

# Moving Medical Education and Sexuality Education Forward

Carey Roth Bayer<sup>1</sup> · David Satcher<sup>1</sup>

Published online: 19 May 2015  
© Springer Science+Business Media, LLC 2015

**Abstract** Despite well-documented sexual health disparities, medical school training in human sexuality remains limited. Our intents with this paper are to deconstruct the successes and challenges in including sexuality education in medical education and to pose critical questions for moving medical education and sexuality education forward. We offer future systematic level strategies for consideration, including the role of health policy in addressing this problem in training. It is imperative that all physicians are well equipped to address sexual health with patients in order to help eliminate sexual health disparities. Finding solutions to bridge the patient realities with the medical training realities is one step in creating sexually healthy societies.

**Keywords** Medical education · Sexuality education · Health professional education · Sexual health · Health policy

## Introduction

Sexual health disparities related to HIV/AIDS, sexually transmitted diseases and infections [1, 2], sexual violence and intimate partner violence [3], unintended pregnancy, and maternal/infant mortality [4, 5] remain pervasive in society. Additional sexual health dispar-

ities that are not as well understood include the role of access to sexual health care for treating sexual problems; access to general sexual health care for lesbian, gay, bisexual, transgender, and gender nonconforming patients; and the role of sexual pleasure in enhancing and sustaining relationships. Among strategies for addressing these sexual health disparities is a call for examining structural and social determinants of health such as the following: physical, social, cultural, organizational, community, economic, legal and policy factors, childhood development, education, employment, income and job security, food security, health services, access to health care, housing, social exclusion, and stigma [6].

In many cases, patients will seek assistance from physicians to address, diagnose, and treat their concerns related to these sexual health issues. Yet, many of these physicians have had little formal educational training in addressing sexual health with patients because most medical school curricula are limited in the amount of time spent on human sexuality and sexual health. Physicians are a key factor in the journey to eliminating these sexual health disparities and achieving sexual health equity; therefore, it is imperative that they are formally trained to address sexual health comfortably in a culturally sensitive and developmentally appropriate manner with patients across the lifespan.

Our intents with this paper are to deconstruct the successes and challenges in including sexuality education in medical education and to pose critical questions for moving medical education and sexuality education forward. We offer possible systematic level strategies for consideration, including the role of health policy in addressing this problem in training. Finding solutions to bridge the patient realities with the medical training realities is one step in creating sexually healthy societies.

---

This article is part of the Topical Collection on *Current Controversies*

✉ Carey Roth Bayer  
cbayer@msm.edu

David Satcher  
dsatcher@msm.edu

<sup>1</sup> Morehouse School of Medicine, Satcher Health Leadership Institute, 720 Westview Dr. SW, Atlanta, GA 30310, USA

## Successes

In this section, we offer highlights of successes achieved in addressing the inclusion of sexuality education in medical education including the following: visibility of the issues and action steps taken to address the issues, cultural shifts, international perspectives, cross-disciplinary perspectives, and attention on sexual history taking.

The first steps in solving the problem of limited sexuality education in medical education include acknowledging that the problem exists, gaining an understanding of why it exists, and strategizing ways to overcome the problem. The literature is filled with articles detailing the limitations on the inclusion of sexuality education in medical education, proposing explanations for why those limitations exist, and offering possible solutions to address the problem [7•, 8•, 9–16]. Examples of limitations and explanations have included lack of faculty time, resources, and training; lack of a standardized goals, objectives, and curricula; lack of consensus on what sexuality topic areas and populations to include; the role of comfort, discomfort, and fear related to the sexuality topic areas; the role of accreditation organizations, licensing examinations, and continuing medical education after licensure; a disconnect between knowledge acquisition and skill practice; and addressing the issues across personal, structural, and organizational levels. Promising solutions for addressing the problem have included the development and piloting of individual institutional curricula [17–21] as well as the convening of the 2012 and 2014 Summits on Medical School Education in Sexual Health where faculty from across the USA and Canada met to continue strategizing ways to advance the inclusion of sexuality education in medical education [8•]. It will clearly take a strategic, multipronged approach to address all the limitations identified in the literature to date. Yet, understanding the historical limitations serves as the springboard for the next generation of sexual health leaders to take action. Action steps may include reviewing curricula to find where sexual health can easily fit within the existing curricular frameworks (such as in anatomy and physiology, pathophysiology, human values, fundamentals of medicine/doctoring, pharmacology, psychopathology, clerkships, simulation labs, and electives). Developing and implementing sexual health competencies that all medical students must master in order to graduate, a task currently being undertaken by a working group from the 2014 Summit on Medical School Education in Sexual Health; the next steps after undergraduate medical education would be to extrapolate that model for graduate medical education and continuing medical education. Continuing to engage credentialing agencies in dialogue about the importance of sexual health and its relevance to health care, which ultimately means insuring test questions on sexual health content appear in the United States Medical Licensing Examination (USMLE) Step Exams and American Board of Medical

