

Magic as a Therapeutic Intervention To Promote Coping in Hospitalized Pediatric Patients

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Hospitalization can be an extremely stressful event for many children and adolescents. Emotions of fear, sadness, loneliness, boredom, and helplessness can have immediate and long-term consequences for the child's and adolescent's physical health and emotional well being (Denholm, 1990; Rennick, Johnston, Dougherty, Platt, & Ritchie, 2002). Child life programs designed to address the complex psychological, social, and developmental needs of pediatric patients are now considered the standard of pediatric inpatient care (American Academy of Pediatrics, 2006). Increasing evidence supports the valuable role the arts and humor can play in the healing process (Berk, Felton, Tan, Bittman, & Westengard, 2001; Buxman, 1991, Dowling, Hockenberry, & Gregory, 2003; Rollins, Bolig, & Mahan, 2005). Visual and performing arts (such as clowning, storytelling, quilting, writing, drama, and "artists-in-residence" programs) are being offered in many health care settings as a means to promote coping with the emotional impact of illness and hospitalization (Kronzon, 2000; McMahan, 2008; Spitzer, 2001). Further, the Joint Commission (formerly the Joint Commission on Accreditation of Healthcare Organizations), in conjunction with the Society for the Arts and Healthcare and the National Endowment for the Arts, collaborated

Magic as a therapeutic intervention is used in an innovative, hospital-based program to address the psychosocial issues children and adolescents often experience as a result of illness and hospitalization. A child life specialist and a magician with an MBA collaborated, blending clinical expertise with business acumen and professional-level magic skills to create the program. The program has two distinct components: (1) magicians using interactive, close-up magic and humor as a technique to promote socialization, enhance self-esteem, and increase opportunities for choice and control, and (2) magicians providing the personal instruction and materials that enable chronically ill and long-term patients to learn and perform magic to promote a sense of empowerment and feelings of mastery. Positive responses from patients, families, and staff to the program at one hospital led to the creation of Open Heart Magic, a non-profit children's foundation that maintains and staffs bedside, interactive therapeutic magic programs in five hospitals in the Chicago metropolitan area.

to develop a strategic plan for advancing cultural programming in health care across the United States (Wikoff, 2004). Open Heart Magic is a "magician-in-residence program" developed to fuse the fundamental principles of evidence-based psychosocial care with the healing benefits of humor and the performing arts.

Even before the advent of Harry Potter, magic had a unique and universal appeal that crossed cultures and captivated the interest of people of all ages. Well-executed magic is a highly engaging activity that can serve as an effective distraction tool by creating a sense of wonder, instilling awe, and generating laughter (Bow, 1988; Gilroy, 1998).

Health care professionals have long recognized how mesmerizing magic is for children, and magic shows are frequently performed in hospitals for pediatric patients. To capitalize on the impact of magic, child life specialists from Rush University Medical Center in Chicago partnered with a professional magician to develop a therapeutic program using magic as an intervention to address some negative psychosocial effects that illness and hospitalization have on children and adolescents. The success of this magician-in-residence program led to the development of Open Heart Magic, an

innovative, non-profit children's foundation that creates and staffs therapeutic magic programs for sick children.

Literature Review

Magic

Vagnoli, Caprilli, Robiglio, and Messeri (2005) compared children's anxiety levels prior to minor surgery; half of the children were accompanied by a clown or magician in addition to a parent while they were waiting for surgery and during anesthesia induction. Only a parent accompanied the children in the other half. Results of the study's findings indicated that children who had a clown or magician present until they were under anesthesia displayed significantly less preoperative anxiety during the induction of anesthesia compared with the control group ($F [1,38] = 14.896; P = 0.001$).

