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Career Morph: Quantitizing Adversity in Academic Medicine

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Abstract

Many qualitative researchers reject textual conversion based on philosophical grounds although others believe it facilitates pattern recognition and meaning extraction. This article examined interview data from 52 physicians from a large academic medical center regarding work–life balance. Analysis ranked men and women in four career tracks: Clinician-Educator, Clinician-Researcher, Clinician-Practitioner, and residents. The purpose of this paper is to illustrate how a qualitatively driven (QUAL→quan) mixed method design illustrated differences between stratified groups. Although many initial codes were similar for men and women, their language was gendered and generational in context of work-life balance. Results indicated that women (and low-status men) expressed fewer strategies to successfully negotiate academic medicine. Quantizing enhanced the interpretive description of adversity.

Keywords

Mixed Methods, Work Balance, Academic Medicine, Gender, Quantizing

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Career Morph: Quantitizing Adversity in Academic Medicine

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Many qualitative researchers reject textual conversion based on philosophical grounds although others believe it facilitates pattern recognition and meaning extraction. This article examined interview data from 52 physicians from a large academic medical center regarding work–life balance. Analysis ranked men and women in four career tracks: Clinician-Educator, Clinician-Researcher, Clinician-Practitioner, and residents. The purpose of this paper is to illustrate how a qualitatively driven (QUAL→quan) mixed method design illustrated differences between stratified groups. Although many initial codes were similar for men and women, their language was gendered and generational in context of work-life balance. Results indicated that women (and low-status men) expressed fewer strategies to successfully negotiate academic medicine. Quantitizing enhanced the interpretive description of adversity. Keywords: Mixed Methods, Work Balance, Academic Medicine, Gender, Quantitizing

Negotiating Adversity

“I wouldn’t discourage people [to go into medicine] based on the amount of adversity that you have to go through” ...” a constant battle,” “definitely been a struggle,” “it’s tough to do,” “frustrations,” “hard on our family,” “I had to be tough,” “constantly working,” “huge commitment,” “med school was brutal,” “steep learning curve,” “hardscrabble (academic) life,” “trickier for women.”

Introduction

Medicine affords high status and compensation in a traditionally male sex-typed occupation, but also requires huge time commitments for training and clinical practice. But how hard is it? How might qualitative research describe differences between stratified groups? In certain qualitative circles there is an explicit denial that we can understand social phenomena through an interpretive lens in causal terms (Crotty, 1998); however, there is support for the inclusion of numerical data in qualitative research practices as a complementary, legitimate and valuable strategy (Becker, 1970; Maxwell, 2010). Numerical descriptive analysis may be a supplemental strategy that is interpretable only within the context of the qualitative component (Morse & Niehaus, 2009). The purpose of this paper is to illustrate how a qualitatively driven (QUAL→quan) mixed method design quantitized descriptive data to better illustrate differences between stratified groups.

Although women represent almost 50% of current medical students and have comprised more than 30% of medical students for more than 25 years, there is a disproportionate lack of advancement of women physicians into high ranking academic positions (Carnes, 2008; Carr et al., 1998; Carr, Szalacha, Barnett, Caswell, & Inui, 2003; Tesch, Wood, Helwig, & Nattinger, 1995). Research has identified difficulties in work–family and/or work–life balance as a

significant cause of the “disproportionately high departure rate” for women; some describing a collision between the ticking biological and tenure clocks (AAMC, 2008; Buddeberg-Fischer, Stamm, Buddeberg, & Klaghofer, 2008; Fox, Schwartz, & Hart, 2006; Howell, Joad, Callahan, Servis, & Bonham, 2009; Jovic, Wallace, & Lemaire, 2006; Leboy, 2009; Shollen, Bland, Finstad, & Taylor, 2009) that supports the “leaking pipeline” theory (Foster et al., 2000; Fried et al., 1996).

In a previous study (Analysis 1), we found that women researchers and educators seem to report “more” strategies for multiple role planning and management than women practitioners as a means to facilitate career advancement in academic medicine (Isaac et al., 2013). A review of the text from Analysis 1 revealed that words such as “more,” “most,” and “all,” were terms often used as “quasi statistics” (Becker, 1970) to describe differences between groups. Despite the polarized debate between qualitative and quantitative as well as mixed methods research (Cheek, 2007; Denzin, 2010; Denzin & Giardina, 2006; Morse, 2006), each paradigm “threaten stable identities of others and their own across perspectives and theoretical orientations” (Isaac & Koro-Ljungberg, 2011, p. 247). Perhaps this type of mixed methods research is another “path through the middle” that depolarizes extremes (Deleuze & Guattari, 1987). This “middle” may lead researchers to think differently as transgressive data analysis shifts epistemologies of qualitative research (St. Pierre, 1997). Research suggests that “quantitizing” qualitative data facilitates pattern recognition and improves meaning extraction while verifying interpretations of the data (Sandelowski, Voils, & Knafl, 2009). This QUAL→quan design using a praxis lens (Hesse-Biber, 2010) illustrated how quantitizing qualitative data optimized and clarified the analysis rather than only using quasi-statistical terms for stratified data (Morse & Niehaus, 2009).