Specialties (ABMS) board exams. Creating and disseminating evidence-based, user-friendly, short videos and applications to help students put sexual health knowledge into practice in today's digital world (such as brief clips on the following: how to ask sexual health questions with patients; how to respond when patients ask sexual health questions; how to navigate the sexual side effects of medications; how to include expansive sexual health questions in electronic medical records; how to practice framing sexual health as a part of one's overall health and well-being across the lifespan instead of approaching sexual health from a disease, disaster, dysfunction model). These are just a few examples of next steps that could be taken to move toward insuring all physicians address sexual health with patients.

Cultural shifts may play a role in the inclusion of sexuality education in medical education. Noted successes include increased attention on sexual orientations and gender identities, particularly related to the health of lesbian, gay, bisexual, and transgender populations (LGBT) [22•, 23–28]. The LGBT health movement of organized efforts amongst broad-reaching organizations backed with resources and coordinated timing of information dissemination is a good example of how to bring about systematic change. For example, since the 2011 release of the Institute of Medicine's (IOM) report on LGBT health [23], the Association of American Medical Colleges (AAMC) created a committee to develop competencies for training medical students how to care for LGBT, gender nonconforming patients, and patients born with differences of sex development. The committee released the competencies as well as a book on how to implement the competencies in November, 2014 [22•]. Since November, 2014, the free book has been downloaded over 3000 times, had over 500,000 hits on Facebook/Twitter, and continues to receive media coverage through academic press, popular press, and social media. The strategic approach taken by the AAMC to build off the IOM report release and continue efforts beyond the competency and book generation and into implementation projects and a video series is an approach that might also work for moving sexual health in medical education forward. The AAMC has a large reach overseeing all accredited medical schools in the USA and Canada and has been successful by engaging stakeholders at all levels of medical education—administrators, faculty, staff, clinicians, and students—and continuing to disseminate information in various formats including expansive listservs, large national meetings and international meetings, academic press, social media, websites, popular press, and through partnerships across health disciplines.

While culture, language, and societal norms may differ around the world, a look at international perspectives and successes may help in the advancement of sexuality education and medical education. In Germany, the AeprO or German medical licensing regulations have been helpful for including sexual health content in medical curricula across the

preclinical and clinical courses [29]. In countries such as Malaysia where religion is a major influence, one key to implementing sexuality education is having health professionals work with religious scholars and religious councils to bring about educational change [30]. One reason Brazilian medical schools have been successful in incorporating sexuality education in medical education is due to Brazilian professors' interest in teaching about sexuality topics [31]. Sexuality is also valued and viewed as a part of health in the Brazilian medical school culture. As more and more international meetings, conferences, and conversations around sexuality and sexual health occur, there is a call for not only national, but also international curricula to train physicians and health professionals in sexual health [32–34].

