

An Emerging Field in Religion and Reproductive Health

Laura M. Gaydos · Alexandria Smith · Carol J. R. Hogue ·
John Blevins

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Abstract Separate from scholarship in religion and medicine, a burgeoning field in religion and population health, includes religion and reproductive health. In a survey of existing literature, we analyzed data by religious affiliation, discipline, geography and date. We found 377 peer-reviewed articles; most were categorized as family planning (129), sexual behavior (81), domestic violence (39), pregnancy (46), HIV/AIDS (71), and STDs (61). Most research occurred in North America (188 articles), Africa (52), and Europe (47). Article frequency increased over time, from 3 articles in 1980 to 38 articles in 2008. While field growth is evident, there is still no cohesive “scholarship” in religion and reproductive health.

Keywords Religion · Reproductive health · Family planning · HIV/AIDS · Domestic violence

Drs. Laura Gaydos PhD, Carol Hogue PhD, MPH and John Blevins are faculty members at the Rollins School of Public Health at Emory University. All three authors are investigators with the Emory Religion and Public Health Collaborative, specializing in issues of reproductive health and HIV/AIDS. Ms. Smith is a health services researcher with the RAND Corporation.

L. M. Gaydos (✉)

Department of Health Policy & Management, Emory University, Rollins School of Public Health,
1518 Clifton Rd. NE, Atlanta, GA 30322, USA
e-mail: Lgaydos@emory.edu

A. Smith

Rand Corporation, Santa Monica, CA, USA

C. J. R. Hogue

Department of Epidemiology, Emory University, Rollins School of Public Health, Atlanta, GA, USA

J. Blevins

Department of Global Health, Emory University, Rollins School of Public Health, Atlanta, GA, USA

Introduction

The study of religion and medicine is not new. In fact, researchers have been examining the role of religion in medicine for quite some time, and the field has continued to evolve. Prior to the 1990s, religion was often a de facto area of medical research: Researchers often obscured religious variables in the methods and results sections of their studies without overtly highlighting them as legitimate areas of health research (e.g., by including them in article titles or abstracts). (Miller and Thoresen 2003) However, more recently, religion has gained recognition as an important component of medical care. (Koenig 2001) Religious assets figure prominently among the methods that people call on when coping with life stress and illness. (Dein and Stygall 1997; Cole and Pargament 1999) (Koenig et al. 1997) (Pargament et al. 1998) (Canada et al. 2005; Nelson-Becker 2005; Canada et al. 2006; Choumanova et al. 2006) With great reliability, religious variables have been found to be significantly related to physical, (Miller 1992; Koenig 2000; Larson and Koenig 2000; McCullough et al. 2000; Powell et al. 2003; Franzini et al. 2005; Levin et al. 2005; Rippentrop et al. 2005; Bosworth 2006; Cotton et al. 2006; Underwood and Powell 2006; Dominguez 2008; Luecken et al. 2009) and mental health. (Larson and Koenig 2000; Rippentrop et al. 2005; Kamm-Steigelman et al. 2006) The literature consistently reports a significant correlation between religion and medicine, focused on individual health outcomes. As in Koenig's summary of the literature, he states that "religious beliefs and practices rooted within established religious traditions were found to be consistently associated with better health and predicted better health over time." (Koenig 2001).

There is an emerging sister field in religion and public health. Contrasted with the medical literature, public health research focuses on the community. Several examples include public health education and health promotion in faith-based settings (Boario 1993; Ransdell 1995; Quinn and McNabb 2001; Krause 2002; Clay et al. 2005; Kennedy et al. 2005; Krause 2006; Samuel-Hodge et al. 2006; Beck et al. 2007; Sauaia et al. 2007; Husaini et al. 2008; Zahuranec et al. 2008), etiologic research including the role of race and ethnicity, religion, and social relationships in health and health-seeking behaviors (Triandis and Triandis 1960; Hay and Foster 1981; Russo and Dabul 1997; Van Ness et al. 2003; Nagel et al. 2005; Davidson et al. 2008), and faith groups providing healthcare and social support in low-resource environments (Vogel and Stephens 1989; Boario 1993; James 1999; Glecos 2003; Miller 2004; Adogame 2007). There is also recognition of the institutional and societal tensions that can exist between religion and health, particularly in issues related to HIV/AIDS (Aldridge et al. 1989; Smith et al. 2005; Agadjanian and Sen 2007; Otolok-Tanga et al. 2007; Collins et al. 2008, 2009), reproduction, and family planning (Diamond 1988; Runkel 1998; Ali and Naidoo 1999; Garner 2000; Polis et al. 2005). While this field of research and practice builds on much of the existing focus on individual treatment, it also incorporates components of population health that are truly unique. Religion and reproductive health is a burgeoning subfield within this scholarship, encompassing both synergies and tensions between the two disciplines. We define reproductive health broadly to include family planning, contraceptives, reproductive technology, genetic counseling, HIV/AIDS, and domestic violence counseling and services.

