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of the Pennsylvania Osteopathic Medical Association
Spring 2022

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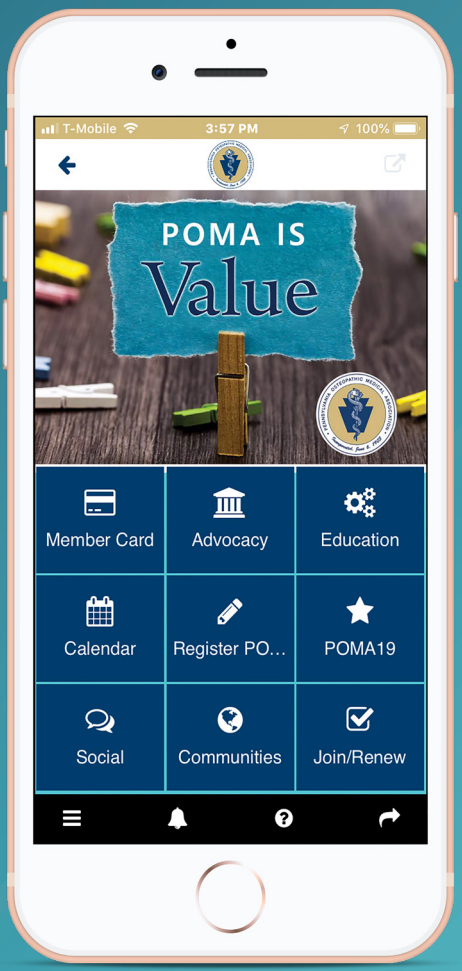

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THE Journal OF THE PENNSYLVANIA OSTEOPATHIC MEDICAL ASSOCIATION

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Due to unforseen issues with the printer, the Spring issue of the JPOMA was delayed.
— Mark B. Abraham, DO, JD, JPOMA Editor

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FROM THE EDITOR'S DESK

Mark B. Abraham, DO, JD

Mark B. Abraham, DO, JD
Editor-in-Chief

This issue was about the Joy in Medicine. The idea was to lighten things after some "heavy" topics in the last couple of *JPOMA* issues.

My wife has decided that I am Eeyore. She is convinced that anything and everything that I write these days is depressing. When she reviewed this she insisted that I also include a disclaimer of sorts. Here it is:

Even though it might not appear to be a "joyful editorial" at first, I assure you that at the end there is Joy in Mudville and in Medicine.

Once again, I struggle with writing about the lighter side, just as I did in the humor *JPOMA* several issues ago. This time it is less because of my difficulty in being humorous but more because of everything that has occurred over the past couple of years.

People often ask me why I left law, my simple answer is that "I don't like lawyers." (My wife, who happened to graduate a year behind me from Temple Law — yet we didn't know each other then — agrees with that, as do many of my other friends and classmates). I then explain that in law, especially areas of litigation, clients are rarely completely satisfied. The jury award or settlement wasn't large enough. "Why did I lose the case, the accident wasn't my fault." "Of course I'm not guilty, why do I need to pay you?" "You were supposed to get me off despite the video and witnesses that saw me pull a gun on the store owner and then fire the gun when I left." You get the point. And yes, those conversations and discussions happen. Often.

In medicine, we have our wins. We can save a life or change a life. Sometimes while we feel we are doing our job, the patient (or family) looks at it in a deeper way. They feel and express gratitude for "saving someone's life" even if the person wasn't truly in a life-threatening condition.

During the last two (2) years, something else started to stand out and has become more evident as we put together the *JPOMA*. Interactions with colleagues.

Everyone on the planet has lived through the same craziness. We have friends and family with whom we vent, cry, laugh, celebrate and everything in between.

What we have lived due to our profession, goes to another level. Through all of it, while we have the same interactions with our own friends and families, it seems different (in a good way) with our collegial interactions. I am confident that the same can be said in different ways in many industries, businesses, professions, etc. But, the need to help each other laugh and cry and vent because of how close we are to this psychosis is something special.

As I read the submissions and communicate with members, some on the Publications Committee and some who aren't, I tend to laugh and smile. We are able, even on "bad days", to find a way to laugh and have fun.

So, for something that may be appropriate for an issue in the fall when we eat a lot of food and watch a lot of football on a Thursday in November, I am appreciative that we have each other. This is one of my "joys in medicine."

OUT OF MY MIND

Samuel J. Garloff, DO, WGRP

Imago Nagasaki

Samuel J. Garloff, DO

WGRP here. The problem, if there is one, of having practiced psychiatry, is the tendency to view life on the oblique. The topic of humor is one of many facets. Humor can be downright, falling down absurdity. It can also manifest through sadness, thoughtlessness, irony, anger and mindlessness. Having recently met Mr. Peabody, I borrowed his way-back machine and return to the years 1967-68.

In 1967 comedian Dick Gregory ran for mayor in Chicago against Richard Daley. I'm sure you know who won. Shortly thereafter, he began a write-in campaign for the presidency. He ran for office from the Freedom and Peace Party. He lost. It was during the time he ran for the presidency, that I met him.

I spent the better part of 2-3 days with him as he was scheduled to give a presentation in Mansfield, Pa. I eagerly accepted the opportunity to attend to him, as I was fascinated why a successful entertainer/political activist was sacrificing his career for a Don Quixote-like quest. My time with him was instructive. His running mate was Madalyn Murray-O'Hair. I had hosted her a few weeks previous to his arrival. In my opinion, they were quite dissimilar.

Madalyn, at that time, was bright, almost impish in person. I openly disagreed with her. She didn't care. I suspect she wasn't the same person when she met her rather ignoble demise. People change.

Dick Gregory took pains to express his hatred to and for me. Since this made no sense, I challenged his opinion of me. His reasoning was simplistic. I was white. He then explained that several other, more prominent civil rights leaders would feel the same. I don't know if his claims were true. I just knew that his reasoning was faulty. In fact, I doubted that he earnestly harbored any ill feelings toward me. He taught me the absurdity of hatred without cause. You might say he allowed me to see the humor in hatred. When he died, he was lauded as a civil rights hero and humanitarian. He was, at least to me. He taught me a valuable lesson. His methodology may have been unusual, but his teaching gave me insight and understanding that has lasted me to this day. I am grateful.

