Medicine, Health Care and Philosophy
DOI 10.1007/s11019-007-9049-3
© Springer 2007

Scientific Contribution

Error and patient safety: Ethical analysis of cases in occupational and physical therapy practice

Linda S. Scheirton[1,*], K. Mu[1], H. Lohman[1], and T. M. Cochran[2]
[1]*School of Pharmacy and Health Professions, Occupational Therapy, Creighton University Medical Center, 2500 California Plaza, Omaha, NE 68178, USA;* [2]*School of Pharmacy and Health Professions, Physical Therapy, Creighton University Medical Center, 2500 California Plaza, Omaha, NE 68178, USA (*author for correspondence, Phone: +1-402-280-3108; Fax: +1-402-280-1148; E-mail: scheirtl@creighton.edu)*

Abstract. Compared to other health care professions such as medicine, nursing and pharmacy, few studies have been conducted to examine the nature of practice errors in occupational and physical therapy. In an ongoing study to determine root causes, typographies and impact of occupational and physical therapy error on patients, focus group interviews have been conducted across the United States. A substantial number of harmful practice errors and/or other patient safety events (deviations or accidents) have been identified. Often these events have had moral dimensions that troubled the therapist involved. In this article, six of these transcribed cases are analyzed, using predominant bioethical theories, ethical principles and professional codes of ethics. The cases and their analyses are intended to be exemplary, improving the readers' ability to discern and critically address similar such events. Several patient safety strategies are suggested that might have prevented the events described in these cases.

Key words: case studies, error, ethics, ethical analysis, occupational therapy, patient safety, physical therapy, rehabilitation

Introduction

Health care safety has lagged several decades behind other high-risk industries. For example, aviation has had a highly successful safety program since the 1970's (Billings, 1998). But three recent Institute of Medicine (IOM) reports "To Err is Human" in 2000, "Crossing the Quality Chasm" in 2001, and the IOM report "Patient Safety" in 2004, have rendered health professionals as acutely aware of the need to reduce errors and improve patient safety (IOM, 2000, 2001, 2004). Considerable human and financial resources have been invested to develop safety standards and build sustainable patient safety cultures and systems. Research studies in patient safety have been growing exponentially in the areas of medicine, nursing, and pharmacy (National Patient Safety Agency (UK), 2006; National Patient Safety Foundation (US) 2006; Agency for Healthcare Research and Quality (US), 2006).

Yet little has been done in other health care professions such as occupational and physical therapy (Deusinger, 1987, 1992; Scheirton et al., 2003; Lohman et al., 2003). Occupational and physical therapy are among the major health care professions with over 40,000 occupational therapists (OT) and 63,000 physical therapists (PT) practicing in the United States[1] and many more therapists practicing internationally (personal communication, World Federation of Occupational Therapists, February, 2006). Like other health care professionals, occupational and physical therapists do make errors.

Since 2001, with the support of the Health Future Foundation and the National Patient Safety Foundation, the authors of this article have been conducting focus groups and national surveys among occupational and physical therapists across the United States. The errors reported by these therapists have been analyzed by the research team in an attempt to understand the causes, to develop error typographies, and to determine impact, as well as to explore preventive strategies that can improve patient safety (Scheirton et al., 2003; Lohman et al., 2003; Mu et al., 2006). These studies have also revealed a significant number of ethical issues evoked by these errors that have continued to trouble the reporting therapists. In this article, we dissect these ethical problems; first,

we present six error cases transcribed from occupational and physical therapy focus group participant interviews.[2] Second, referring to ethical theories, ethical principles and each profession's code of ethics, we determine the goods or values involved, the obligations, rights or virtues at stake, and the ethical principles that have been violated. Next, we explore possible causes behind these violations and suggest actions that ought to have been taken before and after these errors occurred. Finally, several patient safety strategies aimed at reducing practice error are introduced.

Case 1: Failure to disclose wheelchair fall

I neither view this error as the malicious infliction of harm nor as negligence. However, it did happen. As an occupational therapist it happened to me. I was transporting a patient and a wheelchair flipped backwards. I will never do that again. There were no restraints. I ended up dropping her. I, along with my colleagues nearby, were aware of the situation. We failed to summon a physician or other health care professional to evaluate the patient's condition. We thought she was fine. One of my colleagues said, ''Oh forget the incident report.'' That is exactly what I did. The next day we came back and the patient's hand was all sore. An evaluation was finally ordered. She had a fractured wrist. We failed to do anything the previous night. We decided to say nothing and forget about it. At the time, I think the decision to say nothing had to do with fear of actions that might be taken against us. If this situation had appeared as serious or life-threatening, I have no doubt we would have done something. However, it was a fall. She got up. She was still talking and we did not think the fall had done any real bodily harm. We were in a hurry. We kind of panicked and we said, ''let's go back.'' We took her back to the ward and left her there.