The therapeutic use of magic has been applied in rehabilitation settings since 1981, when internationally renowned magician David Copperfield and several occupational therapists initiated a program called Project Magic. Project Magic and similar programs that have evolved since its inception use magic as a vehicle to motivate

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patients and reduce the frustration they often experience due to the repetitive nature of rehabilitation exercises (Healing of Magic, 2008; Kaufman, 2002). Patients are first evaluated by an occupational therapist to determine their rehabilitation needs. Patients then work with a specially trained magician to learn simple magic tricks aimed to help them achieve their motor, cognitive, perceptual, and/or mental health goals. Patients in the program have demonstrated increased concentration and improved motor, cognitive, and perceptual capabilities (Healing of Magic, 2008). In addition, Fisher and Fisher (2007) found this approach decreased recovery time and made the rehabilitative process more enjoyable for many clients. The American Occupational Therapy Association (AOTA) endorsed Project Magic, stating that "the unique use of magic as a therapeutic method of occupational therapy treatment...a therapeutic method which aids the patients by enhancing their cognitive functions, perception, neuromuscular, and motivational skills. Because of these concepts, we support the use of magic as an authentic method of achieving therapeutic goals" (Healing of Magic, 2008).

Many counselors, psychologists, and clinical social workers find magic to be a beneficial tool to gain trust, decrease tension, and establish rapport when working with children and adolescents (Gilroy 1998, 2001). Bow (1988) found magic to be an innovative technique for working with children who are resistant to becoming engaged in the therapeutic process. Mental health professionals have also used magic as an intervention technique to enhance the self-esteem of patients in psychotherapy (Howard, 1977; Stenhouwer, 1983). In a study comparing self-esteem and subsequent behavioral outcomes of students receiving magic arts counseling, Levin (2007) found positive gains in 8 of the 10 items measured by the Rosenberg Self-Esteem Scale.

When introducing new instructional concepts to their students, teachers of exceptional children have found magic tricks to be effective aids in capturing the children's interest. They have also found magic to be a useful multisensory tool that often increased the motivation and attention span of many students with special needs (Frith & Walker, 1982).

Humor

There is often an intersection between the arts when more than one modality functions concurrently (Rollins et al., 2005). This overlap exists in Open Heart Magic programming, where humor is an integral component of each interaction. The magic taught to the magicians is specifically selected to incorporate two of the fundamental principles of comedy: surprise and humorous self-deprecation by the comedian. From red balls popping out of the patient's hand to a vanishing silk appearing in the sleeve of a nurse, unexpected occurrences evoke surprise and laughter. The comedic situation is enhanced when the magician denies that any of this will work because he is not particularly good at magic. The consistent use of humor in Open Heart Magic interactions suggests that some of the literature that supports the health benefits of humor can be extrapolated to therapeutic magic.

In recent years, extensive theoretical, anecdotal, and scientific literature has addressed the benefits of humor in the psychological and physiological healing process (Erdman, 1993; Franzini, 2002; Gelkopf & Kreitler, 1996; Klein, 2003). These benefits include reduced tension, improved circulation, muscle relaxation, and increased release of endorphins, T-cells, natural killer cells, and immunoglobulin (Arnett, 1998; Berk et al., 2001; Dowling et al., 2003; Takahashi et al., 2001; Weisenberg, Tepper, & Schwarzwald, 1995). In fact, humor is now classified as a nursing intervention to help children and others cope with the difficulties experienced as a result of illness and hospitalization (Frankenfield, 1996; Hunt, 1993; McClosky & Bulechek, 1995).

Weisenberg Raz, and Hener (1998) investigated the effect watching a humorous film has on pain tolerance, as compared to watching films that were of neutral or repulsive topics. Results showed a significant increase in pain tolerance after viewing the humorous video for 30 minutes. The control group that viewed non-humorous videos showed lower tolerance and gave higher pain ratings. Wong and colleagues (1999) cited humor as one of several distraction techniques that are effective for non-pharmacological pain management. Bennet, Zeller, Rosenberg, and McCann (2003), and Nevo and

Shapira (1989) found that during outpatient visits in a variety of settings, humor helped children relax, gain a sense of control, and increase their cooperative behaviors during health care encounters.