At this point you may be wondering what this column is about. Don't give up, keep reading. It's a new year. Every year starts with January. Every January has a sixth day.

During my time practicing psychiatry, I came to grips with an annoying, but obvious fact. The majority of people who quote Freud, never read Freud. Similarly, the majority of people who quote the Declaration of Independence, the Constitution and the Bill of Rights, never read them. If you haven't, you should. It's astonishing how little time is required to read them in their entirety. Understanding them may take a little longer.

Back to January 6, 2021. Many, if not most, of the individuals who were present at the Capitol that day, consider themselves religious conservatives. To Christians who follow the Gregorian calendar, it was the day of the epiphany. To throwbacks like myself who follow the Julian calendar, it was Christmas Eve day. Viewed through that lens, the actions of the crowd that day most certainly could be described as ironic. There is humor in irony. But to constitutionalists, it was an abomination.

Hatred, irony and humor. Are you laughing? I know what Dick Gregory taught me. I know what January 6, 2021 taught me.

Allow me to end this submission with my favorite passage from the Constitution. "Prudence, indeed, will dictate that Governments long established should not be changed for light and transient causes…"

May the new year be a blessing.

LECOM DEAN'S CORNER

Lake Erie College of Osteopathic Medicine

Silvia M. Ferretti, DO
LECOM Provost,
Vice President and
Dean of Academic Affairs

Golden Moments Glimmer in the Medical Profession as Music Brings Joy to Physician and Patient Alike

Eventually, at one point in time or another, each person discovers that the important moments in life — the truly golden glimpses of the purposeful meaning found along this journey in the medical profession — are not those that are announced; not the birthdays, the holidays, the weddings; not the even the great goals achieved. The true milestones are less prepossessing, for they come to the threshold of one's memories unannounced. They are the silent voices that strike within each person a chord of truth, of worth, and of Providence. Each life is measured by these.

As medical professionals, each life is filled with such *golden moments*; a time when a patient looks to his physician with thankful eyes, when the fearful child hears the calming voice of the pharmacist, or when a crucial medical judgment proves inexpressibly fruitful for another.

With the knowledge that neither success nor failure is ever final, a wise care giver will make more opportunities than he finds and the joy of the profession will abound truly in these moments.

Jasper Yung, DO, a 2009 graduate of the Lake Erie College of Osteopathic Medicine (LECOM-Bradenton) has been making truly noteworthy strides during the last decade and finding joy in medicine.

The Senior Emergency Medicine and Internal Medicine Staff Physician at Henry Ford Health Systems in Detroit, Michigan recently was part of a *YouTube* video presentation entitled, *Bach Double Violin Concerto — A Tribute to Healthcare Workers with Joshua Bell*.

Musicians with the Detroit Medical Orchestra (DMO), of which Dr. Yung is a member-violinist, had the opportunity to be part of the musical collaboration with the famed violinist.

The DMO is a group of musicians who work in the medical field. Featuring more than 70 physicians, medical students, and other health care professionals, the mission of the Detroit Medical Orchestra is to deliver healing through music. The objective is realized through free symphonic performances in the heart of downtown Detroit.

Bell, the world-renowned violinist, reached out to the DMO during the COVID-19 pandemic to highlight these talented healthcare professionals and to show the balm upon the soul that music can provide.

Indeed, that joy, found in the heart of this skilled physician, is evident as he seeks to restore health and wellness to the afflicted.

Being part of the DMO has afforded Dr. Yung the opportunity to give back to the community while reconnecting with music.

The talented physician has facilitated orchestra special appearances at the Henry Ford West Bloomfield Hospital as part of the hospital healing arts program. The program creates a serene environment for patients through artwork and performances.

As Dr. Yung revels in the joy of his musical offerings, patients truly enjoyed the concerts. Music enables them to see that healing is a multifaceted process beyond medical procedures.

Throughout all aspects of the medical profession, the cause of service to others is central to finding that core-felt joy, for a genuine care for others is as a habit, so ingrained within the human state, that it is stronger than the desire to rest. The superlative physician carries this crowning quality, the exceptional pharmacist finds it as an abiding principle, and the incomparable dental practitioner follows it as the North Star.

The Lake Erie College of Osteopathic Medicine is exceptionally proud of its progeny as they deliver their skills and talents to a world in need; and Dr. Jasper Yung is one such physician who finds joy with every note.

PCOM DEAN'S CORNER

Philadelphia College of Osteopathic Medicine

Kenneth J. Veit, DO
PCOM Provost, Senior Vice President for Academic Affairs and Dean

In dark and uncertain times it can be difficult, if not impossible for some, to find joy in the everyday. It can be hard in these moments to remember the many instances, particularly over a career or a lifetime, that have brought joy and humor to your life, often from the most mundane circumstances.

For physicians, the many, many hours spent with colleagues, administrators, students, or patients leave behind stories that could fill volumes. For some people, it's the accolades and professional accomplishments that make a career and provide meaning for the work. For others, it's these lighthearted encounters and personal moments with the people we interact with every day that drive our passion for doing what we do.

As the 20th Century theologian Karl Barth said, "Joy is the simplest form of gratitude." What career could offer more gratitude than that of a healer? Our profession affords us the privilege of spending each day mending wounds and listening to people's stories. Over the course of a career, their stories become part of our stories and fill the pages of our life experience.

I don't think it would be unfair, however, to suggest that it would be near impossible to do what we do if not for the lighter moments. Finding humor and levity in the routine is truly what brings us back day after day. The hard moments are incredibly hard, no doubt. But it's the other encounters, the ridiculous and hysterical experiences you could only have as a doctor, that make doing what we do so worthwhile. I put the question to my colleague to find out what keeps him excited and he shared his thoughts on his own experience:

> "*I love being a physician because we have the profound privilege of being able to truly help others. My best moment was seeing a 3 year old wheezing toddler in an emergency room as a senior resident, when I had assisted in his 26 week breech delivery as a first year resident. His Mom welcomed me with open arms and told me that my patient was indeed that premature baby from three years earlier! There are no coincidences in being a physician!*"
> — Michael A. Becker, DO, MS, FACOFP, Associate Dean of Clinical Education, Professor, Department of Family Medicine at the Philadelphia College of Osteopathic Medicine

Living through the last two years of the pandemic has only reinforced the need to find joy in the little things. It's reminded us that life is far too short to forget to enjoy the experiences that make us human. My hope for the future is that the challenges we've faced together in recent years push us toward more thoughtfulness, more reflection and more joy. If this experience has left us nothing else, it's that we have all earned more happiness in our lives.