Analysis 1 used a constant comparative methodology that led to a theoretical model (Strauss & Corbin, 1998). For this paper, analysis 2 used a mixed methods analysis where initial codes were transformed into frequencies incorporating attributes of hermeneutic content analysis (Bergman, 2010). The associated meanings of non-numerical text may never be described with certainty; however, the number of times a particular code occurs may establish further understanding of a hermeneutic unit (Bergman, 2010). This study seeks to determine what additional information may be gained by the transformation process without decontextualizing the qualitative interpretation.

Method

In Analysis 1, we conducted a random sample via e-mail of 134 physicians at a Midwest academic medical center with a 39% response rate. An equal number of men and women were contacted; however, oversampling of women post-graduate, first year students (PG1s) and tenure track women occurred due to low numbers in those ranks. Participants ($N = 52$) included 10 clinician researchers (6 men, 4 women), 12 clinician educators (6 men, 6 women), 12 clinician practitioners (6 men, 6 women), 8 PG1s, (5 men, 3 women), and 10 PG3s, (5 men, 5 women).

A follow-up demographic questionnaire was sent to all participants, generating 42 total responses from 16 residents ($Mage = 30$) and 28 faculty ($Mage = 52$). Almost a quarter of the residents had children (22%) and almost four times as many faculty had children (89%; $M = 2.6$ boys; $M = 1.8$ girls). Faculty averaged 59 work hours per week (67 hours for men, 50 hours for women); residents averaged 77 (78 for men, 77 for women) hours per week (see Table 1).

Table 1. Demographics for each level for gender and rank. 42 of 52 participants responded to follow-up questionnaire for data in columns C, D, and E.

| Levels | A: Total # | B: Appointment PG1, PG3, Assistant, Associate, Professor | C: Average Hours/Week (SD) | D: Average # of Children (SD) |
|----------------|------------|--|----------------------------|-------------------------------|
| ♂Residents | 10 | 5 PG1, 5 PG3 | 77.8 (6.7) | .33 (.71) |
| ♀Residents | 8 | 3 PG1, 5 PG3 | 77.1 (7.6) | .29 (.45) |
| ♂Researchers | 6 | 5 Prof, 1 Assoc | 70.0 (14.1) | 2.6 (.89) |
| ♀Researchers | 4 | 1 Assoc, 3 Asst | 56.7 (11.6) | 2.3 (.50) |
| ♂Educators | 6 | 2 Prof, 4 Assoc | 70.0 (16.3) | 3.3 (1.3) |
| ♀Educators | 6 | 1 Prof, 5 Assoc | 54.0 (8.9) | 1.8 (1.5) |
| ♂Practitioners | 6 | 4 Assoc, 2 Asst | 60.0 (16.7) | 2.0 (1.3) |
| ♀Practitioners | 6 | 1 Prof, 3 Assoc, 2 Asst | 40.0 (20.0) | 1.3 (.96) |
| Totals | 52 | N/A | 65.8 (16.7) | 1.5 (1.4) |

Data Collection

The research question that guided analysis 1 was: What factors influence academic male and female physicians' career choices at different faculty tracks including sources of social support and descriptions of a balanced (work and non-work) life? We specifically explored academic physicians' subjective experiences of work and their relationship to non-work domains (2nd Shift) across two career stages (resident, faculty) and within three faculty tracks (researcher, educator, practitioner). This framework of analysis 1 supported the quantitized mixed method design in analysis 2 to illustrate differences between stratified groups.

The study was approved by the Institutional Review Board of the university, and all participants gave written informed consent. Two investigators (R.M., A.S.) interviewed participants at convenient sites during summer 2009. The semi-structured interviews ranged from 15 to 60 minutes. Participants were asked the following interview questions sequentially (one participant omitted a question inadvertently):

1. What factors influenced you to choose medicine and your specialty?
2. What role models/memorable situations influenced your career decisions?
3. What are the consequences or regrets with the choices you have made?
4. Who provides you support personally and professionally?
5. Describe a balanced life in medicine.
6. What advice would you give a son or daughter who was following your career path?

Interviews were digitally audio-recorded, transcribed verbatim, and had all identifying information removed. Participants verified the transcripts.