Simon (1988) examined the relationship between the uses of humor and health outcomes as measured by perceived health, life satisfaction, and morale. The findings revealed significant ($P < 0.05$) positive relationships between situational humor and perceived health ($r = 0.43$), and situational humor and morale ($r = 0.38$). Frankenfield (1996) used a case report to demonstrate how humor helped decrease anxiety in a pediatric oncology patient undergoing Infusaport needle insertion. In an ethnographic account of patient-provider interactions during occupational therapy activity sessions, Scholl and Ragan (2003) found that spontaneous humor that occurred during patient-staff interactions evoked positive health outcomes in patients, which they described as a renewed sense of happiness and well-being.

Program History

Open Heart Magic began in 2003 when Michael Walton, a commodities trader and part-time magician who was interested in performing magic for pediatric patients, contacted the Child Life Director at Rush University Medical Center. The initial response was a polite "No, thank you." Rush already had several magicians who visited periodically and performed in the pediatric activity room. The magicians were frequently disappointed because performances were often poorly attended because most patients were too sick to leave their rooms. Furthermore, it was difficult for the magicians to find routines that were developmentally appropriate and equally appealing to the wide range of cognitive abilities of those patients who were able to attend. Finally, getting the magician set up, bringing patients to the activity area, and overseeing the event was extremely labor intensive and frustrating for the staff, who were conflicted by multiple demands on their time.

Walton persisted, explaining that the type of magic he did was interactive and best performed at the bedside. The Child Life Director acquiesced when she learned that Walton

did not wish to perform in front of groups, with the stipulation that he undergo the same health screening, background check, and training in policies and procedures required of all hospital volunteers.

Soon after Walton began volunteering, it became clear that magic excited, engaged, and motivated even the more challenging patients. The child life staff recognized the benefits these bedside interactions had in empowering patients and enhancing their self-esteem. Under their guidance, Walton began to refine his techniques in ways that would further enhance their therapeutic impact and incorporate these “best practices” into his routines. The success of this approach led Walton to start Open Heart Magic as an extension of his volunteer work at Rush.

Therapeutic magic used in the Open Heart Magic program is unlike passive audience magic shows typically performed in hospitals as a form of entertainment. The purpose of Open Heart Magic is to use the performance and teaching of close-up, interactive magic and humor as intervention strategies to promote coping. The emphasis is on interaction with patients and families rather than entertainment. Specific goals for the program are to (a) provide opportunities for choice and control, (b) foster social interaction, (c) enhance self-esteem and self confidence, (d) promote wellness through humor and laughter, (e) make the child feel a part of creating the magic, (f) empower the child, (g) stimulate the senses, and (h) promote feelings of mastery.

The program model of Open Heart Magic also differentiates it from other magic programs typically found in hospitals. The program is designed to enable the magician to function independently in the health care setting. The careful screening of volunteers and the extensive training they receive ensures patient safety, maintenance of professional boundaries, and the appropriateness of the magic routines to patient circumstances and the medical setting. These procedures eliminate the need for a staff member to directly oversee the magician, hence reducing the amount of staff time needed to implement the program. Figure 1 offers a comparison of Open Heart Magic and typical magic entertainment programs found in hospitals.

The routines used by Open Heart

Figure 1.
Comparison of Open Heart Magic Magicians and Typical Magicians Performing in Hospitals

	Open Heart Magic Magicians	Not Affiliated
Health screened?	Yes	No
Background cleared?	Yes	No
May see patients unaccompanied by staff member?	Yes	No
Routines evaluated for safety and appropriateness?	Yes	No
Uses interactive, participant-centered magic?	Yes	No
O riented toward therapeutic goals?	Yes	No
Trained to work in a hospital environment?	Yes	No
Trained to adapt routines for various physical limitations?	Yes	No
Routines designed to be performed at bedside? (Best for today's higher acuity hospital environments)	Yes	No

Magic magicians are interactive and patient/family centered. Best practices for encouraging the patient's initial engagement, building rapport, involving family members and visitors, and incorporating humor have been established and scripted for different age groups. The magicians are taught to optimize patient participation by adapting the magic presentation to the patient's positioning, mobility, cognitive level, language, and culture. Patients, rather than the magician, are given credit for creating the magic and are rewarded for their involvement. (Although teens do not necessarily believe they were the cause of the magic, they generally play along, accept the compliment, and laugh many times when the magicians deny they did anything at all.)