A STUDENT'S VOICE — PCOM

Ketki Chinoy, PCOM OMS-II, Navkiran Kaur, PCOM OMS-II

Ketki Chinoy, PCOM OMS-II

Navkiran Kaur, PCOM OMS-II

The Humorous and the Wholesome

I am still dedicated to medicine because I love the number 126. As a second year medical student faced with endless hours of studying for boards, it can be hard to remind ourselves why we miss birthdays and family dinners or how coffee isn't a food group.

During our winter break, I had the opportunity to scribe in the ED again, and I was reminded why I chose medicine. I was charting, taking vitals, assisting procedures, and helping any way I could. While I was there, the hospital played "Here Comes the Sun" every time a patient was discharged from the ICU; every time a life was saved.

While daydreaming about the amazing medicine being practiced around me, I was asked to take the vitals of a new patient — my first real patient. My hands trembled as I worked, but I steadied my nerves to thank this patient for being my first patient ever. While taking blood pressure, the patient passed out and I panicked. I ran to get the staff, tripped over cords along the way out and when I came back with the doctor, we found the patient laughing. Barely able to get words out between laughs, he said, "Doc, she said I was her first patient. We couldn't let her first patient be too easy, could we? But you kept going after you fell. You'll be fine.'' I felt my face turn crimson as I laughed with everyone in the room.

Later, as I was finishing up my last chart for the day, "Here Comes the Sun" blared over the PA system, and every tech, nurse, PA, admin, and doctor sang along. That was the 126th time that song played in 11 hours. 126 lives were saved by medicine. I continue to study endlessly, miss birthdays, and family dinners while making a fresh pot of coffee because I want to save 126 lives. 126 lives live another day to share their love and laughter with their loved ones and us, their healthcare team.

— Ketki Chinoy

In the year leading up to medical school, I scribed for a local rheumatology practice. There was not as day I came home without a story to share, an anecdote that left me tearful, clutching my side, or in disbelief that everyone did not have the privilege of coming home with these stories. One of my favorite stories surrounding my medical journey was seemingly just another day at the practice. We saw a woman with osteoporosis whose fractured hip could not stop her from believing she would make it to her next Zumba class; a man who was ready to get down on one knee over his thankfulness of finally have his psoriatic arthritis under control; and yet another patient who was ready to sell her soul over to the healing powers of turmeric and ashwagandha. Albeit a wonderfully entertaining cast of characters, it was just another day of joint pains, myalgias, and more arthritides than you could imagine (or code). In the midst of the morning, we were between patients and I happened to glance at my phone. I was alarmed to see five missed calls from my boyfriend. Expecting the worst, my face fell and I excused myself from the staff room, rushing out into the hallway to call him back. He picked up on the first ring and yelled 'BIG ENVELOPE.' My phone dinged, and he had just sent me a recording of our security camera from the hour before. You see, our household had been on high alert for a certain piece of mail to hopefully, finally find itself at our doorstep. Anxiously, I watched the recording, straining my eyes to catch a glimpse of anything that could clue me in to the contents of the mail that day. My boyfriend's voice broke my focus, bringing me back to the moment. "I'm in front of our mailbox. It's from PCOM. You're in."

I'm not quite sure what happened for the rest of the day. All I remember is throwing open the door and Dr. K wrapping me in the biggest hug when I shared the news. I also remember the rest of the day, of course, being followed by the strangest cases I ever had in a single day at the practice.

I look back on that moment and reflect on the irony of it all. On a daily basis, patients come to us at their most vulnerable and

(continued on page 13)

ABOUT THE AUTHORS

Shahida Khatoon, DO, *"Effects of Parental Divorce on Mental Health in Children/Adolescents,"* is a third-year psychiatry resident at Millcreek Community Hospital in Erie, Pennsylvania. A 2019 graduate of the Lake Erie College of Osteopathic Medicine (LECOM), she completed her undergraduate studies in biological sciences and is enrolled in the master's in medical education program at LECOM.

Abigail E. Kushner, DO, *"Implementing Preoperative Weight Recording in a Community Hospital,"* is a fourth-year anesthesiology resident at UPMC Lititz (Pa.) who hopes to practice general anesthesiology in Pennsylvania. A 2018 graduate of the Philadelphia College of Osteopathic Medicine, she completed her undergraduate studies in nutritional sciences at the University of Delaware in Newark. Dr. Kushner is a member of POMA, the American Osteopathic Association, the Pennsylvania Medical Society, the American Medical Association and the American Society of Anesthesiology. Outside of medicine, she enjoys spending time with family, practicing yoga and building her gifting business.

Shahida Khatoon, DO

Abigail E. Kushner, DO

Index to Advertisers

Medical Update
Implementing Pre-operative Weight Recording in a Community Hospital

by Abigail Kushner, DO

Abstract

The preoperative examination of a patient allows anesthetic providers to tailor the anesthetic plan and anticipate potential complications prior to induction of anesthesia. One important component of the preoperative examination is body stature and weight. Understanding these findings allow providers to best ensure appropriate medication dosing and identify challenges in anesthetic management, accounting for the patient's presentation as a whole to anticipate potential complications. At many small community hospitals and surgery centers, weights are not obtained on the day of surgery, but instead are collected from prior outpatient office visits or the patient's stated weight. In this study, preoperative patients presenting to a small community hospital for same-day surgery were weighed prior to their surgical procedure. The requirement to collect patient weights on the day of surgery by nursing was implemented and adherence to this collection was evaluated. The objectives were to examine the compliance with obtaining pre-operative weights in patients presenting for same-day surgery services at a small community hospital, to reduce "recorder error" in stated weights and to improve anesthetic quality of care. Nurses and health care providers were educated on the process of collecting and recording weights appropriately. This data of same-day surgery weight collection was assessed over several months. Following several months from implementation date, great improvements by medical providers in obtaining weights was seen. The number of same-day surgery weight recordings increased by approximately 35%. This updated information leads to more accurate patient data and safer anesthetic management.