In health care, it is easy for sexual health and sexuality education to get lost due to the silo effect or the assumption that one specialty has already addressed the concerns so there is no need for another specialty to ask questions or even assess whether concerns still exist. A look across discipline successes may not only help advance sexual health training in medical education, but may also help shift to a lens valuing a continuum of sexual health care for patients versus fragmentation or no sexual health care at all. Examples of successes in Psychiatry include understanding the extent of sexuality training for residents [35], understanding residents' perspectives on the content and delivery of sexual health training [36], identifying and prioritizing sexual health curricular content [37], and even the implementation of sex education groups as a treatment modality for patients admitted to a psychiatric day hospital [38]. Like Psychiatry, General Practitioners [39], Family Practice Residents [40], residents across disciplines [41], and Obstetrics and Gynecology practitioners [42, 43] have also gained insight to their disciplines' training and practices in assessing sexual health with patients. They have surveyed their practice areas to understand what sexual health topics are being covered with patients, which topics are not being covered, and generated ideas on how to improve sexual health care for patients. With 17 primary care clinicians, Marcell and Ellen [44] developed a schematic for determining the types of sexual health topics to address with adolescent males depending on the type of health care visit. And, Foley, Wittmann, and Balon [45] describe the success achieved using a multidisciplinary/interdisciplinary team inclusive of physicians and residents across multiple departments, social workers, and sex therapists. With this approach, they were able to learn from each other's disciplines and skill sets and ultimately enhance patient care and strengthen collaborative care relationships. Nursing has found success in not only viewing patients as holistic beings (mind, body, spirit connection), but also focusing specifically on communication techniques and comfort when addressing sexuality with patients [46]. Clearly, a variety of techniques have been successful across disciplines and specialties. These programmatic

successes serve as examples for ways to begin making change. The next steps may be to find creative strategies for replicating these programmatic successes on a larger scale to move in the direction of systematic change across disciplines and specialties instead of just individual programs.

Arguably, sexual history taking is one of the most essential skills to addressing sexual health with patients. One final example of success related to sexual health education in medical education is the expansive coverage of not only how to take a sexual history [47, 48–52], but also toolkits and guides to use when actually taking a sexual history [53–59]. The key is insuring that published how-tos, toolkits, and guides are not only learned in training, but also applied in clinical practice. Next steps for moving sexual history taking forward include publishing the tools in academic as well as clinical spaces to build the evidence base and reach more clinicians; collecting and publishing outcome and impact data related to sexual history taking; and analyzing the connections between the art, science, and business of medicine—in this case, providing optimal sexual health care for patients (art), sexual history taking (science), and reimbursement for providing sexual health care (business).

## Challenges

While learning from the successes achieved across disciplines, specialties, settings, and cultures is important for moving sexual education in medical education forward, so too is understanding current challenges and predicting future challenges. In this section, we move beyond the typical challenges experienced when making curricular and training changes (time, faculty, valuing of topic, resources to support the change, institutional climate, etc.) and, instead, focus on challenges related to keeping pace with evolving social climates, learners, educational systems, health systems, and health conditions and the ongoing need to secure the necessary resources (financial, human, systems) to address the challenges.

As the social climate changes, examples of current trends include increased age to marry, increased age to create families, decreased family sizes, increased life expectancy, increased attention to LGBT health and rights, increased attention to medical/pharmacological treatments to address sexual health concerns, and increased attention to gender roles and power structures. All of these trends have implications for how to train physicians to address sexual health with patients across the lifespan. It is imperative that not only physicians remain current, but also the educators teaching medical students and physicians remain current with the social climate realities. These realities may require new ways of taking sexual histories and connecting with empowered patients, not only new framing for individual family planning, but also new framing for population health, and a renewed focus on

the connections between bio-psycho-social-medical models when addressing sexual health concerns, especially as new treatment models are developed.

The learner is changing as quickly as the evolution of the social climate. Many of today's learners are digital natives, constantly connected to hand-held devices, seeking education and information through technology, social media, and the Internet. In an attempt to keep pace with the evolving learner, some have tried chat and instant message approaches [60] and others have tried website approaches [61] for delivering sexual health messages. The challenge is not only keeping pace with the digital learner, but also overcoming the faculty learning curve for teaching sexual health content and clinical skills, as well as learning new ways to teach given the digital learners' realities. Next steps may include using electronic platforms, learning management systems, and social media platforms to create affective, experiential learning related to sexual health and clinical care; creating digital modules on an expansive menu of sexual health topics that are available anytime, anywhere for learning and skill practice; creating cross-disciplinary sexual health learning experiences to bridge not only the sexual health learning gap, but also the cross-disciplinary communication gap; and, as the sexual health content and experiences are created, insuring the next generation of sexual health leaders and educators are also developed to keep pace with the changing educational environment.