Recruitment

The sensitive nature of working with hospitalized children requires that the magician candidates be carefully screened and selected. They must show a strong commitment to helping children. Candidates need not be professional magicians; rather, they may be individuals interested in magic who are recruited through Web sites offering opportunities for volunteerism and then thoroughly trained. This method helps eliminate inappropriate candidates who may be motivated by self-promotion.

Candidates are interviewed and screened for the following factors:

- Experience with community service or volunteer activities.
- Performance or public speaking experience.
- Experience working with children.
- Engaging personality.
- Energy level.
- Sense of humor.
- Desire to learn magic.

Candidate volunteers must sign a one-year service commitment agreement that states they will complete training and follow all organization and hospital guidelines. They also sign the “Code of Magicians” after learning the best practices of performing magic.

Training

Accepted candidates participate in a rigorous initial training program, followed by ongoing training workshops throughout their involvement in the program. The 12-week training is held at a community center and provided by experienced therapeutic magicians and a child life specialist. Upon completion of the Open Heart Magic training, magicians must then complete the training requirements of their assigned hospital.

The child life specialist provides an overview of the psychosocial impact of illness and hospitalization on children at each developmental stage, the effects on family members, the role of the arts in health care, maintaining boundaries, and the therapeutic benefits of humor. Specific information is

provided on interacting with children and families in health care settings, reading non-verbal cues, and adapting to medical and social situations. Volunteers are also acquainted with hospital etiquette and culture so they are able to effectively interact with members of the health care team and are well integrated into and accepted by the host hospital.

The magician-educator provides a progressive system of 12 weekly training sessions. The content of these sessions includes intensive instruction in (1) close-up, interactive magic techniques; (2) the art of therapeutic humor and incorporating it into magic routines; and (3) strategies to maximize the therapeutic benefits of the magician-child interaction. The trainees learn how to correlate routines to each child's cognitive level, physical restrictions, ability to communicate, and other relevant medical issues.

Each magician is evaluated twice during the core training. The first evaluation is based on the ability to learn and comfortably use magic as a tool for patient interaction. Because language drives the magician-patient interaction, components of the program are scripted to maximize opportunities for choice and participation, ensure optimal engagement, and incorporate humor into the interactions.

The second and final evaluation is more comprehensive and requires the application of magic as therapy within a simulated patient room. The trainee is provided a list of patients with mobility restrictions and other special considerations, as would be provided to them by the child life specialist at each hospital. The most challenging scenarios are given, including a non-English-speaking patient and a patient who is unable to speak, nod, or use his or her hands. The evaluator role-plays as the patient, and at times, lays supine to test the trainee's ability to perform in challenging positions. The magician is tasked with being able to quickly and appropriately adapt his or her performance to accommodate each patient's unique circumstance. Also, as part of the final evaluation, the trainee is tested on the ability to perform and teach magic in the Secret Lessons to patients. The performance must create a sense of excitement to further engage the patient. The instructions must be clear and understandable to enable

patients to achieve a sense of mastery and provide them with the confidence to perform the trick for their families, nurses, and doctors. The ability to mystify and awe friends, family, and those "in power" contributes significantly to the therapeutic value of learning and performing the trick.

Magicians successfully evaluated for technical competence and their ability to interact well with patients and families then apply to their assigned hospital's volunteer department. The department provides background checks, health screening, and clearance. The hospital then trains the magician on such topics as Health Insurance Portability and Accountability Act (HIPAA) requirements, infection control practices, safety policies, and volunteer procedures specific to that institution.