Introduction

The preoperative examination of a patient prior to surgery is crucial for anesthesia providers to develop an appropriate anesthetic plan. Obtaining a detailed medical history, examining recent laboratory data and imaging and performing a focused physical exam allow the provider to stratify risks, anticipate potential perioperative complications and practice safe anesthetic technique tailored to the patient. While all patients vary in their degree of complexity for a given procedure, it is vital for anesthetic providers to assess these factors and choose a technique best fit for the patient. The preoperative evaluation guides the anesthetic plan and identifies findings that may alter the plan.[1]

One key element to the physical assessment is the patient's body habitus and weight. While most times body habitus can be easily assessed upon meeting a patient, it is still important for providers to obtain actual patient weights rather than weights reported by the patient or values obtained from previous records. Variability with stated weight and previously charted weight may not directly reflect the patient's actual body weight on the day of surgery. Many studies have assessed the likelihood of a patient correctly identifying as overweight. In the United Kingdom in 2013, Robinson et al. reported that 55% of adult men and 31% of adult women correctly identified as overweight while Yaesmiri et al. assessed over 16,000 participants, with only 48% of men and 23% of women identifying as overweight.[2,3] Inaccuracies in patient weights could lead to less identification of possible perioperative complications that can result from overweight and obese body status. Osteopathic educational foundations teach of the importance of treating the patient as a whole to ensure appropriate management of health. Utilizing information, such as a patient's weight, allows anesthesia providers to identify potential comorbidities that the patient may be at risk for.

Methods

Prior to intervention, preoperative weights in the surgical population of a small community hospital were not obtained on the day of surgery. Most weights were obtained by the patient's stated weight or most recent PCP visit. To implement a change to this process and ensure accurate recording, a scale was placed in the preoperative unit of the hospital. Nursing staff and health care aids were educated on importance of obtaining weights prior to surgical procedure and how to obtain and record weights within the electronic medical

record. Weights were obtained by standing scale or bed scale prior to patients receiving intravenous line. Weights were recorded within electronic medical record for all involved medical professionals to access. Compliance with obtaining day-of surgery weights was followed and assessed for several months after implementation of action.

Discussion

Obtaining perioperative weights is crucial for developing appropriate anesthetic plan for each individualized patient. Practitioner's use of accurate patient data allows for tailored medication dosing depending on body habitus, age and physiologic parameters. In certain patient populations such as obese patients, oncology patients, elderly, pediatric and neonatal patients, drug dosing is of extreme importance. Due to fluctuations in patient weight, especially in these patient populations, this parameter is important to obtain to ensure appropriate dosing. Obtaining this information can potentially avoid unnecessary complications and allow for appropriate pre-operative planning and intraoperative management.

The physiologic changes that occur in a patient suffering with obesity can greatly affect their morbidity and mortality. Obesity is defined as a BMI 30 or higher and is associated with a multitude of chronic illnesses such as diabetes mellitus, obstructive sleep apnea, hypertension, coronary artery disease and osteoarthritis.[1] While these illnesses can have significant physiologic effects intraoperatively, lack of these associated illnesses is not without its consequences. Obese patients are more apt to have larger neck circumference and increased weight located around the chest. This distribution of weight can result in difficult mask ventilation and intubation, as well as increased airway pressures to overcome restricted chest wall compliance to maintain adequate alveolar ventilation. The degree of abdominal excess body weight may also result in reduced lung volumes due to shifting of the diaphragm. The resulting decreased functional residual capacity can further be exacerbated by tilting a patient into Trendelenburg position.[1] This may lead to increased pressure requirements in a mechanically ventilated patient to ensure appropriate ventilation and oxygenation. While these complications can be managed intraoperatively, they result in increased risk for airway trauma a well as post-operative respiratory complications.

As a result of higher BMI's, patients may be more at risk for suffering from post-operative complications such as prolonged intubation, lengthy PACU stays, difficulty with oxygenation and arousal, and overall increased likelihood of requiring an overnight hospital stay. While risk of these complications is higher in patients with obesity, anticipating these complications pre-operatively may allow for improved preparation and adjustment to the anesthetic plan in these patients.

Obstructive sleep apnea (OSA) is a chronic complication which oftentimes develops in patients as a result of obesity. From a physiologic perspective, OSA produces a state of hypercapnia in patients, a blunted respiratory drive, and cyanosis-driven polycythemia. OSA can produce additional pulmonary and cardiac comorbidities such as pulmonary hypertension, systemic hypertension and arrythmias if poorly managed.[4] As a result, patients who undergo general anesthesia with undiagnosed or unrecognized sleep apnea are more likely to experience upper airway obstruction post operatively. The anesthesia provider must also consider potentially difficulty mask ventilation and intubation of patients with obstructive pathology. With use of sedating medications and opioids, obstruction in the perioperative and post-operative period is highly likely which may result in hypoxia and ultimately prolonged PACU stays.

While anesthetic management is tailored to each patient, those with OSA and obesity require appropriate planning and attention to possible complications in the post-op period. Screening tests such as STOP-BANG take into account a patient's BMI and neck circumference to best observe if a patient is at increased risk of OSA that may have been otherwise unrecognized. Management of these patients with other anesthetic choices, such as neuraxial techniques, may be favorable to may reduce post-operative complications, however, also come with potential challenges in management. Proper planning and discussion can ensure a smooth transition post-operatively for this population who may benefit from additional interventions, such as CPAP.

As obesity rates continue to rise, new guidelines for management of obese populations undergoing general anesthesia exist for pharmacologic dosing. These dosing regimens may be confusing, such as when to use total body weight, ideal body weight or lean body mass, however, these recommendations allow providers to best attempt to avoid overdosing or under dosing a patient. Knowing a patient's total body weight preoperatively will help guide providers to utilize this data and provide best anesthetic practice.