While organized religion and reproductive health may not be obvious partners, both are seeking to improve the holistic well-being of the people they serve, and both have an intrinsic focus on the family. From a health perspective, reproductive health is typically discussed with regards to birth and maternal/child health outcomes. Whether public health

researchers focus on increasing interconception care (D'Angelo et al. 2007; Badura et al. 2008; Chatterjee et al. 2008; Simon and Handler 2008; Wise 2008), the role of race and ethnicity in birth outcomes (Adebisi and Strayhorn 2005; Aliyu et al. 2005; Reagan and Salsberry 2005; Shiao et al. 2005; Canfield et al. 2006; Nicholson 2006; Stotland et al. 2006; van den Oord 2006; Keeton and Hayward 2007; Palomar 2007; Dominguez 2008; Ma 2008; Nanyonjo et al. 2008; Simhan 2008; Sims et al. 2008), social support systems for low-income or low-resource families (Norbeck and Anderson 1989; McKee et al. 2001; Harley and Eskenazi 2006; Laraia et al. 2006; Lifflander et al. 2007; Walker and Sterling 2007; Collins et al. 2008; Simon and Handler 2008), or a variety of other topics, their focus tends to be on improving clinical health outcomes for mother and child. In contrast, the religious interest in family growth dynamics may be more focused on holistic growth of healthy families, although the precise roles of religious organizations in this area have not yet been determined.

It would appear that organized religions have a two-pronged impact on reproductive health issues. First, literature suggests that an individual's religious affiliation may influence timing of marriage, beliefs about sex outside of marriage, childbearing outside of marriage, and desired family size (Miller 1992; Mosher et al. 1992). Religious teachings and spirituality may also influence a person's or couple's decision-making about contraceptives, choices about when and how to have a family, and a myriad of other health decisions faced on a daily basis (Ryan and Dunn 1988; Lifflander et al. 2007; Hirsch 2008; Srikanthan and Reid 2008; Gaydos et al. 2009). Second, at the community level, faith institutions (churches, synagogues, mosques, temples) have the potential to influence community norms—whether from the pulpit, or in spoken values shared through adult education classes, or unspoken values shared among a religious community. Religious institutions may also directly influence reproductive health through service provision, as in the case of hospital ownership, explicit rules about provision of reproductive health care services, political action aimed at reproductive health care services, and framing public policies in line with moral teachings. Faith intuitions are instrumental, intentionally or not, in the establishment of community mores (Young 1979; Galanter et al. 1980; Runkel 1998; Adamczyk 2008; Srikanthan and Reid 2008).

Faith communities are often the only place where intergenerational groups of community members meet on a regular basis (Simmons 1991), where there is discourse on a variety of issues of importance to the community and where many community members come for support. Therefore, these faith homes become instrumental in establishing a center of strength for the community. Not surprisingly, when health issues and concerns arise, many people of faith look to their religious communities for answers. Pressing reproductive health issues of HIV/AIDS, unintended pregnancy, domestic violence, and newly emerging issues of genetics and genomics are no different in that people still seek answers. However, these issues often pose greater difficulty for religious and faith leaders and institutions who want to help those they serve, but either do not have the tools do so (Martin 1989; Smith et al. 2005) or find conflicting teachings in the religion they know and the health promotion they may seek. (Runkel 1998; Otolok-Tanga et al. 2007).

As these impacts, both synergistic and antagonistic, across religious and health fields are becoming better recognized in reproductive health issues, a subfield of academic research is also beginning to evolve. This article is a first step in documenting the existing literature in the field of religion and reproductive health and in beginning to define a field of religion and reproductive health so that researchers, academics, and practitioners can have a foundation on which this subfield may grow and continue to evolve.

Methods

We conducted searches of the National Library of Medicine's Medline database (PubMed) for MeSH major terms and *Web of Science* (including the *Psychlit* and *Soc Abstracts*), related to religion and reproductive health, for articles published between 1980 and 2008. We searched for the terms "religion" and ten major categories of terms including abortion, acquired immunodeficiency syndrome (AIDS), assisted reproductive techniques, cloning/embryo/stem cell, contraception, domestic violence, pregnancy, reproductive health services, sexual behavior, sexually transmitted disease (STD). Table 1 details the MeSH subject heading terms captured in each of these major terms and the corresponding *Web of Science* search terms.

Upon collecting articles matching these key terms, we reviewed articles to ensure that they were studies published in peer-reviewed journals. While the quality of studies was not judged for the purposes of this review, we assume that publication in a peer-reviewed journal connotes a certain level of acceptable quality. Both quantitative and qualitative articles were included, as were case studies. We did not include opinion/editorial articles or literature reviews, unless they included an analysis component. All articles were reviewed by two researchers separately for determination of inclusion in the analysis. Inclusion required consensus of the research team.

Coding determinations for the articles were based on a series of decisions by the research team and required consensus of the two reviewers. Therefore, the subject area, religious affiliation and disciplinary affiliation were all determined based on researcher definitions. While subject area and religious affiliation were relatively straightforward, determination of primary discipline was complex. Primary discipline was determined through a sequential series in which we first tried to determine the discipline of the corresponding author; if this was unclear (for example, there was not a departmental affiliation listed or the department was interdisciplinary), we moved to the second stage to determine the discipline of the journal in which the article was published. If the journal was also multidisciplinary, we made a decision as a research team as to what field we thought the article best represented.