At the conclusion of the introductory training, Open Heart Magic partners with a local organization and hosts a community event where magic is performed for children. This activity provides the new volunteers with direct experience working with children one-on-one before they start performing in hospitals.

Program Implementation

Using established criteria for patient selection, a child life specialist (or pediatric nurse in some hospitals) makes a list of patients for the magicians to see. The magical thinking and pre-conceptual thought processes of preschool-aged children limit their ability to benefit therapeutically from the interaction. Therefore, participating children are usually at least 5 years of age or older developmentally. Consideration is given to patients' levels of alertness, attention spans, and emotional states. Contraindications for participation include patients who:

- Have psychosis, especially paranoia.
- Are heavily medicated.
- Are extremely intellectually limited.
- Are of a culture or religion rejecting or prohibiting magic.
- Have contagious diseases.

Magicians are given the child's age, developmental level, room number, and any other information they need to safely and effectively adapt their approach to individual patient needs. Armed with the necessary informa-

tion and trained to work independently in the hospital environment, the magicians then visit each patient on their list throughout the medical center, including inpatient units, outpatient clinics, dialysis, and occasionally, the emergency room. Family members and visitors are also encouraged to participate in the interaction.

Program Impact

Although little scientific research currently exists, there is theoretical and anecdotal support for the therapeutic use of magic. In addition, many therapeutic outcomes of the magic program have been easily observed.

The routines are well received and appropriate for all age groups. Choices and opportunities for active participation and involvement provide patients with a sense of control at a time when loss of control is a pervasive issue. Many patients learn magic they can later perform for room visitors and the health care team. Patients who are the passive recipients of often painful and humiliating care may feel empowered and gratified when they can use magic to mystify the all-powerful staff.

Patients who are difficult to engage, and patients whose parents have warned the hospital magician that their child is in pain, a bad mood, or may not be interested in magic usually will agree to see "just one" trick. After seeing one trick, they tend to become engaged and interested in seeing more and learning magic they can do themselves. One nurse commented that she saw her 17-year old, long-term patient smile for the first time when he became involved in a magic trick. See Figure 2 for the impact of Open Heart Magic on other children and adolescents.

In keeping with today's emphasis on family-centered care, performances are family-focused. Parents and siblings who watch the interaction with the patient are drawn in, and the hospital magician includes them in the engagement. Participation elevates the mood of many family members and reduces some of the tension and stress they often experience when visiting a loved one in the hospital.

Children who are hearing impaired or who do not speak English benefit from their participation as well. Programs that do not require a common language are especially use-

