

WORLD HEALTH & POPULATION

www.worldhealthandpopulation.com

VOLUME 13 • NUMBER 1 • 2011

- Historical and Cultural Influences on HIV Prevention in Swaziland
- Breastfeeding in Cambodia: Mother Knowledge, Attitudes and Practices
- A Qualitative Inquiry into the Application of Verbal Autopsy for a Mortality Surveillance System in a Rural Community of Southern India
- Book Review: "Ethics in Health Services and Policy: A Global Approach"





WORLD HEALTH & POPULATION

BEST PAPER AWARD 2009–2010

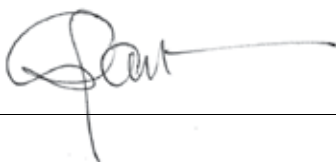
for the paper entitled:

“Development of an Effective Public Health Screening Program
to Assess Hearing Disabilities among Newborns in Shanghai:
A Prospective Cohort Study”*

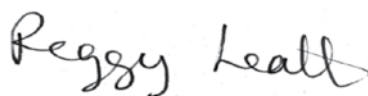
authored by:

Xiaoming Shen, David Zakus, Jun Lv, Zhengmin Xu,
Hao Wu, William Hsiao and Xiaoming Sun

**World Health & Population, 11(1) 2009: 5-14*



Anton Hart,
Publisher
Longwoods Publishing



Peggy Leatt, PhD
Chair, Editorial Advisory Board
World Health & Population



John E. Paul, PhD
Editor-in-Chief
World Health & Population

3 From the Editor-in-Chief

John E. Paul

5  Historical and Cultural Influences on HIV Prevention in Swaziland

Rachel Lynne Peterson

17  Breastfeeding in Cambodia: Mother Knowledge, Attitudes and Practices

Hilary Wren and Lori Chambers

30  A Qualitative Inquiry into the Application of Verbal Autopsy for a Mortality Surveillance System in a Rural Community of Southern India

Prem K. Mony and Mario Vaz

40  A Review of Ethics in Health Services and Policy: A Global Approach

Emma McKim Mitchell



WORLD HEALTH & POPULATION

Founded and edited by members of the Department of Health Policy and Administration,
School of Public Health, University of North Carolina at Chapel Hill.

How To Reach The Editors And Publisher

Telephone: 416-864-9667 Fax: 416-368-4443

Addresses

All mail should go to: Longwoods Publishing Corporation,
260 Adelaide Street East, No. 8, Toronto, Ontario M5A
1N1, Canada.

For deliveries to our studio: 54 Berkeley St., Suite 305,
Toronto, Ontario M5A 2W4, Canada

Subscriptions

Individual subscription rates for one year are [C] \$42 for
online only and [C] \$206 for print + online.

For individual subscriptions contact Barbara Marshall at
telephone 416-864-9667, ext. 100 or by e-mail at bmar-
shall@longwoods.com.

Institutional subscription rates are [C] \$247 for online only
and [C] \$350 for print + online.

For institutional subscriptions, please contact Rebecca Hart
at telephone 416-864-9667, ext. 114 or by e-mail at rhart@
longwoods.com.

Subscriptions must be paid in advance. An additional
HST/GST is payable on all Canadian transactions. Rates
outside of Canada are in US dollars. Our HST/GST
number is R138513668.

Subscribe Online

Go to www.worldhealthandpopulation.com and click on
"Subscribe now."

Free Online Access for Developing Countries

The online version of the journal *World Health & Population*
is available for free to individuals and organizations from
developing nations whose mission involves education
and / or health. For more information and to see if your
country is eligible go to [http://www.longwoods.com/pages/
developing-countries](http://www.longwoods.com/pages/developing-countries).

Reprints/single Issues

Single issues are available at \$55. Includes shipping and
handling. Reprints can be ordered in lots of 100 or more.
For reprint information call Barbara Marshall at 416-864-
9667 or fax 416-368-4443, or e-mail to bmarshall@long-
woods.com.

Return undeliverable Canadian addresses to: Circulation
Department, Longwoods Publishing Corporation, 260
Adelaide Street East, No. 8, Toronto, Ontario M5A 1N1,
Canada

Editorial

To submit material or talk to our editors please contact
Ania Bogacka at 416-864-9667, ext. 108 or by e-mail at
abogacka@longwoods.com. Author guidelines are available
online at <http://www.longwoods.com/pages/wh-for-authors>.

Advertising

For advertising rates and inquiries, please contact Matthew
Hart at 416-864-9667, ext. 113 or by e-mail at mhart@
longwoods.com.

Publishing

To discuss supplements or other publishing issues contact
Rebecca Hart at 416-864-9667, ext. 114 or by e-mail at
rhart@longwoods.com.

World Health & Population is published four times per year
by Longwoods Publishing Corp., 260 Adelaide St. East, No. 8,
Toronto, ON M5A 1N1, Canada. Information contained in this
publication has been compiled from sources believed to be
reliable. While every effort has been made to ensure accuracy
and completeness, these are not guaranteed. The views and
opinions expressed are those of the individual contributors and
do not necessarily represent an official opinion of *World Health
& Population* or Longwoods Publishing Corporation. Readers are
urged to consult their professional advisers prior to acting on the
basis of material in this journal.

World Health & Population is indexed in the following: CAB
Abstracts, Global Health, MEDLINE/Pubmed, Ulrich's (CSA),
Index Copernicus, Scopus and is a partner of HINARI.

Editor in Chief

John E. Paul, PhD
University of North Carolina at Chapel Hill

Associate Editors

Christopher Shea, MA, PhD (c)
University of North Carolina at Chapel Hill

Amir A. Khaliq, PhD
University of Oklahoma Health Sciences Center

Michel Landry, PhD
University of Toronto

Lutchmie Narine, PhD
Syracuse University, Syracuse, NY

Editorial Advisory Board

Peggy Leatt, PhD (Chair Editorial Advisory Board)
Professor and Chair, Department of Health Policy
and Administration
Associate Dean for Academic Affairs, School of Public
Health, University of North Carolina at Chapel Hill,
Chapel Hill, NC

Sagar C. Jain, PhD
Founding Editor-in-Chief, Journal of Health and Population
in Developing Countries, Professor Emeritus, Department of
Health Policy and Administration, School of Public Health,
University of North Carolina at Chapel Hill, Chapel Hill, NC

Karen B. Allen, MA, MSc, PhD
Regional Programme Planning Officer, UNICEF Eastern and
Southern Africa Regional Office (ESARO), Nairobi, Kenya

François Béland, PhD
Professeur titulaire, Faculté de Médecine, Université de
Montréal, Montreal, Quebec, Canada

Margaret Bentley, PhD
Associate Dean for Global Health, School of Public Health,
University of North Carolina at Chapel Hill, Chapel Hill, NC

Adalsteinn Brown, DPH
Assistant Professor, Department of Health Policy,
Management, and Evaluation, University of Toronto,
Toronto, Ontario, Canada

Francois Champagne, PhD
Professeur titulaire, Administration de la santé et GRIS,
Université de Montréal, Montreal, Quebec, Canada

Wen Chen, PhD, MD
Professor of Health Economics, Associate Dean, School of
Public Health, Fudan University, Shanghai, China

Arun Chockalingam, MS, PhD, FACC
Director, Office of Global Health, National Heart Lung and
Blood Institute, National Institutes of Health, Bethesda,
Maryland, US

Jean-Louis Denis, PhD
Professeur titulaire, Faculté de Médecine, Université de
Montréal, Montreal, Quebec, Canada

William H. Dow, PhD
Associate Professor of Health Economics, University of
California, Berkeley, School of Public Health, Berkeley,
California

Bruce J. Fried, PhD
Associate Professor and Chair, Global Health Committee,
Department of Health Policy and Administration, University
of North Carolina at Chapel Hill, Chapel Hill, NC

Daniel L. Goetz, MS
Senior Public Administration Specialist, International
Development Group, RTI International, Research Triangle
Park, NC

Dean M. Harris, JD
Clinical Associate Professor, Department of Health Policy
and Administration, University of North Carolina at Chapel
Hill, Chapel Hill, NC

Amir A. Khaliq, PhD
Assistant Professor, Health Administration & Policy, College
of Public Health, The University of Oklahoma Health
Sciences Center, Tulsa, Oklahoma

Ambika Krishnakumar, PhD
Associate Professor, College of Human Services and Health
Professions, Syracuse University, Syracuse, NY

Sandra G. Leggat, PhD
School of Public Health, La Trobe University, Bundoora,
Victoria, Australia

Lutchmie Narine, PhD
Associate Professor, Department of Health and Wellness,
College of Human Ecology, Syracuse University

Bernardo Ramirez, MD, Vice President, INTECH,
Celebration, Florida

Amal C. Sjaaf, MD, DrPH, Professor, Department of
Health Policy and Administration, School of Public Health,
University of Indonesia, Jakarta, Indonesia

Abdul Sattar Yoosuf, DrPH
Director, Sustainable Development and Healthy
Environments, World Health Organization, South East Asian
Regional Office (SEARO), New Delhi, India

David Zakus, BSc, MES, MSc, PhD
Director, Centre for International Health, Faculty of
Medicine, University of Toronto
President, Global Health Education Consortium, Toronto,
Ontario, Canada

Editorial Director

Dianne Foster-Kent
E-mail: dkent@longwoods.com

Managing Editor

Ania Bogacka
E-mail: abogacka@longwoods.com

Copy Editor

Gerry Jenkison

Publisher

W. Anton Hart
E-mail: ahart@longwoods.com

Associate Publishers

Rebecca Hart
E-mail: rhart@longwoods.com

Susan Hale
E-mail: shale@longwoods.com

Matthew Hart
E-mail: mhart@longwoods.com

Associate Publisher/Administration

Barbara Marshall
E-mail: bmarshall@longwoods.com

Design and Production

Yvonne Koo
E-mail: ykoo@longwoods.com

Jonathan Whitehead
E-mail: jwhitehead@longwoods.com

No liability for this journal's content shall be incurred
by Longwoods Publishing Corporation, the editors,
the editorial advisory board or any contributors.
ISSN No. 1718-3340

Publications Mail Agreement No. 40069375
© October 2011

From the Editor-in-Chief

This issue of *World Health & Population* presents an interesting and varied set of papers that have been published online by *WHP* during the last quarter. They are selected here as representative of recent outstanding contributions to the journal and include three papers and a book review.

The initial paper in this issue, “Historical and Cultural Influences on HIV Prevention in Swaziland,” by Rachel Peterson, is interesting in its analysis of factors inhibiting HIV prevention efforts in Swaziland. Peterson bases her observations as a US Peace Corps Volunteer there. The Peace Corps (celebrating its 50th year in 2011) offers the observant volunteer a unique opportunity for an in-depth view of the impact of assistance programs and the cultural and historical facilitators and barriers to their success in achieving designated outcomes. It seems obvious that assistance programs should take the historical and cultural context of a setting into consideration in design, implementation and evaluation. However, the appropriate context is still commonly assumed to fit preconceptions, or is just entirely overlooked. Peterson provides some extremely interesting insights into the country’s history and culture, reasons why HIV prevention efforts have yet to take hold, and why Swaziland retains the sad distinction of having the highest HIV prevalence in the world.

“Breastfeeding in Cambodia: Mother Knowledge, Attitudes and Practices,” by Hillary Wren and Lori Chambers, is a classic and well-done knowledge, attitudes and practices (KAP) study of an important contributor to the Millennium Development Goals related to reduction of infant mortality, specifically MDG4. The benefits and importance of immediate and exclusive breastfeeding of newborns and infants up to the age of six months are well established, as described in the article. Wren, Chambers and colleagues designed and implemented a village-level survey to examine the status of this practice in a rural, impoverished area of Cambodia. Through interviews with 141 women with at least one child under 60 months, the survey gathered background demographics, information on breastfeeding knowledge, attitudes and behaviours, and feedback on existing breastfeeding support programs. The survey (with some benchmarking against the Cambodian Demographic and Health Survey) provides interesting and potentially actionable insights into cultural barriers to fully realizing the goal of immediate breastfeeding of newborns in Cambodia. More generally, the methodical and thoughtful approach taken by the authors in this study demonstrates that KAP surveys, even if retrospective, remain a useful tool for research in resource-constrained settings.

The third paper in this issue is a study of logistical and ethical issues surrounding the use of verbal autopsy for mortality surveillance in rural areas of Southern India. Verbal autopsy – asking family members and survivors regarding the details and circumstances surrounding the death of a family member – has become an important, if not critical, tool for healthcare planning and demography in areas with weak or non-existent vital registration systems and healthcare services.¹ In their paper, Prem Mony and Mario Vaz from the National Academy of Health Sciences in Bangalore report on implementation issues surrounding verbal autopsy. Although there has been significant work examining the validity and reliability of verbal autopsy,² Mony and Vaz contend that there has been insufficient focus on “process” issues, which they tackle through a qualitative study with 183 bereaved caregivers in a rural area of Andhra Pradesh, India. Important methodological, logistical and ethical issues are described, including informed consent, privacy and unsolicited information from non-family. The authors conclude that there is a significant need to not only strengthen the scientific validity of verbal autopsy methods but also the processes around its application.

We have also included a book review in this issue, which is a nice complement to the discussion of the importance of cultural context in the Peterson paper and of ethics in the Mony and Vaz paper.

Emma McKim Mitchell, an assistant professor at the University of Miami, reviews *Ethics in Health Services and Policy: A Global Approach* by Dean M. Harris of the University of North Carolina at Chapel Hill. Harris's book is intended as a text for graduate students in the health professions and employs a comparative, multicultural model that would feel familiar to most *WHP* readers. Both the review and the book are worth reading.

In conclusion, we hope that you find the papers (and the review) in this issue interesting and worthwhile, and that you will also consult others recently released online at www.worldhealthandpopulation.com. *WHP* remains committed to its mission to provide a forum for researchers and policy makers worldwide to publish and disseminate health- and population-related research, and to encourage applied research and policy analysis from diverse global and resource-constrained settings. *WHP* is indexed on MEDLINE and is accessible through PubMed.

Finally, we announce in this issue the 2009-2010 World Health & Population Best Paper Award for "Development of an Effective Public Health Screening Program to Assess Hearing Disabilities among Newborns in Shanghai: A Prospective Cohort Study," *WHP* 11(4) 2009:5-14. Congratulations to co-authors Xiaoming Shen, David Zakus, Jun Lv, Zhengmin Xu, Hao Wu, William Hsiao, and Xiaoming Sun. This paper exemplifies the focus and goals of *WHP*: Rigorous health services research on a topic of global public health and public health policy importance, and a fruitful collaboration between researchers located in diverse global settings. Congratulations again to the authors, and appreciation as well from the editors and publishers of *WHP*.

We look forward to continued enthusiastic submission of manuscripts for consideration, peer review and publication. Finally, the editors and publishers of *WHP* are always interested in any comments or suggestions you might have on the papers or about the journal and our mission. Please feel free to write or email us.

John E. Paul, PhD
 Editor-in-Chief, *World Health & Population*
paulj@email.unc.edu

Notes

¹ See, for example, Q.H. Tran, A. Johansson and H.L. Nguyen. 2007. "Reasons for Not Reporting Deaths in Rural Vietnam." *World Health & Population* 9(1): 14–23. <<http://www.longwoods.com/content/18739>>.

² The first "Global Congress on Verbal Autopsy Methods and Applications" was held February 15–17, 2011, in Bali, Indonesia.

