Health and Health Promotion and Applied Health Psychology in Sexual and Stigmatized Minority Populations

A Collection of Papers and a Monograph Presented in Application for the Degree of Doctor of Science at Massey University, Manawatu

Michael W. Ross, MA MSt MHPEd MPH PhD MD DipTertEd DipAppCrim DipSTD

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Declaration

I declare that the material to be examined in this thesis has not been submitted by me to any other university for the award of any degree.

Michael W. Ross
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Any research programme over a substantial time owes its success to colleagues, students, family and to support from research granting bodies. Most large-scale studies have multiple investigators, and I thank my many colleagues who served as co-authors on the publications which I have co-authored, or as supportive faculty in research areas that at the time appeared to be going out on a limb. The constant backing and acknowledgement of the importance of academic freedom to ask difficult and even unpopular questions, the foundation of a free society and its institutions, which was shown by colleagues at all levels of faculty (particularly in the early days of my research) cannot be overestimated.

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My work has been well-funded by grants from the Australian National Health and Medical Research Council, in the U.S. by the National Institutes of Health and the CDC, and the Swedish Research Council, among others. Many of my studies were also opportunistic in nature and done without funding.

Last but absolutely not least, I thank my family and friends and my partner Chris for their unconditional support on a life and work journey that none of us could have imagined but, whatever unfolded, in whatever part of the globe, was supported with love and grace.

Comments on Authorship

A large proportion of the papers in this dissertation arise from work commenced while I was a faculty member at two large public U.S. universities, the University of Texas (1993-2014), and the University of Minnesota (2014 to date). In those 25 years, I have worked with a number of Masters and Doctoral students. Unlike New Zealand and other countries which follow the British academic system, the North American doctoral degree dissertation usually consists of several publishable papers, based on data already collected by the doctoral advisor (supervisor). A number of papers included in this dissertation fall into this category: data collected by me were used by several doctoral students, who carried out analyses under my supervision. I usually appear as second author in such a case, and had designed the study and collected the data, and suggested the analyses. Unlike the medical field, where being last author may indicate senior authorship, my work has followed the social science practice of denoting order of authorship with the senior authorships in descending order.

Comments on other Theses

No papers included here were used in other theses, including my PhD, MD (a European graduate degree in health and medical research, and not a clinical medical degree), my MA (which was published as a book), MSt, MPH, and MHPEd. This explains why a number of first-author papers which appear in my *curriculum vitae* are not included here.

The Work

My areas of research fall into several general areas, but in common they are related to sexual and other minority groups, occur in the context of the HIV pandemic, and most likely involve risk behaviors for HIV and STI infection. These include instrument development, exploratory studies, background studies, and several controlled intervention studies. Working in the midst of the HIV pandemic globally precluded the usual neat progression of studies associated with an academic career: studies were often opportunistic, looking at disparate parts of the jigsaw. In the midst of applied studies, work on the impact of stigma and discrimination, and on internalized homophobia/homonegativity in gay and bisexual men are a theoretical thread that continues throughout my work. The resulting garment of my career covers much, perhaps not as elegantly as a well-planned research career, but based on a patchwork of stitching together, at various times and places, from what was available and needed.

The Tanzanian and other East African Studies

Twenty years ago, when my colleagues and I did our first work in Tanzania with injecting drug users, we were told that such people didn't exist in Tanzania. In three weeks, one of my Swahili-speaking US colleagues, Dr Sheryl McCurdy, who had worked in Tanzania for several decades, had located and interviewed (or observed) over 80 injecting drug users. Those initial studies on Tanzanian drug users appear first in the Tanzanian studies. In the next five years, after being told that there were no homosexual men in Tanzania, and that in any case homosexuality was a colonial disease introduced by Europeans, it took me several years to make contact with gay men. Tanzania then, as now, retained in an updated form the colonial English laws which provided for penalties of up to 30 years imprisonment for homosexual acts between males. After nearly five years of careful contact with some very underground activists, I was convinced that in the major city, Dar es Salaam, there was a gay subculture, but quite different from the gay subcultures in the West. My experience in the HIV epidemic in the West also convinced me that there was a second wave of the HIV epidemic in gay men (and to a lesser extent injecting drug users) that was unknown because no one asked, or volunteered, any information about men who had sex with men (or drug injecting). Questions about homosexual men to most Tanzanian colleagues and to taxi drivers elicited responses that indicated that they were talking about trans-females.