Data Analysis

For Analysis 1, we open-coded each interview transcript line by line then grouped codes that were conceptually linked into axial codes (Green and Britten, 1998). Using a constant comparative method, we integrated these concepts into theoretical codes to identify theoretical

codes following Strauss and Corbin's steps for sequentially coding and grouping subsequent codes (Patton, 2002; Strauss & Corbin, 1998). The inter-coder agreement for the initial codes ranged between 82 to 99% with an average of 94%. We validated results using triangulation (multiple investigators), audit trails, peer review and debriefing, clarification of researcher bias, and external audit (Creswell, 1998; Denzin & Lincoln, 2000; Giacomini & Cook, 2000; Glesne, 1999). Research team members were all women and included an experienced qualitative researcher (CI), and two second year medical students (R.M., A.S.) interested in work-life balance. The first author's subjectivity influenced this study because of the suicide of her sister in 2003, a physician-practitioner who failed to move into a tenured position at a top tier institution (Isaac, 2007). These concerns provided impetus for this study.

List 1. *Codebook of initial codes and unifying themes*

| Most Frequent Codes | Codebook Descriptions |
|-------------------------------------|--|
| 2nd Shift* | Household duties following a day's work for pay |
| balance* & balance | What participants consider balance |
| children | Any reference to children or what advice would they give to children (also hypothetical) going into medicine |
| control of Schedule | When participants discussed the control of their time/schedule |
| family | Any mention of current family- parents, spouse, or children |
| important stories | Important stories for participants. Either other people's stories or their own |
| juggle roles | Family versus career: "Best you can" |
| lack of respect | Feeling devalued, or lack of respect toward people, places, or things |
| mentor | Someone who worked actively in career-not just a role model. |
| mission statement | Statement of what directs their life – more directive such as, "I wanted..." |
| raison d'être* | Things that motivates participants to do career |
| negative comments | Negative statements. |
| positive comments @ being MD | Good reasons to be MD |
| reevaluate, reflection | Taking time to reflect about career versus family, self-awareness |
| role model | People participants looked up to, but did not directly work with. |
| strategies | Strategies for negotiating/separating career and 2 nd shift (i.e., vacations, childcare, working at home) |
| support | Personal or professional support for career |
| unbalanced* | Evidence of lack of balance in life - stress, lack of sleep, etc. |
| uphill struggle | Evidence of career/2 nd shift difficulties |
| words of wisdom | Words to live by |