Historical and Cultural Influences on HIV Prevention in Swaziland

Rachel Lynne Peterson, MA, Prevention Program Manager, Northern Arizona Regional Behavioral Health Authority, Flagstaff, AZ 86001

Correspondence may be directed to: Ms. Rachel Lynne Peterson, MA, Programs and Operations Manager, Health Horizons International/Horizontes de Salud; Calle La Maternidad #27, Montellano, Puerto Plata, República Dominicana; E-mail: rpeterson@hhidr.org.

Abstract

Most who work in international development recognize the importance of implementing locally driven, grassroots initiatives for achieving positive outcomes. Yet, when it comes to HIV prevention strategies in Swaziland, there is a lack of understanding for the cultural and historical influences that determine group and individual behaviour. As a result, prevention efforts have failed to have a major impact on the world's highest prevalence rate of HIV. Greater understanding and observance of historical influences, local norms and beliefs, and the ongoing processes of adaptation must be incorporated into all efforts if any HIV prevention strategies are to be effective.

Many development professionals today recognize that the most effective aid projects are locally informed, culturally specific and driven by grassroots activists from within that society. To fulfill these requirements, project activities must be divorced from the political agenda of the funding source and focused on the desires of the local people. However, this is far from the reality – especially when it comes to international HIV/AIDS programs. A large proportion of global activity on HIV today is funded by the United States through a 2003 Bush administration initiative known as the President's Emergency Plan for AIDS Relief, or PEPFAR. This legislation is the largest donor effort to date for a single disease and was constructed with well-defined earmarks for project spending that included prevention and treatment (PEPFAR 2009). While treatment is predominantly focused on making affordable antiretroviral pharmaceuticals accessible to some of the world's poorest HIV-positive citizens, it fails in many locations to fully involve local and traditional healers, or incorporate local paradigms about Western pharmaceuticals. However, the focus of this article is PEPFAR-funded HIV prevention efforts.

The 2008 bill that renewed PEPFAR stated that 50% of all prevention funds should be allocated to “activities promoting abstinence, delay of sexual debut, monogamy, fidelity, and partner reduction” (Berman 2008). PEPFAR prevention, in another earmark, also incorporates condom education. Combined, these form the “ABC” strategy (standing for “abstinence,” “be faithful” and “condoms”) and have a strong epidemiological basis. Delaying sexual debut, having sex with only one partner – or only one partner in a given time period – and using condoms correctly and consistently will significantly reduce the chances of both individual infection and the rate at which HIV spreads through a population. However, implementing ABC as the only viable prevention option, as has happened in many African nations, is far too narrow to be locally informed and grassroots driven. The focus of these strategies fails to consider the many other factors and influences that determine behaviours at both individual and societal levels. As a US Peace Corps Volunteer (2007–2008) assigned to HIV education in the Kingdom of Swaziland, the nation with the highest prevalence rate of HIV/AIDS in the world, I was quickly confronted with the shortcomings and inadequacies of this approach. Ethnographic research conducted simultaneously during my Peace Corps term revealed several foreign and local influences that impact Swaziland’s HIV epidemic, yet are not documented by any agency collecting HIV data or tracking epidemic outcomes. In this article, I outline these influences and describe how they stifle HIV prevention efforts in Swaziland.

Aiming to Influence

The first detected case of HIV in Swaziland was in 1986. In 1999, King Mswati III declared the epidemic a national emergency (UNAIDS 2006). Although various aid agencies have been present in the Kingdom since the end of British colonialism in 1968, Mswati III’s appeal produced an upsurge of aid activity. In 2002, the Peace Corps was invited to reopen Swaziland as a post, with HIV prevention funded through PEPFAR as the only activity. Yet international funding and attention was not swift or effective enough; the HIV epidemic ballooned to infect 38.8% of the sexually active adult population (ages 15 to 49 years) in 2003, the year Swaziland surpassed Botswana as the nation with the highest prevalence rate of HIV in the world. It peaked at 42.6% in 2007 (UNAIDS 2008). Since then, most discourse surrounding Swaziland’s HIV crisis has been centred among those who hail from outside the nation: diplomats, researchers and international aid workers.¹

For fiscal year 2009, Swaziland was delegated a PEPFAR “focus country,”² one of about 15 that receive the highest levels of funding and guidance for tackling HIV/AIDS. In September 2008, one month prior to the increase, a group of aid professionals and Swaziland government officials met under the leadership of the United States Agency for International Development (USAID) in roundtable discussions to strategize the use of the new funds for prevention activities. I was fortunate to be included, along with Swazi public servants and local citizens working in HIV/AIDS. The meetings reflected an attempt at “locally driven” prevention efforts. However, the local perspective was one that predominately reflected the urban areas, where the selected affluent Swazi workgroup participants lived. Speaking on behalf of rural areas, where 70% of the Swazi populace resides – most in abject poverty – were another Peace Corps Volunteer and me.

Additional efforts also were taken to create culturally appropriate strategies. Among the reading materials for the Swaziland workgroup was a white paper written by American-born anthropologist Suzanne Leclerc-Madlala. Leclerc-Madlala has spent a significant portion of her career living and working in South Africa, where she resided in her South African husband’s township during apartheid. As such, her paper introduces some important emic and etic perspectives,³ organized into cultural scripts⁴ on sexual paradigms and behaviours that drive HIV in parts of South Africa and Swaziland (Leclerc-Madlala 2008). These scripts brought to light cultural norms and mores that most foreign aid workers had not been able to fully understand and that most nationals could not or would not adequately articulate for the international aid community. While informative, the scripts contributed only as much as could be implemented under the ABC strategies for which the funds had been earmarked by congressional leaders in Washington, DC.

Specifically, this limited activities to the promotion of:

- Abstinence, delaying sexual debut until marriage and the denunciation of cross-generational sex, transactional sex, rape, incest or other forced sexual activity
- Eliminating casual sexual partnerships and sustaining long-term sexual partnerships through partner reduction and marital fidelity
- Correct and consistent condom use during every sexual encounter where partners are discordant or the HIV status is unknown (PEPFAR 2003)

ABC fits within the primary parameters of all health promotion campaigns: to influence knowledge, attitudes and behaviours of individuals and groups. However, ABC fails to adequately influence attitudes and perceptions of risk, which is critical in changing behaviours. Merely expanding lay knowledge about HIV has been found – even in the West – to have little impact on behaviour changes that would be effective in preventing transmission of the disease (Hayes et al. 2005).

In Parker et al. (2000), Diaz, quoted in Parker et al. (2000), further states the ineffectiveness of HIV prevention is that it is centred on an individualistic paradigm. Focusing on individual behaviour “intentions” rather than actual circumstances in which these intentions can, or cannot, be enacted ignores a multitude of interpersonal behavioural factors, including peer and familial pressure, coercion, threat of rejection or the bounds of accepted behavioural norms in a society at a point in time. Diaz notes, “By placing the causes of HIV transmission in individual behaviour, the theorists biased the focus of prevention towards individual responsibility (so true to the American tradition!), minimizing the role of structural and sociocultural determinants” (Parker et al. 2000: 196).

This is notable in the discrepancy between knowledge and behaviour that has been documented in Swaziland. My field notes describe several situations where it was clear that the basic concepts about HIV, such as the four fluids that carry the virus, proper use of condoms, and signs and symptoms of common opportunistic infections, had already been taught repeatedly, memorized and could be regurgitated upon request. Yet these topics remained the primary components for most HIV education programs. Providing food to participants continues to guarantee attendance, while PEPFAR tracks the “success” of “AB” programs by the number of participants counted (PEPFAR 2010).

The gap between knowledge and behaviour in Swaziland was further documented through data collected on voluntary counselling and testing (VCT). In 2007, 51.9% of Swazi adults aged 15 to 49 years had a comprehensive knowledge of HIV/AIDS, and 78.1% in that age group knew where to get an HIV test. Yet only 18.6% of the Swazi population had ever tested, and 1.5% of those never returned for the results (Swaziland Central Statistical Office, 2007).

Part of the discrepancy between knowledge and behaviours is that many components of ABC are counterintuitive for Swazi nationals. Any attempts at teaching outside of the local and cultural paradigms, which are more communal than in the West, polygamist and filled with obligation to hierarchy, were quickly brushed aside and ignored. The reasons for this are elaborated more in the next section. The point here is that focusing solely on behaviour intentions ignores the social, structural and cultural factors that determine behaviour and risk. As Parker et al. explain, this is not new knowledge:

By the late 1980s, therefore, on the basis both of research findings and of practical experience around the world, it was becoming clear that a far more complex set of social, structural, and cultural factors mediate the structure of risk in every population group, and that the dynamics of individual psychology could never explain (or stimulate) changes in sexual conduct without taking these broader issues into account. (Parker 2000: 5)

Therefore, it is critical for HIV aid workers to understand the perspectives that drive group and individual behaviour in a society.

Emic Perspectives on Risk

Individuals and societies have a distinct emic perspective on risk and “risk behaviours” that is central to structural and socio-cultural determinants. Societal norms and mores define social relations, interactions and behaviours, which ultimately determine what is risk. As such, what one perceives as risk or “risky behaviour” is determined by the “cultural response to transgression: the outcome of breaking a taboo, crossing a boundary, committing a sin” (Lupton 1999: 45). In Swaziland, the “possibility of loss or injury” defined as “risk” by Merriam-Webster’s Collegiate Dictionary (2003) is not individual or physical; the disease incidence to be avoided is not viral, as epidemiologists would contend. Risk is understood through communal and social parameters, which are both deeply rooted in history, and historical influences that are capable of mutating as rapidly as HIV. In other words, contracting HIV is less risky than acting against societal and cultural norms and beliefs.

To better understand “risk behaviour” it is therefore critical to look to Galtung’s theory of structural violence, which was first elaborated upon in his paper “Violence, peace and peace research,” (1969). Through this theory, Galtung distinguishes between direct violence and indirect violence, which encompasses hidden constraints to human development and potential, such as limited access to resources, education, political influence and healthcare. The concept has been picked up by many social scientists and advocates examining how individuals and groups identify and persist amidst broad power dynamics and inequalities, whether economic, historical, political or social. Structural violence is best understood when embedded in post-structuralism. Lupton writes:

Individuals are seen not to be fixed in social or cultural identities, but constantly shifting, the products of various combinations of power-knowledge formations. Power is seen as operating through manifold sites, rather than predominantly through monolithic social institutions. Power is seen as not simply coercive or oppressive, as critical structuralism tends to have it, but also as productive and inevitably present in any social relation. (Lupton 1999: 26–27)

Farmer has incorporated the concept of structural violence in many of his writings on HIV/AIDS and health disparities. He states that disease and disparity stem from rights violations, which are “symptoms of deeper pathologies of power and are linked intimately to the social conditions that so often determine who will suffer abuse and who will be shielded from harm” (Farmer 2005: 7). In Swaziland, power, risk and behaviour choice are determined by hierarchy, nationalism and the use of tradition to strengthen the influence of those with the power, both at an individual and societal level. Individual choices focus on immediate needs and survival within the frames of power and hierarchy, both of which are entrenched with gender inequalities and fuelled by Swazi nationalism. How women strive to negotiate risk is thus one of the more critical understandings that should be implemented into prevention models. Many young women in the Swazi peasant class are confronted with the limited choice of having a secure husband or boyfriend and facing greater gender oppression, or remaining unattached with the hopes of reaping any material benefits from men who come and go. Interestingly, older women who have achieved status through marriage, children and decades of subordination are often more likely to perpetuate hierarchy and, to some extent, gender oppression. These women often further gain in status by promoting the “Swazi way” while simultaneously limiting status-gaining opportunities for younger women. Ironically, the model they are perpetuating has evolved; it is much harder for younger Swazi women today to follow the same path because of high death rates caused by the HIV epidemic in the middle generation, decreased participation in the community from men, and the influences of drought and capitalism on subsistence agriculture, the economy and social norms. This is further explained in the next section.

ABC Barriers in Swaziland

In societies with gender inequalities and oppression, the ability for women to delay sexual debut or abstain from sex is not always an available or obvious choice. In Swaziland, a historical precedent of older men seeking relations with younger women makes it nearly impossible for young women to

delay their sexual debut when being courted. The foundation of inter-generational sex was established from an economic perspective: men historically could not marry until they were able to build a home on their father's homestead or originate their own homestead. Today, this paradigm persists despite economic challenges that prevent most men from being able to engage in formal polygamy. Regardless, all romantic relationships have and continue to fall into the Western-defined category of transactional sex. Cultural scripts from Leclerc-Madlala (2008) point out that (i) Sex is a way to show love and get love; and (ii) A woman demonstrates her love and commitment by "giving" sex; a woman does not give sex for free. A man demonstrates love and commitment to a sexual partner by giving gifts of money, goods or services commensurate with his status and wealth. As such, young women expect some exchange of material wealth for sex, whether it is a cellphone, clothing or simply "pocket money" for sodas and snacks at the local *sitolo*⁵ (Leclerc-Madlala 2008). In accordance with traditional courting practices, it is older men who are most often able to meet this expectation.

The concept of "be faithful" is interpreted in Swaziland through the cultural lens of polygamy. Maintaining multiple concurrent partners is not only a practice of the majority of Swazi men, young and old, but women expect it of them: "A woman should be prepared for, endure and forgive a partner's infidelity" (Leclerc-Madlala 2008). However, this custom is changing in some critical ways. Formal polygamy is in decline today because of economic hardship. Yet the long-standing custom of men taking multiple wives has morphed into a new paradigm and practice among the younger generation: maintaining multiple concurrent sexual partners. This practice is in contrast to polygamy as it omits the social security and sustainability created through the establishment of the family unit. In addition, it is not just men practising multiple concurrency: many young women are maintaining multiple concurrent partners. On one hand, this could be a small example of an African-grown woman's movement, as women are stepping out of their fully subordinated roles to develop a form of financial independence through transactional sex with multiple partners. On the other, it creates a widespread web of relations that has enabled HIV to travel rapidly through the population (see Epstein 2007).

One case study from my thesis research (Peterson 2009) that embodies the challenges of "abstinence and be faithful" campaigns involves Jabu, a teenage girl who was impregnated by the life skills teacher at her high school – the very man responsible for teaching her about safe sex and HIV prevention. Not only was her teacher soliciting behaviour contrary to what he taught, but the messages the girl received from home supported the outcome. Jabu was raised by a single mother. Together, they lived in the teacher's quarters of the elementary school where her mother taught. Her mother never married, but pursued relations with men to garner new clothing, airtime for her mobile phone and other luxuries. Jabu is now a single mom raising her child, while her teacher and child's father continues to educate students, with no retribution. This was unfortunately not an anomaly. Stories abounded about both male and female teachers taking advantage of their students in similar ways. In the rare occasion that the teachers were found guilty and punished, they were merely transferred to another high school in a different part of the country.

Multiple complexities also determine the overall effectiveness of condom campaigns in Swaziland. Condoms are available, and are used – albeit inconsistently. When a woman suggests the use of a condom, it is often taken as a sign of mistrust. The request to use a condom simultaneously accuses her partner of infidelity while alluding to her own unfaithful behaviours.⁶ Traditionally, women were able to acknowledge their husband had more than one partner only if a second (or third, or fourth) woman was introduced formally and accepted into the family as another wife. One older Swazi woman told me a story of the early years of her marriage. Her husband had desired a second wife, but she was "modern" in her viewpoints, protested and ultimately won. However, she was certain of his continued infidelity at the time, and said that even if condoms had been more available, she would not have been able to negotiate use. Another barrier especially impacts Swazi youth. While this population might be more open to the change, unmarried youth – even in their twenties – cannot be found buying or collecting free condoms from the local store or their sexual activity will be noted by an elder and shared with the youth's parents. It is considered a sign of respect that one's boyfriend or girlfriend is not introduced to the family until *kuteka* (the traditional Swazi wedding)

or the young woman becomes pregnant. At the same time, it is understood and somewhat expected that youth engage in sexual activities, but it is taboo to discuss when or how, and all young women are considered virgins unless proven otherwise through marriage or pregnancy.