Case commentary

The wheelchair case involves two kinds of errors. Failing to restrain the patient constitutes a (minor) technical error. The failure to disclose constitutes a (more serious) moral error. This distinction was already coined by Charles Bosk (1979) in his seminal work on managing surgical failures. In occupational therapy, technical errors can be defined as errors that concern methods, skills, or approaches that are acknowledged to be within the scope of OT practice (Lohman et al., 2004). According to Bosk, colleagues tend to forgive technical errors more easily since everybody will make them at one time or another. However, moral errors, such as non-disclosure that results in delayed treatment and additional patient harm and suffering, is viewed by fellow professionals as ''an individual's failure to acknowledge the underlying status which the requirement of good faith imposes'' (Bosk, 2003, p. 180). Technical and moral errors have been viewed as ''poles of a continuum'' with moral errors being considered more seriously (Bosk, 2003, p. 172). In a recent occupational therapy study on error, these therapists viewed moral errors in a similar way, that is, moral errors were judged more harshly by fellow professionals than technical errors (Lohman et al., 2003).

Whatever rationalization process was used by the therapist and fellow health care professionals, the fall was not disclosed contrary to professional codes of ethics, such as the American Occupational Therapy Association (AOTA) Code of Ethics, the World Federation of Occupational Therapists (WFOT) Code of Ethics, the American Physical Therapy Association (APTA) Code of Ethics and the World Confederation for Physical Therapy (WCPT) Ethical Principles (WCPT, 1995; APTA, 2004; WFOT, 2004; AOTA, 2005). In the past several years, a number of professional organizations have revised their Codes of Ethics to include specific statements on error disclosure (The American College of Emergency Physicians, 2003; AMA, 2003; AOTA, 2005). The 2005 version of the AOTA Code of Ethics has a timely statement on disclosure and patient safety: An occupational therapist shall ''[i]dentify and fully disclose to all appropriate persons errors that compromise recipients' safety (Principle 6.D.).'' The bottom line is that therapists are obligated to disclose harmful errors to patients because the patient stands to benefit from it.

So, why did the therapist fail to enter the fall in the patient chart? Why was an incident report not filed? The therapist mentioned fear of punitive action. Maybe there was fear of a malpractice suit or institutional sanction (reprimand or termination) or of the stigma that error has attached to it. Healthcare organizations have often named and blamed staff when errors occur rather than work to establish an organizational culture that supports error reporting, learning from each other's mistakes, and changing error prone procedures (Joint Commission on

Accreditation of Healthcare Organizations, 2005). The therapist in this case also revealed a sense of panic and urgency, which raises the question whether the therapist during this critical time was exercising independent judgment on the patient's behalf. It appears that there was "diffusion of responsibly" whereby the individual therapist transferred responsibility for not disclosing the error to others on the health care team (Banja, 2005, p. 34). Alternatively, "group think" may have tempted each member of the health professional team to conform his or her opinion to what was the perceived consensus of the group. What may have seemed a very rational approach to the error resulted in a situation in which the group ultimately agreed upon an action (say nothing) that each member individually might have considered unwise or even immoral. There may even have been a group conspiracy of sorts to "...say nothing" and "forget about it".

The therapist's failure to disclose constitutes a violation of the bioethical principle of veracity (or truthfulness). Moreover, that error frustrated attempts to immediately and fully evaluate the patient's status and initiate appropriate therapy. Thus, it also violated the principle of beneficence, that is, the obligation to do good, to protect and promote patients' well-being. Falls are a serious problem for all health care organizations. Approximately one-third of all adults 65 years of age or older are reported to fall each year (Mills et al., 2005). Falls account for a significant number of injuries and can lead to serious consequences such as fractures, traumatic brain injury or even death. The first priorities of a therapist after observing a patient fall is to assess the patient for obvious injuries and if indicated refer for further evaluation. If a referral is not immediately indicated, post-fall assessments should be initiated at intervals. Finally, all supervisors and shifts should have been informed that the patient had fallen, and if appropriate, the patient's family or guardian.

Disclosure not only facilitates an adequate therapeutic response to the involved patient, it also helps prevent similar future errors involving other patients. Incident reports facilitate the identification of common errors and the development of strategies to prevent them. That too is required by the principle of beneficence.

If disclosure of error is required by both the principles of veracity and beneficence, why did the therapist in the wheelchair case fail to do so? The therapist was clearly troubled by his improper moral management of the fall and the harm that resulted. Disclosure and reporting are among the most difficult duties that a therapist must perform. Only recently have health science educational programs begun to address best practices for disclosure when things go wrong (Singh et al., 2005). More and more disclosure practices, preferences, policies and procedures are appearing in the literature to assist health care professionals with this difficult task (Witman et al., 1996; Wu et al., 1997; Marx, 2001; Leape, 2005; Leape and Berwick, 2005). Respecting patient autonomy, being fully honest, following mandatory and voluntary reporting procedures in an effort to improve patient care, and placing the patient's interests above your own, are essential elements of a patient safety culture. In fact, the proliferation of individual error reporting systems in the U.S. such as MERS-TM[3] and MEDMARX®[4] – "that have a well developed body of knowledge steering their use and development" – may have inspired the development of more sophisticated national medical error reporting systems in operation in the United Kingdom, Denmark, and Australia (Dovey and Phillips, 2004, p. 322). While the U.S. still does not have a national error reporting system, there have been legislative efforts to develop such a system as are now proposed or underway in the Netherlands and Canada. Use of these reporting systems by practitioners should be the first step in creating the culture needed to morally manage and disclose error.