As obesity continues to be a global threat to the health of patients, anesthesia providers must remain vigilant and adaptable to ensure best anesthetic practice. Beyond the perioperative complications of obese patients, there are several other peri-anesthesia populations in which obtaining weight is of considerable importance. These populations include pediatric patients, oncology patients, elderly patients,

and neonatal patients. Accurate weight measurements for these patients is of utmost importance for appropriate medication dosing.

In pediatric anesthesia, the "Wake Up Safe" quality improvement initiative from the Society of Pediatric Anesthesia addresses this problem with medication errors and works to educate on the importance of reducing errors. While medication errors can occur from a variety of different causes such as incorrect vial labeling, syringe use, or dose calculation, inaccuracies in patient weight can contribute to the inappropriate dosing of a patient. In a United States study performed in 2016, medication errors or adverse drug events occurred in approximately 1 in 20 adult perioperative mediation administrations, resulting in more than one third of these errors leading to patient harm.[5] While these findings were within the adult population, the "Wake Up Safe" initiative works to prevent the potential for medication errors given the added level of complexity in pediatric dosing due to weight-based dosing and point-of-care drug dilutions.[5]

The process of aging significantly alters the body's physiologic response to anesthetic drugs. In elderly patients, neurophysiologic changes occur at the receptor level, directly increasing the medication sensitivity.[6] While weight based dosing in adults is used as a measure of likely appropriate dose for medication effect, in the elderly, this dose may need further adjustment. Anesthesia providers may use weight based calculation as a tool for directing therapy with modest reductions in dose.

Oncology patient may have generous fluctuations in weight throughout the course of their disease. This can greatly impact the anesthetic dosing requirements of a patient. Vigilance to recognizing a patient's weight adjustments from preoperative outpatient visits to day-of-surgery body habitus is required for appropriate anesthetic management.

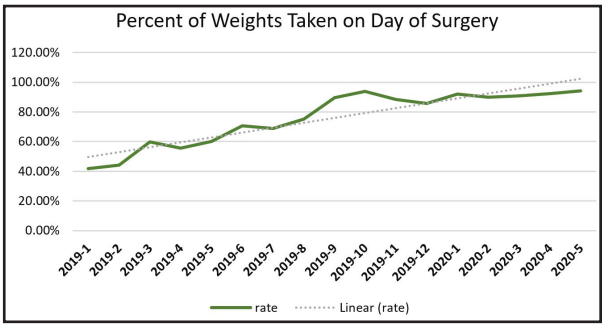

Table 1: Comparison of percent of weights taken on day of surgery.

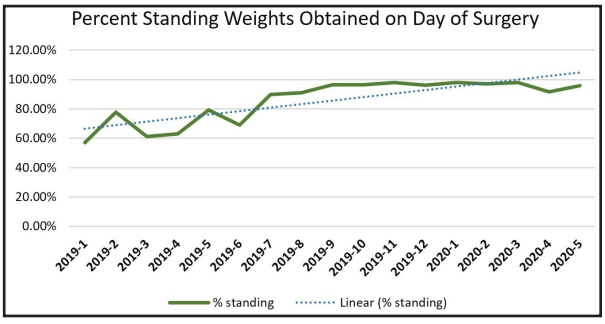

Table 2: Comparison of percent of standing weights obtained on day of surgery.

These unique patient populations offer a different set of challenges in anesthetic management. While anesthesia providers are trained to appropriately deliver safe anesthetic practices to all patients, it is imperative that all necessary information is obtained prior to induction, including day-of-surgery patient weights.

Results

Prior to this initiative, outpatient surgical patient weights were obtained by self-reported weight by the patient on the morning of surgery or from previous PCP record. These weights were recorded in the chart with documentation on where these values were obtained as either "self reported" or "[in] chart". Prior to this initiative, a standing scale was placed within the preoperative unit for staff to utilize and obtain patient weights prior to surgery. Bed scales were utilized if the standing scale was unavailable or inappropriate for the patient (bed-bound, wheelchair dependent, etc.). Bed scales were zeroed with fitted sheet, pillow, patient gown, patient socks, and a blanket. The patient was weighed once undressed from street clothes and appropriately dressed in gown and socks on bed with all previously stated bedding. Patients who were weighed on standing scale were weighed with street clothes on. Obvious variability exists with clothing weight depending on time of year, with or without shoes, etc.

Trained perioperative nurses were responsible for the new procedure to obtain updated weights. Compliance with this task was assessed over the course of several months. As shown in Table 1, improvement in collecting patient weights on the day of surgery from either standing scale or bed scale greatly improved. Please note, data collected past February 2020 is affected due to smaller patient populations and hospital policies and restrictions given COVID limitations on surgical volume.

Prior to this initiative, within this hospital, only pediatric patients and some inpatients were receiving day-of-surgery weights, however, outpatient day-of-surgery weights were not being obtained. Due to lack of standardization of the documentation for weight recording, it was discovered that prior to the initiative, some preoperative hospital staff was indicating that patient weight was obtained on day of surgery, however, these weights were either being recorded from stated weights or patient's prior charts, not from physically measuring a patient's weight on the day of surgery. This is a reason as to why the data prior to implementation date in September of 2019 (9-2019) appears to be present when in actuality, this data collection should read as 0% collection. This is because the scale was not available for nursing to weight patients.

As evidenced by the table, after weight-obtaining protocol was initiated, compliance with obtaining day-of-surgery patient weights was above 80%.

Data assessing compliance with utilizing standing scale in comparison to bed scale was also obtained and demonstrated in Table 2. As shown, utilization of standing scale when the equipment became available for staff was strongly adhered to, above 90%. Please note, data collected past February 2020 is affected due to smaller patient populations and hospital policies and restrictions given COVID limitations on surgical volume.

Other possible errors in data collection could result from emergency situations in which a patient was expedited to the OR, nursing error such as those who were unable to attend training on obtaining patient weights, seasonal fluctuations in patient scheduling, in addition to limitations on patient contact secondary to COVID.

Conclusion

Obtaining day-of-surgery patient weights helps to reduce error in drug dosing and appropriately develop an anesthetic plan tailored to the needs of the patient. Weight recording allows for accurate dosing regimens which is especially crucial in unique patient populations such as oncologic, elderly, pediatric and neonates.