Two of my Swazi *bosisi* (sisters) from two very different host families further demonstrate the difficulties of implementing the behaviours outlined in ABC. One *sisi* was 28 years old and from a more modern family residing in a rural community that was relatively close to an urban area. She was unmarried and had first become pregnant at 25, but had a miscarriage; she longed for another child. When she temporarily relocated to South Africa she chose not to use condoms so she could become pregnant. She found out at her first prenatal appointment that she was HIV positive. At one year, her daughter tested negative for HIV. However, the father – who refused to disclose his HIV status to my *sisi*, now wants little to do with either his daughter or former girlfriend.

My other *sisi* was 22 and part of a very traditional, polygamist family with a domineering *babe* (father). When I first moved to the homestead, she confided to me that she had had the same boyfriend for more than a year and was a virgin. She said she was afraid of having sex because of HIV. I discretely gave her condoms, answered her questions, and told her she could come to me anytime she needed more condoms or had other questions. A few months later, we learned she was pregnant. When I asked her why she decided to have sex, she simply told me, “It was him (her boyfriend) who said so.” He also told her that using a condom was not necessary. The cultural paradigm of female subordination that had been reiterated by *babe* throughout her life prevented her from being able to discuss or deny her boyfriend’s wishes.

Another barrier is that condoms, like HIV and antiretroviral medicines, are seen by many as another form of African genocide. In a conversation on a bus, one male teacher became infuriated by my mere mention of condoms. “On what continent do people not have sexual relations without condoms? Condoms, condoms, condoms! How do you reproduce and have young ones with condoms?” While this particular perspective is not shared by all Swazi, the messages that are received through the ABC campaign are interpreted and either rejected or adapted to fit the Swazi paradigm. Examples of adaptation include colloquial sayings such as, “You have to peel a banana before you eat it” and “You cannot eat a sweet with the wrapper on,” both of which utilize metaphor – a common Swazi communication style – to deter and counter the prevention campaigns for condom use. This process of adapting various influences to fit local belief and desire is not unique to ABC and HIV/AIDS prevention. A brief discussion of Swazi history and foreign contact will demonstrate a long-standing precedent that should be considered in the foreign aid agenda.

Swazi History, Hierarchy and Structural Norms

The Swazi descended from a Bantu lineage that migrated south from the great lakes region of Africa and included the Zulu. As mixed-agriculturists, (as opposed to Khoikhoi pastoralists or San hunter-gatherers in southern Africa) the Swazi were less nomadic and thus marked by more complex political organizations and a “strong sense of social hierarchy” that continues to dictate elements of culture and behaviour today (Thompson 2000: 10). Thompson notes:

The African farming societies, moreover, were far more populous, their economy was far more complex, their social networks were far more resilient, and their political systems were far more durable than those of the Khoisan. They were thus able to resist the invaders more effectively than the hunters and herders had done. (Thompson 2000:72)

Today this is reflected by the strength of the traditional chiefdom network, adherence to a strict hierarchy and reverence for the king as the cultural role model. Swazi political resiliency helped to ensure the continued reign of Swaziland’s natural successive monarch (even if he was rendered effectively powerless during colonialism) and maintained Swazi independence from South African rule. These two historical factors were critical in shaping Swaziland today, as they helped to prevent civil war or the oppression of apartheid among the Swazi, as has been experienced by its neighbours.

However, the strength of Swazi custom and hierarchy is not founded in static durability but in a fluid adaptation to internal and external influences and pressures. As anthropologist Hilda Kuper wrote in 1963, “Striking differences tend to mask the extent of borrowing and adaptation resulting from over a hundred years of white settlement” (Kuper 1986: 6). Kuper (1986) and Sihlongonyane (2003) independently noted that King Sobhuza II, the paramount chief during British colonialism, used his role as traditional monarch to develop cultural identity and nationalism during colonialism and as it exists today – even reinstating defunct customs to strengthen both the nation and the monarch’s power. Hobsbawm and Ranger, in their classic, albeit contested book *The Invention of Tradition*, further explain that custom in several African societies has always been flexible and transformed to meet the current needs, despite what colonizers believed or encouraged:

These societies had certainly valued custom and continuity but custom was loosely defined and infinitely flexible. Custom helped to maintain a sense of identity, but it also allowed for an adaptation so spontaneous and natural that it was often unperceived. Moreover, there rarely existed in fact the closed corporate consensual system which came to be accepted as characteristic of ‘traditional’ Africa. (Hobsbawm and Ranger 1983: 247–8)

Macmillan also notes the importance of nationalism for the Swazi: “[M]any traditions are associated with the emergence of nationalism and nation states.... Swazi authorities realized that their last area of independence [during colonialism] was their control over custom” (MacMillan 1995: 546, 555). The traditional importance of the monarch continues to be a prominent fuel of nationalism and identity in Swaziland. The King of Swaziland is heralded as the cultural role model for all Swazi; he is considered the epitome of Swazi identity. This can have positive and negative ramifications with HIV. It further demonstrates that foreign aid workers cannot achieve positive results independent of national leaders, regardless of how much foreign aid is allocated. Yet Mswati III has refused to take centre stage in the HIV agenda, except for securing more aid and foreign influence for his nation. At times, he also has played the hypocrite of HIV prevention. For example, in 2004 Mswati asked the virgin maidens of his nation to submit to a vow of abstinence for five years in an effort to reduce new infections. Such restrictions have been implemented historically in Swaziland – particularly at times of war. However, during that time, Mswati took a teenaged, virgin wife. When the international community cried foul,⁷ he sanctioned himself in the traditional manner – a fine of one cow to the new bride’s family – and ultimately ended the ban merely six months after it was instituted (Skolnik 2007).

Without the influence and leadership of the most prominent Swazi, foreign aid workers cannot hope or expect to achieve positive results, regardless of how much foreign aid is allocated. This is well known by development professionals, and the importance of partnerships in both the public and private domains is spelled out in the PEPFAR Partnership Frameworks (PEPFAR 2009). However well defined the policy, though, partnerships are lacking in practice. Mswati rarely talks publicly of HIV and the efforts of current and previous US ambassadors to engage Mswati III in HIV prevention, and intervention efforts have resulted in slim success beyond the signing of documents and plans of action, such as the Partnership Framework. In a Q and A session with Peace Corps Volunteers in 2008, Ambassador Maurice Parker admitted that there is rarely a financial match from the wealthy Swazi monarch, and because the fiscal year appropriations of the US government do not always align with the donor country’s, the health department budget is at times built around the annual allocation amounts from PEPFAR and the Global Fund.

With this in mind, I return to the point that tradition and nationalism have been two of the most powerful tools of influence throughout Swazi history – and they are used to promote internal agendas, not external. Throughout history, the Swazi have gracefully adapted new ideas and information – though only in a manner appropriate to the Swazi custom and Swazi needs of a given time. This has often attenuated and frustrated foreigners in their attempts at achieving certain influences and impacts along the way, those working in HIV prevention among them.

Shortly after Swaziland regained its independence from British colonialism, King Sobhuza II,

the natural heir to the throne, in an interview on the broadcast news program *60 Minutes*, a clip of which is in the 2007 documentary “Without the King” (Skolnik), clearly stated the position of the Swazi to electively incorporate Western culture and values. He said that the turmoil in Africa and Swaziland is “due to the contact with the white man. He has brought his own custom and his own environment...What is good for Africa, I want to keep. But what’s bad for Africa, we won’t keep” (Skolnik 2007). This was a precedent among the Swazi long before Sobhuza II’s time and will likely continue beyond the HIV/AIDS epidemic and the impact of related international aid.

The distinctness of Swaziland is that the government does not monopolize this tool of hegemony. In Swaziland “culture is not only a state instrument but it is used by the general Swazi populace as well to stake a claim in the system” (Sihlongonyane 2003: 162). On frequent occasions, I was told a behaviour, belief or custom existed “because I am Swazi.” In accordance, many external influences that have come into the Swazi paradigm and have been implemented into practice are devoid of the mores and rational for the same behaviour in Western cultures. This value void points out that often the justification “because I am Swazi” and the notion that it is “duty” to perpetuate Swazi heritage has become an excuse to manipulate sexual and societal practices for one’s own benefit, while leaving behind those the Swazi do not find attractive. Through an association with national identity, the Swazi is thus able to perceive him/herself as upholding the values of respect for authority, beliefs and rituals while simultaneously adapting to modernity and personal desires (Sihlongonyane 2003). However, this also has kept individual identity tightly interwoven within the system of hierarchy, and the King’s authority cemented. Meanwhile, opportunities for change abound in this paradigm – though often unpredicted and with unforeseen outcomes than are desired by the influential source.

Historical Influences on Swazi Tradition and Behaviour

The long-standing acceptance of foreigners on Swazi soil is believed to date from the reign of King Sobhuza I. Shortly before his death in 1836, Sobhuza I reported a vision in which he saw white-skinned people bringing *umculu* and *indilinga*, translated as “book” and “coin,” respectively. These items were taken to represent the Bible and money. Sobhuza thus told his countrymen that a white man “teacher” will “preserve” the Swazi nation. Matsebula writes:

Sobhuza advised his people to accept [the Bible] but to try and avoid money. He warned them that they must never harm these white people, for if they spilt a drop of the white man’s blood their country would be destroyed and they would disappear as a nation. (Matsebula 1988: 27)

The result was an ongoing string of invitations to or concessions for foreigners. Sobhuza’s son, Mswati II, extended the first invitations to European missionaries in 1840. In addition to religion, missionaries introduced formal education and literacy to the Swazi people, which is said to have contributed to the Swazi rejecting “traditionalist values” and replacing them with Western values (Thompson 2000; Kuper 1986: 58). Today Swaziland is officially a Christian nation, with nearly every Swazi self-identifying as such. Many Swazi professionals relate that they owe their education and the quality of their upbringing to missionaries, some of whom merely provided money for school fees, while others acted more as surrogate parents and took the Swazi children – orphaned or not – into their homes. However, the ideology behind the cosmetic identification is starkly different from that introduced by Western missionaries. The most distinct example is seen in the practices and beliefs held by parishioners of the Zionist Church and the Church of Jericho. Both of these denominations have integrated Biblical teachings and Western paradigms with traditional religion, including ancestor worship. Zionist and Jericho parishioners wear brightly coloured robes to the services, which can include drumming, dancing and running in circles, trances, laying of hands and sometimes beatings. In addition, there has been a great movement toward using Christianity as an HIV prevention and treatment method, with hours-long prayer ceremonies seeking miracles of healing.⁸

A second example of foreign invitation and behaviour adaptation occurred in 1860 when Mswati

II requested that the South African Republic settle white foreigners along the southern and south-western borders of the Kingdom of Swaziland, as

[t]hey were considered as an effective means for keeping at bay attacks from neighbouring black nations. Mswati accepted them and allowed them to settle as he would accept anybody and settle them for strategic reasons – that is, for defense purposes. (Matsebula 1988: 49)

However, this move also resulted in the settled land being subdivided into farms and deeded to its inhabitants, which went against the tradition of communal chiefdom lands. Kuper noted that these settlements were the “precursors of the spate of concession that led to the final subjugation of [Mswati’s] people” as a colony (Kuper 1986: 12). Nonetheless, Sobhuza II actively campaigned to reclaim as national land some of the private parcels within the modern national boundaries from foreign developers and landowners. Today about 70% of Swazi reside on national land, which is subdivided into chiefdoms and allocated to residents by the chief for a one-time fee. Once a family is allocated a parcel of land, it is theirs indefinitely, if it is used “appropriately” – to build a homestead or for subsistence agriculture. This system allows Swazi peasants of the lowest income level to exist with nominal participation in the cash economy and the nation to remain predominately rural. This fact has reduced the presence of a few key HIV “risk behaviours” that often coincide with settings of urban poverty, including prostitution and IV drug use.

In another example of foreign influence, Swazi leaders recognized that maintaining full autonomy amidst expanding colonialism was not likely, and therefore advocated for what they thought was the best possible scenario: rule of the British rather than the Boors.⁹ The British granted the Swazi request for colonization in 1902, at which time the main impact was the installation of a small police force “whose primary duty was to restrain the hostility of the Swazi and collect tax” (Kuper 1986: 15). The tax demands were the primary catalyst that pushed the Swazi – even if nominally – into the cash economy, as most sought employment as migrant labourers in South African mines or urban Swazi areas.

Migrant labour continues today and is a key contributor to Swaziland’s HIV epidemic. However, the degree to which individuals recognize and accept this also is determined by cultural norms. In a conversation with a member of local *bandllancane* (the chief’s inner council) I mentioned the role of migrant labour in Swaziland’s epidemic. Because it is predominately men who migrate for work, the comment insinuated that men have a primary role in the spread of HIV. This community elder corrected me by explaining that women also travel once or twice a year to purchase supplies for their handicrafts. During these trips women have sexual relationships and bring HIV home to their men. Women are therefore equally at fault.

The most recent example of foreign influence is from the humanitarian aid community. The influx of foreigners and funding, while bringing some positive benefits, also contribute to Galtung’s theory of structural violence. The material goods and patterns of lifestyle, brought by those intending to help, contribute to the desire to participate in the cash economy – the ability of which is often attained through transactional sex. In addition, the economy and vast number of local jobs sustained because of HIV humanitarian aid and the accompanying community of ex-pats creates a sort of surreal economic development. As such, the possible benefits from humanitarian aid and international recognition of the HIV epidemic, the presence of UNDP, UNICEF, the World Food Programme, World Vision, Save the Children, the US Peace Corps and many others are countered by an unhealthy expectation of, and dependency on, donor aid.

These interpretations and reinventions of foreign concepts highlighted in this section contribute to “undocumented influences.” In the simplest form, undocumented influences are elements that accompany foreign intervention, peripheral to the primary agenda. These influences surface differently in each society as their impact is rooted in the local history, politics, and economic and social realities and perhaps are most distinguishable in Swaziland at the crossroads between societal

paradigms and individual behaviour – the apex of HIV. By definition, undocumented influences are ever-present, ever-changing and therefore tough to identify or monitor. Unfortunately, the impact of the contemporary undocumented influences cannot fully be known and will not be known until it plays out in history. However, awareness of these influences will generate a more thorough understanding of risk, and “risky behaviours,” which ultimately will contribute to better-informed programs and improved outcomes.

It is therefore necessary to recognize the myriad of influences, including the presence of HIV and its accompanying industry of aid, that contribute to Swazi belief, behaviour, and what the Swazi themselves classify and value as “traditional.” While this is indicative that behaviour change is possible, it also is proof that ABC will not translate into the widespread behaviour changes desired by foreign policy makers.