Case 2: False documentation and protecting a colleague

I was measuring and documenting passive range of motion (PROM)/contractures on a dependent bedfast geriatric resident. A physical therapist was assisting in handling the resident while I took measurements. We noted a large discrepancy between my measurements and the earlier documented measurements by another OTR (Occupational Therapist Registered) who happened to be the Occupational Therapy district manager. To us, it seemed very unlikely that the other OTR had actually taken accurate measurements and might have written them secondary due to lack of time. There was also a month not completed just prior to the date of my measuring the resident's PROM. The physical therapist (also the PT district manager) advised me to not mention these discrepancies to the OTR who had been responsible for these

measurements. He also told me to write in the absent months' measurements and then mine with less range of motion (ROM) degrees in order to cover her errors and omissions. I did this upon the PT's order, and was told to forget about it and not to mention it.

Case commentary

In this case, the occupational therapist and a physical therapist are evaluating a geriatric patient who is fully dependent on others for care. The occupational therapist is "*measuring/documenting PROM/contractures*." She discovers a large discrepancy with earlier documentation written in the medical chart by an occupational therapist colleague – who happens to be her occupational therapy district manager. She brings this discrepancy (inaccurate and missing information) to the attention of her physical therapy colleague (not her supervisor, but also a physical therapy district manager) who is currently assisting her with the geriatric patient. Both therapists deem it unlikely that their occupational therapy district manager colleague actually took accurate measurements and probably wrote the measurements "*secondary due to lack of time*." While late chart entries are usually not recommended, it is still a common practice that often occurs when there are practitioner interruptions and time constraints. Late entries are acceptable as long as they are labeled as late entries and the delay is justified by the circumstances. In this case, it does not appear that these entries were labeled as late entries. The occupational therapist is "*told*" by the physical therapy district manager to not mention this to the occupational therapy district manager and to alter and fabricate measurements that will "*cover her*." The occupational therapist does what she is told and enters false documentation into the medical record.

Fabricating PROM measurements to modify an existing medical record is fraudulent and dangerous to patient safety. Both the APTA and the AOTA Code of Ethics have principles which caution a therapist from participating in the use of any form of communication that is "false", "fraudulent", or "deceptive" (APTA, Principle 2.2., Truthfulness; AOTA, Principle 6.C., Veracity). In this case, all corrections, late entries, and entries made out of time sequence should have been clearly marked as such in the record, and should have been dated and timed on the day they were actually written and signed. Accurate documentation facilitates comprehensive patient care. Diagnostic and treatment decisions are based on the information found in the medical record. If the information in a medical record has been fabricated, omitted or altered, treatment decisions will be made based on incomplete or false information.

Similar to the wheelchair case, the failure of the occupational therapist to inform the occupational therapy district manager of the presumed error, frustrated optimal patient care. There was not the opportunity to determine if the correct PROM measurements even existed. Thus it will never be known if the original measurements by the occupational therapy manager were in fact correct and a dramatic change in the patient's condition had actually occurred that demanded medical attention. On the other hand, if the original measurements as stated in the record were not in accordance with the patient's condition at the time, but were in fact erroneous, by now concealing that error the occupational therapy manager has no opportunity to analyze how the error happened, to determine contributing underlying factors, to learn from the error and make system changes, if appropriate.

In following the directives of the physical therapist district manager, the occupational therapist also violated the principle of nonmaleficence. The AOTA Code of Ethics requires the therapist to "[e]exercise professional judgment and critically analyze directives that could result in potential harm before implementation" (2.D). Collegiality is an important virtue but can also turn into misplaced loyalty. As Silva and Synder remind us, "one must remember that at times loyalty can be blind or misplaced and, thus, ceases to be a virtue because harm, rather than good, can come from it" (Fletcher et al., 1998, section – Whistleblowing and Clashes of Values).

Moreover, the actions described constitute a violation of the ethical ideal of a fiduciary relationship. In such a relationship, a therapist in whom a patient has placed a special trust or confidence is required to watch out for the best interest of the patient. The APTA Code of Ethics, Principle 2, notes that "[a] physical therapist shall act in a trustworthy manner towards patient/clients, and in all other aspects of physical therapy practice." The therapist is aware of her colleague's interests and should consider them. However, when these interests conflict with the patient's, the latter overrides the former. The APTA Code of Ethics clearly states that "a physical therapist shall make professional judgments that are in the patient/client's best interest" (Principle 4, 4.1 A).

Finally, the personal integrity of the therapist who felt forced to falsify the patient's record was damaged. The occupational therapist who told us of this case clearly thinks she erred in this situation, is still troubled by her mismanagement of the error, and has offered this narrative as an example to others.

Case 3: Poor staffing and fraud

I was a per-diem therapist at an inpatient facility. I was scheduled to work a weekend and normally would have had another OTR (Occupational Therapist Registered) and at least one COTA (Certified Occupational Therapy Assistant) on duty with me. I showed up at work to discover a full case load of greater than 25 patients, and no other occupational therapy (OT) staff. The only staff assigned was an aide, with no OT background. The aide told me she could be set up with patients and would monitor their activity. The setting is such that a large number of patients require 3 hours of daily treatment as per insurance requirements. During activities of daily living (ADL), I had the aide do the orthopedic patients while I did the neurological patients. After surviving an awful day, I filled out charge sheets, and I recall completing charge sheets for patients the aide treated. By the time I got home and thought about the day, I realized this was fraud and incorrect. I called the supervisor of the rehab the next working day and explained that it was wrong of me to do those charges on patients not directly treated by me, and that staffing needed to be changed or I would no longer work per-diem for them. The charge sheets were changed and staffing now always includes 3 OT staff on weekends.