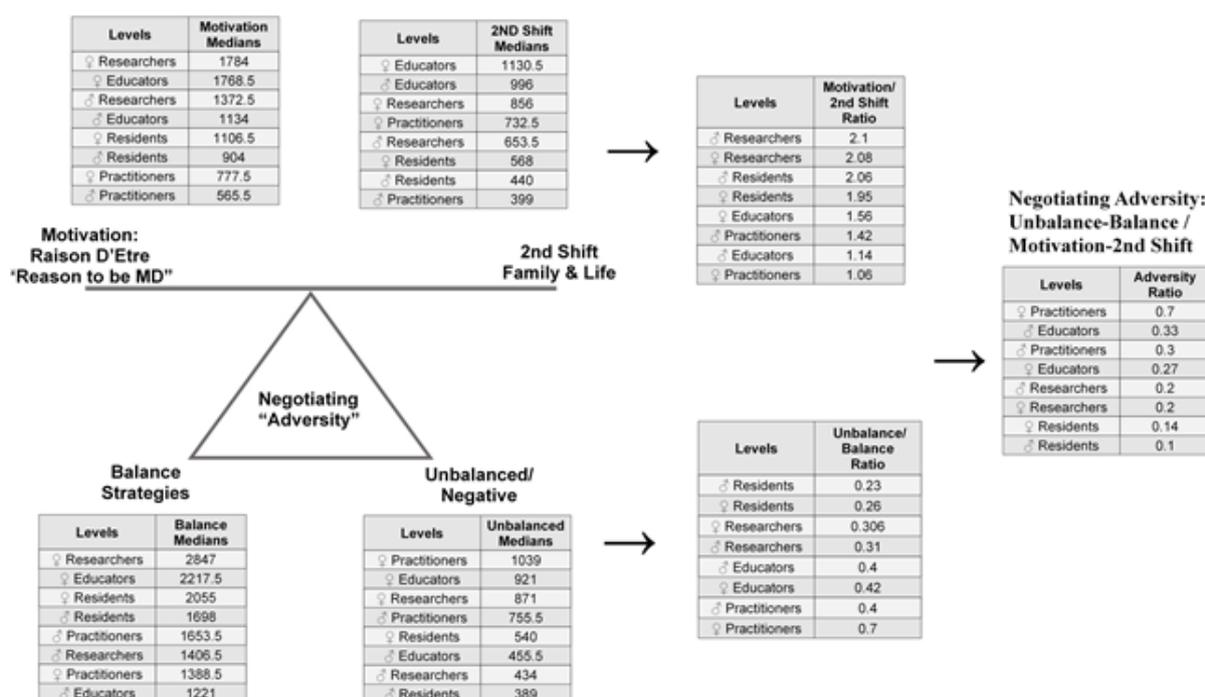
*These are theoretical/emergent themes

In Analysis 2, we used inductive content analysis in a simultaneous QUAL+ quan mixed method design to enhance description and enable comparison with the quantitative component to represent the intensity of adversity experienced at different gender-ranks in academic medicine (Boyatzis, 1998; Creswell, 1998; Lingard, Albert, & Levinson, 2008; Morse & Niehaus, 2009). Analysis 2 provided a numerical description of the distribution of

observations. This contributed to what Maxwell (1992) has called internal generalizability to the conclusions based on an intrinsically local setting (Maxwell, 1992, 2010). NVivo facilitated coding, finding coding frequencies and data organization (Richards, 2006). To illustrate and enable comparison of descriptive patterns found in the data, word counts were totaled for each initial code of each participant (List 1), the median was calculated for each gender-rank, and medians were summed according to recurrent themes (Morse & Niehaus, 2009).

Because of the “seesaw” model illustrating career–life balance (see Figure 1) devised from Analysis 1 (Isaac et al., 2013), ratios were devised for each group, “quantitizing” the qualitative data and thereby providing a heuristic device to illustrate potential relationships that might be “enhanced by measurement” (Hesse-Biber & Nagy Leavy, 2011; Morse & Niehaus, 2009). Ratios indicate the magnitude of quantities relative to each other (mitigating the effect of word count within groups), which was expressed as a quotient to rank groups hierarchically.

Figure 1. *Negotiating academic medicine: Total medians with the addition of the medians of all initial codes in each gender-rank grouping, then the transformation of themes into ratios illustrating “Negotiating Adversity.”*



Results

There were 37 initial codes which were refined into 4 emergent themes (Table 2). In Analysis 1, authors (R.M., A.S.) constructed the theoretical model of a “seesaw” based on a constant comparative data analysis (Strauss & Corbin, 1998). On either side of the “seesaw” were the themes: Raison d’être (reason to be MD) and 2nd Shift (household duties following a day’s work for pay (Hochschild & Machung, 2003), representing the two key areas of research (AAMC, 2008; Buddeberg-Fischer et al., 2008; Howell et al., 2009; Jovic et al., 2006; Leboy, 2009; Shollen et al., 2009). Initial codes clustered into the Raison d’être theme included codes such as “altruism,” “mission statement,” “motivation,” “positive comments about being MD,” “passion-emotive words,” and “important stories.” Initial codes that clustered into the 2nd Shift theme included codes such as “current family,” “ancestry,” and “children.”

Table 2. *Initial codes for each theme.*

| | | | |
|---------------------------|------------------------|----------------------------------|------------------------------------|
| Motivation | 2 nd Shift | Balance Strategies | Unbalanced/Negative |
| Altruism | Ancestry: Family Story | Balance (Their) | Consequences/Cost to Family |
| Character Traits-Self | Children | Control of Schedule/Time | Lack of Respect/Not Feeling Valued |
| Research vs Clinical | Current Family | Juggling Roles | Negative Comments |
| Range of Knowledge | Finances | Mentor | Regrets |
| Important Stories | Retiring | Re-evaluate, Reflect, Self-aware | Resistance |
| Medicine vs Rest of World | | Role Models | Lack of Support |
| Mission Statement | | Self-Care | Unbalanced/Lack of Control |
| Motivation- Raison d'être | | Strategies | Uncertainty |
| Passion | | Support | Uphill Struggle |
| Positive Comments | | Words of Wisdom | Worry about Future of Medicine |
| I'm Lucky | | Women Mentor | |