The process of applying for and receiving a grant from the US National Institutes of Health (NIH) and identifying a Tanzanian colleague, Dr Joyce Nyoni, who had also investigated gay men as a collaborator took another couple of years. We were very fortunate to receive the grant and negotiate the complexities of receiving US and Tanzanian IRB approval for our study of 300 MSM in Dar es Salaam and a smaller provincial city, Tanga. Most of the papers I have presented here are based on that initial 2011-2012 study. In some ways, studying gay and bisexual men in Tanzania was "*déjà vu* all over again" from my early work in New Zealand, with stigma and criminalization major determinants of behavior. I added to this my training in venereology and

we also collected biological specimens (blood, and urethral and anal swabs) which enabled us to seamlessly study the social, psychological and biological interactions of HIV/STI, stigma, and discrimination. We also collected qualitative data from a random subset of interviewees.

The first paper noted the high (over 30%) HIV seroprevalence rate in MSM in Dar es Salaam, and much lower in Tanga, and its association with sexual behavior. Very high levels of stigma and discrimination were noted, along with internalized homonegativity/homophobia. High levels of depression were found in the gay and bisexual men, closely linked with IH. As the laboratory tests were not completed until well after the study, and only a very few men knew that they were HIV seropositive, the association of HIV with depression was not a function of knowledge of serostatus. We could also demonstrate through both quantitative data and qualitative interviews how negative reactions in health workers (including medical practitioners and nurses) lead to avoidance of gay and bisexual men of public clinics, denial of their homosexual contact, avoidance of seeking treatment for anal signs or symptoms, and subsequent high levels of anal symptoms (but not urethral symptoms). We also, using carefully coded GIS data on gay meeting places, could demonstrate a large number of such places (nearly 100 in Dar es Salaam) although to avoid identification of such places, we published only a suburb-level map. Unlike in the West, in the major metropolitan area in Tanzania, such meeting places did not follow the red-light districts were evenly distributed across the metropolitan area. Since we had used respondent-driven sampling, we were also able to publish a social network paper which identified large and connected social and sexual network trees in both Dar es Salaam and Tanga, suggestive of a well-organized if very underground gay and bisexual subculture. High levels of discrimination and stigma were reported, along with their mental health and behavioral correlates. My graduate students Hycienth Ahaneku, Markus Larsson, Alexandra Anderson, and Adeniyi Adeboye were involved in these studies as part of their graduate training. From these papers, we developed a model of an approach to HIV/STI identification, treatment and prevention in MSM in homophobia and stigmatizing societies that was published (the SPEND model). Finally, from that model, which as one of its points identified appropriate sexual health training in health professionals, we carried out two of the first workshops on teaching sexual health material and sexual history taking skills in SSA (at the School of Nursing and Midwifery at Muhimbili University of Health Sciences in Dar es Salaam) and assessed it using our own psychometric scale, developed to measure the impact of training health professionals in sexual health knowledge and confidence. This work was carried out in very close collaboration with Drs Joyce Nyoni and Jessie Mbwambo, and Mr John Kashiha, our NGO partner at CHESA. It will be apparent that the whole research fabric involved very careful ethical protections and potential risks to our partners in Tanzania. Finally, I include a study of MSM in four large cities in Tanzania on use of electronic media in the sexual health context, a necessary prerequisite to overcoming some of the institutionalized homonegativity among some health professionals, and its parallel, IH among MSM. The Tanzanian studies, along with several opportunistic and complementary studies of MSM in neighboring Uganda, map a program from field work, data collection in several social, psychological and biological modalities, model development,

professional training, and investigation of new modalities such as electronic intervention, all in the period of a decade.