Commentary

Billing by a therapist for services furnished by aides or technicians constitutes a type of false claim. Committing fraud is not a technical error in patient safety terminology. It is a moral and legal issue. The Guidelines to the Occupational Therapy Code of Ethics regarding truthful communications explicitly state that "[o]ccupational therapy personnel do not make deceptive, fraudulent, or misleading statements about the nature of the services they provide..."(2.1). Guideline 2.4 specifies that "[d]ocumentation for reimbursement purposes shall be done in accordance with applicable laws and regulations." The APTA Guide for Professional Conduct likewise provides adequate guidance in this area. It states that "[a] physical therapist shall advise his/her employer(s) of any employer practice that causes a physical therapist to be in conflict with the ethical principles of the Association." It instructs the therapist to "...seek to eliminate aspects of his/her employment that are in conflict with the ethical principles of the Association" (Principle 4.3.B.). Whether the therapist in this case was aware of their professional association's ethical requirement is unclear. However, she appears to have known that filling out charge sheets for patients she had not directly treated was wrong. The organization would be gaining an unauthorized benefit for services that were never rendered by the therapist. While she did have an initial lapse in judgment, in the end she also rectified the situation by calling her supervisor, admitting her role in falsely completing charge sheets and identifying staffing issues.

The case described also involved a delegation error. According to the APTA Code of ethics, a therapist "shall not delegate to a less qualified person any activity that requires the professional skill, knowledge, and judgment of the physical therapist" (Principle 4.3.B.). Guidelines to the Occupational Therapy Code of Ethics likewise specify that "[o]ccupational therapy personnel do not encourage or facilitate the use of skilled occupational therapy interventions or techniques by unqualified persons." The case makes clear that the therapist was more or less maneuvered into the improper delegation by staffing shortages, a well-known system error (Morath and Turnbull, 2005). Under condition of staff-shortage, a therapist may bypass normal procedures for verifying patient information or fail to continuously monitor a patient requiring such care. Because a fellow health care professional is unavailable, and will be so for some time, a therapist may decide to lift a heavy patient from the bed when the situation calls for a two-person transfer. More recently, staffing has become a targeted concern of the Joint Commission on Accreditation of Healthcare Organizations (JCAHO). In 2005, JCAHO "revised its standards to address safety issues regarding appropriate staffing levels for safe care" (p. 147). As the poor staffing case illustrates, the need for both leadership and staff to be involved in identifying staffing needs and to assess staffing effectiveness is necessary for patient safety improvement.

Case 4: Effective communication and patient handoffs

I was working at another hospital here in town and a geriatric mental health patient had just come out

of an OT group and was complaining that she was not feeling very good. Nursing staff arranged for her to go to the medical center part of the hospital and had her sit in a chair. She sat in this chair alone in a hallway. Mind you, I say alone, she was also supervised by nursing staff and OT's (myself). I happened to be walking the halls and noticed that this patient was not looking well. When I approached her, I thought she was not breathing and having never come upon someone who has just died, I asked for a second opinion to verify she had no pulse and was not breathing. The LPN who had been working at this place for probably 50 years, probably shortly out of the womb, came up and approached the person, pushed her stomach, forced the diaphragm to breathe and exhale and said, "Look. She's breathing." I said, "No, no, no." We got her on the floor and we did CPR and she died. My mistake in that situation was not recognizing how serious the very delusional ladies' symptoms were. I did not recognize the physical problems that were emergent. They were sending her to the medical center area because she made a complaint and it was the easiest thing to send her and have her checked out. It was the right thing to do. My colleagues and I did not recognize the obvious symptoms of death. She had passed.

Case commentary

This case scenario could happen in almost any health care setting to any health care practitioner. The AOTA Code of Ethics Principle 2 states that an occupational therapist "shall take measures to ensure a recipient's safety..." In this case, an ill woman was left unattended in the hall and subsequently died. According to the APTA Principle 4.G., "when the patient has been referred from another practitioner, the physical therapist shall communicate pertinent findings and/or information to the referring practitioner." Handoffs involve the transfer of rights, duties, and obligations from one person or team to another (Solet et al., 2005)." JCAHO's Safety and Health Care Error Reduction Standards (CC.3.1) emphasize the need for seamless, safe and effective communication and transfer of information between and among healthcare professionals (JCAHO, 2004). In its 2006 Patient Safety Goals, JCAHO prioritized the need for implementation of a standardized approach to handoff communication. In this case, the effective and efficient transfer of responsibility and communication of information between the therapist, the nurse and other personnel at the medical center broke down.