Just as the social climate and learner is changing, so are educational systems. Medical education is shifting into a competency-based approach [62•]. Some medical schools are offering 3-year, compacted program options in addition to traditional 4-year programs to help defray institutional costs and student debt, as well as meet workforce demands [63]. More and more educational systems are also exploring distance learning options and learning anytime, anywhere options through learning management system platforms as well as massive open online course platforms. One broader educational system challenge remains the role of sexuality education in the K-12 setting [64–66]. As medical education faces these systemic changes, it becomes even more challenging to bring learners up-to-speed when they have received little sexuality education in the K-12 setting. Given these realities, shorter-term next steps may include administering sexual health needs assessments at the beginning, mid-point, and end of medical school as well as throughout residency and clinical practice, followed by referrals to self-directed learning modules on sexual health topics identified in the needs assessments. A long-term next step may be to adjust the K-12 educational setting to insure all students master basic sexual health topics before moving into the higher education system.

With the implementation of the Affordable Care Act and increasing attention on social determinants of health [6] and health disparities [67], the US health system continues to evolve. At this point, it is not entirely clear whether these

changes will prove as challenges or opportunities for moving sexual health education in medical education forward. The current challenge is in understanding the complexities of the new system and the impact it will have on clinical practice due to the projections of primary care practitioner shortages. Arguably, primary care practitioners who see patients over time and build trusting relationships with them may be in better positions to address sexual health with patients than physicians who see patients on short-term or one-time visits. Continuity in patient-provider relationship may be one key to developing the comfort needed to address sexual health, which could get lost if primary care provider shortages continue.

Keeping pace with the evolution of medical conditions and treatments is another challenge. For example, the shift from HIV as an immediate death sentence into HIV as a chronic condition requires different training and treatment options. The recent changes in the Diagnostic and Statistical Manual 5 [68] and the World Professional Association for Transgender Health's Standards of Care [26] are reshaping care for gender nonconforming individuals as well as transgender and transsexual individuals. Care for individuals born with differences of sex development continues to evolve as paradigm and language shifts occur [22•]. Increased attention to women's health and women's sexual experiences is challenging the historical male-centered models of sexual response. As more emphasis is placed on addressing obesity, diabetes, hypertension, depression, and disabilities, the sexual health implications related to body image, self-esteem, sexual self-esteem, sexual response, and sexual pharmacology cannot be forgotten. Potential strategies for overcoming these challenges may include disseminating sexual health information across health care settings and opportunities in addition to sexual health spaces (i.e., moving beyond "preaching to the choir"), reframing questions to normalize dialogue about sexual health in all practice settings including building prompts in electronic health records and on patient intake forms, and recognizing the sexual side effects of medications, especially ones related to hypertension and depression, and proactively having conversations about balancing a chronic condition along with a sexual life.

None of the challenges outlined above can be addressed without adequate financial and human resources to support systematic changes as well as educational and cultural collaborations and innovations. Complex challenges often have complex solutions when the goal is to make lasting change. Resources are essential in this process of change. Possible strategies for addressing these complex challenges may include breaking down health care and health education silos as well as cultural and religious silos. Instead of adding more sexuality

organizations or more specialized sexuality conferences, consider partnering with large health care or health education organizations such as the American Medical Association, the American Nursing Association, the American Public Health Association, the Association of American Medical Colleges, the American Psychological Association. Consider partnering with religious organizations or congregations to raise awareness about the role of sexual health in overall health and well-being. Consider unconventional strategies such as consensus processes or consensus-building activities to help bridge moral debates and find common ground. Resources will most likely always be a challenge, so innovative approaches that tie not only to achieving optimal health, but also to efficiency and cost-effectiveness may be essential.

### Critical Questions

In light of the complexities in the successes and challenges outlined above, we pose the following questions for critical consideration in moving sexual health education in medical education forward:

- What role do individual values, attitudes, and beliefs about sexuality play in this movement?
- What are the key strategies to actual multidisciplinary, cross-cultural collaboration in this movement?
- What needs to be done to cultivate a cycle of ongoing leadership in sexual health education and medical education as sexual health pioneers retire and eventually die?
- How can the social and political realities in the USA help or hinder medical schools' and, ultimately, all health professional schools' expansion of sexuality education in their programs?
- How can the movements in LGBT health, social determinants of health, and health disparities/health equity be used to assist this movement?
- Which paradigm will be more effective in helping with this movement—one that focuses on sexual disease, disaster, and dysfunction or one that focuses on sexual health as a part of overall health and well-being?
- What needs to be done to bridge the gap between the sex-saturated, US pop culture, and the US health culture uncomfortable talking about sexual health?
- What health policies need to be developed or amended to elevate the value of sexual health in health professional training at national and international levels and garner resources and support?