Accurate patient weights also offer anesthesia providers with information regarding possible perioperative risks relating to airway complications associated with obesity. As our country continues to observe elevated rates of obesity, it is crucial for anesthesia providers to recognize the risks associated with obesity to appropriately workup and optimize a patient for surgery. While the physical exam can help providers to quickly determine if a patient is overweight, utilizing quantitative tools to assess weight will allow for more accurate screening of obesity and furthermore encourage appropriate investigation into associated risks and confounding illness.

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STUDENT'S VOICE *(continued from page 8)*

though they may become a blip in our day, we become a big part of their lives. For the rest of that day, our patients flipped that switch and though they may not remember me in the slightest, they were there to share in one of the biggest days of my life. They rejoiced, congratulated me, and one patient even shed a tear. From that day forward, I have made sure to find a way for allowing me to be a part of their care, a part of their lives, even if just for a day.

— Navkiran Kau

Literature Review
Effects of Parental Divorce on Mental Health in Children/Adolescents

by Shahida Khatoon, DO

Abstract

This is a literature review on the effects of parental divorce on children's mental health. Specifically, this literature review will look to answer whether children of divorced parents are more likely to be depressed and anxious. It will also look to answer if they are more likely to display disruptive behaviors, such as high-risk sexual behaviors and substance abuse. Lastly, the literature review will look to see if there is an increase in adjustment problems, such as adjusting to school and home life. With the increase in divorce rates in the United States and the rise in mental health awareness, this is a very relevant subject that should be discussed further. Learning about the impact that divorce may have on the mental well-being of children can potentially assist with developing/adjusting treatment guidelines in the future. Relevant studies will be discussed and presented in a way that answers the specific questions above.

Background

The divorce rate is increasing rapidly worldwide and especially here in the United States. During the 19th century, only 5% of first marriages ended in divorce whereas now, half of marriages end in divorce.[1] There are many reasons given for why the divorce rate has been so high in recent years. Some of the reasons given are the fact that women are more financially independent, the declining income in men who do not have college degrees, higher expectations in a marriage, and greater social acceptance of divorce.[1] More than half of all divorces involve children who are under the age of 18.[1] Divorce, as one can imagine, can take a devastating toll on a family. There can be severe marital discourse before a divorce takes place and children may witness the discourse which can have long term effects on the mental health of children. Divorce can result in a loss of a male or female figure from the household which can impact the environment in which a child grows. Divorce can cause problems in the parent-child relationship, fights between previous spouses, loss of emotional support, and economic hardships.[2] If a parent has to raise a child on their own, they might be too busy working to have time to spend time with their children resulting in emotional unavailability. All of these factors one can imagine can lead to mental health problems/instability in children who grow up under these circumstances. The purpose of this literature review is to determine what these problems are. Research has documented that parental divorce/separation is associated with an increased risk for child and adolescent adjustment problems, including academic difficulties (lower grades and school dropout), disruptive behaviors (e.g. conduct and substance use), and depressed mood. Offspring of divorce/separated parents are also more likely to engage in risky sexual behavior, live in poverty, and experience their own family instability.[3] This discussion will serve to confirm these findings.

Discussion

Adjustment Problems

Children from divorced families report receiving less support in comparison to children with intact families and the ratings are more pronounced when children reach high school and college.[2] Divorced mothers are less likely to be affectionate and communicate with their children and to discipline them more harshly and inconsistently which is more prominent during the first year of divorce.[2] Children also report that their relationship with their father is more distant and fathers report that their relationship with their children is more negative after divorce.[2] The distance in relationship between a father and his children applies regardless of the gender of the child and this distance increases with more conflicts during the divorce process.[2] Divorce leads to a loss of trust in children for their fathers.[2] Fathers are less likely to provide emotional support and more likely to drift away from a child's life after divorce if they are denied legal custody at the time of divorce.[2] The percentage of kids who have a close relationship with their father among adolescents is 48% in an intact family vs 25% in those with divorced parents.[2] Divorce also leads to a decrease in bond between children and grandparents; paternal grandparents are much likely to be

affected by this issue.[2] Women with divorced parents are more likely to have a longing for love and attention and a fear of abandonment.[2] Women with divorced parents are more likely to feel anxious about getting married and be less likely to commit to a relationship.[2] Children of divorced parents are more likely to struggle with conflict resolution.[2] For example, college students from divorced families are more likely to use violence to solve conflicts; they are more likely to be physically aggressive towards their friends.[2] Children of divorced parents are more likely to be dissatisfied, communicate less, argue more frequently, and be physically aggressive towards their spouse which shows that the effects of divorce can cross generations.[2] Children of divorced parents have poorer social skills and fear of peer rejection is twice as likely among adolescents of divorced parents.[2] Children of divorced parents did worse with peer relationships, hostility towards adults, anxiety, withdrawal, inattention, and aggression.[2] They find difficulty in developing heterosexual relationships due to lack of affection.[4]

Divorce can have devastating outcomes on children's performance at school. A study by the University of Virginia revealed that elementary school kids with divorced parents performed worse academically than their peers from intact families and this gap persisted throughout elementary school.[2] Children of divorced parents are more likely to fail a grade and have a lower overall GPA.[2] Children of divorced mothers did worse on Peabody Individual Achievement Test (tests children's ability to recognize and pronounce words).[2] In the Kent State University Impact of Divorce Project, which used 699 elementary students, children from divorced homes performed worse in reading, spelling, and math and repeated a grade more frequently than did children in two-parent families.[2] Students who experienced divorce performed 0.17 standard deviations below the average.[5] The younger the age, the worse the effects of divorce is for kids.[5] Though there may be many reasons, divorce causes sadness and this may lead to disengagement or discern towards academics.[5]

A Danish study revealed that children from dissolved families had statistically significant higher odds for low social well-being at school compared to kids from intact families.[6] Children between nine and twelve had increased odds for low social well-being at school compared to kids between thirteen and sixteen; the younger the child when parents divorced, the higher the odds of low social well-being.[6]