The occupational therapist indicated that the patient was being supervised by herself and the nursing staff, and that a transfer to the medical center of the facility had been arranged. But *de facto*, the patient had been abandoned with disastrous consequences. The case makes clear that not all errors are *active errors*, that is, inadvertent events that occur in the delivery of health care of which the harmful consequences become evident almost immediately (Reason, 1990) (e.g., failing to restrain a patient resulting in a fall, pushing the incorrect button on a medical device). In case of an active error, it is generally also quite apparent which individual practitioner(s) is/are the source of the error. In contrast, *latent errors* refer to less apparent failures of the organization or design that do not immediately result in harm but lie dormant. Latent errors "nibble" away and make holes in the system's defense. When they combine with other latent errors or an active error, harm occurs down the road (JCAHO, 2002). Health care occurs in a complex system. As Reason asserts, the potential for disastrous outcomes to occur in complex systems is well documented (1990). Rarely is there just one isolated cause of error. Most adverse events that result in harm to patients involve this combination of active and latent conditions (Reason, 1990).

Although a root cause analysis[5] of the error described in Case 4 was not performed, it would have provided the therapist, other health care team members and the organization with valuable information regarding what happened, why it happened and what to do to prevent it from happening again. We suspect that such an analysis might well have determined that the death of the ill unattended patient was primarily a latent or system error requiring organizational change, redesign and development of new patient "handoff" procedures. In occupational and physical therapy as in medicine and nursing, there are few protocols for patient handoff practices (Solet et al., 2005). Likewise, transfer of responsibility for patient care is not an area emphasized in a formal didactic manner in OT and PT educational programs. These procedures are usually taught in the clinical setting as part of the hidden or informal curriculum where a procedure is learned by observing others (Hundert et al., 1996). Opportunities for poor or incorrect instruction abound when explicit learning objectives are absent. It is no surprise then, that JCAHO has encouraged implementation of a standardized approach to handoff communication.

Case 5: Forgotten patient, breach of duty, and forgiveness

At my last position, before being employed by this clinic, we had technicians that would assist the physical therapist by taking people off machines so the therapist could move on to the next patient. So early on when I changed to the new clinic, which does not have techs, I was still accustomed to having tech assistance. I was not yet quite in the mind set of performing the task myself. So, I left a patient on e-stim (electrical stimulation equipment). I went into the therapist office immediately adjacent to the clinic. I left the door cracked so I would remember to return to the patient. However, I forgot. I was so accustomed to the tech turning off the equipment and dismissing the patient, I obviously did not remember to go back. I think her equipment timer went off at 10:30 and then she sat on it for another one and a half hours. I was in the office with other therapists and personnel. We were talking about this and that. We talked about confidential information involving the treatment of other patients as well as exchanging inappropriate gossip between colleagues. We certainly committed some HIPPA violations. I think we even talked about her and the door was open so she could hear it all. I still did not remember she was there. When it was around 12 o'clock, I told everyone that I was leaving for lunch. All of a sudden, as I left through the office door, I could hear my name called." I said to myself, "oh my god, oh my god, oh my god." She had been sitting on ice and e-stim for an hour and a half. Essentially, by that time it was just a sloppy melted ice pack.

Commentary

In this case both a moral and a technical error occurred. By indiscriminately keeping a clinic door open such that others could easily overhear conversations as therapists are discussing patients' private health information is an evident moral error. The APTA Guide for Professional Conduct clearly states that "[i]nformation relating to the physical therapist/patient relationship is confidential and may not be communicated to a third party not involved in that patient's care without the prior consent of the patient..." (Principle 2.3.A.). Likewise, the AOTA Guidelines to the Occupational Therapy Code of Ethics says that "occupational therapy personnel shall respect the individual's right to privacy" (5.2) and "...shall take all due precautions to maintain confidentiality..." (5.3). The therapist's failure to maintain confidentiality also violated legal rules, such as the United States Health Insurance Portability and Accountability Act (HIPAA), a federal regulation on standards of privacy for health information that was promulgated into law a decade ago (Public Law 104-191, 104th Congress, 1996). In this case, the offended patient could easily file a complaint to the United States Department of Health and Human Services (HHS). If substantiated, the violation of HIPAA could result in civil as well as criminal penalties being levied against the offending therapist(s).

A technical error occurred when the physical therapist failed to remove a patient from a timed interval treatment modality. It is not clear whether this patient suffered physical harm, but such harm is quite likely when treatments are left going too long. Over-stimulation, painful skin irritation, burn or other harms may have occurred in addition to the evident burden of a significantly extended treatment. Delaying the patient and keeping her from proceeding with other life activities may be another harm imposed.

In the narrative, the therapist mentions she was accustomed to having technicians assist her by removing "machines" from patients at the end of treatment. She is now employed at a different clinical facility where technician assistance is not provided. E-stim equipment is normally applied at a specific setting (in this case, pain relief) for a period of 15–20 min or so. The therapist forgot to remove the patient from e-stim at the time specified and instead left the patient on the equipment and ice pack for an hour and a half. Certainly, the therapist's failure to remove the equipment from the patient was an unintended act. As James Reason, a human factors[6] expert, explains:

> Common among the acts of humans are moments of absent-mindedness when we become aware that our actions have strayed from their intended path. Two conditions appear to be necessary for the occurrence of these slips of action: the performance of some largely automatic task in familiar surroundings and a marked degree of attentional 'capture' by something other than the job in hand (p. 8).