Results

We found a total of 377 articles meeting our requirements as studies or peer-reviewed articles on the topic(s) of religion and reproductive health, *from a total of 353 unique first authors*. More articles (129) fell into the topic of family planning, than any other topic. Sexual behavior was a close second with 81 articles. Other common topics, included domestic violence ($n=39$), pregnancy ($n=46$), HIV/AIDS ($n=71$), and STDs ($n=61$). Figure 1 depicts the breakdown of articles by reproductive health topic. Notably, the totals add to greater than 377 because many of the articles covered more than one of our topics of interest.

We were also interested in how the research segmented by religious affiliation, given that different organized religions may take very different approaches to reproductive health issues. The large majority ($n=254$) of articles were of Christian affiliation generally, followed by 108 articles primarily regarding Muslims, 31 articles focused on Judaism, and smaller numbers reflecting Buddhism, and Hinduism. As with the subject area above, the totals exceed 377 articles, although there were fewer articles that included more than one religious group than found when categorizing by topic.

Table 1 Reproductive health terms used in study

| Major category | MeSH terms in Medline | Web of science terms |
|----------------------------------|---|--|
| Abortion | Abortion, induced abortion, eugenics, pregnancy reduction, multifetal | Religion*abortion |
| AIDS* | Acquired immunodeficiency syndrome; HIV infections. | Religion*AIDS |
| Assisted reproductive techniques | Assisted reproductive techniques; embryo transfer; fertilization in vitro; sperm injections; intracytoplasmic gamete; intrafallopian transfer; insemination artificial; heterologous insemination; artificial, homologous; oocyte donation; oocyte retrieval; ovulation induction; superovulation; posthumous conception; sperm retrieval; zygote intrafallopian transfer | Religion*assisted reproductive techniques; religion*embryo |
| Cloning/embryo/ stem cell | Cloning; embryo; organism; research embryo creation; adult stem cells; embryonic stem cells; embryonal carcinoma stem cells; fetal stem cells; fibroblasts; hematopoietic stem cells; lymphoid progenitor cells; myeloid progenitor cells; mesenchymal stem cells; multipotent stem cells; myoblasts; myoblasts; cardiac myoblasts; skeletal myoblasts; smooth muscle; neoplastic stem cells; embryonalcarcinoma stem cells; pluripotent stem cells; totipotent stem cells | Religion*embryo; religion*cloning; religion*stem cell |
| Contraception | Contraception; coitus interruptus; barrier; immunologic; contraception, postcoital; natural family planning methods; ovulation inhibition; sterilization; reproductive | Religion*contraception |
| Domestic violence | Domestic violence; child abuse; child abuse, sexual; munchausen syndrome by proxy; elder abuse; spouse abuse | Religion*domestic violence |
| Pregnancy | Pregnancy; gravidity; labor, obstetric; cervical ripening; labor onset +trial of labor; uterine contraction; labor presentation; breech presentation; maternal age; pregnancy in adolescence; maternal-fetal exchange; parity; parturition; home childbirth; natural childbirth; term birth; placentation; pregnancy, high-risk; pregnancy maintenance; corpus luteum maintenance; pregnancy, multiple; quadruplets; quintuplets; superfetation; triplets; twins + pregnancy outcome; live birth; stillbirth; pregnancy rate; pregnancy trimesters; first pregnancy trimester; second, pregnancy trimester; third, pregnancy trimester; unplanned pregnancy; unwanted pregnancy; prenatal nutrition; prenatal physiology; pseudopregnancy | Religion*pregnancy |
| Reproductive health services | Reproductive health services; family planning services; maternal health services | Religion*reproductive health |
| Sexual behavior* | Sexual behavior; coitus; coitus interruptus; courtship; extramarital relations; masturbation; prostitution; safe sex; sexual abstinence; sexual harassment; sexuality; bisexuality; heterosexuality; unsafe sex | Religion*sexual behavior |
| STD | Sexually transmitted diseases; bacterial; chancroid; chlamydia infections +gonorrhea; granuloma inguinale; syphilis; sexually transmitted infections; viral condylomata acuminata; herpes genitalis; HIV infections. | Religion*sexually transmitted disease; Religion*sexually transmitted infection |