The fulcrum of the “seesaw” was composed of Balance and Unbalanced, oppositional themes representing positive and negative strategies to Negotiate Adversity in an academic medical career. Initial codes clustered into the Balance theme included codes such as “balance,” “strategies,” “mentors,” and “juggling roles.” Initial codes that were clustered into the Unbalanced theme included codes such as “uphill struggle,” “regret/consequences,” “control of time/schedule,” “lack of respect,” and “negative comments.” To represent these “in-group” differences, emergent themes were categorized according to the gender (men, women) and rank (researcher, educator, practitioner, and resident). Median word counts of each initial code were grouped and calculated for each emergent theme (see Figure 1). For example, the four women researchers, the smallest gender-rank, had a median of 3.50 for the initial code “ancestry,” 627 for “children,” 200.5 for “current family,” 25 for “finances,” and 0 for “retiring.” These scores were added together for a total median score of 856, recontextualizing women researchers’ emergent theme of “2nd Shift.” This model was followed for each gender-rank. Ratios were then obtained for Raison d'être/2nd Shift and Unbalanced/Balance. We ordered values for each gender rank in terms of Unbalanced text so Raison d'être/2nd Shift was divided into Unbalanced/Balance to represent those gender-ranks with the highest ratios that have the most difficulty “Negotiating Adversity,” also labeled the “Adversity Factor.” In the text, initial codes are depicted without capitalization (i.e., “motivation”) and emergent themes are capitalized (i.e., “Raison d'être”).

These ratios were descriptive for ranking groups within academic medicine. For example, the ratio of the medians for the six male researchers coded Raison d'être and 2nd Shift was 2.1 and for Unbalanced and Balance was .31 creating a “Negotiating Adversity” ratio of .2. In comparison, women researchers had the highest Raison d'être median, a higher 2nd Shift median, the highest Balance, and a smaller Unbalanced median score which gave them the same “Negotiating Adversity” ratio score of .2. Creating ratios mitigated the effect of word count for each group which is important because word count routinely varies between genders (Henderson, Briere, & Hartsough, 1980; Isaac, Lee, & Carnes, 2011; Trix & Psenka, 2003; Watson, 1987). The calculation of the “Unbalanced-Balance” ratio that was divided by the “Motivation-2nd Shift” ratio converted the final “Adversity” ratio so that gender-ranks with a ratio closer to 1 experienced more adversity when negotiating academic medicine.

The following narratives contextualize each “Negotiating Adversity” ranking of the four groups. Narratives were focused by the calculation of the five most frequent initial codes (yielding the highest median word counts) in corresponding themes for each gendered rank (see Table 3). The residents had the lowest “Negotiating Adversity” ratio (men 0.1, women 0.1). The clinician-researchers (men 0.2, women 0.2) and the clinician-educators (men 0.27, women 0.3) were in the middle. Clinician-practitioners’ rank (men 0.33, women 0.7) was at the high end with women practitioners having the highest “Negotiating Adversity.”

Table 3. *The 5 most frequent initial codes (yielding the highest median word counts) in corresponding emergent themes for each gendered rank*

| Theoretical Codes | Resident ♂ | Resident ♀ | Researcher ♂ | Researcher ♀ | Educator ♂ | Educator ♀ | Practitioner ♂ | Practitioner ♀ |
|-------------------|--------------------------------|---------------------|--|-------------------------------|-------------------|------------------------------|-----------------------------------|-------------------------------------|
| RAISON D'ETRE | Motivation & Important Stories | Motivation | Mission Statement, Important stories, Motivation, & Positive Comments-MD | Motivation | Motivation | Important stories | Positive comments @ MD | Important stories |
| 2ND SHIFT THEME | Family | Family & Children | Children | Children | Children & Family | Children & Family | None | Children |
| BALANCE THEME | Balance & Strategies | Mentor & Strategies | None | Mentor, Strategies, & Support | Mentor & Balance | Strategies & Words of Wisdom | Strategies, Balance & Re-evaluate | Balance |
| UNBALANCED THEME | None | None | None | None | None | None | Control of Schedule | Negative comments & Uphill struggle |

Resident Narratives

Coded residents' text seemed initially to focus on anticipating the time commitment required to be an involved parent. However, quantized text from resident interviews identified the most frequent initial codes: "motivation," "strategies," and "family," then analysis focused on differences. Despite the high number of work hours, both men and women residents had a moderately high Raison d'être/2nd Shift ratio (men 2.0, women 1.95) and the lowest Unbalance/Balance ratio resulting in the lowest "Negotiating Adversity" ratio (men .11, women .14) of all four groups.

Under "motivation," one male resident thought he was "destined to be" a doctor because of his physician father, and whereas women physicians had less of a family legacy in medicine. One women resident called herself "super nerdy." Residents accepted residency as a historically challenging time so men and women residents' text had few "Unbalanced" initial codes stressing "Raison d'être-motivation" and "Balance-strategies." Women residents' text also emphasized "mentors" where they recognized supportive relationships. In contrast, male residents admired mentors as role models, someone worth imitating. For example, one women resident relayed "the amazing thing about her [mentor] is . . . she takes time to get to know me." Women residents also differed from male residents in their discussion of "family" in regards to household duties, one saying that her husband "is the person who takes care of the bills and some of the shopping- the at-home person."