A slip occurs when there is a break in the routine. The therapist was accustomed to the technician removing patients from equipment. Leaving the patient and proceeding to the next patient was largely an automatic and routine task. This practice was familiar to her. She was now practicing in a clinic where the 'routine' was different. Since the therapist had recently changed employment to a new clinic, she

had not yet stored into her memory that there was no technician assistance to remove patients from equipment. When the therapist emerged from the office and saw her patient, there was immediate recognition of the error. This type of technical error can occur no matter how vigilant, conscientious or competent the therapist is. The primary concern, however, is how the therapist will approach the patient when such an error has occurred.

The APTA Guide for Professional Conduct outlines professional responsibility in 4.1. Similarly, the AOTA Code of Ethics states "occupational therapy personnel shall accept responsibility for their professional actions that reduce the public's trust in occupational therapy services and those that perform those services" (Principle 6.E). It would be appropriate for the therapist to accept responsibility for the error and be willing to say "I am sorry." A recent study by Mazor et al. (2004) suggests an apology of responsibility followed by full disclosure may actually cause patients to continue to trust their practitioner and be less likely to change practitioners when an error occurs. Such an apology of responsibility is in alignment with most professional codes of ethics and as previously mentioned, disclosure of errors is codified in Principle 6.D. of the AOTA Code of Ethics as well. In addition, if harm resulted from the error, the therapist would have a duty of reparation, that is, when any person is wrongfully treated by someone else, it creates as duty to rectify the wrong, to mend or repair the harm. While reparation is often thought of in monetary terms, it may simply involve the outlining of a plan of care to rectify or repair the harm, or informing the patient of specific changes in practice that will occur in order for this type of error not to happen with another patient.

Lastly, seeking forgiveness should be considered. When the patient was forgotten, she may have felt cold, wet, tired, uncomfortable, angry and vulnerable. Most likely she would not be conveying much kindness to the therapist at that moment in time. However, in any strained relationship, mending may only occur through the "act of apology and seeking of forgiveness and through the patient's act of understanding, forbearance, or even acceptance" (Purtilo, 2005, p. 1125). Hopefully by the therapist asking for and the patient granting forgiveness the therapist/patient relationship would continue and the trust of the patient would be regained.

Case 6: Deliberate harm, patient abuse and reporting a colleague

I was in the next room, passing the door of a lady. It was a county hospital in our region. I knew this patient very well and I could hear her saying, "Can I have water please?" The CNA (Certified Nursing Assistant) goes and gets her a bucket of water and throws it at her face and bed and says, "Here is the water"'. I did not report the incident to anyone, which I should have. I felt very guilty.

Case commentary

Throwing water in the face of a patient is abuse. This is a blatant moral error (Bosk, 2003; Mu et al., 2004) and constitutes a patient safety incident or event.[7] This female patient requested water in a polite manner. Water is a basic human need. She did not appear to be a hateful patient. Even if she had been rude or combative, she should have received respectful, compassionate and dignified treatment. Respect for persons is universally accepted as a hallmark bioethical principle that has even been enshrined in international declarations (UNESCO, 2005). This principle, which is listed as Principle I in the APTA Code of Ethics, binds physical therapists to "respect the rights and dignity of all individuals" and "provide compassionate care." Patient abuse and deliberate harm is unacceptable under both the principle of respect for persons and the principle of nonmaleficence, do no harm. While this abuse did not result in actual physical harm other than wet skin, clothing and bedding, it most likely produced significant psychological harm. This patient, who was probably bedfast, was left alone in her room. She must have felt very vulnerable and abandoned.

Moreover, no one came to the patient's assistance or aid. The therapist who observed this abuse did not intervene or offer help after the fact. We can only imagine the humiliation, fear, and helplessness this women felt as a result of this assault. As mentioned in Case 1, occupational therapists judge moral breaches as more serious. Moral errors are a threat to the profession. If a therapist commits a technical error, he or she can learn from that error, seek additional training if needed, and system changes can be instituted to improve patient safety. But if a health care professional is morally bankrupt or impaired, the trust of patients in the profession as a whole is at stake. It is therefore crucially important that moral errors, and particularly serious moral errors by fellow health professionals are not left unaddressed.

Yet the therapist in our case turns a blind eye. She does nothing to protect this or other patients from the possible abuse by the same CNA in the future. Collegial behavior is codified in most health professions' codes of ethics and in both the APTA

and AOTA Codes of ethics (APTA, 2004, Principle 11; AOTA, 2005, Principle 7). In most instances the therapist would first approach a fellow health care professional about concerns for assistance before approaching a supervisor or other persons in the organization. Maybe there are life events such as bereavement, divorce, or family issues that are weighing heavily on the CNA's emotions. But as already discussed in reference to case 2, patients' interests generally trump the interests of colleagues. At this point we do not know the true mental state of the CNA, whether she is likely to be a danger to other patients. We do know, however, that tossing water in a patient's face demonstrates seriously aberrant behavior. Someone in the organizational hierarchy must be informed and a decision made as to whether the CNA's patient care privileges should be immediately suspended and an investigation initiated.

While the CNA showed a lack of respect for persons by her actions, the observing therapist otherwise demonstrated a lack of respect for persons by her inaction. The inaction of the therapist suggests some of the same characteristics of moral bankruptcy as the CNA's unethical actions. But there is also hope. For in hindsight she felt guilty and realized the moral error she had committed. It does not undo her previous wrong-doing, but such insight does provide opportunities for moral growth. Her willingness to reveal her own shortcoming, moreover, now enables others to learn an important moral lesson as well.