*Note: excluded homosexuality because not related to reproduction

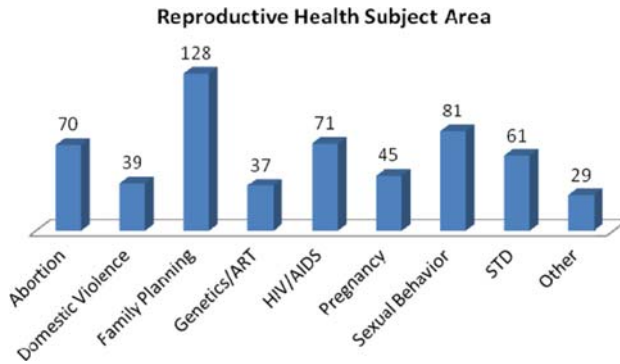


Fig. 1 Existing literature by health subject area

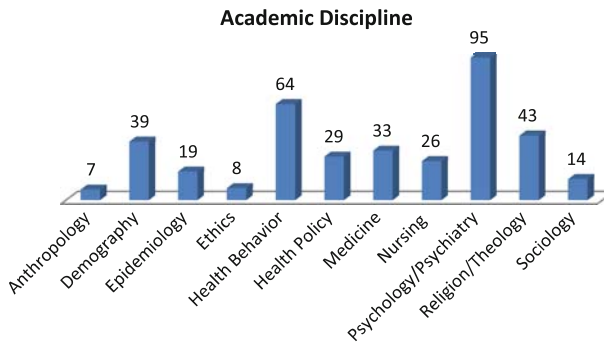


Fig. 2 Existing literature by academic discipline

Interestingly, research in religion and reproductive health spans a variety of academic disciplines (Fig. 2), ranging from *psychology and psychiatry with the most publications (n=95) to sociology (n=14) and anthropology (n=7) with the fewest*. However, it is notable that the humanities have begun to have more publications in later years. For example, *six of the seven* anthropology publications occurred after 2006. Although article authors may come from a given discipline and even publish within that area, few existing publications can be exclusively attributed to one academic or research field with no allusions to other areas of thought. For example, articles in nursing journals frequently reference behavioral health and psychological frameworks; multiple publications in topic-specific journals, such as *AIDS Care* and *Family Planning Perspectives* (now known as *International Perspectives on Sexual and Reproductive Health*) come from authors in multiple disciplines. This is likely a factor of the population focus of the field and the consequent association with public health, where such cross-disciplinary work is much more common.

We also examined study type and determined that 74.1% of the articles ($n=248$) included quantitative research. The majority (61.7%) of quantitative studies were cross-sectional ($n=153$) and included survey research or analysis of secondary data sets ($n=181$); other quantitative methodologies reported included cohort studies ($n=10$), chart reviews ($n=11$), case-control studies ($n=4$) and 1 randomized control trial. *Ninety-six publications comprised qualitative research, including 40 interview studies, 28 case studies/case*

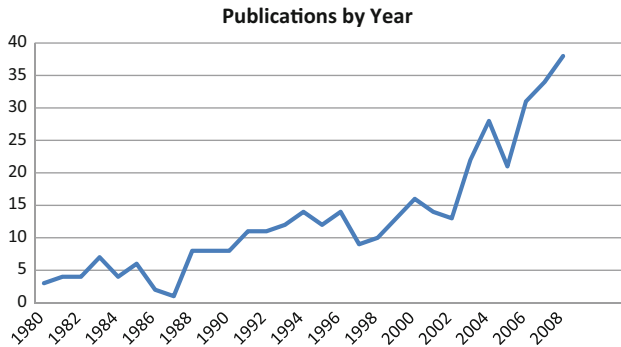


Fig. 3 Religion and reproductive health publications by year

reports, 8 ethnographies, and 7 focus groups; similar to the trend shown in academic discipline above, just over one-fourth (27%) of the qualitative articles were published during the first 20 years of the investigation (prior to 2000), indicating a strong growth in qualitative research over time.

To determine geographically where this burgeoning scholarship is occurring and how it compares to distribution of policies, disease burden and various other issues related to reproductive health, we examined publications by geographic region. We found more research occurring in North America ($n=188$) than any other region, followed by Africa ($n=52$), Europe ($n=47$), the Middle East ($n=34$) and much smaller numbers in South-central, Southeast Asia and Latin America. For this analysis, Turkey is included in the European region and China is included in Southeast Asia. *Notably, among African manuscripts, only 13 had a first author who was African.*

Perhaps the most important finding is that the frequency of articles increased substantially over the years, ranging from 3 articles in 1980 to 38 articles in 2008, demonstrating ongoing and considerable growth in this field of research, as shown in Fig. 3. Researchers are beginning to recognize and document opportunities for partnerships across religion and reproductive health. For example, in 2007, Otolok-Tanga et al. examined the actions of faith-based organizations and their influence on HIV/AIDS-related stigma in Uganda in 2007. (Otolok-Tanga et al. 2007) In 2008, Melton and Anderson noted the positive role of faith communities in offering safe spaces against domestic and child abuse. (Melton and Anderson 2008) These are just a few examples; there is a wide variety in the topics, methodologies, academic fields, and even locales of the research to date.

Discussion

Growth in this topic is evident. However, there is still very limited “scholarship” in the area of religion and reproductive health. In 2008, there were only a total of *thirty-eight* peer-reviewed research articles on the topic of religion and reproductive health. This indicates that while religion and reproductive health is growing as a field, there is still much unexplored territory. *Notably, although the increasing publication trend is evident throughout the time-period of the study, there is a sizable increase beginning in 2003. To our knowledge, there was not a change in indexing protocols for the datasets or any other*

externality that might have resulted in this adjustment, but we recognize the possibility of an unobserved exogenous variable that may drive this trend.