Both men and women residents incorporated "strategies" in their discussions although male residents emphasized "balance" in their text as one admired a role model's "balance between his profession...and his family" integrating "balance," and "strategies," as "I'd like to be like them" and have time to "come home and have dinner with my family, be able to make events for my kids." Women residents' strategies included planning children and, although only two women had children, there was much discussion of the "consequences of [having kids] versus the career," a consistent theme for all women physicians. Although women residents discussed children in future tense, their "family" text included "wait, you are

married,” when reflecting on the huge number of hours they spent at the hospital whereas male residents’ language for “balance” described protecting future personal time.

Researcher Narratives

The men and women researchers had the highest “Raison d’être/2nd Shift” ratio with moderate Unbalance/Balanced ratio, which ranked them second for the “Negotiating Adversity” ratio (men 0.2, women 0.2). Both had large percentages of text devoted to “children” and “motivation” but differed with “mentor,” “strategies,” “support” for women, and “mission statement,” “important stories,” and “positive comments about being MD” for men.

4 out of 6 male researchers came from medical families compared to all other gendered-ranks (none for women researchers). One woman researcher rebelled against her traditional father when he said “‘you can’t do that,’ at that moment I made up my mind, I’ll show you.” Typically, male researchers had “important stories” with “positive comments about being an MD” with “mission statements,” “I wanted to be a doctor from about the age of 10 or 11; my goal was always to be a scientist.” In contrast women researchers morphed into their goals, “once I found an area that I was really interested in.”

Like the women residents, women researchers described the importance of mentors in shaping their careers. For example, one woman researcher described her male “fabulous mentor” taking her “career to the next level.” Another associate professor talked about her “incredible” woman mentor, saying,

She really showed me what it's like to have fun with medicine, and to be willing to take some risks. Be willing to be who you are- talking about shopping if you want to talk about shopping (laughter), sort of normalized being a woman in medicine.

Later, this same woman mentor protected her.

[She] said talk to the chair before you quit, so I sent a letter, and then I talked to the chair. And that's a good example of undermining myself. I didn't think I could go talk to the chair. I didn't think I could go talk to my boss and say “look you're not protecting my time - I'm not going to do the job for you.”

Both men and women researchers had considerable text devoted to “children,” however, with nuanced differences. One male researcher’s described his older physician daughter with children as having “a lot of juggling” but would still “encourage [her] to go into medical school.” In contrast, women discussed their younger children within the contexts of “support” and “strategies.” The woman researcher who negotiated for protected time said, “I don't think I experienced much of [being devalued], (...) I just didn't allow anybody to make a judgment-like she's pulling less of her load.” Despite the fact of already being promoted, she emphasized strategies for boundaries between work and family,

If I do sometimes answer e-mail at home (. . .) that I get so focused in it that my son can come up and say something to me and go back downstairs where his room is and I won't even have heard him (laughter)-so in general I don't like to do that.

These women described the flexibility of research as a strategy for their 2nd Shift, “Unless you have a research subject or clinic, you don’t necessarily have to be [at the office] at a certain time.” The adaptability necessary for families to “work things out” was illustrated by a woman researcher who stated, “I never felt hindered in what I wanted to do because of my gender. (...) And then, thankfully I have a supportive husband who helps out with the kids at home.” These women highlighted their family’s sacrifice, especially their husbands’ support, although they tended to regret that they “can’t do it all.” Male researchers in contrast, indicated “I don’t have hobbies and this is my life.” Male researchers notably had the fewest words for Balance text than any gender-rank group.

Educator Narratives

Men and women educators had a low to moderate Raison d’être/2nd Shift ratio (men 1.14, women 1.6) and Unbalanced/Balanced ratio (men .4, women .42) resulting in a similar “Negotiating Adversity” ratio for men (.33) and women (.27). Male educators heralded values from their “extraordinary” mentors who were completely committed to patient care, “much more so than I think I would be, because even after he was diagnosed with a terminal illness he kept coming in to see his patients.” Established values of commitment and dedication motivated these physician educators who described their career as “an absolute blast,” although in the next sentence, “Well, the regrets are some relative level of contribution in medicine-it’s time; I don’t personally believe that you can have a career in medicine without being dedicated to medicine exclusively.” One male educator further complained about younger physicians who “want a life,” saying “Well if you wanted that, you should have gone into something else.”

“Children” was the most frequent code for male educators; however, they emphasized work first.

I’ve got three kids and they are all pretty normal kids, and my wife takes care of them with me; I think balance is exceedingly difficult, if not impossible if you are going to do well and be dedicated to your patients.