Conclusion

All of the best training and good intentions in the world cannot make a therapist immune to error. To err is human. But we can learn from errors, our own and those of others. In fact, acquiring knowledge of patient safety; learning new concepts, strategies and skills for preventing and reducing harm; making necessary practice changes; and, morally managing error all contribute to creating a culture of safety in occupational and physical therapy practice. In short, we can and must strive towards a culture of safety. But this can only begin to happen if we are willing to reveal our errors. And that is not easy, most assuredly not for the majority of health care practitioners. In closing, we wish to commend the moral courage of each occupational therapy and physical therapy focus group participant that was willing to share his or her personnel error narrative with the researchers and ultimately other health care practitioners through publication.

Notes

1. These numbers were obtained from the American Occupational Therapy Association (AOTA) and the American Physical Therapy Association (APTA) and underestimate the total numbers of practicing professionals in occupational therapy and physical therapy because membership in the professional associations is not required for licensure.
2. When presenting the error cases, the authors have edited the verbatim transcripts for grammar, punctuation, clarity and ease of reading while preserving, as much as possible, the original intent of the focus group participant.
3. Medical Event Reporting System for Transfusion Medicine (MERS-TM), http://www.mers-tm.net.
4. U.S. Pharmacopeia's MEDMARX® Reporting System, http://www.usp.org/patientSafety/medmarx.
5. Root cause analysis (RCA) of error is a tool used for identifying causal or contributing factors and preventive strategies. The Department of Veteran Affairs (VA) has developed helpful RCA educational materials that can be found on the VA National Center for Patient Safety (NCPS) website.
6. The human factors discipline draws on ergonomics, psychology, and practical experience in safety critical industries (such as the aviation, nuclear or healthcare industries). It concerns the characteristics of human beings that are applicable to the design of systems and devices.
7. The National Reporting and Learning System, developed in 2004 by the National Patient Safety Agency of the United Kingdom National Health System, categorizes patient abuse by staff as a patient safety incident, www.npsa.nhs.uk. In the U.S., the National Quality Forum consensus report on Standardizing a Patient Safety Taxonomy developed in 2006 would classify this event under the "Cause" heading of "Recklessness", www.qualityforum.org/docs/ps_taxonomy/txTaxonomyFinalforWebPublic.pdf.

References

Agency for Healthcare Research and Quality: 2006, Web site: http://psnet.ahrq.gov/. PS Net Patient Safety Network, Retrieved, February 14, 2006.

American College of Emergency Physicians: 2003, Policy: Disclosure of Medical Errors, Approved, September 2003, http://www.acep.org/1,33205,0.html.

American Medical Association: 2003, Council on Ethical and Judicial Affairs, Code of Medical Ethics. Current Opinions with Annotations. E-8.121 Ethical Responsibility to Study and Prevent Error and Harm, Adopted June 2003.

American Occupational Therapy Association (AOTA): Web site: http://www.aota.org. Occupational Therapy

Code of Ethics: 2005, Guidelines to the AOTA Code of Ethics, 2005/2006; American Occupational Therapy Association's Commission on Standards and Ethics, Retrieved, February 14, 2006.

American Physical Therapy Association (APTA): 2004, Web site: http://www.apta.org. Code of Ethics and Guide for Professional Conduct. Retrieved, February 14, 2006.

Banja, J.: 2005, *Medical Errors and Medical Narcissism*. Sudbury MA: Jones and Barlett Publishers.

Billings, C.E.: 1998, 'Some Hopes and Concerns Regarding Medical Event-reporting Systems: Lessons from the NASA Safety Reporting System', *Archives of Pathology Laboratory Medicine* 122(3), 214–215.

Bosk, C.L.: 1979, *Forgive and Remember: Managing Medical Failures*. Chicago, IL: The University of Chicago Press.

Bosk, C.L.: 2003, *Forgive and Remember: Managing Medical Failures* (2nd ed.). Chicago, IL: The University of Chicago Press.

Deusinger, S.S.: 1987, 'Errors in Clinical Practice: A Critical Incident Survey of Physical Therapists in Missouri', Washington University, *Dissertation Abstracts International*, 48, No. 04B.

Deusinger, S.S.: 1992, 'Analyzing Errors in Practice', *International Journal of Technology Assessment in Health Care* 8(1), 62–75.

Dovey, S.M. and R.L. Phillips: 2004, 'What Should We Report to Medical Error Reporting Systems?', *Quality and Safety in Health Care* 13, 322–323.

Fletcher, J.J., J.M. Dorrell and M.C. Silva: December 31, 1998, 'Whistleblowing as a Failure of Organizational Ethics', *Online Journal of Issues in Nursing*. http://www.nursingworld.org/ojin/topic8/topic8_3.htm.

Hundert, E.M., F. Hafferty and D. Christakis: 1996, 'Characteristics of the Informal Curriculum and Trainees' Ethical Choice', *Academic Medicine* 71, 624–642.

Institute of Medicine: 2000, *To Err is Human: Building a Safer Health System*. Washington, D.C.: National Academy Press.