Figure 2.
Impact of Open Heart Magic

- A 9-year-old girl was daunted by a treatment that required her to drink a gallon of liquid. The Open Heart Magic magician visited the distraught patient immediately. Once engaged in bedside magic, the patient's mood was lifted. She started to smile and laugh, and then succeeded in drinking the liquid, which in turn, helped progress her treatment.
- An 8-year-old boy was very skeptical and untrusting of hospital staff, and only answered questions with a nod or shake of his head. The staff described the boy as shy and soft-spoken. This information helped the magician to tailor an appropriate approach that would not overwhelm the child. The magician created some visual card magic to engage the boy. When the very card on which he had drawn a picture was the one he pulled out of the Open Heart Magic magician's hand, the patient's face lit up and a smile beamed widely. For the rest of the evening, he remained cheerful, walked hand-in-hand with pediatric staff, and became very talkative. It was like a switch had suddenly been flipped and it was okay to be in the hospital where it was now less scary, less intimidating, and fine to just be himself.
- A 7-year-old girl in the emergency department had sustained a hand laceration and was crying inconsolably. The nursing and child life staffs could not even make eye contact with her. The child life specialist brought in the magician, and he enlisted the girl to help him make a red silk scarf disappear. "After the magic, she was like a different child," recalled the child life specialist. "She was calm and in control, practicing the trick the magician had taught her and trying it out on the doctors. It was nothing less than amazing. And it was the magic that did it."
- A 12-year-old boy needed to stay awake until 2:00 in the morning as part of a diagnostic test. He was neither interested in visits from other therapy volunteers nor wanted to watch television, and his parents were concerned about how to occupy him. The magician visited him, and the patient became engaged and eager to learn the magic being shown. Then he performed for nurses and continued to work on the magic taught with the materials the magician had given him. His parents became comfortable with the process and remarked on how his mood completely changed, and he stayed purposefully occupied practicing magic until the 2:00 a.m. deadline.
- A 6-year-old girl was surrounded by family members and a nurse who was helping her cope with an upset stomach. When the magician entered the room, he was told that the girl was too sick to enjoy magic. The girl disagreed and asked to see what the magician could do. The magic entertained the entire room, causing the young patient to smile and declare that she did not feel "bad" anymore. The atmosphere in the room changed from one of tight concern to one of great relief.
- A magician was able to use magic that involved touch when working with a 15-year-old boy who could not see. The magician used sponge balls that appeared, transferred, and multiplied in the teen's hands as the boy's mother described the actions through narration and confirmation. The tricks proceeded with the mother telling her son exactly what she saw and with him counting out what he felt in his hands. Laughter, positive energy, and a very special and memorable situation unfolded. These advanced patient adaptation methods and best practices are a part of the curriculum for Open Heart Magic trainees.
- A magician worked with a 12-year-old boy who could not move his arms or legs, nor could he speak. The magician was able to successfully perform magic by adapting positioning so the patient could see and even participate, despite the mobility challenges and temporary speech restrictions. The patient blinked to initiate the magic moment, choosing the correct card while the rest of the cards cascaded. The following week, the patient requested a visit to see the magician again.

ful to health care institutions striving to meet the needs of a culturally and ethnically diverse patient population.

Role of the Pediatric Nurse

Pediatric nurses play two important roles in the Open Heart Magic program. In some hospitals, nursing facilitates the program and is the primary contact for the magician. Nurses identify the patients to be visited and provide the magician with the information necessary to adapt the interaction to the patient's own physical or social circumstances. A nurse may accompany the magician to introduce him or her to a patient who may become anxious when an unknown person enters their room. Frequently, nurses inform their patients in advance about the upcoming visit from the magician so the patient can anticipate a pleasurable event.

Nurses also enhance the therapeutic benefits of the Open Heart Magic program by serving as the audience for children's newly learned tricks. Although many nurses at the hospitals where Open Heart Magic programs are established are very aware of how the tricks work, they feign surprise and awe when a patient performs. The nurses are effusive in their compliments, and in doing so, reinforce the child's sense of accomplishment and mastery.

In hospitals without therapeutic magic programs, nurses can either advocate for or facilitate the creation of a program. Local magic groups exist in most cities. An appeal and volunteer job description could be created to recruit from their membership. Nurses would need to screen candidates for personality and magic skills and then train, schedule, monitor, and evaluate them.

Implications for Research

The therapeutic use of magic with hospitalized children and adolescents poses many questions for further investigation. Despite the existing anecdotal and tangential evidence that exists supporting the therapeutic benefits of magic, much more quantitative and qualitative evidence is needed. Valid and reliable measurement tools must be developed to quantify the subjective quality of magic. Similarly, the role of humor in the therapeutic magic interaction should be studied to find the degree

to which the known therapeutic benefits of humor can be extrapolated to magic. The potential benefits of learning magic tricks related to self-esteem and locus of control could also prove to be an important area of exploration.

Conclusion

Unfortunately, the growing evidence substantiating the therapeutic value of the arts in health care is occurring simultaneously with dwindling financial resources for such programs. Further, nurses and Child Life specialists struggling with increases in average patient acuity level and patient-staff ratios have significantly less time to engage children in these types of labor-intensive, psychosocial interventions. Open Heart Magic provides an effective model for the creative and cost-effective use of community-based resources to develop a highly skilled volunteer program to provide meaningful, bedside interaction.

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