These male educators were of the same generation as the women educators but worked more hours and had more children. Although they called their jobs “recession proof” and “fantastic,” they had gendered practical advice for daughters going into medicine,

The different jobs that are harder gender-wise for females just because of how the job is set up and certain fields are still 85% men. I mean, as long as you know that going into it, I don’t think there should be any different advice for either of them.

Women educators using “important stories” illustrated “words of wisdom” and “strategies” in their text. One senior woman educator described, “You don’t let your profession consume everything.” Like the women researchers, their “children” and “family” text was linked with pragmatic “strategies.”

I don’t feel like I separate medicine from my personal life. One thing I do not do is I do not have patients call me at home. I am not always available. I need a break and my family definitely needs a break. I find that quite disruptive emotionally if I’m not home when I’m home.

This woman described negotiating the evolving day to day strategies with her family.

The things that really matters to us is [children's'] well-being. And then all the other things, they have just more evolved. You know the house would never get vacuumed if I didn't do it- I don't know why. And now just everybody would assume that "Oh mom likes to do the vacuuming we'll just leave it."

She goes to all of her children's events despite the fact that she averages three hours of work per weeknight because her job as an educator allows time flexibility.

These women had "every permeation and combination of child care" and "strategized" with "words of wisdom," "If you're feeling uncomfortable and not appreciated, rather than being frustrated...look at opportunities where people are going to appreciate you and jump on them."

Practitioner Narratives

Male practitioners had moderately low rankings for "Raison D'Etre/2nd Shift" and "Unbalance/Balance" creating a moderately high "Negotiating Adversity" ratio (0.3). However, women practitioners had high "2nd Shift" and "Unbalanced" categories producing the highest "Negotiating Adversity" ratio (0.7). Both narratives of men and women practitioners had the highest frequencies of the "Unbalanced" theme but with gendered differences.

Male practitioners reminisced, "Back in those days internal medicine had a lot of prestige and was the intellectual part of medicine." These positive comments were filled with "re-evaluation" text that "medicine still has a lot to offer," and "it's still a great field that is not easy." "Strategies" and "balance" were in the context of negativity about their control of time,

The longer you are in practice around an academic environment is you can just get killed with the everyday (...) I think that one of the biggest challenges of that is just the everyday stuff of trying to get time. (. . .) Sometimes in order to see my family they would come visit me at the hospital, because that was the only chance I might get to see them.

Another male practitioner response to a balanced life was,

I am sure that average academic physicians spend 60 to 80 hours a week on their work-that's the way it is. And you see the people are cutting back to that 40-50 hour level, they've given up goals, they're not pursuing research, they're not doing things they might have otherwise done. And often that's the way they balance it out if they've got young children at home. At the end of their primary goals in life are no longer in academics. Their primary goals are child raising, personal relationships, hobbies, outside interests.

One male practitioner canceled a family vacation because, "You've got to take care of the patients (. . .) personal sacrifice because of professional demands, which is negative, but you do what you've got to do." Time was crucial for these men especially when supervising residents who now cannot work more than 80 hours per week, "if I went to the faculty and I told my chief that I really get tired when I am on two days straight; (. . .) they would look at me like I was from Mars and say you have to be joking."

As negative as the male practitioner text was about time, they had the least "2nd Shift" text. This created a large ranked difference for women practitioners, who had the highest

ranked “Negotiating Adversity” ratio with the most “Unbalanced” text. These women had the least “strategies” text compared to other women. One senior woman, who graduated from a class with 15% women, told this “important story” about her OB/GYN rotation,

There was a doctors’ lounge and the nurses’ lounge. (...) And the women, of course, were not allowed in the doctors’ locker room. So there was this distinct exclusion of women in surgical specialties. There was a tremendous amount of negative attitude from the nursing staff. Female students and female residents were expected to clean up after themselves after a procedure.

These senior women had “important stories” filled with “negative comments” describing their uphill struggle.”

There was one woman in my residency class who was married-nobody else got married in residency. She was the only one who had a baby and believe me, there was a huge amount of resentment, myself included, about when we had to take extra call... when she went on maternity leave. And the same thing happens now, when my younger colleagues go on maternity leave.

Although these women had a high degree of motivation, as “I enjoy doing it all [inpatient] but it came at a very high price in terms of never seeing my family, being on call, being tired, being overworked, being totally stressed.” Women practitioners reported that hospitalists “changed dramatically” the way they structure their lives because “I can do medicine because I’m not going to be called away to leave my kids all night and my spouse is out of town.” However, in the context of juggling high volumes of patients in limited time, they needed to “keep personal and professional life separate because I was always available by pager almost all the freaking time” and “do it all really well in a very short period of time.” They did not speak of women mentors as “because we’re pretty rarefied breed at least when I was coming through.”