As noted in the results, one area of evident growth is in qualitative research. Whereas only *four* qualitative articles were found in the 1980s, the use of interviews particularly, but also focus groups, observations and ethnography, have increased substantially over the last 25 years. In a complex and evolving field such as religion and reproductive health, this use of exploratory qualitative methods seems most appropriate. We would expect a continued growth of qualitative methods to permeate, if not begin to dominate, the field.

Interestingly, researchers in the field of religion and reproductive health seem very comfortable working across disciplines. As the religion and reproductive field of inquiry continues to develop, researchers and practitioners alike should consider partnerships that may not be immediately obvious across fields of public health, nursing, religion, theology, ethics, and other related fields. As is evident in the articles reviewed for this study, one of the great strengths of this emerging field is its interdisciplinary and multidisciplinary nature.

This study is not without limitations. We recognize that not all available literature will be captured by searches of the Medline and Web of Science databases; however, we believe that the great majority of existing literature is appropriately captured. Similarly, our research topics are not exhaustive, and it could be argued that other keywords and search terms would produce additional literature. We further recognize that there has been overall growth in scientific literature, which may drive some of the findings. Finally, the presentation of categorical literature in this analysis is based on subjective reviewer coding. Although we used a standardized process and required coder agreement, others may disagree with our groupings and interpretations of the articles. This is of particular concern with regard to disciplinary affiliation, and we recognize this potential weakness. That said, we believe that this review provides an important summary of a growing field.

Reproductive health focuses on communities which are necessarily complex, consisting of multiple individuals, leaders, social structures, mores, and other intricacies, many of which are tied into religious and faith structures. The value in establishing a field in religion and reproductive health is recognizing these complexities and working with them rather than fighting the tensions that often result between religion and health policy advocates around issues of sex and reproduction. However, these partnerships are not without challenges.

Future research should continue to use the existing interdisciplinary strengths, but also focus on finding common ground and building lexicon and frameworks comfortable to practitioners and researchers in both fields to strengthen bonds around issues that may be divisive. For quantitative analyses, existing resources, such as the National Survey for Family Growth (NSFG), Behavioral Risk Factor Surveillance System (BRFSS), and the AIDS Public Information Data Set (APIDS) are a few examples of the rich datasets that are publicly available. Augmentation of the data and analyses from these types of large datasets with qualitative analyses (interviews, focus groups, ethnographies) will help to build a better literature base in religion and reproductive health and help us to understand this complex field.

References:

- Adamczyk, A. (2008). The effects of religious contextual norms, structural constraints, and personal religiosity on abortion decisions. *Social Science Research*, 37(2), 657–672.
- Adebisi, O. Y., & Strayhorn, G. (2005). Anemia in pregnancy and race in the United States: Blacks at risk. *Family Medicine*, 37(9), 655–662.