The paper "Divorce and Children's Adjustment Problems at Home and School: The Role of Depressive/Withdrawn Parenting" examines depressive/withdrawn parenting as a mediator in the effect of divorce on children's adjustment.[7] It compared 4th graders with single mothers and those living with married parents. Moms, teachers, and the children rated their level of externalizing behaviors (aggression, acting out) and internalizing behaviors (i.e. anxiety).[7] For child's adjustment, moms rated their kids on 113 items with a 3-point scale using the CBL. Teachers used the Teacher Report Form and children rated themselves using the CDI, which was a 27 pt scale for internalizing behavior and Harper's for externalizing behavior.[7] Divorced mothers rated their children higher on the CBL internalized and externalizing scales at all 3 yearly assessments. Teachers also rated children from divorced families higher on the Teacher Report Form.[7] Although children from divorced families rated themselves higher on CDI and Harper Behavior, the differences were not significant.[7] The study found that divorce was associated with depressive/withdrawn parenting, which was in turn associated with more externalizing and internalizing behaviors with children.[7]

In the article "Trajectories of Internalizing, Externalizing, and Grades for Children Who Have and Have Not Experienced Their Parents' Divorce or Separation," it was determined that the earlier a divorce occurs the more likely the child may have worse reading and math skills as well as being more disruptive to others.[8] The study shows that the kids who experienced divorced earlier did have behavioral issues as well as being the one to start problems in school. Mothers reported that after a divorce, it takes about a year for the child to start showing these problems, but, parents who did not divorce did not show any sign of these problems. Early divorced kids also showed worse grades on average than kids who did not have divorced parents. All timings of divorce showed worse grades, however kids who experienced a later divorce showed to have worse grades than kids who experienced an early divorce. This may be due to other factors such as importance of education as age increases.[8]

Disruptive Behaviors

Children of divorced parents are more likely to have behavioral problems. During the process of divorce, parents are less likely to provide emotional support to their children and are more likely to resort to punishing their children which in turn leads to children being more emotionally insecure.[2] Children of divorced parents are more likely to steal and fight.[2] Children of divorced parents are more likely to leave from home at a very early age to the point that it may seem like the child is running away from home.[2] Children of divorced parents are more likely to have sex before marriage and are more likely to have sex at an earlier age.[2] Girls from divorced families are more

likely to engage in risky sexual behavior, have more frequent sex, and more sexual partners.[2] Among girls, those whose father left before age five were eight times more likely to become pregnant as an adolescent than girls whose fathers remained in the home.[2] For boys, parental divorce results in sex during adolescence and contracting sexually transmitted disease.[2] Children of divorced parents are more likely to skip classes and drop out of high school in comparison to children with intact families.[2]

A study of 171 cities in the US with populations over 100,000 revealed that divorce rates predicted the robbery rate of a given area regardless of its economic or racial composition.[2] In 1994 in Wisconsin, the rate of incarceration of juvenile delinquents was twelve times higher among children of divorced parents than among children of married parents.[2] In a longitudinal study done in Britain, it was found that parental divorce before the age of ten was a major predictor of adolescent delinquency.[2] Divorce leads to more antisocial and violent behavior among adolescent children.[2] Children of divorced parents are more likely to use such things as tobacco, alcohol, marijuana, and other illegal substances.[2] There are many factors that can lead to these disruptive behaviors as was discussed in the introduction. For instance, losing a source of income may lead to increased hours and this may cause distain for children.[9] Economic problems greatly impact the relationship a child may have with each parent and family members.[9] Divorced parents are also less likely to provide emotional support based on a study in 1997 by Miller and Davis.[9] All of these factors are associated with increased verbal aggression, violence, and other disruptive behaviors among college students with divorced parents.[9]

A United States study measured average age at which certain milestones were reached.[10] The milestones were age at which puberty was reached, age at first petting, age at first sex, age at first marriage, age at first birth, premarital sex, 1+ marriages, number of premarital sex partners, illegal drugs, and gambling.[10] They predicted that children from nonintact families would reach these milestones at an earlier age. All family types had a larger percent of accelerated life history outcomes versus delayed outcomes compared to intact families.[10] Living with mother or mother and stepfather was associated with faster progression of life history events and risk-taking behaviors.[10] Girls growing up with a single mother were more likely to have sex at a younger age, have more premarital sex, and have more than 6 sex partners.[10] Father absence, for both sexes, predicts a faster life history.[10] However, living with father or father and stepmother was not that different compared to living with both parents.[10]

In the article, "Effects of Parental Divorce on Teenage Children's Risk Behaviors: Incidence and Persistence" data was used from Add Health, which explores causes of health-related behaviors in grades 7-12.[11] Data was collected in 1995 and 1996, and in 2001 respondents were re-interviewed. In 1995, 35% of males from divorced families engaged in binge drinking compared with 25% from intact families. 31% of girls from divorced families binge drank while 20% from intact families did. A higher percentage of females from divorced families engaged in marijuana and tobacco use. Effects were small and nonsignificant for the use of hard drugs. In the 2001 sample, when the kids were 18-24, there was no significant differences between males with divorced families and males from intact families with-regard to binge drinking.[11] However, the difference between marijuana and tobacco use between kids from divorced and intact families were roughly similar to the results from 6 years earlier.[11]

Mood Symptoms: Depression/Anxiety

A study done by the National Survey of Children revealed that divorce was associated with a higher incidence of depression, withdrawal from friends and family, aggression, impulsiveness, and withdrawal from participating in school.[2] Women from divorced families are 1.46 times more likely to attempt suicide in comparison to women from intact families.[2] Children of divorced parents have feelings of worthlessness, sometimes to the point of questioning their own existence.[4] Children with divorce parents develop abandonment issues.[4] They may feel that they are the ones who are being attacked when their parents fight even when these fights take place after divorce.[4] Children with divorced parents often have lower self-esteem.[4]