Conclusion

While broader understanding of the sexual experience generated through research and tools such as cultural scripts has reshaped perspectives on what it means to be “at risk” for HIV, few parties at the table of humanitarian aid for HIV are able to fully integrate culture, customs and behaviours into their agendas – with or without local leadership. While knowledge, attitudes and behaviours that HIV prevention experts seek to influence are, in fact, changing, they frequently are morphing in ways not understood or identified by those seeking the change. The result is that countries like Uganda, which once seemed to have HIV tackled by strong local leadership and campaigns derived from local perspective, are facing a resurgence of HIV rates alongside their increase in international aid (see Epstein 2007). In Swaziland many of the changes brought by international aid are occurring outside the scope of HIV prevalence and incidence rates, workshop participant counts, and the number of individuals who know their status. Aid workers are therefore measuring the wrong outcomes while failing to recognize the important changes occurring for HIV and the undocumented influences driving them. In short, real results are contingent on altering the approach and perspectives of donors.

First, foreign HIV education specialists have engaged the Swazi in public conversations about sex and raised awareness about HIV/AIDS for populations rural and urban across the country. This is an important step toward breaking the silence and apathy that often surround taboo topics. However, too often these educators simply do not know the right questions to ask in order to understand the complexities and nuances within Swazi sexual behaviour. Therefore, when local educators are recruited and trained, this information is overlooked and often not incorporated, even by the local educator. In addition, discrepancies in basic education on biology and human anatomy often mean that even while class participants have memorized facts about HIV and its effects on the immune system, the understanding of many lacks the necessary context that would have greater propensity to result in behaviour change. Furthermore, the one group who has greatest ability to influence cultural and individual behaviour has largely not participated in the education and discourse: men. As such, education specialists should transition away from classroom-based workshops to educational opportunities that fit within normal community activity, such as plowing fields. By moving out of a formal environment, the educator will be seen as a greater asset to the community and information shared will be more likely to contribute to a subtle decomposition of HIV stigma and transition of social norms and behaviours.

Second, aid workers must understand that no amount of education and knowledge will ever overpower the need to fulfill basic necessities. In addition, modern influences and capitalism have created great desire for items such as mobile phones and airtime, clothing and “pocket money.” These small luxuries gifted to women by their sexual partners will never subside merely on the basis of knowledge. That HIV education is expected to trump these behaviours reflects a lack of understanding about how local women perceive and negotiate risk. Overcoming this barrier will require greater engagement of Swazi traditional leadership and men at the grassroots level: the King, chiefs and *bandlancane*, and a cross-section of rural community members.

Finally, and most importantly, aid must be divorced from political agendas, and tied to an ongoing collaborative effort between local and international leaders. To do so, foreign donors should

aim to collaborate with local officials to gather knowledge and data from all socio-economic and regional groups within the nation. Programs should be based on this needs assessment and levels of funding tied to real outcomes that are framed from within the local perspective and demonstrated clearly by officials. This is not as detrimental or prohibitive as it may seem. (What if the local officials do not do the work to help their people? If HIV attack rates do not decline, do we restrict funds?) As described earlier, assistance to Swaziland – as well as to many other nations – has historically been solicited and/or welcomed. Asking that the government permit fiscal oversight and demonstrate real changes – whether systemic, social/cultural or epidemiological – merely mirrors the same relationship that occurs between almost all grantors and their grantees, in both the public and private sectors. Anyone who has been on the receiving end of a grant can verify the effectiveness of this approach: no demonstrated outcomes, no money.

In sum, foreigners and foreign aid can have great influence on a society. Cultural scripts, nationalism, hierarchy or other elements that coincide with respect for tradition and contribute to risk analysis and behaviour are in constant flux. The catch is that how they are influenced is uncontrollable – at least from the outside. This should be a source of hope, rather than frustration. While understanding what drives the behaviours and the customs that fuel them is complex, the fact that tradition is constantly morphing through internal and external influences indicates behaviour change is possible. It is when local knowledge and resources combine with foreign skill and experience that we can find the best opportunity for influencing behaviour and ultimately decreasing the rate of HIV.

Notes

¹ To be fair, this paper is a prime example.

² The term “focus country” is no longer used.

³ “Emic” perspectives refer to meaningful viewpoints of one who is local or an “insider,” while “etic” perspectives refer to the observations of the outsider, often formulated in scientific terms (Pool and Geissler 2005: 24)

⁴ Cultural scripts are an anthropological technique used to describe norms, values and practices through the use of language that can be expressed equally when translated. (For more on cultural scripts, see Goddard and Wierzbicka 2004.)

⁵ A small store, often consisting of little more than some canned goods and a refrigerator filled with Coca-cola products.

⁶ Even though multiple concurrency is known and expected, women must never question fidelity or love (Leclerc-Madlala 2008).

⁷ Swazi nationals rarely criticize the actions of the king, though political dissidence is slowly increasing.

⁸ Some of these miracle-seeking practices are, in fact, led by Western ministers.

⁹ Indeed, requesting British over Boor rule was one of the main factors that prevented Swaziland from being subjected to apartheid

References

Berman, H.L. 2008. US Congressional House Report 5501: *To Authorize Appropriation for Fiscal Years 2009 through 2013 to Provide Assistance to Foreign Countries to Combat HIV/AIDS, Tuberculosis, and Malaria, and for other Purposes.*

Epstein, H. 2007. *The Invisible Cure: Why We Are Losing the Fight against AIDS in Africa.* New York: Picador.

Farmer, P. 2005. *Pathologies of Power: Health, Human Rights, and the New War on the Poor.* Berkeley: University of California Press.

Galtung, J. 1969. “Violence, Peace, and Peace Research.” *Journal of Peace Research* 6(3):167–191.

Goddard, C. and A. Wierzbicka. 2004. “Cultural Scripts: What Are They And What Are They Good For?” *Intercultural Pragmatics* 1-2:153-166.

Hayes R.J., J. Chagalucha, D.A. Ross, A. Gavyolec, J. Todd, A.I.N. Obasi et al. 2005. “The MEMA kwa Vijana Project: Design of a Community Randomised Trial of an Innovative Adolescent Sexual Health Intervention in Rural Tanzania.” *Contemporary Clinical Trials* 26 (4) 430-442.

Hobsbawm, E. and T. Ranger. 1983. *The Invention of Tradition.* Cambridge: Cambridge University Press.

Kuper, H. 1986. *The Swazi: A South African Kingdom, Second Edition.* New York: Holt, Rinehart and Winston.

- Leclerc-Madlala, S. 2008. *HIV Prevention and the Culture of Multiple and Concurrent Partnerships in Southern Africa*. Background Paper Commissioned by USAID Health Policy Initiative.
- Lupton, D. 1999. *Risk*. New York: Routledge.
- Macmillan, H. 1995. "Administrators, Anthropologists and 'Traditionalists' in Colonial Swaziland: The Case of the 'Amabhaca' Fines." *Africa* 65(4):1995.
- Matsebula, J.S.M. 1988. *A History of Swaziland*. Cape Town: Longman.
- Merriam-Webster's Collegiate Dictionary* (11th ed.). 2003. Springfield, MA: Merriam-Webster.
- Parker, R., R.M. Barbosa and P. Aggleton. 2000. *Framing the Sexual Subject: The Politics of Gender, Sexuality, and Power*. University of California Press: Berkeley.
- Peterson, R. 2009. *Why Swaziland? How Colonial History, Nationalism and Cultural Identity Contribute to a National HIV Epidemic*. Master's Thesis, International Studies. University of Wyoming, Laramie, WY.
- Pool, R. and W. Geissler. 2005. *Medical Anthropology*. London: Open University Press.
- President's Emergency Plan for AIDS Relief (PEPFAR). 2003. *ABC Guidance #1: For United States Government In-Country Staff and Implementing Partners Applying the ABC Approach to Preventing Sexually-Transmitted HIV Infections within The President's Emergency Plan for AIDS Relief. Final*. Retrieved February 25, 2010. <<http://www.state.gov/documents/organization/57241.pdf>>.
- President's Emergency Plan for AIDS Relief (PEPFAR). 2009. *Swaziland Partnership Framework on HIV and AIDS 2009-2013: A Collaborative Effort between the Kingdom of Swaziland and the Government of the United States of America*. Retrieved March 12, 2010. <<http://www.pepfar.gov/frameworks/swaziland/124993.htm>>.
- President's Emergency Plan for AIDS Relief (PEPFAR). 2010. *2009 Annual Report to Congress on PEPFAR Program Results*. Retrieved July 3, 2011. <<http://www.pepfar.gov/documents/organization/138417.pdf>>.
- Sihlongonyane, M.F. 2003. The Invisible Hand of the Royal Family in the Political Dynamics of Swaziland. *African and Asian Studies* 2(2):155-81.
- Skolnik, M. Director. 2007. *Without the King* [Documentary]. United States: Red Envelope Entertainment.
- Swaziland Central Statistical Office (CSO). 2006-07. *Swaziland Demographic and Health Survey*. <<http://www.nercha.org.sz/publications/Publications/report/SDHSPrelimReport11.pdf>>.
- Thompson, L. 2000. *A History of South Africa*. New Haven and London: Yale University Press.
- UNAIDS. 2006. *Country-specific data: Swaziland*. <http://www.unaids.org/en/Regions_Countries/Countries/swaziland.asp> (10 May 2007).
- UNAIDS. 2008. *Monitoring the Declaration of Commitment on HIV/AIDS (UNGASS)*. Retrieved September 15, 2009. <http://data.unaids.org/pub/Report/2008/swaziland_2008_country_progress_report_en.pdf>.

Breastfeeding in Cambodia: Mother Knowledge, Attitudes and Practices

Hilary Wren, MPH, Public Health Researcher, Toronto, Ontario

Lori Chambers, MA, PhD, Lakehead University, Thunder Bay, Ontario

Correspondence may be directed to: Hilary Wren, 26 Gaw Crescent, Guelph, Ontario N1L 1H9, Canada; Tel: (519) 824-5000; E-mail: hilary.wren@mail.mcgill.ca.

Abstract

Purpose: To conduct a knowledge, attitudes and practices study of breastfeeding in the province of Krong Kep, Cambodia.

Methods: Mothers' breastfeeding knowledge, attitudes and practices were evaluated using a structured questionnaire. The questionnaire was administered in Khmer to women with at least one child less than 60 months of age. Women meeting the eligibility requirements (N = 141) answered questions regarding their infant feeding practices, including initiation and duration of breastfeeding.

Findings: In Cambodia, the decision to breastfeed is rooted in a history of poverty. Twenty-five percent of women sampled initiated breastfeeding within the first hour post-delivery. In total, 82% of women initiated breastfeeding within the first 24 hours post-delivery, and 53% of women breastfed exclusively for exactly the recommended 6 months' duration. Nine women who reported exclusive breastfeeding for 6 months did not initiate breastfeeding within the first 24 hours post-delivery, likely because of the cultural practice of "roasting." Professional breastfeeding support programs do not exist in Krong Kep, Cambodia.

Introduction

The Millennium Development Goals (MDGs) provide the international public health community with an eight-point action framework to reduce global poverty and increase sustainable development by 2015. Recognizing that the path to achieving the MDGs is unique per country, the Royal Government of Cambodia (RGC) adapted the MDGS to better suit the realities of a country

currently recovering from war. The formation of The Cambodia Millennium Development Goals (CMDGs) demonstrates the country's firm commitment to achieving the MDGs, including the reduction of child mortality (MDG4) and the improvement of maternal health (MDG5) (United Nations Development Programme 2010). Maternal, neonatal and child health (MNCH) remains a prominent priority of primary healthcare in Cambodia, and thus breastfeeding promotion is of utmost importance.

The World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) unanimously recommend exclusive breastfeeding for the first six months of life for healthy, term infants (WHO–UNICEF 2003). The WHO (2004) defines breastfeeding as the practice of feeding only breast milk (including expressed breast milk), with the exclusion of water, breast milk substitutes, other liquids and solid food. It is recommended that breastfeeding be initiated within the first hour of life for numerous health benefits, including the intake of colostrum, a highly nutritious form of breast milk produced at the end of pregnancy.

On a global level, it has been reported that the percentage of children in the world who are exclusively breastfed (< 6 months) is 38% (UNICEF 2008). In Cambodia, the percentage of women who exclusively breastfeed their infants during the first six months of life has risen from 11% in 2000 to 60% in 2005 (National Institute of Public Health (NIPH), National Institute of Statistics (NIS) and ORC Macro, 2006; UNICEF 2008). However, only 35% of children born in Cambodia are breastfed within one hour of birth and 68% within one day of birth. Additionally, more than half of all children (56%) born in Cambodia are given a prelacteal feed, something other than breast milk, during the first three days of life (NIPH, NIS and ORC Macro, 2006).

The province of Krong Kep ("Kep") is located in the southwestern region of Cambodia, 173 kilometres south of Phnom Penh. In 2003, the population of Kep was estimated at 35,434 (Ministry of Health Cambodia [MoH] 2004). The objective of the study was to assess the knowledge, attitudes and practices (KAP) of breastfeeding women in Kep, while acknowledging the existence of cultural barriers that affect a women's decision to breastfeed. Likewise, this study acknowledges that the decision to breastfeed or not is often greatly compounded by the unfairness of poverty. Accumulation of exposures and experiences that contribute to inequity and poverty make Khmer women vulnerable in their daily lives. In Cambodia, little has been documented on infant feeding practices, but knowledge of specific beliefs and practices is vital to the effectiveness of interventions. Thus, this study will contribute to the baseline data needed to implement maternal and child services in Kep.

Methods

Data Collection

Data were collected between June 12 and 24, 2008, with potential participants being contacted in person during the morning and early afternoon. Interviews were conducted in Khmer and translated into English by a Cambodian woman who worked as a trained midwife and translator. Interviews took place at the villagers' homes and lasted approximately 30 minutes.

Only women with at least one child aged less than 60 months were eligible for participation. All information pertaining to breastfeeding practices was taken in reference to the youngest child only. The questionnaire was administered only after informed consent was obtained.

Sample Size

Interviews were conducted in each of the five communes in the Municipality of Kep to maximize regional representation. Subjects were randomly selected from each of the 16 villages. The number of randomly selected subjects per village was not proportional to population size. Overall, 142 interviews were conducted by the researcher and translator. One interview was removed from the data set because of residence location, leaving a total of 141 responses. Among the randomly selected subjects, less than 1% of eligible respondents refused to participate in the study.

Questionnaire Development

The main objective of the KAP survey development phase was to generate a valid and reliable questionnaire that could be used to collect data about breastfeeding knowledge, attitudes and practices in Kep. Questions were adapted from a previous study on maternal mortality in Kep, and new questions were added to reflect the goals and objectives of this project (Kalaichandran and Zakus 2007). The questionnaire was tested and refined in Cambodia by Dr. Tung Rathaby, Ministry of Health Cambodia, before implementation. The final questionnaire was submitted for ethical review and validated by both Lakehead University, in Ontario, Canada, and the National Ethics Committee for Health Research (NECHR) within the Cambodian Ministry of Health. The final questionnaire was sent to an accredited translator within Cambodia to be translated into Khmer (see Appendices A and B).

Questionnaire Division

The questionnaire consisted of six sections. The first section collected descriptive and demographic characteristics including age, home type, educational level, occupation and parity. The type of home (mud, thatch, wood or brick) was used as a proxy for socioeconomic status, with mud the lowest status and brick the highest. Education was stratified into five layers corresponding to approximate literacy levels. These levels were based on findings that a minimum of four years of education are required for most Cambodian women to achieve full literacy as defined by being able to read a simple sentence in Khmer (MoH 1999). Education levels were defined as follows: no education (illiterate), 1–3 years (functionally illiterate), 4–6 years (literate, some primary education), 7–11 years (literate, some secondary education), and > 12 years (post-secondary education) (Giesbrecht 2004).