In the sections above, we have offered examples of possible strategies for building on successes and overcoming

challenges. The critical questions that we pose acknowledge a variety of realities including the following: the historical, sensitive nature of discussing sexuality in the USA; the recognition that health care does not happen in a vacuum or just in a physician's office; the disconnect between popular culture, academic culture, health care, health education, and sexual health; and the progress made on some health policy fronts. These questions are not necessarily easy to answer. In the Satcher Health Leadership Institute, one of our foci is on training the next generation of health leaders. It is clear that not only leadership, but also intentional leadership training will play key roles in moving sexual health and medical education forward.

### Strategies and Conclusions

Clearly, the expansion of sexuality education in medical education is a complex issue. Our systematic strategy ideas include the following: intentional leadership development in sexuality education and medical education; measuring educational outcomes and finding ways to connect those outcomes to a decrease in health disparities; balancing new technological innovations with experiential learning so health professionals do not lose the ability to practice communicating about sexual health with patients; working across disciplines (ex. nursing, psychology, social work, sexual health/sexology, allied health) and analyzing models in unconventional places to spur innovation (ex. business, economics, leadership, education, technology, informatics); maintaining a 360-degree perspective to understand and learn from all perspectives in the movement; and tying the movement into national and international health policies.

One major step in implementing these ideas includes mobilizing individuals, institutions, and cultures behind a shared vision where sexuality is valued as a normal, essential aspect of health and the human experience across the lifespan. We remain grounded in the World Health Organization's [69] working definition of sexual health:

“Sexual health is a state of physical, emotional, mental and social well-being in relation to sexuality; it is not merely the absence of disease, dysfunction or infirmity. Sexual health requires a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination and violence. For sexual health to be attained and maintained, the sexual rights of all persons must be respected, protected and fulfilled.”

Collaboration and innovation are keys to keeping pace with the rapidly changing social, cultural, educational,

technological, and health landscapes if we are to actualize the goal of creating and sustaining sexually healthy societies.

### Compliance with Ethics Guidelines

**Conflict of Interest** Carey Roth Bayer and David Satcher declare no conflicts of interest.

**Human and Animal Rights and Informed Consent** This article does not contain any studies with human or animal subjects performed by the authors.

### References

Papers of particular interest, published recently, have been highlighted as:

- Of importance

- Centers for Disease Control and Prevention. Disparities in HIV/AIDS, viral hepatitis, STDs, and TB. June 16, 2014. Online at: <http://www.cdc.gov/nchhstp/healthdisparities/>. Accessed 26 Jan 2015.
- Buhi ER, Marhefka SL, Wheldon CW, Tilley DL, Klinkenberger N, Lescano C, et al. Sexual and reproductive health disparities in a national sample of Hispanic and non-Hispanic White US college students. *J Health Disparities Res Pract.* 2014;7(1, Article 3). Available at <http://digitalscholarship.unlv.edu/jhdrp/vol7/iss1/3>. Accessed 9 Jan 2015.
- Centers for Disease Control and Prevention. Violence prevention. December 2, 2014. Online at: <http://www.cdc.gov/violenceprevention/>. Accessed 26 Jan 2015.
- Guttmacher Institute. Data center. 2014. Online at: <http://www.guttmacher.org/datacenter/index.jsp>. Accessed 26 Jan 2015.
- Johnson NB, Hayes LD, Brown K, Hoo E, Ethier K. CDC national health report: leading causes of morbidity and mortality and associated behavioral risk and protective factors—United States, 2005–2013. *Morb Mortal Wkly Rep.* 2014;63(4):3–27.
- Dean HD, Fenton KF. Addressing social determinants of health in the prevention and control of HIV/AIDS, viral hepatitis, sexually transmitted infections, and tuberculosis. *Public Health Rep.* 2010;125(4):1–5.
- Criniti S, Andellous M, Woodland MB, Montgomery OC, Urdaneta HS. The state of sexual health education in U.S. medicine. *Am J Sex Educ.* 2014;9(1):65–80. **A summary of current sexual health and medical education paradigms and programs is included.**
- Coleman E, Elders J, Satcher D, Shindel A, Parish S, Kenagy G, et al. Summit on medical school education in sexual health: report of an expert consultation. *J Sex Med.* 2013;10:924–38. **A summary of the key findings from the 2012 Summit on Medical School Education in Sexual Health is included in addition to recommendations for content inclusion in undergraduate and graduate medical education.**
- Shindel A, Parish S. Sexuality education in North American medical schools: current status and future directions. *J Sex Med.* 2013;10:3–18.
- Dyer K, das Nair R. Why don't healthcare professionals talk about sex? A systematic review of recent qualitative studies conducted in the United Kingdom. *J Sex Med.* 2013;10:2658–70.
- Barrett M, McKay A, Dickson C, Seto J, Fisher W, Read R, et al. Sexual health curriculum and training in Canadian medical schools: a study of family medicine, obstetrics and gynaecology and undergraduate medicine programs in 2011 with comparisons to 1996. *Can J Hum Sex.* 2012;21(2):63–73.
- Galletly C, Lechuga J, Layde J, Pinkerton S. Sexual health curricula in U.S. medical schools: current educational objectives. *Acad Psychiatry.* 2010;34(5):333–8.
- Wittenberg A, Gerber J. Recommendations for improving sexual health curricula in medical schools: results from a two-arm study collecting data from patients and medical students. *J Sex Med.* 2009;6:362–8.
- Malhotra S, Khurshid A, Hendricks K, Mann J. Medical school sexual health curriculum and training in the United States. *J Natl Med Assoc.* 2008;100(9):1097–106.
- Parish S, Clayton A. Sexual medicine education: review and commentary. *J Sex Med.* 2007;4:259–68.
- Solursh DS, Ernst JL, Lewis RW, Prisant LM, Mills TM, Solursh LP, et al. The human sexuality education of physicians in North American medical schools. *J Sex Med.* 2003;15(supplement 5):S41–5.
- Coleman E. Sexual health education in medical school: a comprehensive curriculum. *Virtual Mentor.* 2014;16(11):903–8.
- Dwyer RG, Thornhill JT. Recommendations for teaching sexual health: how to ask and what to do with the answers. *Acad Psychiatry.* 2010;34(5):339–41.
- Center of Excellence for Sexual Health. Promoting sexual health and responsible sexual behavior: a universal curriculum for health professionals. Atlanta: Morehouse School of Medicine; 2009.
- Rosen R, Kountz D, Post-Zwicker T, Leiblum S, Wiegel M. Sexual communication skills in residency training: the Robert Wood Johnson model. *J Sex Med.* 2006;3:37–46.
- Ferrara E, Pugnair MP, Jonassen JA, O'Dell K, Clay M, Hatem D, et al. Sexual health innovations in undergraduate medical education. *Int J Impot Res.* 2003;15(supplement 5):S46–50.
- Hollenbach A, Eckstrand K, Dreger A, editors. Implementing curricular and institutional climate changes to improve health care for individuals who are LGBT, gender nonconforming, or born with DSD. Washington, DC: Association of American Medical Colleges; 2014. **Includes expansive lists of medical schools and professional organizations focusing on sexual health.**
- Institute of Medicine of the National Academies. The health of lesbian, gay, bisexual, and transgender people: building a foundation for better understanding. Washington, D.C.: The National Academies Press; 2011.
- Obedin-Maliver J, Goldsmith E, Stewart L, White W, Tran E, Brenman S, et al. Lesbian, gay, bisexual, and transgender-related content in undergraduate medical education. *J Am Med Assoc.* 2011;306(9):971–7.
- The Joint Commission. Advancing effective communication, cultural competence, and patient- and family-centered care for the lesbian, gay, bisexual, and transgender (LGBT) community: a field guide. Oak Brook: LGBTFieldGuide.pdf; 2011.
- Coleman E, Bockting W, Botzer M, Cohen-Kettenis P, DeCuypere G, Feldman J, et al. Standards of care for the health of transsexual, transgender, and gender-nonconforming people, version 7. *Int J Transgenderism.* 2011;13:165–232.
- Human Rights Campaign Foundation. Healthcare equality index 2011: creating a national standard for equal treatment of lesbian, gay, bisexual and transgender patients and their families. Washington, D.C.: Human Rights Campaign Foundation; 2011.
- Snowdon S. The medical school curriculum and LGBT health concerns. *Virtual Mentor.* 2010;12:638–43.
- Turner D, Konstantin J, Nieder T, Briken P. German medical students' interest in and knowledge about human sexuality in 1972 and 2012. *J Sex Med.* 2014;11:1914–26.