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Internalized Homophobia/Homonegativity

The concept of Internalized Homophobia/Homonegativity (IH) was postulated as the underlying dynamic for many of the common mental conditions of gay men and lesbians. In the mid-1980s,

I became interested in its potential explanatory power for looking at mental health in MSM but it was immediately apparent that there was no adequate measure of it. The development of one of the first psychometric tests was published by myself and my then PhD student, Simon Rosser, and complemented with a measure of gay life events (the GALES, GAy Life Events Scale) which we also developed from an existing (presumably heterosexual) life events scale which did not include gay life events, including HIV-related ones. The IH scale was subsequently used in the US and confirmed that IH was associated with HIV-risk behaviors, as several papers demonstrate. From this first measure, the scale has been refined, tested in non-Western MSM populations, and used in larger-scale studies of MSM. It was used in the study of nearly 180,000 MSM in 28 countries in Europe, the EMIS study, and the paper from this study which made it possible, given the large country *n*, to look at structural and social determinants of IH, has been widely cited. Particularly important, this study found associations between HIV risk behavior and IH, demonstrating the assumed but not adequately demonstrated link between risk behavior and IH. Additional studies in high-stigma societies such as Uganda and Tanzania demonstrated that the concept had utility in East African societies, while a short form which had almost equivalent psychometric properties to the original 26-item scale was developed. This short form was exhaustively analyzed using structural equation modelling in the EMIS sample by myself and Ha Tran, another PhD student of mine. Its stability was confirmed, with the exception of the interesting and theoretically useful finding that it was unstable by sexual orientation (gay versus bisexual). Subsequently, the Tanzanian MSM research again confirmed the importance of IH in HIV risk behavior and its close association with discrimination, particularly verbal discrimination, and depression. Taking IH from measure development to refinement and a demonstration of its utility in studies in multiple countries and with large samples has established the usefulness of this concept in mental health in MSM populations. Finally, I include a commentary paper on a Finnish court trial of a close friend and colleague whose doctoral thesis on homosexuality at the University of Tampere was subject to being officially burned had he lost the trial, as an example of how, even in the 21st century in supposedly enlightened countries, homonegative attitudes still exist in intellectual circles.

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Studies on Men who have Sex with Men (MSM)

In the 1980s I was an academic at Flinders University in Adelaide, Australia, and later became the Director of the HIV/AIDS Programme (and Clinic) at the South Australian Health Commission from 1985-1988. Much of my research reflected the arrival of the HIV epidemic in MSM in Australia and I was a member of the Australian National AIDS Task Force and the Australian National Advisory Committee on AIDS. My research reflected the urgent need to understand HIV-related risk behaviors and the almost complete lack of published work on MSM in Australia. A focus of my work was an attempt to understand the nature and context of risk behavior and to apply that understanding to HIV prevention in MSM in Australia. As I had already published work on STIs (Sexually Transmissible Infections) in gay men, that work was my starting point given the high overlap between the risks for STIs and HIV.

The STI work on gay men included a study of STIs in gay men in several societies, including social and psychological predictors, partner numbers, in the early 1980s as HIV was reaching epidemic proportions in the U.S. (but only a few cases had been reported in Australia, mostly in Sydney, from 1983). Work published on psychosocial and behavioral issues in gay men attending STI clinics was largely based on data collected in the late 1970s and early 1980s and was intended to study these issues in a population with the same risks as sexually transmitted HIV in the same population. Subsequent papers on gay men and HIV risk behavior from the second decade of the HIV epidemic are included and also include several papers on drug users in Australia, India and in the U.S., as key populations whose behaviors may place them at risk for HIV transmission. Much of my work during the HIV epidemic in Australia and the U.S. was in response to an evolving epidemic in poorly understood populations, and not the carefully staged work that typifies the chain of conjecture, refutation and revision of theory that scientists in more stable fields are able to develop over their careers. At this time I also served as a consultant to the World Health Organization (WHO) Global Programme on AIDS in Geneva. The papers include an attempt to understand the context and measure contextual influences in risk behavior, relative influence of attitudes and norms in protective behavior, the drug use and dance party subculture and drug-related sexual risks, community involvement in MSM, and an attempt to understand bisexual behavior that went beyond the traditional Kinsey scale analyses.