The second section examined maternal health behaviour during pregnancy. Questions focused on pregnancy history in relation to the youngest child only. Questions were asked regarding the stage of pregnancy at which antenatal care was received, number of visits, by whom care was given and location of care. Women were also asked questions about the type of birth (vaginal versus caesarean), location of delivery and possible complications during delivery as possible factors attributed to breastfeeding knowledge, attitudes and practices.

The third section recorded the subjects' general knowledge regarding breastfeeding. Knowledge related to infant feeding was measured from questions pertaining to how soon after the birth the baby should be put to the breast and for how long the baby should be exclusively breastfed. Additional questions assessing knowledge about the effects of breastfeeding on maternal health were included, as well as questions used to assess societal transfer of breastfeeding myths.

The fourth section assessed attitudes about feeding infants. Questions that evaluated mothers' attitudes included questions on mothers' comfort with breastfeeding, potential problems with breastfeeding and questions on the impact of breastfeeding on care of other family members. Additional questions tested the community's attitude toward breastfeeding, including if women feel shy to breastfeed in public places and whether breastfeeding mothers require a special place to breastfeed in public. A final question was asked regarding subjects' attitudes about birth spacing.

The fifth section documented information on subjects' breastfeeding behaviour and practice. Questions centred on when breastfeeding was initiated and breastfeeding duration. As well, questions were asked regarding supplementary feeding practices such as sugar water and the use of infant formula.

The last section examined breastfeeding support programs within Kep province. Questions evaluated the accessibility and feasibility of parenting/prenatal classes. Further, questions recorded subjects' sense of belonging to the community and willingness to ask for breastfeeding support if needed. A final question was included in the refined copy of the questionnaire to assess mothers' overall self-esteem and to provide a conclusion to the questionnaire process. The question (What makes you a good mother?) was open-ended and had the potential to build cultural relations.

Data Analysis

Using Microsoft Office Excel 2003, all data were entered into a spreadsheet. Descriptive statistics were used to organize and summarize the information obtained from the population sample (N = 141). Many steps were employed to ensure data trustworthiness. To demonstrate credibility, the researcher checked with the translator both during and at the end of each interview to ensure that the researcher correctly understood the subject's response. To ensure dependability, detailed information was documented for the purpose of an audit trail. To enhance conformability, data were examined for similarities and differences across the interviews and emerging themes were identified. Lastly, to guarantee transferability, the research process has been documented in detail, thus enabling potentially interested parties to determine whether the results are transferable to another setting.

Results

Demographics

Krong Kep Municipality, Cambodia, encompasses 16 villages. Subjects meeting the inclusion criteria were randomly selected. The largest numbers of respondents were from Chom Kabey village, while the least were from Ou Doung village. Type of house was equally divided between thatch (29.1%), wood (31.9%), and brick (29.8%).

The mean age of the women in the sample was 29.3 years. The oldest woman interviewed was 50 while the youngest was 18, giving a range of 32 years. Almost all women were married (98.6%), the mean years of marriage for the women in the sample being 9, with a range of 1 to 29 years. The mean educational level for a breastfeeding mother was 4.3 years (literate, some primary education), and the mean level for fathers was 5.2 years (literate, some primary education). The percentage of women and men with no education (illiterate) was 15% and 11%, respectively.

The mean number of children per woman was 2.87, with the number of children increasing with maternal age. At the time of interviews, nine women were currently pregnant, and the majority of married, non-pregnant women were not using birth spacing.

Antenatal Care and Pregnancy History of Respondents

The majority of women (75%) had received some form of antenatal care and advice in the most recent pregnancy and delivery. Most of these women received antenatal care for the first time during the fifth month of pregnancy (30%). One quarter of women did not receive any care. Forty-two percent of women sampled gave birth with a traditional birth attendant (TBA). The second most common person to assist with delivery was a midwife. Almost all women had a vaginal delivery (98.6%). Further, most women gave birth at home (60%).

Attitudinal and Intrapersonal Characteristics

While there is no way to know what the subjects' intended breastfeeding duration was or when the decision to breastfeed was made, the data indicate that several of the women did not breastfeed for as long as they had intended. Ninety-four percent of women sampled believed that they should breastfeed for the recommended six months. However, only 71% breastfed for the optimal six months or longer. Thus, almost a quarter of all women sampled responded that their expectations were not the same as their experience. Most respondents were comfortable with their skills in breastfeeding, and 75% of women sampled indicated that they were "not shy" to breastfeed in public.

Breastfeeding Initiation and Duration Rates

The results indicate that 25% of women initiated breastfeeding within the first hour post-delivery. In total, approximately 82% of women sampled initiated breastfeeding within the first 24 hours post-delivery. However, almost 20% waited longer than 24 hours to initiate breastfeeding (see Table 1).

Table 1. Initiation of breastfeeding

Initiation rate	Frequency	Percent (n = 139)
Within 1 hour	34	24.5%
2–24 hours	79	56.8%
> 24 hours	26	18.7%
Did not breastfeed	2	X
Total	141	100.0%

Results indicate that more than half of the women sampled (53%) breastfed exclusively for the recommended six months' duration. Seventy-one percent breastfed exclusively for six months or longer. Few women (nine) who reported exclusive breastfeeding for 6 months did not initiate breastfeeding within the first 24 hours post-delivery (see Table 2).

Table 2. Duration of breastfeeding

Duration rate	Frequency	Percent (n = 139)
Not exclusive	12	8.6%
Do not know	3	2.2%
< 6 months	25	18.0%
6 months	74	53.2%
> 6 months	25	18.0%
Did not breastfeed	2	X
Total	141	100%

Problems Encountered during Breastfeeding

Although only 36% of the sample indicated that they had problems with breastfeeding, these women experienced a number of different problems that can be separated into two categories: those originating from the infant and those originating from the mother. "Baby crying" and "baby won't breastfeed" were problems originating from the infant as reported by the mother. A larger number of respondents reported difficulties while breastfeeding that directly originated from themselves rather than from the child. These problems included "not enough milk," "sore nipples" and "time constraints." (Note: "not enough milk" may be linked to the traditional practice of "roasting," which will be reviewed in the Discussion).

Complementary and Supplementary Feeding

Of those women who did not exclusively breastfeed for the recommended six months minimum (n = 39), many fed their infants boiled sugar water and solids (cake, porridge and rice). The total exceeds 100% because a number of women gave more than one source (see Table 3).

Table 3. Complementary and supplementary feeding

Supplementary item	Frequency	Percent
Boiled water	33	84.6%
Boiled sugar water	27	69.2%
Cows' milk	13	33.3%
Canned/powdered milk	13	33.3%
Solids (cake, rice, porridge)	34	87.2%
Unboiled water	3	7.7%
Breast milk from another woman	2	5.1%

Breastfeeding Support Programs Offered to Pregnant Women and New Mothers

Almost all women (96%) reported that breastfeeding support programs or “mother classes” did not exist in their villages. All of the six women who responded that breastfeeding support programs did exist in their village reported attending those programs, which may indicate the value of support programs in this community. Lastly, the majority of women (88%) stated they felt a strong sense of belonging to the local community.

Discussion

A variety of findings specific to Cambodian culture emerged as a result of the KAP study. For many of the respondents, cultural themes likely affected their decision to initiate and continue exclusive breastfeeding for the recommended six months. Results must also be interpreted in reference to Cambodia's historical background. Vast changes occurred within Cambodian society during the years of Khmer Rouge rule (1975–1979) (Ledgerwood 1994). Decisions made by women living in Cambodia today are rooted in historical values that may have been influenced by the Khmer Rouge regime, including a loss of education. This argument is especially important in reference to demographic findings from the KAP study respondents. Mothers participating in the study had a mean age of 29 years, with an age range from 18 to 50 years. This finding suggests that the average respondent was born during the last year of the Khmer Rouge regime and can be identified as a “genocide survivor.” Khmer mothers have thus been forced to make profound decisions regarding their health and the health of their infant amidst a country rooted in a history of violence and a society entrenched in poverty.

Additional demographics from this KAP study are revealed as similar to statistical results found in the Cambodia Demographic Health Survey (NIPH, NIS and ORC Macro, 2006). A comparison of the two studies reveals little change in attribute characteristics of Khmer women from the province of Kep (see Table 4).

Table 4. Comparison of demographics from the KAP study 2008 and the CDHS 2005 (NIPH, NIS, and ORC Macro, 2006)

Demographic	KAP Study (2008)	CDHS for Krong Kep (2005)
Parity rate	2.87 (approx. 3 children)	3.20 (approx. 3 children)
Use of birth spacing	26.9%	28.7%
Years of education	4.3	3.5
No education/illiterate	14.9%	14.3%

Most respondents (75%) received some form of antenatal care. Unfortunately, Cambodian women in this study are waiting too long to seek antenatal care and health advice. Healthcare professionals recommend that the first antenatal visit occur within the first three months of pregnancy, not during the fifth month as found to be the case in Kep (NIPH, NIS and ORC Macro, 2006). Moreover, most women (60%) choose to give birth at home. This finding is slightly lower than the CDHS (NIPH, NIS and ORC Macro, 2006) report, which found that 83% of mothers delivered at home. A significant decline in the percentage of deliveries at home in a short period of time may suggest an increase in service utilization, including the growth of the private health sector in Cambodia. Results from the KAP study reflect this idea, with 23% of women delivering in a private clinic. This may indicate that cost is an important factor in choice of location of delivery. Further, the KAP study found that women were almost equally divided in their choice of provider during delivery, with slightly more women using a TBA (42%) than a midwife (36%). It should be noted that for the purpose of this study TBAs are assumed to have no formal training, which is consistent with definitions of TBAs provided in other research (United Nations Population Fund [UNFPA] 2006). As TBAs are often used to minimize costs, this finding may indicate that a women's actual behaviour does not reflect her true preference, but instead her decision to use a TBA for assistance during delivery may be based on her inability to pay for a trained healthcare professional such as a midwife. If this notion is accepted, the cost of assistance during delivery represents a direct factor influencing a mother's decision to breastfeed her child. Thus, the impact on antenatal care may be grave if a Khmer mother decides to rely solely on a TBA for assistance and does not receive appropriate counselling regarding breastfeeding.

Likewise, many different factors can prevent women from initiating breastfeeding and breastfeeding exclusively for the recommended six months. Numerous reports have found that between 50% and 75% of expectant mothers decide how they will feed their infants before or very early in pregnancy (Dennis 2002; Shields 2005). While there is no way to know what the subjects' intended breastfeeding duration was, or when the decision was made, data from the KAP study indicate that several of the women did not breastfeed for as long as they had intended. Specifically, 23% of women responded that their expectations were not the same as their breastfeeding experience. This finding suggests that appropriate interventions and breastfeeding support must occur in a timely manner, especially if a mother has not received antenatal care. Facilitation of breastfeeding education and support should begin during the early stages in pregnancy and continue post-delivery. However, the KAP study found that despite having been provided with little, if any, formal breastfeeding education and support, most women (64%) were confident with their breastfeeding skills and were "not shy" (75% of women) to breastfeed in public. This finding may suggest that breastfeeding support programs should place a significant emphasis on various areas of breastfeeding, including perceived barriers, rather than a program focused solely on breastfeeding techniques.

Early initiation of breastfeeding is recommended by healthcare professionals for a number of reasons that benefit both maternal and child health. Results from the KAP study demonstrate that only 25% of women initiate breastfeeding within the first hour of life, as recommended by the WHO-UNICEF. This finding is slightly lower than data from the CDHS (NIPH, NIS and ORC Macro, 2006) study, which found that 31% of women from Krong Kep started breastfeeding within the first hour. More importantly, the number of women initiating breastfeeding within a 24-hour period doubles (57%) for a total of 82% initiating breastfeeding within one day following delivery. This key finding is encouraging and likely the result of concerted efforts by the Ministry of Health and national media campaigns aimed at creating awareness of breastfeeding "best practices" in Cambodia. Furthermore, results from the KAP study found that one fifth (19%) of women waited longer than 24 hours to initiate breastfeeding after childbirth. Although reasons behind the waiting period cannot be concluded from this study, a traditional custom reported throughout the KAP study was the cultural practice of "roasting," which occurs immediately following childbirth. Roasting is practised by women in order to increase "internal heat" that is assumed lost during delivery (UNFPA 2006). Although specific questions were not asked regarding this traditional

practice, roasting emerged as a prominent theme. This finding is significant because the practice of roasting may delay the onset of breastfeeding. Mothers who participate in the cultural traditional may delay breastfeeding initiation or be separated from their infants while they roast. Moreover, a study conducted by UNFPA (2006) found that a quarter of TBAs advised against breastfeeding for the first few days of life in order to best observe ceremonial practices including roasting. Thus, one may suggest that this traditional and cultural practice is potentially harmful for both mother and child. Certainly heating the body to extreme temperatures is problematic for mothers who may have borderline hypertension or other undiagnosed illnesses. For infants, delay in the onset of breastfeeding may mean that the child misses out on colostrum produced by the mother during the early stages of breastfeeding. Likewise, this finding is of concern if it indicates that one in five children are being given a prelacteal feed, that is, something other than breast milk, during the first 3 days of life. Prelacteal feeds often include unboiled water, which is likely harmful to the child. It is critical that breastfeeding support programs emphasize the importance of early initiation of breastfeeding and reinforce the fact that water is unsafe and not needed for infant survival. It is also clear that to be successful, such programs must respect and incorporate some modified form of roasting.

The WHO recommends exclusive breastfeeding for an infant's first six months of life (WHO 2003). Results from the KAP study indicate that more than half of women sampled (53%) breastfed exclusively for a minimum of six months. This result is slightly lower than a countrywide statistic that estimates the percentage of children who are exclusively breastfed at 60% (UNICEF 2008). It is important to note that KAP study findings could not be compared to the CDHS 2005 (NIPH, NIS and ORC Macro, 2006) as data were not provided for the region of Krong Kep. Moderately low rates of exclusive breastfeeding for six months' duration, as found by the KAP study, suggest that vast improvement is needed in order to effect decreasing overall rates of child malnutrition, morbidity and mortality. Additionally, a few women (nine) who reported exclusive breastfeeding for six months did not initiate breastfeeding within the first 24 hours post-delivery. Although it cannot be confirmed that these children were given a prelacteal feed prior to breastfeeding initiation, the finding may suggest that some women understood "exclusive breastfeeding" to mean "predominately" breast milk. Alternatively, it may indicate that initiation of breastfeeding is being delayed on purpose for cultural reasons.

Lastly, almost all women (96%) reported that breastfeeding support programs or "mother classes" did not exist in their village. This finding suggests that educational classes directed at health promotion and supporting breastfeeding mothers simply do not exist in Kep. However, the KAP study found that 88% of women felt a strong sense of belonging to their local community. This finding is extremely encouraging and suggests that, if given the opportunity, women in the community will work effectively together to change conditions that may be beyond individual control.

Conclusion

Breastfeeding is an unequalled way of providing ideal food for the healthy growth and development of infants. It is both a natural act and a learned cultural behaviour. Through the practice of breastfeeding, mothers and children are intimately linked, forming a biological and social unit (WHO 2003). It is thus within this unit that mothers and infants also share problems of malnutrition and ill-health. Global strategies created to overcome barriers to breastfeeding must concern mothers and children together.