- Adogame, A. (2007). HIV/AIDS support and African pentecostalism: The case of the redeemed christian church of god (RCCG). *Journal of Health and Psychology*, 12(3), 475–484.
- Agadjanian, V., & Sen, S. (2007). Promises and challenges of faith-based AIDS care and support in Mozambique. *American Journal of Public Health*, 97(2), 362–366.
- Aldridge, J., Clayton, G., et al. (1989). AIDS education and policies among Southern Baptist church leaders in the state of Texas. *Psychological Reports*, 64(2), 493–494.
- Ali, H. K., & Naidoo, A. (1999). Sex education sources and attitudes about premarital sex of Seventh Day Adventist youth. *Psychological Reports*, 84(1), 312.
- Aliyu, M. H., Salihu, H. M., et al. (2005). Trends in birth across high-parity groups by race/ethnicity and maternal age. *Journal of the National Medical Association*, 97(6), 799–804.
- Badura, M., Johnson, K., et al. (2008). Healthy start lessons learned on interconception care. *Womens Health Issues*, 18(6 Suppl), S61–S66.
- Beck, B., Young, S., et al. (2007). Development of a church-based cancer education curriculum using CBPR. *Journal of Health Care for the Poor and Underserved*, 18(1), 28–34.
- Boario, M. T. (1993). Mercy model: Church-based health care in the inner city. *Journal of Christian Nursing*, 10(1), 20–22.
- Bosworth, H. B. (2006). The importance of spirituality/religion and health-related quality of life among individuals with HIV/AIDS. *Journal of General Internal Medicine*, 21(5), S3–S4.
- Canada, A. L., Parker, P. A., et al. (2005). Active coping mediates the association between religion/spirituality and functional well-being in ovarian cancer. *Gynecologic Oncology*, 99(3 Suppl 1), S125.
- Canada, A. L., Parker, P. A., et al. (2006). Active coping mediates the association between religion/spirituality and quality of life in ovarian cancer. *Gynecologic Oncology*, 101(1), 102–107.
- Canfield, M. A., Honein, M. A., et al. (2006). National estimates and race/ethnic-specific variation of selected birth defects in the United States, 1999–2001. *Birth defects research. Part A, Clinical and Molecular Teratology*, 76(11), 747–756.
- Chatterjee, S., Kotelchuck, M., et al. (2008). Prevalence of chronic illness in pregnancy, access to care, and health care costs: Implications for interconception care. *Womens Health Issues*, 18(6), S107–S116.
- Choumanova, I., Wanat, S., et al. (2006). Religion and spirituality in coping with breast cancer: Perspectives of Chilean women. *The Breast Journal*, 12(4), 349–352.
- Clay, K. S., Newlin, K., et al. (2005). Pastors' wives as partners: An appropriate model for church-based health promotion. *Cancer Control*, 12(2), 111–115.
- Cole, B., & Pargament, K. (1999). Re-creating your life: A spiritual/psychotherapeutic intervention for people diagnosed with cancer. *Psychooncology*, 8(5), 395–407.
- Collins, P. Y., von Unger, H., et al. (2008). Church ladies, good girls, and locas: Stigma and the intersection of gender, ethnicity, mental illness, and sexuality in relation to HIV risk. *Social Science and Medicine*, 67(3), 389–397.
- Collins, J. W., Jr., Wambach, J., et al. (2009). Women's lifelong exposure to neighborhood poverty and low birth weight: A population-based study. *Maternal Child Health Journal*, 13(3), 326–333.
- Cotton, S., Zebracki, K., et al. (2006). Religion/spirituality and adolescent health outcomes: A review. *Journal of Adolescent Health*, 38(4), 472–480.
- D'Angelo, D., Williams, L., et al. (2007). Preconception and interconception health status of women who recently gave birth to a live-born infant—Pregnancy Risk Assessment Monitoring System (PRAMS), United States, 26 reporting areas, 2004. *MMWR. Surveillance Summaries*, 56(10), 1–35.
- Davidson, J. K., Sr., Moore, N. B., et al. (2008). Sexual attitudes and behavior at four universities: Do region, race, and/or religion matter? *Adolescence*, 43(170), 189–220.
- Dein, S., & Stygall, J. (1997). Does being religious help or hinder coping with chronic illness? A critical literature review. *Palliative Medicine*, 11(4), 291–298.
- Diamond, E. F. (1988). Sterilization in catholic hospitals. *Linacre Q*, 55(1), 57–66.
- Dominguez, T. P. (2008). Race, racism, and racial disparities in adverse birth outcomes. *Clinical Obstetrics and Gynecology*, 51(2), 360–370.
- Franzini, L., Ribble, J. C., et al. (2005). Religion, sociodemographic and personal characteristics, and self-reported health in whites, blacks, and Hispanics living in low-socioeconomic status neighborhoods. *Ethnicity and Disease*, 15(3), 469–484.
- Galanter, M., Buckley, P., et al. (1980). Large group influence for decreased drug use: Findings from two contemporary religious sects. *American Journal of Drug and Alcohol Abuse*, 7(3–4), 291–304.
- Garner, R. C. (2000). Safe sects? Dynamic religion and AIDS in South Africa. *The Journal of Modern African Studies*, 38(1), 41–69.
- Gaydos, L. M., Thompson, W., et al. (2009). *Does faith affect how southern African-American women use contraception?* American public health association. PA: Philadelphia.