30. Fazli Khalaf Z, Yun Low W, Merghati-Khoei E, Ghorbani B. Sexuality education in Malaysia: perceived issues and barriers by professionals. *Asia Pac J Public Health*. 2014;26(4):358–66.
31. Cronemberger Rufino A, Madeiro A, João Batista Castello Girão M. Sexuality education in Brazilian medical schools. *J Sex Med*. 2014;11:1110–7.
32. Wylie K, Weerakoon P. International perspective on teaching human sexuality. *Acad Psychiatry*. 2010;34(5):397–402.
33. Parish S, Rubio-Aurioles E. Education in sexual medicine: proceedings from the international consultation in sexual medicine, 2009. *J Sex Med*. 2010;7:3305–14.
34. Wagner G. Sexual medicine in the medical curriculum. *Int J Androl*. 2005;28(supplement 2):7–8.
35. Sansone R, Wiederman M. Sexuality training for psychiatry residents: a national survey of training directors. *J Sex Marital Ther*. 2000;26:249–56.
36. Waione E, Arfken C, Morreale M. Sexual health education: a psychiatric resident's perspective. *Acad Psychiatry*. 2010;34(5):357–60.
37. Levine S, Scott D. Sexual education for psychiatric residents. *Acad Psychiatry*. 2010;34(5):349–52.
38. Persson T, Drury K, Gluch E, Wiviott G. Sex education groups in a psychiatric day hospital: clinical observations. *J Sex Marital Ther*. 2014. doi:10.1080/0092623X.2014.999395.
39. Ribeiro S, Alarcão V, Simões R, Leão Miranda F, Carreira M, Glavão-Teles A. General practitioners' procedures for sexual history taking and treating sexual dysfunction in primary care. *J Sex Med*. 2014;11:386–93.
40. Clark J, Brey R, Banter A, Khubchandani J. The delivery of sexuality-related patient education to adolescent patients: a preliminary study of family practice resident physicians. *J Fam Med Prim Care*. 2012;1(1):34–8.
41. Morreal M, Arfken C, Balon R. Survey of sexual education among residents from different specialties. *Acad Psychiatry*. 2010;34(5):346–8.
42. Sobecki J, Curlin F, Rasinski K, Tessler LS. What we don't talk about when we don't talk about sex: results of a national survey of U.S. obstetrician/gynecologists. *J Sex Med*. 2012;9:1285–94.
43. Pancholy A, Goldenhar L, Fellner A, Crisp C, Kleerman S, Pauls R. Resident education and training in female sexuality: results of a national survey. *J Sex Med*. 2011;8:361–6.
44. Marcell A, Ellen J. Core sexual/reproductive health care to deliver to male adolescents: perceptions of clinicians focused on male health. *J Adolesc Health*. 2012;51(1):38–44.
45. Foley S, Wittmann D, Balon R. A multidisciplinary approach to sexual dysfunction in medical education. *Acad Psychiatry*. 2010;34(5):386–9.
46. Weaver Duldt B, Pokorny ME. Teaching communication about human sexuality to nurses and other healthcare providers. *Nurse Educ*. 1999;24(5):27–32.
47. Althof S, Rosen R, Perelman M, Rubio-Aurioles E. Standard operating procedures for taking a sexual history. *J Sex Med*. 2013;10:26–35. **Provides essential information on sexual-history taking.**
48. Coverdale J, Balon R, Weiss RL. Teaching sexual history-taking: a systematic review of educational programs. *Acad Med*. 2011;86(12):1590–5.
49. Daniels T. Let's talk about sex. *Virtual Mentor*. 2010;12(8):650–3.
50. Wimberly Y, Hogben M, Moore-Ruffin J, Moore S, Fry-Johnson Y. Sexual history-taking among primary care physicians. *J Natl Med Assoc*. 2006;98(12):1924–9.
51. Pakpreo P. Why do we take a sexual history? *Virtual Mentor*. 2005;7(10).
52. Nusbaum M, Hamilton C. The proactive sexual health history. *Am Fam Physician*. 2002;66(9):1705–12.
53. Navy and Marine Corps Public Health Center – Sexual Health and Responsibility Program. Brief guide for sexual risk assessment and intervention, version 11/18/2014. Retrieved online December 10, 2014 from: <http://www.med.navy.mil/sites/nmcphc/health-promotion/reproductive-sexual-health/Pages/sexual-health-resources.aspx>.