In Cambodia, poor infant feeding practices are a major threat to national development, as malnourished mothers and children cannot act as productive and contributing members of society. Global efforts must respect and protect Cambodian women and children, honouring their universal right to adequate nutrition. Strategies implemented to promote breastfeeding in Kep must be relevant to Khmer mothers and refrain from becoming "culture blind policies" (McMurry 2007). Renewed energy and action, through data, research and evaluation, are needed to protect Khmer mothers and children. Results from the KAP study warrant the implementation of outreach breastfeeding support programs for mothers in Krong Kep, Cambodia. As members of a "global

village,” we have social responsibility to acknowledge the poor conditions that underlie barriers to breastfeeding support programs and that create inequalities for Khmer women. But the promotion of breastfeeding through support programs will not work in isolation. Khmer mothers need clean water, adequate food and access to healthcare. Alleviating the poverty of Khmer mothers is essential in the promotion of breastfeeding.

References

- Dennis, C.L. 2002. “Breastfeeding Initiation and Duration: A 1990–2000 Literature Review.” *Journal of Obstetric, Gynecologic and Neonatal Nursing* 31(1): 12–32.
- Geisbrecht, S. 2004. *Maternal Health in Cambodia*. Unpublished Manuscript.
- Kalaichandran, A. and D. Zakus. 2007. “The Obstetric Pathology of Poverty: Maternal Mortality in Kep Province, Cambodia.” *World Health & Population*. 9(2): 38–47. Retrieved March 23, 2008. <<http://www.longwoods.com/content/18844>>.
- Ledgerwood, J. 1994. “Gender Symbolism and Culture Change: Viewing the Virtuous Woman in Khmer Story ‘Mea Yoeng.’” In *Cambodian Culture Since 1975: Homeland and Exile*. Ithica, New York: Cornell University Press.
- McMurry, A. 2007. “Culture Inclusiveness: Safe Cultures, Healthy Indigenous People.” In *Community Health and Wellness: A Socio-ecological Approach*. WA, Australia: Elsevier Ltd.
- Ministry of Health Cambodia (MoHC). 1999. *National Institute of Public Health Survey*. Phnom Penh: MoHC.
- Ministry of Health Cambodia (MoHC). 2004. *National Health Statistics 2003*. Phnom Penh: MoHC.
- National Institute of Public Health (NIPH), National Institute of Statistics (NIS) [Cambodia] and ORC Macro. 2006. *Cambodia Demographic and Health Survey 2005*. Phnom Penh, Cambodia and Calverton, Maryland, USA: NIPH, NIS and ORC Macro. Retrieved February 28th, 2007. http://www.measuredhs.com/pubs/pub_details.cfm?ID=624
- Shields, K. 2005. “Reducing the Barriers to Breastfeeding in Northern Ontario: An Analysis of Health Services.” Unpublished Manuscript.
- United Nations Children’s Fund (UNICEF). 2008. *The State of the World’s Children 2008*. UNICEF: New York. Retrieved January 23, 2008. <http://www.unicef.org/sowc08/report/report.php>
- United Nations Development Programme. 2010. “What Is the Difference between the Millennium Development Goals (MDGs) and the Cambodia Millennium Development Goals (CMDGs)?” Retrieved October 27, 2010. <http://www.un.org.kh/undp/mdgs/cambodian-mdgs/what-are-the-cambodia-millennium-development-goals>
- United Nations Population Fund. 2006. “Obstacles to Delivery by Trained Health Providers to Cambodian Rural Women.” Retrieved November 11, 2007. cambodia.unfpa.org/download.php?file=29A235B5d01.pdf
- World Health Organization. 2003. “Nutrition Data Banks: Global Data Bank on Breastfeeding.” WHO: Geneva. Retrieved January 17, 2007. https://apps.who.int/nut/db_bfd.htm
- World Health Organization. 2004. “Promoting Proper Feeding for Infants and Young Children.” WHO: Geneva. Retrieved February 10, 2007. <http://www.who.int/nutrition/topics/infantfeeding/en/index.html>
- World Health Organization–UNICEF. 2003. *Global Strategy for Infant and Young Child Feeding*. WHO: Geneva. Retrieved February 10, 2007. <http://www.who.int/nutrition/publications/infantfeeding/9241562218/en/index.html>

Appendix A : Questionnaire in English

Part A: Demographics

1. What village do you live in? _____
2. What type of house do you live in? Mud Thatch Wood Brick
3. How old are you? _____
4. What is your marital status? Married Divorced/Separated Widowed Single
5. If married, how long have you been married? _____
6. If married, has your husband ever been to school? Yes/No
7. If yes, for how many years did he attend? _____
8. Have you ever been to school? Yes/No

9. If yes, for how many years did you attend? _____
10. Are you employed? Yes/No Occupation _____
11. How many children do you have? _____
12. What is the age of your youngest child? _____
13. What is the sex of your youngest child? Male/Female

Part B: Pregnancy History

1. During your last pregnancy, did you receive pre-pregnancy care? Yes/No
2. If yes, from whom did you receive care for your health in pregnancy and delivery?
Midwife Public hospital staff Private medical practitioner Family/Friends
3. During your last pregnancy, did you visit the district health centre or hospital for a pregnancy check-up? Health Centre Hospital/Did not visit
4. If yes, at what stages in pregnancy? 1 2 3 4 5 6 7 8 9 (months)
5. Where did you give birth to your youngest child?
Home District Health Centre Public Hospital Private Clinic
6. What type of birth? Vaginal Cesarean section
7. Did you have any problems with your delivery? Yes/No Specify _____

Part C: Breastfeeding Knowledge

1. How long after birth should the baby be put to the breast? _____
2. For how long should a baby be breastfeed exclusively? _____
3. Does formula feeding provide the same nutritional benefits as breastfeeding? Yes/No
4. Does breastfeeding benefit the health of the mother? Yes/No
5. If Yes, how is it helpful? _____
6. Can breastfeeding mothers drink alcohol? Yes/No Smoke? Yes/No
7. Do women need to drink milk to produce milk? Yes/No
8. Did your mother breastfeed you? Yes/No

Part D: Breastfeeding Attitude

1. Do you believe that women should breastfeed exclusively for the first six months?
Yes/No
2. If No, what do you believe a baby should be fed in the first six months? _____
(if water, specify if boiled)
3. What are the problem(s) with breastfeeding? Circle all that apply:
Baby crying Jaundice Dehydrated Baby too sleepy Latching problems
Emotional difficulty Weight loss in baby Other _____
4. Do you think that breastfeeding affects the care of other family members? Yes/No
5. Are you shy to breastfeed in public? Yes/No
6. Do you feel that it is important for mothers who breastfeeding to have a special place in public places? Yes/No
7. Do you use birth spacing? Yes/No
8. If yes, which type? Pill Injection Condom Other _____

Part E: Breastfeeding Behaviour

1. Did you breastfeed your youngest child? Yes/No
2. If yes, when did you initiate breastfeeding after delivery?
Within 1 hr Within 24 hours Within 1 week
3. On average, how many hours a day did you breastfeed for?
1 2 3 4 5 6 7 more than 7 hours
4. Did you feed your baby other things besides breast milk before 6 months? Yes/No
5. If yes, circle all that apply:

Fresh cow's milk Canned cow's milk Boiled sugar water Boiled water
Non-boiled water Honey Porridge Infant formula Other _____

- 6. How comfortable are you with your breastfeeding skills?
Not comfortable/Somewhat comfortable/Don't know/Comfortable/Very comfortable
- 7. Do you need help with your breastfeeding skills? Yes/No
- 8. Are you still breastfeeding now? Yes/No
- 9. What is the main reason you stopped? Circle all that apply:
Not enough milk Fatigue Difficulty with breastfeeding techniques
Sore nipples Illness Planned to stop at this time Child weaned himself/herself
Advice of doctor Advice of partner Formula feeding preferable Lack of support
Other _____

Part F: Breastfeeding Support Programs

- 1. Are pre-natal/"mother" classes available close to where you live? Yes/No
 - 2. If yes, did you use these programs with your most recent birth? Yes/No
 - 3. If yes, do you feel there are any challenges for your participation in them? Yes/No
 - 4. If Yes, circle all that apply:
Don't need it Need more information Don't like the program Cost Transportation
Inconvenient Location Lack of child care Other _____
 - 5. How would you describe your sense of belonging to your local community?
Very weak/ Somewhat weak/ Not sure/ Somewhat strong/ Very Strong
 - 6. Do you know where to go for breastfeeding support in your community if you need it?
Yes/No
- * What makes you a good mother?

Appendix B: Questionnaire in Khmer

ផ្នែក A : សំណួររួមជាសរុប

- ១- តើអ្នករស់នៅក្នុងភូមិអ្វី ? _____
- ២- តើផ្ទះដែលអ្នកកំពុងរស់នៅជាផ្ទះប្រភេទអ្វី ? ផ្ទះបិតដី ផ្ទះប្រគំស្បូវ ផ្ទះឈើ ផ្ទះថ្ម
- ៣- តើអ្នកមានអាយុប៉ុន្មាន ? _____
- ៤- តើអ្នកស្ថិតនៅស្ថានគ្រួសារណាមួយ ? រៀបការរួច លែងលះ ពោះម៉ាយ
- ៥- បើរៀបការហើយ តើអ្នករៀបការបានយូរប៉ុណ្ណាហើយ ? _____
- ៦- បើរៀបការហើយ តើប្តីរបស់អ្នកធ្លាប់បានចូលសាលារៀនទេ ? ធ្លាប់/មិនធ្លាប់
- ៧- បើធ្លាប់ តើគាត់ចូលសាលារៀនបានប៉ុន្មានឆ្នាំ ? _____
- ៨- តើអ្នកធ្លាប់បានចូលរៀនទេ ? ធ្លាប់/មិនធ្លាប់
- ៩- បើធ្លាប់ តើអ្នកចូលសាលារៀនបានប៉ុន្មានឆ្នាំ ? _____
- ១០- តើអ្នកមានការងារធ្វើទេ ? មាន/មិនមាន មុខរបរ: _____
- ១១- តើអ្នកមានកូនប៉ុន្មាននាក់ ? _____
- ១២- តើកូនពៅរបស់អ្នកមានអាយុប៉ុន្មានឆ្នាំ ? _____
- ១៣- តើកូនពៅរបស់អ្នកស្រី ឬប្រុស ? _____

ផ្នែក B : ប្រេងផ្តិតចំពោះ

- ១- ក្នុងអំឡុងពេលមានផ្ទៃពោះក្រោយរបស់អ្នក តើអ្នកបានទទួលការថែទាំមុនកំណើតដែរឬទេ ? បាន/មិនបាន
- ២- បើបាន តើអ្នកបានទទួលការថែទាំសុខភាពពេលមានផ្ទៃពោះ និងពេលប្រសូត្រ ពីអ្នកណា ? _____

- ៦- តើអ្នកដឹងថា វាសំខាន់សំរាប់មាតាទេ ចំពោះការដែលមានកន្លែងពិសេសមួយក្នុងទីសាធារណៈសំរាប់
បំបៅកូន នោះ ? សំខាន់/មិនសំខាន់
- ៧- តើអ្នកបានពន្យាកំណើតទេ ? បាន/មិនបាន
- ៨- បើបាន តើតាមវិធីណា ? *ផ្ទះក្រាប ផ្ទះចាក់ រៀនមន្តអាម័យ ផ្សេងៗ* _

ផ្នែក E : អាកប្បកិរិយាគ្រោះថ្នាក់នៃការបំបៅកូនដោយទឹកដោះម្តាយ

- ១- តើអ្នកបានបំបៅទឹកដោះដល់កូនពេញលេញរបស់អ្នកដែរ ឬទេ ? បាន/មិនបាន
- ២- បើបាន តើអ្នកចាប់ផ្តើមបំបៅនៅពេលណាបន្ទាប់ពីប្រសូត្រ ?
ក្នុងរយៈពេល ១ ម៉ោង ក្នុងរយៈពេល ២៤ ម៉ោង ក្នុងរយៈពេល ១ សប្តាហ៍

A Qualitative Inquiry into the Application of Verbal Autopsy for a Mortality Surveillance System in a Rural Community of Southern India

Prem K. Mony, MD, MSc, Associate Professor, St. John's Research Institute, St. John's National Academy of Health Sciences, Bangalore, India

Mario Vaz, MD, Professor, St. John's Research Institute, St. John's National Academy of Health Sciences, Bangalore, India

Correspondence may be directed to: Prem K. Mony, Community Health & Epidemiology, St. John's Research Institute, Bangalore 560034, India; Tel: +91-9535007638; E-mail: premkmony@gmail.com.

Abstract

The aim of this investigation was to identify operational and ethical issues encountered in the application of verbal autopsy (VA) in a rural community in south India. A qualitative study involving semi-structured interviews was conducted with 183 bereaved caregivers in rural Andhra Pradesh, India. Simple descriptive analysis was undertaken. Only 16% of adult deaths and 27% of child deaths occurred in healthcare settings. Healthcare utilization for the terminal illness was reported in two thirds of medical (non-injury) causes of death. Supporting medical evidence was available in <10% of cases to supplement the interpretation of verbal autopsies. About 14% of bereaved caregivers refused to give written consent but provided oral consent. Additional ethical concerns included inability to ensure privacy in 15% of interviews and unsolicited information from unauthorized neighbours in 5% of cases. Such methodological, logistical and ethical issues operate to impact on the quality of VAs. Consideration of these issues would strengthen ongoing efforts in the harmonization of VA procedures.

Introduction

Knowledge about the distribution of causes of death in populations is critical for public health planning, resource allocation and impact evaluations. Such information is, however, inadequate for developing countries because of weak civil registration systems and hospital-based death certification systems. Hence, verbal autopsy (VA), an indirect method of ascertaining the cause of death based on information on illnesses or circumstances preceding death obtained from bereaved caregivers, offers an interim strategy to generate cause-specific mortality data in such settings (Jha et al. 2001; Setel et al. 2005; World Health Organization [WHO] 1978). Currently, VA is routinely employed in over 20 developing countries – the Million Death Study within the Sample Registration System (SRS) in India, the Disease Surveillance Point (DSP) system in China and over 35 other small demographic surveillance system (DSS) sites spread across 18 other countries (WHO 2005). In parallel with the increasing use of VA are efforts to validate and harmonize VA methodologies globally (Chandramohan et al. 2001; Setel et al. 2006; WHO 2005). While issues such as cause-specific mortality fractions and their validity have been reported extensively, there is minimal documentation on process issues encountered while employing VAs for mortality surveillance. The aim of this study was to document the operational and ethical issues pertaining to the application of verbal autopsy in a rural community for a local mortality surveillance system and to study the local after-death practices relating to mourning and death registration.

Materials and Methods

Study Setting

The study site was at Palamaner, located in Chittoor district in the south Indian state of Andhra Pradesh. Chittoor district is predominantly rural – 78% (Registrar General of India [RGI] 2005). The study area comprised five administrative regions, called *mandals* (Palamaner, Baireddipalli, Gangavaram, Ramakuppam and V. Kota), forming the erstwhile Palamaner *taluk* (sub-district), with a total population of about 252,020 (2004 survey).

Our study population was the rural population of 208,630 within Palamaner *taluk* (excluding Palamaner town, population of 43,390). Agriculture was the mainstay of the local economy, but, because of low and erratic rainfall, the income levels of the people were low. About 47% of the population was estimated as below the poverty line (Society for Elimination of Rural Poverty 2004).

Study Design and Instruments

A qualitative study involving face-to-face interviews was undertaken. Study respondents were interviewed using a semi-structured questionnaire designed to obtain information on respondent details (relationship to deceased, willingness to be interviewed), details of deceased (socio-demographic information, location of residence, healthcare sought for terminal illness and a verbal autopsy for cause-of-death) and after-death practices (death registration, last rites and mourning practices).

