Process

The third theme discusses both the importance of the sensitivity of the information, as well as the timing of the information discussed. As mentioned previously, in many patient cases, friends and family are often present in the room for various lengths of time and while they may have the permission to hear financial information, the timing and disclosure of this information can have a great effect on perception of pain management. In one case, a patient said, "Your accounting dept. came in room while I...was not in room and started telling...[another person] financial stuff...he told her that I took care of all financial, she processed [proceeded] to tell him. That night his blood pressure went high because it upset him so." In another instance, a patient felt as though pain management was directly affected by the insistence in discussion of financial information and the timing it was chosen to be discussed: "HIPAA and other non-emergency forms or requests should be signed when patient is comfortable, (pain under control). They should speak with the nurse in charge prior to going in the room with all these forms. I was in severe pain and the young lady's concern was signing multiple forms. That's my only critique."

It was evident from the responses that in many cases, patients were dissatisfied with how their financial information was discussed while they were sick in bed, surrounded by visiting friends and family, and the lengthy discharge process. In some cases, one, two, or a combination of all three complaints were mentioned. Another patient stated, "I was approached by a financial person requesting I pay a thousand dollars before I was discharged from the hospital even if a family member or friend had to bring it. I had attempted to contact this person 2-3 times x's prior to surgery to discuss my bill but we never made contact." In this case and others, it is apparent the exit time is very important to post-stay assessment scores as this is the last

thing the patient will experience from their hospital stay, and will remember prior to leaving.

Language Barriers

The final theme found in patient responses is that of language barriers. This study uncovered a few responses in which pain management was affected by poor communication through the lack of understanding one another because of language barriers. While attempting to understand the method of care being administered, one patient noted frustration when asking "several times about what medicine she was giving me and she could not explain it to me in a way I could understand." In another response, a patient responded about their provider that "I could not understand his English." One patient also stated a doctor would "get very frustrated with us when we couldn't understand him." In the overall attempt to manage pain both on the side of patient and that of provider, communication break-down seems to have a direct impact on patients' overall feelings of how pain was managed, as well as their responses.

Conclusion

The purpose of this study was to discover the extent to which indirect providers affected patient perceptions of pain management. The review of the literature provided the groundwork for our efforts to test the viability of interpersonal communication skills in the healthcare sector. Moreover, our results indicate that interpersonal communication skills play a major role in patient perceptions of pain management and should thus be evaluated and training opportunities should be provided by hospital administrators.

In conclusion, clear connection between interpersonal communication and patients' perceptions of pain management within the healthcare system can be seen in the results of this mixed-methods study. While insight is given, and sufficient evidence to substantiate the importance of strong interpersonal communication skills for both healthcare provider and indirect providers toward the end-goal of providing strong healthcare and increasing HCAHPS scores regarding pain management, more research in this area is needed. Simply stated, positive communication produced positive feedback while negative interpersonal interactions received the opposite regarding perceptions of pain management.

Though the findings of this study construct a clear path for both healthcare and indirect providers, they are not necessarily generalizable. The findings are based on one hospital's HCAHPS data, and thus do not represent the larger healthcare community. However, participants numbered nearly two thousand, a relatively large number. Based on the results, administrators should encourage healthcare provider education in certain otherwise-ignored areas, such as: creating a clean patient environment, methods of appropriately timing financial discussions with patients, and increasing the level of understanding between native and non-native speakers. Moreover, hospital administrators should recognize the important role indirect providers, including food-service personnel, play in the end-goal gratification of exceptional patient service and elevated HCAHPS scores.

The results of this study indicate a healthy trend toward more positive interpersonal interactions between the healthcare provider and patient in efforts to increase HCAHPS scores and create an overall patient perception of improved pain management. Here, again, we see that in many cases, though the administration of medicines to manage pain are imperative, much of what post-hospital experience surveys reveal is that factors related to what and how the hospital either intentionally or unintentionally communicate to the patient plays a significant role in these HCAHPS score outcomes. Healthcare administrators must continue to monitor such scores and seek methods to not only improve processes of administrative medicines in a timely manner, but keep a keen eye on these seemingly less important factors that our research has uncovered to be paramount in gaining positive patient feedback.

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