54. National LGBT Health Education Center: a program of the Fenway Institute & National Association of Community Health Centers. Taking routine histories of sexual health: a system-wide approach for health centers. Boston: National LGBT Health Education Center: A Program of the Fenway Institute & National Association of Community Health Centers & National Association of Community Health Centers; 2013.
55. The Fenway Institute & Center for American Progress. Asking patients questions about sexual orientation and gender identity in clinical settings: a study in four health centers. Boston: The Fenway Institute & Center for American Progress; 2013.
56. California Department of Public Health STD Control Branch & California STD/HIV Prevention Training Center. A clinician's guide to sexual history taking. Sacramento, CA: California Department of Public Health STD Control Branch & California STD/HIV Prevention Training Center; 2011.
57. Monasterio E, Combs N, Warner L, Larsen-Fleming M, St. Andrews A. Sexual health: an adolescent provider toolkit. San Francisco: Adolescent Health Working Group, San Francisco; 2010.
58. Creegan L, Gelt M. Sexual history-taking toolkit: focus on Chlamydia, gonorrhea, and HIV in the family planning clinic. Los Angeles: California Family Health Council, Inc., Center for Health Training, California STD/HIV Prevention Training Center; 2009.
59. U.S. Department of Health and Human Services: Centers for Disease Control and Prevention. Taking a sexual history: a guide to taking a sexual history. CDC Publication 99-8445. Atlanta: Centers for Disease Control and Prevention; 2005.
60. Giorgio M, Kantor L, Levine D, Arons W. Using chat and text technologies to answer sexual and reproductive health questions: planned parenthood pilot study. *J Med Internet Res*. 2013;15(9), e203.
61. McCarthy O, Carswell K, Murray E, Free C, Stevenson F, Bailey J. What people want from a sexual health website: design and development of Sexunzipped. *J Med Internet Res*. 2012;14(5), e127.
62. Englander R, Cameron T, Ballard AJ, Dodge J, Bull J, Aschenbrenner CA. Toward a common taxonomy of competency domains for the health professions and competencies for physicians. *Acad Med*. 2013;88(8):1088–94. **Essential for understanding competency-based medical education.**
63. Boodman S. Medical school done faster. *The Washington Post*. January 13, 2014. Retrieved from [http://www.washingtonpost.com/national/health-science/medical-school-done-faster/2014/01/13/4b6d9e54-5c40-11e3-be07-006c776266ed\\_story.html](http://www.washingtonpost.com/national/health-science/medical-school-done-faster/2014/01/13/4b6d9e54-5c40-11e3-be07-006c776266ed_story.html).
64. Haberland N, Rogow D. Sexuality education: emerging trends in evidence and practice. *J Adolesc Health*. 2015;56:S15–21.
65. Schalet A, Santelli J, Russell S, Halpern C, Miller S, Pickering S, et al. Invited commentary: broadening the evidence for adolescent sexual and reproductive health and education in the United States. *J Youth Adolesc*. 2014;43:1595–610.
66. Ketting E, Winkelmann C. New approaches to sexuality education and underlying paradigms. *Bundesgesundheitsbl*. 2013;56:250–5.
67. Dorsey R, Graham G, Glied S, Meyers D, Clancy C, Koh H. Implementing health reform: improved data collection and the monitoring of health disparities. *Annu Rev Public Health*. 2014;35:123–38.
68. American Psychiatric Association. Diagnostic and statistical manual of mental disorders. 5th ed. Washington, DC: American Psychiatric Association; 2013.
69. World Health Organization. Defining sexual health: report of a technical consultation on sexual health, 28-31 January 2002, Geneva. Geneva: World Health Organization; 2006.