For the verbal autopsies, we used the four different age-specific questionnaires from the Indian SRS study of causes of death (<http://cghr.org>) – neonatal death form (0 to 28 days), child death form (29 days to 14 years), adult death form (≥ 15 years) and maternal death form (15 to 49 years; females suspected or known to be pregnant or to have delivered within the last six weeks). Briefly, all these questionnaires were of a hybrid format – that is, a combination of a closed-ended, structured component for key disease symptoms/exposures and an open-ended narrative component to obtain the respondent's history, verbatim. The adult questionnaire had, in addition, a symptom list to aid in the collection of a good narrative (<http://cghr.org>). All questionnaires were in English, but interviews were conducted in the local language, Telugu. A key modification we made was the instruction given to field interviewers to also collect medical reports (e.g., prescription slips or discharge summaries) to aid in subsequent physician reviews. In addition to attempting to obtain a biomedical cause of death by physician review, we tried to obtain the cause of death as perceived by the respondent ("natural" vs. "supernatural" cause). Fieldworkers graded the cooperation or willingness of study respondents, using a Likert semantic grading scale (1 = uncooperative, 2 = reluctant, 3 = average, 4 = willing,

5 = very cooperative). If a fieldworker was not able to contact a caregiver after three visits to a household, he or she moved on to the next household with an available respondent.

Sample Size

A sample of 180 deaths amounting to 10% of expected total deaths ($n = 1670$) in a year (the crude death rate for rural Andhra Pradesh is 8 per 1000) (RGI 2005) was chosen on a convenience basis for exploring the feasibility of instituting a mortality surveillance system using locally trained fieldworkers and medical officers.

Study Personnel

Eight multipurpose health workers/research assistants with about 10 to 12 years of formal education were the field interviewers. More than 80% were male; this meant that several female respondents had to be interviewed by male fieldworkers. Both experienced ($n = 6$) and newly appointed workers ($n = 2$) underwent a standardized sandwich VA training program that covered VA procedures as well as relevant medical terminology training, practice field interviews and revision training. The order of preference for choosing a respondent was determined a priori to follow a uniform methodology (<http://cghr.org>) (Jha et al. 2006). Training emphasized positive and negative symptom elicitation, with a focus on the terminal illness and repeated reminders not to pursue for any specific medical diagnosis. New workers were also given brief training in counselling skills to aid in handling grief and bereavement.

Four medical officers underwent a standardized training program to assign a probable cause of death (<http://cghr.org>); the focus was on identifying the “underlying cause of death” (WHO 2003).

Cause of Death Assignment, Re-sampling and Ethical Approval

All interviews were to be held in private after written consent had been given. Each VA report was reviewed independently by two physicians, and disagreements were subsequently adjudicated by a third physician. All diagnoses were coded using the ICD-10 classification system. For quality assurance purposes, 30 of 183 deaths (16%) were re-sampled for a repeat home visit, questionnaire re-administration and cause of death assignment by one of the authors (PKM). The study protocol was approved by the St. John's Institutional Review Board.

Results

Geographical Spread

Median (range) distances of the study villages from a district road, state highway and the national highway were 0.5 (0–12), 3.0 (0–23) and 6.0 (0–29) km, respectively.

Demographic Characteristics of the Deceased

Of the 183 deaths studied, 17 (9%) were neonatal deaths, 13 (7%) were child deaths and 153 (84%) were adult deaths. Ninety-three percent of the deceased were Hindu and 7% were Muslim. Socio-demographic details of the 153 adult deaths are shown in Table 1. The mean reported age at death was 65 (range = 15–99) years. Literacy rate was 35%.

Informed Consent

In accordance with the ethical committee approval, we sought written informed consent from the relatives of the deceased. In about 25 (14%) cases, this was problematic because family members were unwilling to affix their signature or thumbprint to a document, even though they understood the purpose of the study and wished to participate. These 25 interviews were subsequently conducted after only verbal consent was obtained, and the institutional review board was informed about this protocol deviation.

In about 15% of interviews, privacy could not be maintained. In spite of repeated requests by the interviewer, the respondent and/or the neighbour(s) saw no reason for a private interview, and the neighbour was also present during a part or whole of the interview. In addition, in another 5% of

cases, fieldworkers came back with two often conflicting narratives from two sources for a particular death — one from a relative/associate of the deceased and another unsolicited version of the terminal illness from a neighbour who volunteered the information to the fieldworker. Examples were cases of vague fevers reported by relatives but a history of HIV/AIDS related by neighbours, and history of vague somatic complaints reported by relatives but a history of suicide related by neighbours.

Table 1. Socio-demographic characteristics of deceased adults, cooperation of respondents and causes of death

Socio-demographic characteristics (<i>n</i> = 153)	No. (%)
Sex	
• Male	91 (59%)
• Female	62 (41%)
Marital status	
• Never married	4 (2.5%)
• Currently married	112 (73.5%)
• Widowed	36 (23.0%)
• Divorced/separated	1 (0.5%)
Completed years of school	
• < 8 years	124 (81%)
• ≥ 8 years	29 (19%)
Occupational category	
• Daily wage labourer	76 (49.5%)
• Cultivator	29 (19.0%)
• Salaried/ business	10 (6.5%)
• Non-worker	38 (25.0%)
Cooperation of study respondents (<i>n</i> = 183)	No. (%)
Uncooperative	26 (14%)
Reluctant	17 (9%)
Average	38 (21%)
Willing	38 (21%)
Very cooperative	64 (35%)
Causes of deaths (<i>n</i> = 183)	No. (%)
Cardiovascular/endocrine system (I00 to I99)	44 (24%)
Infectious diseases (A00 to B99)	33 (18%)
Neoplasms (C00 to D48)	20 (11%)
Injuries (V00 to Y98)	20 (11%)
Respiratory system (J00 to J99)	13 (7%)
Digestive system (K00 to K93)	7 (4%)
Perinatal conditions	6 (3%)
Ill-defined conditions (R00 to R99)	33 (18%)
Other organ systems	7 (4%)

Respondents

In our study, the respondents for all neonatal and child deaths were the parents. For adult deaths, details are shown in Table 2.

The median recall period was four months (range = 0–24). Nearly 90% of interviews were conducted after a gap of four weeks following the date of death in order to give time for mourning.

The average time taken to fill out the questionnaire was 35 to 45 minutes (25 to 35 minutes for verbal autopsy and 10 to 15 minutes for the qualitative questionnaire). There were few missing items (3.6%) in the questionnaires.

Nearly four fifths (77%) of respondents were cooperative and willing to narrate details about the deceased (Table 1). The median score was 3.5 out of 5.0 (25th to 75th centile = 3–5). This did not vary by type of consent given (written or oral).

Table 2. Sex and relationship of respondents for adult death interviews

Relationship to deceased	Sex of respondent		Total
	Male No.	Female No.	No. (%)
Son/daughter	45	15	60 (39%)
Spouse	5	25	30 (20%)
Son-in-law/daughter-in-law	1	23	24 (16%)
Parent	5	9	14 (9%)
Sibling	8	1	9 (6%)
Other relatives	8	8	16 (10%)
Total	72 (47%)	81 (53%)	153 (100%)

Healthcare Utilization and Evidence

At least some healthcare was sought during the illness preceding death in about 65% of medical (excluding injuries) causes of death among both children and adults. Most of this (65%) was from a private medical practitioner, 20% was from a government health centre, 5% from a non-profit health clinic and the remainder from traditional practitioners. Among care classified as provided by private medical practitioners, respondents could not differentiate between licensed and unlicensed medical practitioners.

Supporting medical evidence (e.g., prescriptions or hospital discharge summaries) was obtained in less than 10% (17/183) of cases. Further, the quality of the evidence was found to be very inadequate – most often, handwritten sheets containing investigation/medicine names were illegible. In three households, the deceased's medical records were reportedly buried or cremated along with the body. Limited availability of medical information also meant that the certainty of diagnoses graded subjectively by the physicians as high, medium or low was 21%, 55% and 24%, respectively.

Details of Death

Only about 16% (24/153) of adult deaths and 27% of newborn/child deaths (8/30) were in health-care settings. However, there was a significant difference between the mean age (standard deviation; SD) of adults who died in hospital (mean = 45.1 years; SD = 20.1) compared to those who died at home (61.6 years; SD = 19.5 years); $P < .01$.

A supernatural cause of death (e.g., spirits) was attributed in less than 2% of deaths, using the approach of getting respondents' perceived cause of death.

According to physician review based on VA reports, circulatory system disorders and infectious diseases were the most common causes of death (Table 1). Agreement between two physicians was 56% at the initial coding stage and reached 79% after the reconciliation stage; 21% of records were adjudicated by a third physician.

Mourning Practices – Last Rites, Grieving and Death Registration

The interval between death (at home or outside the home) and burial/cremation was about 12 to 36 hours. Almost always, the burial/cremation was conducted the same or the next evening. In most households, a male member of the household (the son, wherever possible) was to be present for the last rites. It was not essential for any temple priest (e.g., *poojary*) to be present for the last rites/burial. Last rites performed included washing of the dead body and performance of a *pooja* (religious ritual). Disposal of body was most often by burial (86%) and less often by cremation (14%) among Hindus; it was by burial (100%) among Muslims.

Of all deaths, 55% were reported to have been “registered”; however, only 10% of respondents had a death certificate in hand. Further enquiry revealed that “registration” meant the family had notified the village secretary, but a death certificate was handed to the family only in few instances (e.g., injury deaths) to facilitate receipt of welfare payments such as pensions or *solatia* (compensation paid for solace by governments in India, usually for tragic injury deaths); otherwise no death certificate was issued to the relatives. Among those who had not registered the deaths, reasons for non-registration were as follows: 82% did not know about death registration, 7% did not see any benefit in registration, 7% did not see the utility of reporting deaths in older persons specifically and 4% reported being too preoccupied with their mourning.

Almost all families also reported an extended mourning period varying from three to 12 months. This fell under two broad categories: (i) not attending any “auspicious” ceremonies (such as marriages) in other households and consuming only vegetarian food for three months, and (ii) not scheduling any “auspicious” ceremonies in their own households for 12 months.

Discussion

Operational Issues

Study Design

The outcome of a cause-of-death investigation in a region would depend on the choice of study design pursued by the investigator, that is, whether the perspective was from an “epidemiological” approach of obtaining a biomedical cause of death, or from an “anthropological” approach of obtaining a cause of death as perceived by the caregiver (Allotey and Reidpath 2001; Boerma et al. 1997). In our study, attribution to a supernatural cause of death (e.g., spirits), at less than 2%, was much lower than the level of 15% noted in Africa (Allotey and Reidpath 2001). This could be attributed to the predominantly biomedical approach in study design undertaken in our investigation. It could also be due to a “social desirability bias” (Paulhus and Reid 1991) on the part of respondents because the interviewers were identified as belonging to the local allopathic hospital.

Cause-of-death assignment by physician review as undertaken by us is the method used widely in India, unlike other methodologies such as expert algorithm or data-derived algorithm tried out in other settings (Baqui et al. 2001; Byass et al. 2003; Lulu and Berhane 2005; Quigley et al. 1999). The high diagnostic accuracy at the population level of the method we used for attribution of death has been noted, compared to the latter methods (Quigley et al. 1999).

According to physician review based on full VA reports, circulatory system disorders were found to be the commonest (26%) cause of adult deaths in our sample. Non-communicable diseases, along with infectious diseases and injuries, constitute a “triple burden” that has been documented in other studies, from the northern part of the state of Andhra Pradesh (Joshi et al. 2006) and from the non-poor states of India (RGI–Centre for Global Health Research and Collaborators 2009). Agreement between two physicians was 56% at the initial coding stage and reached 79% after the reconciliation stage, with most of the mismatch between the two diagnoses due to differences within the same ICD chapter (e.g., chronic obstructive pulmonary disease [J44] vs. asthma [J45]) or to equivalence codes (e.g., pneumonia [J18] vs. acute lower respiratory infection [J22]); this was comparable to a national-level study (Bassani et al. 2010).

Study Personnel

A key limitation to the widespread adaptation of VA tools in mortality surveillance systems could be the availability of skilled personnel – trained fieldworkers to record evidence, data managers to enter and analyze data and physicians to assign a cause of death. This has been noted earlier by others (Garenne and Faveau 2006). Multipurpose health workers or research assistants are typical of fieldworkers likely to be available in most settings in the country (Gajalakshmi et al. 2003; Joshi et al. 2006). Exigencies of fieldwork may also determine the number and timing of visits to households to interview potential respondents. This also has a bearing on deployment of fieldworkers for VA work exclusively or in parallel with other community outreach work.

Age, sex and relationship of respondent have not previously been found to affect accuracy of the VA, but presence of the caregiver during the terminal stage of illness was found to increase the accuracy of the diagnosis (WHO 2005).

Study Instrument

Hybrid VA questionnaires incorporating structured and open-ended components are used less often in India than the open-ended narrative alone. Of late, their use has been shown to be as good as or even better than either component alone in both children (Soleman et al. 2006) and adults (<http://cghr.org>). Availability of supporting medical evidence could theoretically impact the quality of cause-of-death assignment. In our area, reported healthcare utilization before death was reasonably high; however, such contextual information was not found to impact physician reviews. This could be due to three reasons: (i) low availability of medical reports from households with deaths, (ii) poor quality of available medical evidence (due to illegible, incomplete or irrelevant records), and (iii) inaccessibility of medical reports because of prevailing local mourning practices such as burning/burial of medical records along with the body of the deceased. While the first two have been documented earlier (Mahapatra and Chalapati Rao 2001), the last is a new finding. While it may impact assignment of cause of death at the individual level, because of the low prevalence of the practice in our setting it may not have impacted population estimates. However, there is a need to look more closely at the prevalence of such practices in a larger population under prospective follow-up to determine its impact.

A low rate of missing items in the questionnaires suggests that the workers and respondents did not have difficulties with the construct of the questionnaire or the specific questions. The short, 2-page hybrid VA questionnaires may have increased compliance and accuracy of reporting compared to the lengthy, symptom-based modular questionnaires, but this was not directly tested in this study. Shorter questionnaires may generally be more acceptable because of efficient use of the interviewer/interviewee's time, reduced chance of "acquiescing responses," reduced fatigue and less chance of social desirability bias (Paulhus and Reid 1991).

Dual Narratives

In those cases with dual versions of the circumstances of death, practical difficulties faced by the fieldworkers in emphasizing/documenting verbatim reports and by the physician reviewers in assigning the cause of death remain unknown. This is an area that could be explored further.

Availability of dual versions of the circumstances of death such as was seen in our study could also impact the estimates of cause-specific mortality fractions in a region depending on the relative importance given to the narrative by the fieldworker and/or the physician coder, as well as the type and proportion of total deaths with such dual reports.

Implications of Grieving and Other after-Death Practices on Ascertaining Death

Culture-specific rituals and mourning practices, while serving to assist the bereaved in the completion of their "task of grieving process" (Hagman 1995; Kagawa-Singer 1998) also have several implications for studies on cause-of-death estimates in a community. First, the interval between death and burial/cremation essentially offers a short window of opportunity for clinical investigators and other researchers attempting to validate pre-mortem clinical diagnosis or VA-derived cause-of-death against an autopsy (limited, partial or complete clinical autopsy). Second, confusion or lack of awareness about the process and purpose of death registration appears to continue to keep the civil vital registration at sub-optimal levels (Jewkes and Wood 1998; Mony et al. 2011). Third, evidence relating to healthcare utilization prior to death when available may be inaccessible because of local practices such as disposal by burning/burial along with the body in some households, as noted above.