Institute of Medicine: 2001, *Crossing the Quality Chasm: A New Health System for the 21st Century*. Washington, D.C.: National Academy Press.

Institute of Medicine: 2004, *Patient Safety: Achieving a New Standard for Care*. Washington, D.C.: The National Academies Press.

Joint Commission on Accreditation of Healthcare Organizations: 2002, *Failure Mode and Effects Analysis in Health Care: Priorities, Risk Reduction*. Oakbook Terrace, IL: Joint Commission Resources, Inc.

Joint Commission on Accreditation of Healthcare Organizations: 2004, *The Physician*'s Promise: Protecting Patients from Harm. Oakbrook Terrace, IL: Joint Commission Resources, Inc.

Joint Commission on Accreditation of Healthcare Organizations: 2005, Patient Safety: Essentials for Healthcare (3rd ed.). Oakbrook Terrace, IL: Joint Commission Resources, Inc.

Joint Commission on Accreditation of Healthcare Organizations: 2006, National Patient Safety Goals (Effective January 1, 2006). On-line at www.jointcommission.org/PatientSafety/NationalPatientSafetyGoals/.

Leape, L.L.: 2005, 'Ethical Issues in Patient Safety', *Thoracic Surgery Clinics* 15, 493–501.

Leape, L.L. and D.M. Berwick: 2005, 'Five Years After 'To Err is Human': What have We Learned?', *JAMA* 29, 2384–2390.

Lohman, H., K. Mu and L. Scheirton: 2003, 'Occupational Therapists Perspectives on Practice Errors in Geriatric Settings', *Physical and Occupational Therapy in Geriatrics* 21(4), 21–39.

Marx, D.: 2001, *Patient Safety and the "Just Culture": A Primer for Health Care Executives*. New York, NY: Columbia University.

Mazor, K.M., S.R. Simon, R.A. Yood, B.C. Martinson, M.J. Gunter, G.W. Reed and J.H. Gurwitz: 2004, 'Health Plan Members' Views About Disclosure of Medical Errors', *Annuals of Internal Medicine* 140(6), 409–418.

Mills, P.D., J. Neily, D. Luan, E. Stalhandske and W.B. Weeks: 2005, 'Using Aggregate Root Cause Analysis to Reduce Falls and Related Injuries', *Journal on Quality and Patient Safety* 31(1), 21–31.

Morath, J.M. and J.E. Turnball: 2005, *To Do No Harm: Ensuring Patient Safety in Health Care Organizations*. San Francisco, CA: John Wiley & Sons, Inc.

Mu, K., H. Lohman and L. Scheirton: September 19, 2005, 'To Err is Human'. *OT Practice*, 13–17.

Mu, K., H. Lohman and L. Scheriton: 2006, 'Occupational Therapy Practice Errors in Physical Rehabilitation and Geriatric Settings: A National Survey Study', *The American Journal of Occupational Theraphy* 60, 288–297.

National Patient Safety Agency: 2006, Website: http://www.npsa.nhs.uk/. Retrieved March 23, 2006.

National Patient Safety Foundation: 2006, Web site: http://www.npsf.org/. Bibliography and Current Awareness Literature Alert, Retrieved February 14, 2006.

Purtilo, R.B.: 2005, 'Beyond Disclosure: Seeking Forgiveness', *Physical Therapy* 85(11), 1122–1126.

Reason, J.: 1990, *Human Error*. New York, NY: Cambridge University Press.

Scheirton, L.S., K. Mu and H. Lohman: 2003, 'Occupational Therapists' Responses to Practice Errors in Physical Rehabilitation', *American Journal of Occupational Therapy* 57(3), 307–314.

Singh, R., B. Naughton, J.S. Taylor, M.R. Koenigsberg, D.R. Anderson, L.L. McCausland, R.G. Wahler, A. Robinson and G.A. Singh: 2005, 'Comprehensive Collaborative Patient Safety Residency Curriculum to Address the ACGME Core Competencies', *Medical Education* 39(12), 1195–2004.

Solet, D.J., M. Norvell, G.H. Turan and R.M. Frankel: 2005, 'Lost in Translation: Challenges and Opportunities in Physician-to-Physician Communications During Patient Handoffs', *Academic Medicine* 80(12), 1094–1099.

UNESCO (United Nations Educational, Scientific, and Cultural Organization): 2005, Website: http://www.unesco.org . Universal Declaration on Bioethics and Human Rights, Retrieved, February 14, 2006.

Witman, A.B., D.M. Park and S.B. Hardin: 1996, 'How Do Patients Want Physicians to Handle Mistakes? A Survey of Internal Medicine Patients in an Academic Setting', *Archives of Internal Medicine* 156, 2565–2569.

World Conferation for Physical Therapists: 1995, Website: http://www.wcpt.org/. *Declaration of Principle: Ethical Principles*. Retrieved, February 14, 2006.

World Federation of Occupational Therapists: 2004, Website: http://www.wfot.org.au/. *Code of Ethics*. Retrieved, February 14, 2006.

Wu, A.W., T.A. Cavanaugh, S.J. McPhee, B. Lo and G.P.J. Micco: 1997, 'To Tell the Truth: Ethical and Practical Issues in Disclosing Medical Mistakes to Patients', *General Internal Medicine* 12, 770–775.