- Glecos, S. (2003). Water street rescue mission dental clinic: Filling the void for Lancaster community. *Pennsylvania Dental Journal (Harrib)*, 70(5), 39–40.
- Harley, K., & Eskenazi, B. (2006). Time in the United States, social support and health behaviors during pregnancy among women of Mexican descent. *Social Science and Medicine*, 62(12), 3048–3061.
- Hay, D. R., & Foster, F. H. (1981). The influence of race, religion, occupation and other social factors on cigarette smoking in New Zealand. *International Journal of Epidemiology*, 10(1), 41–43.
- Hirsch, J. S. (2008). Catholics using contraceptives: Religion, family planning, and interpretive agency in rural Mexico. *Studies in Family Planning*, 39(2), 93–104.
- Husaini, B. A., Reece, M. C., et al. (2008). A church-based program on prostate cancer screening for African American men: Reducing health disparities. *Ethnicity and Disease*, 18(2 Suppl 2), S2-179–S2-184.
- James, J. S. (1999). Model AIDS program housed in African-American church. *AIDS Treat News* (No 318): 6–7.
- Kamm-Steigelman, L., Kimble, L. P., et al. (2006). Religion, relationships and mental health in midlife women following acute myocardial infarction. *Issues in Mental Health Nursing*, 27(2), 141–159.
- Keeton, K., & Hayward, R. A. (2007). Pregnancy intention and birth outcomes: Does the relationship differ by age or race? *Journal of Womens Health (Larchmt)*, 16(4), 510–516.
- Kennedy, B. M., Paeratakul, S., et al. (2005). A pilot church-based weight loss program for African-American adults using church members as health educators: A comparison of individual and group intervention. *Ethnicity and Disease*, 15(3), 373–378.
- Koenig, H. G. (2000). MSJAMA: Religion, spirituality, and medicine: Application to clinical practice. *Jama*, 284(13), 1708.
- Koenig, H. G. (2001). *Handbook of religion and health*. New York: Oxford University Press.
- Koenig, H. G., Weiner, D. K., et al. (1997). Religious coping in the nursing home: A biopsychosocial model. *International Journal of Psychiatry in Medicine*, 27(4), 365–376.
- Krause, N. (2002). Church-based social support and health in old age: Exploring variations by race. *Journals of Gerontology. Series B, Psychological Sciences and Social Sciences*, 57(6), S332–S347.
- Krause, N. (2006). Exploring the stress-buffering effects of church-based and secular social support on self-rated health in late life. *Journals of Gerontology. Series B, Psychological Sciences and Social Sciences*, 61(1), S35–S43.
- Laraia, B. A., Messer, L., et al. (2006). Direct observation of neighborhood attributes in an urban area of the US south: Characterizing the social context of pregnancy. *International Journal of Health Geographics*, 5, 11.
- Larson D. B., Koenig H. G. (2000). Is God good for your health? The role of spirituality in medical care. *Cleveland Clinic Journal of Medicine* 67(2): 80, 83–84.
- Levin, J., Chatters, L. M., et al. (2005). Religion, health and medicine in African Americans: Implications for physicians. *Journal of the National Medical Association*, 97(2), 237–249.
- Lifflander, A., Gaydos, L. M., et al. (2007). Circumstances of pregnancy: Low income women in Georgia describe the difference between planned and unplanned pregnancies. *Maternal and Child Health Journal*, 11(1), 81–89.
- Luecken, L. J., Purdom, C. L., et al. (2009). Prenatal care initiation in low-income hispanic women: Risk and protective factors. *American Journal of Health Behaviour*, 33(3), 264–275.
- Ma, S. (2008). Paternal race/ethnicity and birth outcomes. *American Journal of Public Health*, 98(12), 2285–2292.
- Martin, S. E. (1989). Research note: The response of the clergy to spouse abuse in a suburban county. *Violence and Victims*, 4(3), 217–225.
- McCullough, M. E., Hoyt, W. T., et al. (2000). Religious involvement and mortality: A meta-analytic review. *Health Psychology*, 19(3), 211–222.
- McKee, M. D., Cunningham, M., et al. (2001). Health-related functional status in pregnancy: Relationship to depression and social support in a multi-ethnic population. *Obstetrics and Gynecology*, 97(6), 988–993.
- Melton, G. B., & Anderson, D. (2008). From safe sanctuaries to strong communities: The role of communities of faith in child protection. *Family Community Health*, 31(2), 173–185.
- Miller, W. (1992). Personality traits and developmental experiences as antecedents of childbearing motivation. *Demography*, 29(2), 265–285.
- Miller, A. B. (2004). Educating for change. HIV/AIDS & the Zambian church. *Journal of Christian Nursing*, 21(1), 18–20.
- Miller, W. R., & Thoresen, C. E. (2003). Spirituality, religion, and health. An emerging research field. *American Psychologist*, 58(1), 24–35.
- Mosher, W. D., Williams, L. B., et al. (1992). 29. *Demography*, 29(2), 199–214.
- Nagel, B., Matsuo, H., et al. (2005). Attitudes toward victims of rape: Effects of gender, race, religion, and social class. *Journal of Interpersonal Violence*, 20(6), 725–737.