Discussion

Gendered language was often contextually different between men and women physicians at all 4 levels even with similar codes (Table 3) with the 5 most frequent initial codes for each gendered rank. Figure 1 ranked how these groups of physicians negotiated academic medicine with representative ratios of the emergent codes. Surprisingly the residents and researchers were paired in the rankings and seemed to negotiate adversity better than the educators and especially women practitioners.

Residents had the least negative text constructing the lowest “Negotiating Adversity” ratio. Although they are working almost 80 hours per week, they are motivated new physicians with the least family obligations. Women residents are already “juggling roles” to “strategize” their “2nd Shift” while the male residents anticipate the need for balance and protected time. Male researchers had the fewest words in the “strategy” text of any group because perhaps they did not need them. Their predominate theme of “Raison d’être” included fatherly advice about children, including their physician daughters. Studies show that household duties are often still divided along gender lines even in dual-earner households (Bartley, Blanton, & Gilliard, 2005) supported by the greater “gendered talk” by women about their social roles, although all groups clearly differentiated that medicine is “harder for women.” Women researchers described strategies, mentoring and support which balanced their “Raison d’être” with their “2nd Shift.” Women educators shared similar themes with “words of wisdom” and “important stories.” Male educators expounded the traditional views of physicians to be always available,

eschewing personal life and abnegating self-interest (Keltner & Robinson, 1996). Although male practitioners echoed these views, their time was out of control; however, male practitioners had the least “2nd Shift” text as they had wives at home.

Family is front and center for women but at the edge of men’s lives, a fact congruent with gendered norms (Carli, 2001; Heilman, 2001; Heilman & Okimoto, 2008). Time for these physicians is “gendered.” However, we found that women researchers, despite the demands of dual roles, had more “motivation” text and described more flexible time which diminished their ‘Adversity’ ranking. In contrast, both men and especially women practitioners had more “Unbalanced” text increasing their “Adversity” factor from a lack of control of time.

The quantizing of qualitative data positioned these physician groups according to their work-life balance illustrating their difficulties negotiating academic medicine. Instead of relying on quasi statistical terms such as “most,” “more,” or “few,” using a ranking ratio of text established that the findings identified characteristics and recognizable patterns for these groups (Maxwell, 1992, 2010). Quantizing enabled a systematic identification of difference and the diversity of experiences and perceptions (Maxwell, 2010). This systematic identification between gender-ranks illustrated the adversity faced not only by women practitioners, but highlighted difficulties faced by male practitioners and educators, both lower status roles in the academic hierarchy. This distinction was not found in the first analysis because of a feminist lens (Isaac et al., 2013). Authors have criticized quantizing in mixed methods research because it relegates the qualitative component to a secondary status; however, this article illustrates the strength of using a QUAL-quan methodology that identified the most frequent initial codes within corresponding emergent themes for each gendered rank. Quantizing cannot compete with experimental trials that privileges quantitative research; however, it expands critical interpretative approaches.

Although we capitalized on the work of qualitative feminist researchers who advance mixed methods research (Creswell, Shope, Clark, & Green, 2006; Hesse-Biber & Nagy Leavy, 2011), quantizing data does not replace other qualitative methodologies that are the hallmark of qualitative research. Another limitation of this study is how interview questions may have influenced outcomes (i.e., regrets/consequences). However, the use of numbers in Analysis 2 contributed to the internal generalizability of the claims and contributed to description and interactions with the data. Numbers differentiated between what was present and absent; we can then make judgments about sameness and difference, a process that individuates results (Martin, 2004). In Analysis 2, quantizing facilitated pattern recognition, clarified meaning extraction and verified data interpretation (Sandelowski et al., 2009). The higher ratio of women practitioners also dramatically differentiated their perceived experience as compared to all other groups, an important point of clarification for the first author.

Conclusion

Quantizing qualitative data clarified the “leaking pipeline” of academic medicine. Reasons for this “leaking pipeline” can be debated; however, less debatable is the fact that women (and men from low-status groups) had fewer strategies to successfully negotiate academic medicine to “Negotiate Adversity.” Although many of the initial codes were similar for men and women, their language is gendered in context to balancing life and career. In addition, adding a QUAL-quan methodology advanced inquiry by facilitating improved pattern recognition and recontextualized descriptions for each stratified group (Sandelowski et al., 2009; Bergman, 2010) than in Analysis 1 (Isaac et al., 2013). More research is warranted for the use of quasi statistical terms which compounds the debate about the use of numbers in qualitative research.

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