Ethical Issues

Some authors have insisted on written as opposed to verbal consent prior to interviews (Chandramohan et al. 2005). While such formal consenting procedures may be followed in research settings, they

tend to be less formal when the verbal autopsy process is employed routinely for mortality surveillance on a large scale, such as in India's Sample Registration System (Jha et al. 2006). In addition, insisting on written instead of verbal consent may pose concern for some participants. This might be because of an inherent suspicion of being associated with any formal document relating to death. Hence a proportion of individuals are likely to feel comfortable giving verbal instead of written consent. Further, there may also be bias if only written consents are included in studies; medico-legal deaths (under investigation by forensic and law enforcement agencies), or deaths that are seen as socially unacceptable – like suicides or HIV/AIDS – are more likely to be missed, as written consents are less likely to be obtained.

Orientation training given to new fieldworkers on handling grief, and also taking care to conduct interviews after a 4-week grieving period, may have boosted comfort levels of fieldworkers in handling field interviews and also minimized "interview friction," as evidenced by a reasonably high level of cooperation in this study.

Despite the best efforts by fieldworkers to ensure privacy, it was not possible for some interviews in our setting. The respondent and/or the neighbour(s) did not see the need for a confidential interview of the family of the deceased. From our study it was not possible to conclude whether privacy was not considered an issue by such individuals in a rural community or whether the respondent caregivers felt insecure about demanding privacy during interviews.

In instances when two conflicting narratives were obtained, the narrative from the non-family respondent seemed a more plausible alternative with regard to chronology and medical symptomatology, as compared to the version obtained from the family respondent; but this also presented an ethical dilemma. The relatives had not consented to accepting the others as additional respondents, and also the fieldworkers were receiving unauthorized histories that were not originally intended. The impact on the trust and well-being of the caregivers, neighbours or fieldworkers is not known.

Our study has some limitations. First, the sampling of participants was purposive and hence the quantitative findings are likely to be indicative and may not be completely generalizable. However, the purpose of the study was not to arrive at quantitative estimates of cause-specific mortality estimates of the population but rather to obtain a range of qualitative information related to the circumstances surrounding death. Second, the analysis was performed only by the authors and so may have been biased to some extent by their own preconceptions in the design of the study approach and study instruments.

In summary, operational issues (pertaining to methodology and logistics) and ethical issues and their attendant implications are likely to be faced during the application of verbal autopsy in a given setting. It may not be possible to address all of these concerns, and hence choices may have to be made by the investigator so as to maintain "research rigour" (Ratcliffe and Gonzales-del-Valle 1988) while working with realities at the field level. The synthesis of such qualitative research together with quantitative research (Mays et al. 2005), rather than either alone, will also help in the process of strengthening the application of the verbal autopsy as a tool for increased mortality surveillance in many developing countries. Making vital registration and mortality surveillance systems more robust in the light of these considerations may also help build trust in the workings of public health.

Acknowledgements

The authors are grateful to Dr. Auburn Jacob, Director of Emmaus Swiss Referral Hospital (ESRH), Palamaner, for administrative support in the conduct of this study, the ESRH staff for assistance in data collection, Mr. Subramaniam for field supervision and the resident medical officers for assistance in cause-of-death assignment. The authors would also like to thank Mrs. Manjulika Vaz for her valuable comments on an earlier version of the manuscript. The study was funded jointly by the St. John's Research Institute, Bangalore, and the Emmaus Swiss Referral Hospital, Palamaner.

References

Allotey, P. and D. Reidpath. 2001. "Establishing the Causes of Childhood Mortality in Ghana: The 'Spirit Child'." *Social Science & Medicine* 52(7): 1007–12.

- Baqui, A.H., A.A. Sabir, N. Begun, S.E. Arifeen, S.N. Mitra and R.E. Black. 2001. "Causes of Childhood Deaths in Bangladesh: An Update." *Acta Paediatrica* 90(6): 682–90.
- Bassani, D.G., R. Kumar, S. Awasthi, S.K. Morris, V.K. Paul, A. Shet et al. 2010. "Causes of Neonatal and Child Mortality in India: A Nationally Representative Mortality Survey." *The Lancet* 376(9755): 1853–60.
- Boerma, JT, N. Isingo R, M. Urassa, K.P. Senkoro, R. Gabone et al. 1997. "Levels and Causes of Adult Mortality in Rural Tanzania with Special Reference to HIV/AIDS." *Health Transition Review* 7(Suppl. 2): 63–74.
- Byass, P., D.L. Huong and H.V. Minh. 2003. "A Probabilistic Approach to Interpreting Verbal Autopsies: Methodology and Preliminary Validation in Vietnam." *Scandinavian Journal of Public Health Supplement* 62: 32–7.
- Chandramohan, D., P. Setel and M. Quigley. 2001. "Effect of Misclassification of Causes of Death in Verbal Autopsy: Can It Be Adjusted?" *International Journal of Epidemiology* 30(3): 509–14.
- Chandramohan, D., N. Soleman, K. Shibuya and J. Porter. 2005. "Ethical Issues in the Application of Verbal Autopsies in Mortality Surveillance Systems." *Tropical Medicine & International Health* 10(11): 1087–9.
- Gajalakshmi, V., R. Peto, S. Kanaka and S. Balasubramanian. 2002. "Verbal Autopsy of 48 000 Adult Deaths Attributable to Medical Causes in Chennai (Formerly Madras), India." *BMC Public Health* 2: 7.
- Garenne, M. and V. Fauveau. 2006. "Potential and Limits of Verbal Autopsies." *Bulletin of the World Health Organization* 84(3): 164.
- Hagman, G. 1995. "Mourning: A Review and Reconsideration." *The International Journal of Psychoanalysis* 76(Pt 5): 909–25.
- Jewkes, R. and K. Wood. 1998. "Competing Discourses of Vital Registration and Personhood: Perspectives from Rural South Africa." *Social Science & Medicine* 46(8): 1043–56.
- Jha, P. 2001. "Reliable Mortality Data: A Powerful Tool for Public Health." *The National Medical Journal of India* 14(3): 129–31.
- Jha, P., V. Gajalakshmi, P.C. Gupta, J. Kumar, P. Mony, N. Dhingra et al. 2006. "Prospective Study of One Million Deaths in India: Rationale, Design, and Validation Results." *PLoS Medicine* 3(2): e18.
- Joshi, R., M. Cardona, S. Iyengar, A. Sukumar, C.R. Raju, K.R. Raju et al. 2006. "Chronic Diseases Now a Leading Cause of Death in Rural India – Mortality Data from the Andhra Pradesh Rural Health Initiative." *International Journal of Epidemiology* 35(6): 1522–9.
- Kagawa-Singer, M. 1998. "The Cultural Context of Death Rituals and Mourning Practices." *Oncology Nursing Forum* 25(10): 1752–6.
- Lulu, K. and Y. Berhane. 2005. "The Use of Simplified Verbal Autopsy in Identifying Causes of Adult Death in a Predominantly Rural Population in Ethiopia." *BMC Public Health* 5(1): 58.
- Mahapatra, P. and P.V. Chalapati Rao. 2001. "Cause of Death Reporting Systems in India: A Performance Analysis." *The National Medical Journal of India* 14(3): 154–62.
- Mays, N., C. Pope and J. Popay. 2005. "Systematically Reviewing Qualitative and Quantitative Evidence to Inform Management and Policy-Making in the Health Field." *Journal of Health Services Research & Policy* 10(Suppl. 1): 6–20.
- Mony, P., K. Sankar, T. Thomas and M. Vaz. 2011. "Strengthening of local vital events registration: lessons learnt from a voluntary sector initiative in a district in southern India." *Bulletin of the World Health Organization* 89(5): 379–84.
- Paulhus, D.L. and D.B. Reid. 1991. "Enhancement and Denial in Socially Desirable Responding." *Journal of Personality and Social Psychology* 60(2): 307–17.
- Quigley, M.A., D. Chandramohan and L.C. Rodrigues. 1999. "Diagnostic Accuracy of Physician Review, Expert Algorithms and Data-Derived Algorithms in Adult Verbal Autopsies." *International Journal of Epidemiology* 28(6): 1081–7.
- Registrar General of India. 2005. Sample Registration System (SRS) Bulletin 42(1). New Delhi, India: Office of the Registrar General.
- Registrar General of India–Centre for Global Health Research and Collaborators. 2009. *Report on Causes of Death in India: 2001–2003*. New Delhi, India, Office of the Registrar General of India.
- Ratcliffe, J.W. and A. Gonzalez-del-Valle. 1988. "Rigor in Health-Related Research: Toward an Expanded Conceptualization." *International Journal of Health Services* 18(3): 361–92.
- Society for Elimination of Rural Poverty. 2004. Annual report. Hyderabad, India, Department of Rural Development. Government of Andhra Pradesh.

- Setel, P.W., C. Rao, Y. Hemed, D.R. Whiting, G. Yang, D. Chandramohan et al. 2006. "Core Verbal Autopsy Procedures with Comparative Validation Results from Two Countries." *PLoS Medicine* 3(8): e268.
- Setel, P.W., O. Sankoh, C. Rao, V.A. Velkoff, C. Mathers, Y. Gonghuan et al. 2005. "Sample Registration of Vital Events with Verbal Autopsy: A Renewed Commitment to Measuring and Monitoring Vital Statistics." *Bulletin of the World Health Organization* 83(8): 611–7.
- Soleman, N., D. Chandramohan and K. Shibuya. 2006. "Verbal Autopsy: Current Practices and Challenges." *Bulletin of the World Health Organization* 84(3): 239–45.
- World Health Organization. 1978. *Lay Reporting of Health Information*. Geneva: WHO.
- World Health Organization. 2003. *International Statistical Classification of Diseases and Related Health Problems, 10th Revision. Version for 2003*. Geneva: WHO.
- World Health Organization. 2005. *Technical Consultation on Verbal Autopsy Tools Final Report*. Geneva: Department of Measurement and Health Information Systems – Evidence and Information for Policy, WHO.

A Review of Ethics in Health Services and Policy: A Global Approach

Emma McKim Mitchell, PhD RN
Assistant Professor at the University of Miami
School of Nursing and Health Studies

Dean M. Harris, JD, MPH, is Clinical Associate Professor, Health Policy and Management, at the Gillings School of Global Public Health, University of North Carolina at Chapel Hill. He teaches healthcare law and globalization in healthcare at the undergraduate, Master's and doctoral level. His 2011 text explores ethical issues in healthcare policy and practice from a global perspective. Noted by the author in the introduction: the content has particular relevance for students in the healthcare professions – public health, medicine, nursing, and allied health. Two central themes of the book emerge: (1) exploring whether theories of ethics are globally applicable, and (2) exploring which theories help people decide how to “do the right thing” (p. 3). In other words, as Harris succinctly states: “are these ethical theories really global ... [and are they] really useful?” (p. 6).

The book begins with a discussion of the fundamentals of existing ethical theories. Each chapter starts by clarifying terms and introductory remarks about the purpose and content of each topic. Throughout the text are examples of situations where these theories may be applied globally, with the intention of challenging readers to critically analyze the applicability of such theories in the context of different cultures. In addition to examples embedded in each section, chapters all conclude with a critical-thinking exercise or activity. Also included in many chapters are excerpts from experts on relevant topics, or excerpts of seminal works on global health ethics. The author notes that after the reader has read the initial chapter outlining fundamental ethical theories, all chapters and content can be interchanged or read non-sequentially. In such a format, content can easily be incorporated into existing courses or coursework for healthcare professionals.

Harris explores a wide range of ethical issues, categorized here as (1) research issues such as autonomy and informed consent as they apply to global research with human subjects, (2) practice issues, including the right to healthcare and the healthcare practitioner's obligation to provide care, as well as the cultural ramifications of physician-assisted suicide and withholding/withdrawing treatment, (3) ethical issues in reproductive health, e.g., abortion and emergency contraception, as well as female genital mutilation, (4) healthcare service delivery issues including rationing and implications of allocating limited resources, issues of health insurance and health system reform, and corruption

and informal payments in health systems, and (5) healthcare workforce issues, including movement of patients and healthcare practitioners across national borders.

Harris employs a comparative, multicultural model throughout the text. Within each chapter Harris poses several questions, encouraging readers to question preconceived ideas about “other” or “different” cultures and value systems. Such continued self-reflection is crucial for healthcare providers to ensure culturally competent and culturally inclusive care. For example, when discussing reproductive health, Harris acknowledges the deep-seated emotions and “gut reactions” groups often feel about issues such as abortion and emergency contraception. Through posing clarifying and interrogative questions, Harris challenges readers to examine the reproductive ethical issues prescribed by their own culture, as well as consider the perspectives of others’. Harris also discusses the historical progression of ethical issues in global healthcare, from individual patient/practitioner-centred foci to contemporary discourse on social justice and the health of populations.

In addition to principles and exploring global health paradigms, two specific ethical dilemmas Harris discusses in more depth are physician-assisted suicide and female genital mutilation. Each is used to highlight the inextricable connection of ethical principles and the cultural context within which people experience health. Harris discusses economic considerations as well in the ethics of withdrawing or withholding treatment and of physician-assisted suicide.

In the eloquent excerpt from Marshall and Koenig (2004) included in chapter 1, Harris quotes: “We are deeply concerned with the implications of exporting American bioethics practices throughout the world. The problem is not simply one of national wealth or access to resources, although these are critical considerations” (Marshall and Koenig 2004: 9). Critical thinking exercises and case study vignettes throughout on global healthcare ethical principles help students analyze not only the research ethics model used within the United States, but also how this model can or cannot – and perhaps more aptly should or should not – apply in research and practice settings globally. Through exploring issues of autonomy and informed consent, and then encountering specific ethical dilemmas, students are presented with tools necessary for considering all angles of these complex situations.

One question I was left with at the end of the text, since it is directed at students in healthcare fields, concerns the ethical issues surrounding student global health service trips or practica. Perhaps within the chapter on healthcare workforce migration, discussion of the ethical issues of global health in student learning and practical experiences could have helped students not only consider broad ethical issues, but also individual practice and professional issues. Most often, healthcare-related and academically affiliated service or service-learning trips state as a goal to increase access to healthcare resources during their 2-to-3 week immersion trips in “resource-poor” settings. They often lack evaluative mechanisms, or open dialogue about the ethical issues of transplanting (or “exporting” per Marshall and Koenig 2004) practice from one culture to another. Though not only a student phenomenon or an academically affiliated group phenomenon, this ethical issue warrants further discussion and exploration.

Regardless of the one question noted above, this comprehensive text is an excellent reference of ethical issues in global health practice and policy for healthcare professional students. Reading this text will challenge these students to explore their own ideas about ethics and culture, which will ultimately help them develop core competencies in delivering or better understanding culturally competent healthcare.

References

- Harris, D.M. 2011. *Ethics in Health Services and Policy: A Global Approach*. San Francisco, CA: Jossey-Bass.
- Marshall, P. and B. Koenig. 2004. “Accounting for Culture in a Globalized Bioethics.” *Journal of Law, Medicine and Ethics* 32(2): 252–6.

World Health and Population provides a forum for researchers and policy makers worldwide to publish original research, reviews and opinions on health- and population-related topics. The journal encourages the conduct and dissemination of applied research and policy analysis from diverse international settings. Its stated goal is to explore ideas, share best practices and enable excellence in healthcare worldwide through publishing contributions by researchers, policy makers and practitioners.



Longwoods Publishing
Enabling Excellence

worldhealthandpopulation.com