Another study done in the paper "Parental Divorce and Child Mental Health Trajectories" discussed the stress relief hypothesis which suggests that a stressful life event, such as parental divorce, may have beneficial effects on children when divorce represents escape from a noxious environment.[12] Information was gathered on 22,831 children in 1994 in 3 waves: parents were asked to rate child on anxiety and depression (7 items, scaled 0-2) and antisocial scale (6 items, scaled from 0-2) for each item.[12] Other variables measured were parental divorce, socioeconomic resources, and psychosocial resources.[12] The study found that children's levels of anxiety and depression and antisocial behavior at each wave of data are higher for those children whose parents divorced by 1998.[12] Even before their parents divorced, these children had higher levels of anxiety and depression compared to those kids whose parents never divorced.[12] However, they do not exhibit an increased

rate of change of depression/anxiety over time. Overall, increased levels of depression are associated with greater age of the child, younger parents, living in a rented home, having a parent who reports lower marital satisfaction, and increased family dysfunction.[12]

In the paper, "Parental Break-ups and Stress: Roles of Age and Family Structure in 44,509 Pre-Adolescent Children," data was used from the Danish National Birth Cohort and age ate which children's parents divorced was divided into three groups: 0-3, 4-8, 9-11.[13] Children were also asked who they were living with and if they were satisfied with their living situation. In addition, their stress level was quantified using DNBC-11, a twenty-one item questionnaire.[13] About 4% reported a high level of stress.[13] Girls, children of young parents, unskilled parents, and children whose mothers had hx of mental illness had an increased risk of reporting high levels of stress.[13] Overall, children of all ages experiencing a parental break up had a higher risk of reporting stress. Children who experienced a parental break up earlier in life were not more vulnerable to stress than those whose parents divorced later in childhood. Compared to children living in a single parent family, children living shared between parents or living with a step-parent in addition to a biological parent reported levels of lower stress.[13]

In the article, "Parental Separation in Childhood as a Risk Factor for Depression in Adulthood: A Community-Based Study of Adolescents Screened for Depression and Followed up after 15 Years," a study was done to analyze whether parental separation during childhood predicts depression in adulthood and whether the pattern differs between individuals with and without earlier depression.[14] A community-based sample of individuals with adolescent depression in 1991-1993 and matched non-depressed peers were followed up using a structured diagnostic interview after 15 years. It was concluded that parental separation may have long-lasting health consequences for vulnerable individuals who suffer from mental illness already in adolescence.[14] Depressed adolescents with separated parents had an excess risk of recurrence of depression in adulthood compared with depressed adolescents with non-separated parents.[14] A very interesting finding was that in adolescents with depression, parental separation was associated with an increased risk of a switch to bipolar disorder in adulthood.[14]

Conclusion

There is clear evidence that parental divorce has negative outcomes on the mental health of children. Children of divorced parents overall have a higher rate of mood disorders such as depression and anxiety. Children of divorced parents also have problems adjusting to school and family life. Children of divorced parents are also prone to disruptive behaviors such as using drugs and alcohol and having sexual relations at an earlier age. With the rise in divorce rates, tackling this issue becomes imperative. As discussed earlier, divorce can bring drastic changes to a child's life which plays a major role if not the main role in the negative mental health outcomes seen in children. To reduce the negative outcomes that divorce has on children, new methods/innovations need to be placed to tackle this issue. Divorce leads to financial loss and loss of emotional support among many other things. Single parents need to be provided with the tools necessary to raise their children in a healthy environment.

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REFLECTION: THE JOY OF MEDICINE

I loved practicing family medicine — especially in rural western Pennsylvania, I particularly loved watching children grow and develop their personalities. Being a small town family doctor comes with awesome perks. Gifts from "my kiddos" are my favorite. One particular expression of love and inclusion came from a four-year-young farmer's son. At a routine wellness check, accompanied by his hard-working mom and two older brothers (also being seen that day), he presented me with the most wonderful, detailed crayon drawing of his beautiful new calf. Pride beamed from him as he described watching the new addition be born, caring for his first charge and his 4-H plan for his "little gal". Sharing his excitement, I asked the next natural question — "What did you name her?" As Mom gently put her head down into her hands and big brothers tried to stifle their chuckles, the young farmer enthusiastically proclaimed, "Dr. Lisa!"

— Lisa A. Witherite-Rieg, DO, FACOFP

Submit Your Thoughts for the Summer Issue!

The Summer 2022 issue is all about you and whatever is on your mind. You have been given carte blanche to share your poetry, share your stories, share your research, share your thoughts on the state of medicine, share your fears, your hopes, your dreams. There's a blank slate and your job is to fill it up! Put your thoughts on paper and send them to us! The submission deadline is June 30, 2022.

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CME Quiz

Name _____ **AOA #** _____

1. Of the following list of risk factors, which risk factor is not included in the STOP BANG Obstructive Sleep Apnea Screening test?
   a. What gender is the patient?
   b. Does the patient have symptoms of fatigue, daytime sleepiness and headache?
   c. Does the patient have a neck circumference greater than 40cm?
   d. Is the patient being treated for diabetes?

2. A patient's body mass and age are NOT predictors of peri-operative and post-operative oxygenation and respiratory status.
   a. True
   b. False

3. The "Wake Up Safe" quality improvement initiative was created to address this problem:
   a. Screen preoperative patients to improve rates of identification and treatment of patients with obstructive sleep apnea.
   b. Reduce intraoperative awareness risk.
   c. Screen elderly patients at risk for postoperative delirium.
   d. Reduce medication dosing errors in pediatric surgical patients.

4. Children of divorced parents are more prone to depression, substance use, and have difficulty with conflict resolution.
   a. True
   b. False

5. A study of 171 cities in the US with populations over 100,000 revealed that divorce rates predicted the robbery rate of a given area regardless of its economic or racial composition.
   a. True
   b. False

6. In adolescents with depression, parental separation was associated with an increased risk of a switch to bipolar disorder in adulthood.
   a. True
   b. False

To apply for CME credit, *answer the questions in this issue and return the completed page to the POMA Central Office, 1330 Eisenhower Boulevard, Harrisburg, PA 17111; fax (717) 939-7255; e-mail cme@poma.org. Upon receipt and a passing score of the quiz, we will process 0.5 Category 2-B AOA CME credits and record them in the POMA CME portal and forward them to the AOA.*

Complete the CME quiz for this issue of the JPOMA online — http://bit.ly/jpoma2022-1

Answers to Last Issue's CME Quiz

1. True
2. False
3. True
4. b
5. False
6. d

(Questions appeared in the Winter 2021 Journal.*)*

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