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<u>Studies on understanding and developing interventions to reduce HIV and STI risks and infections in heterosexual or general populations</u>

Understanding of the attitudinal and behavioral concomitants of HIV and STI infection in heterosexual populations are crucial to tailor interventions to reduce infections. The HIV crisis internationally involved following leads and developing and tailoring interventions to reduce HIV and STI transmission. These include examining some unexpected leads: I start with an attempt to understand risks in sex workers using an occupational health and safety lens, and emphasizing safe workplaces rather than safe sex. Looking at HIV from a racial/ethnic cultural perspective involved investigating conspiracy beliefs about the origins of HIV in different racial and ethnic groups; ascertaining prevalence of classes of risk behaviors in specific populations; understanding current levels of information and misinformation in a population; and studying the determinants of health care workers' attitudes and beliefs about people with HIV disease that may impact their willingness to give them optimal health care. Some of the populations I have studied include work with drug users in Texas, particularly crack cocaine users; and in Internet-using (and specifically sexually-related Internet use) in young Swedish men and women, examining the evidence for Internet sexual "addiction". Added to this last study, I also looked at

whether the Internet was associated with higher STI infection rates in such users. More difficult and expensive is designing, mounting and evaluating interventions based on preliminary studies. I include interventions designed and implemented in diverse samples in controlled trials, one in Nigerian health care workers and another in Nigerian soldiers in West Africa, and one in predominantly black neighborhoods in Houston, Texas, in the first syphilis prevention community study since the notorious Tuskeegee study (both funded by the Centers for Disease Control: CDC). The arc of successful community interventions to reduce HIV and STI risks is based on population and community preliminary work to understand attitudes and behaviors, followed by carefully designed tailored and controlled interventions, and by evaluations of the interventions. These studies show all three of these stages with different heterosexual populations – the ultimate melding of applied psychology with public health.

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The Criminology Studies

In the 1970s, many studies of sexual minorities were part of the criminology literature (since most sexual minority behaviors were criminalized): the authoritative work on male homosexuality of that time was D.J. West's "Homosexuality" (1968). I met with Donald West, at that time Reader (now Emeritus Professor) in Criminology at the University of Cambridge, and his advice was invaluable in the remainder of my career. Professor West also drew my attention to the links between stigma and health in sexual minorities, and sexual issues faced in prisons. I subsequently studied for a master's degree and Diploma in Criminology at Cambridge, with a special focus on prison studies.

Much of my work on health and prisons is contained in the book which I am submitting for this work (some chapters of which had also been published as peer-reviewed papers, but which are not duplicated here). The book takes a health and social justice approach to health in prisons, from the perspective of both inmates and prison staff, seeing prisons as sites for health interventions and health training. In addition to the book, I have included four other papers, referencing my work on health in prisons and evaluations of psychological and health-related interventions in prisons. Three of these involve evaluation studies of prison programmes, and an additional one some theoretical work I did with my Master's advisor at Cambridge on some nationally collected (U.K.) data. I have *excluded* the peer-reviewed publication of my master's thesis at Cambridge. My interest in criminology focusses on health and health climate issues in stigmatized settings (correctional settings).

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Summary

In a career lifetime of working in both universities and in and with health departments, my work in applied psychology has dealt with stigmatized sexual minorities (particularly MSM) in many countries and settings, including before, during, and after the main impact of the AIDS epidemic (which in many locations and populations is still epidemic or in a subsequent "wave"). Applied health psychology must of necessity make use of many opportunities that cannot be planned in advance, or of situations where study of stigmatized groups is both dangerous (for them and for researchers) and difficult. The unifying theme in this DSc is the stigmatized minority group, the stigmatized disease, and the stigmatized setting. Massey University provided the training for the first "bookend" of my career at its beginning, and this dissertation as the second "bookend" some 45 years later of a career of surprises, opportunities, and challenges – some of the better parts of which are reflected in these pages.

I also thank the New Zealand education system, which not only prepared me well for my work across the globe, but made it possible for me, despite my sense of unpreparedness, to be top or top-equal of my class at Cambridge every year I was there. I owe this to public high school in Palmerston North, and to Massey University. After an international career, it is particularly fitting that I choose Massey University in Palmerston North as the institution and city to submit this DSc thesis.