- Nanyonjo, R. D., Montgomery, S. B., et al. (2008). A secondary analysis of race/ethnicity and other maternal factors affecting adverse birth outcomes in San Bernardino County. *Maternal and Child Health Journal*, 12(4), 435–441.
- Nelson-Becker, H. (2005). Religion and coping in older adults: A social work perspective. *Journal of Gerontological Social Work*, 45(1–2), 51–67.
- Nicholson, W. K., Fox, H. E., et al. (2006). Maternal race, procedures, and infant birth weight in type 2 and gestational diabetes. *Obstetrics and Gynecology*, 108(3 Pt 1), 626–634.
- Norbeck, J. S., & Anderson, N. J. (1989). Life stress, social support, and anxiety in mid- and late-pregnancy among low income women. *Research in Nursing and Health*, 12(5), 281–287.
- Otolok-Tanga, E., Atuyambe, L., et al. (2007). Examining the actions of faith-based organizations and their influence on HIV/AIDS-related stigma: A case study of Uganda. *African Health Science*, 7(1), 55–60.
- Palomar, L., DeFranco, E. A. et al. (2007). Paternal race is a risk factor for preterm birth. *American Journal of Obstetrics and Gynecology* 197(2): 152 e151–157.
- Pargament, K. I., Zinnbauer, B. J., et al. (1998). Red flags and religious coping: Identifying some religious warning signs among people in crisis. *Journal of Clinical Psychology*, 54(1), 77–89.
- Polis, C., Schaffer, K., et al. (2005). Accessibility of emergency contraception in California's Catholic hospitals. *Womens Health Issues*, 15(4), 174–178.
- Powell, L. H., Shahabi, L., et al. (2003). Religion and spirituality. Linkages to physical health. *American Psychologist*, 58(1), 36–52.
- Quinn, M. T., & McNabb, W. L. (2001). Training lay health educators to conduct a church-based weight-loss program for African American women. *Diabetes Education*, 27(2), 231–238.
- Ransdell, L. B. (1995). Church-based health promotion: An untapped resource for women 65 and older. *American Journal of Health Promotion*, 9(5), 333–336.
- Reagan, P. B., & Salsberry, P. J. (2005). Race and ethnic differences in determinants of preterm birth in the USA: Broadening the social context. *Social Science and Medicine*, 60(10), 2217–2228.
- Rippentrop, E. A., Altmaier, E. M., et al. (2005). The relationship between religion/spirituality and physical health, mental health, and pain in a chronic pain population. *Pain*, 116(3), 311–321.
- Runkel, G. (1998). Sexual morality of Christianity. *Journal of Sex and Marital Therapy*, 24(2), 103–122.
- Russo, N. F., & Dabul, A. J. (1997). The relationship of abortion to well-being: Do race and religion make a difference? *Professional Psychology, Research and Practice*, 28(1), 23–31.
- Ryan, I. J., & Dunn, P. C. (1988). Association of race, sex, religion, family size, and desired number of children on college students' preferred methods of dealing with unplanned pregnancy. *The Family Practice Research Journal*, 7(3), 153–161.
- Samuel-Hodge, C. D., Keyserling, T. C., et al. (2006). A church-based diabetes self-management education program for African Americans with type 2 diabetes. *Preventing Chronic Disease*, 3(3), A93.
- Sauaia, A., Min, S. J., et al. (2007). Church-based breast cancer screening education: Impact of two approaches on Latinas enrolled in public and private health insurance plans. *Preventing Chronic Disease*, 4(4), A99.
- Shiao, S. Y., Andrews, C. M., et al. (2005). Maternal race/ethnicity and predictors of pregnancy and infant outcomes. *Biological Research for Nursing*, 7(1), 55–66.
- Simhan, H. N. & Krohn, M. A. (2008). Paternal race and preterm birth. *American Journal of Obstetrics and Gynecology* 198(6): 644 e641–646.
- Simmons, H. (1991). Ethical perspectives on church and synagogue as intergenerational support systems. *Journal of Religious Gerontology*, 7(4), 17–28.
- Simon, K. I., & Handler, A. (2008). Welfare reform and insurance coverage during the pregnancy period: Implications for preconception and interconception care. *Womens Health Issues*, 18(6 Suppl), S97–S106.
- Sims, M., Sims, T. L., et al. (2008). Race, ethnicity, concentrated poverty, and low birth weight disparities. *Journal of National Black Nurses' Association*, 19(1), 12–18.
- Smith, J., Simmons, E., et al. (2005). HIV/AIDS and the Black Church: What are the barriers to prevention services? *Journal of the National Medical Association*, 97(12), 1682–1685.
- Srikanthan, A., & Reid, R. L. (2008). Religious and cultural influences on contraception. *Journal of Obstetrics and Gynaecology Canada*, 30(2), 129–137.
- Stotland, N. E., Caughey, A. B., et al. (2006). Weight gain and spontaneous preterm birth: The role of race or ethnicity and previous preterm birth. *Obstetrics and Gynecology*, 108(6), 1448–1455.
- Triandis, H. C., & Triandis, L. M. (1960). Race, social class, religion, and nationality as determinants of social distance. *Journal of Abnormal and Social Psychology*, 61, 110–118.
- Underwood, S. M., & Powell, R. L. (2006). Religion and spirituality: Influence on health/risk behavior and cancer screening behavior of African Americans. *The ABNF Journal*, 17(1), 20–31.
- van den Oord, E. J. (2006). Ethnic differences in birth weight: Maternal effects emerge from an analysis involving mixed-race us couples. *Ethnicity and Disease*, 16(3), 706–711.

- Van Ness, P. H., Kasl, S. V., et al. (2003). Religion, race, and breast cancer survival. *International Journal of Psychiatry in Medicine*, 33(4), 357–375.
- Vogel, R. J., & Stephens, B. (1989). Availability of pharmaceuticals in sub-Saharan Africa: Roles of the public, private and church mission sectors. *Social Science and Medicine*, 29(4), 479–486.
- Walker, L. O., & Sterling, B. S. (2007). The structure of thriving/distress among low-income women at 3 months after giving birth. *Family Community Health*, 30(1 Suppl), S95–S103.
- Wise, P. H. (2008). Transforming preconceptional, prenatal, and interconceptional care into a comprehensive commitment to women's health. *Womens Health Issues*, 18(6 Suppl), S13–S18.
- Young, M. (1979). A look at sexual mores in a Church-related college. *Health Education*, 10(1), 20–21.
- Zahuranec, D. B., Morgenstern, L. B., et al. (2008). Stroke health and risk education (SHARE) pilot project: Feasibility and need for church-based stroke health promotion in a bi-ethnic community. *Stroke*, 39(5), 1583–1585.