#### **ORIGINAL ARTICLE**



# "We Live Just Like a Normal Family": Exploring Local Renderings of the Global HIV Normalisation Discourse Among Serodiscordant Couples in Papua New Guinea

Asha Persson<sup>1</sup> · Angela Kelly-Hanku<sup>2,3</sup> · Agnes Mek<sup>2</sup> · Elke Mitchell<sup>4</sup> · Richard Nake Trumb<sup>2</sup> · Heather Worth<sup>5</sup> · Stephen Bell<sup>4</sup>

Accepted: 15 July 2022 / Published online: 9 August 2022 © The Author(s) 2022

#### Abstract

The contemporary global discourse of "HIV normalisation" is intimately linked to the scientific consensus that, with effective antiretroviral therapy, an "undetectable" viral load renders HIV "non-infectious" and "untransmittable" between sexual partners. Beyond this correlation, HIV normality is rarely defined, leaving the impression that it is an objective and universally applicable phenomenon. But what does normality mean in settings where these concepts are not widely known or part of local understandings of HIV? Our research in Papua New Guinea with "serodiscordant" couples (one partner has HIV, but not the other) found that while HIV normality was a widespread narrative, it pivoted on culturally specific values and expectations, not on undetectability. We argue that narrow assumptions of what constitutes "HIV normalisation" limit our capacity to understand how global discourses can translate and manifest in local contexts and with what consequences for personal lives, relationships, and the epidemic.

**Keywords** HIV normalisation · Serodiscordant couples · Undetectability · Biomedicine · Papua New Guinea

Cook Islands Centre for Research and Policy Studies, University of the South Pacific, Rarotonga, Cook Islands



Asha Persson
a.persson@unsw.edu.au

Centre for Social Research in Health, UNSW Sydney, Sydney, Australia

Sexual and Reproductive Health Unit, Papua New Guinea Institute of Medical Research, Goroka, Papua New Guinea, Papua New Guinea

The Kirby Institute for Infection and Immunity in Society, UNSW Sydney, Sydney, Australia

Poche Centre for Indigenous Health, University of Queensland, Brisbane, Australia

## Introduction

"HIV is becoming normal to everybody", Wesley, aged 34.

Wesley is an HIV-positive man who lives in Mount Hagen, Papua New Guinea (PNG), with his two wives in a so called "serodiscordant" relationship in which partners have different HIV status: his wife Carmela has HIV, but Lavinia does not. Both women echoed Wesley's sentiment, arguing that their marriage was the same as everybody else's: "We live just like a normal family" (Lavinia, aged 30). Such comments signal a shift from "earlier HIV narratives of sorcery, demise and discrimination" to many serodiscordant couples living "a sense of normality", a shift that has been observed more widely in PNG over the past 15 years due to increased access to antiretroviral therapies (Kelly-Hanku, 2016:78).

Much hope and expectation is invested in the contemporary global discourse of antiretroviral therapy (ART) and its ability to suppress HIV to undetectable levels in the blood. When HIV is effectively suppressed in this way, it prevents the virus from replicating and causing damage to the immune system, thus greatly reducing the risk of opportunistic infections, serious illness, and physically visible signs and symptoms of HIV. Furthermore, over the past decade, medical trials across diverse settings and populations have provided evidence that a clinically undetectable viral load prevents the virus from being transmitted, rendering HIV sexually non-infectious (Cohen et al., 2011; Rodger et al., 2016). This medical breakthrough is seen as the key to normalising one of the most stigmatised and feared viruses in human history by unmooring it from its cultural synonymity with contagion and danger (Persson, 2016). In short, the widely promoted discourse of "normalisation" is intimately linked to the scientific consensus that an "undetectable" viral load, as established by a laboratory test, equals an "untransmittable" virus, a fact now enshrined in and popularised by the U=U slogan (Prevention Access Campaign, 2016).

Beyond this coupling, HIV normalisation is rarely defined, leaving the impression that normality in the context of HIV is a universally applicable and achievable phenomenon. But when it comes to the HIV pandemic, medical discourses and technologies have never been evenly distributed across populations and countries (Lock & Nguyen, 2010). Social scientists have critiqued the assumption that ART automatically restores normality, ignoring the clinical and social complexities of living with HIV (Moyer & Hardon, 2014; Nguyen et al., 2011; Mattes, 2014). But what remains relatively underexplored is what might actually constitute "normality" for people living with HIV in the contemporary biomedical era across vastly different settings in which the epidemic is experienced.

A few qualitative studies in high- and middle-income countries have examined the normalisation discourse in the lives of serodiscordant couples. By and large, the focus of this research, which we have contributed to, is the extent to which HIV treatment and, specifically, undetectability, enables a sense of normality by transforming

<sup>&</sup>lt;sup>1</sup> While the evidence of U=U is clear in relation to sexual transmission, we acknowledge that the evidence is less clear in relation to breastfeeding.



the way serodiscordance has long been perceived in the community and in public health: through the prisms of "risk", infectiousness, and difference (Hughes, 2016; Persson, 2013, 2016; Koester et al., 2016; Philpot et al., 2020). Less attention has been given to potentially divergent and localised ways "HIV normality" might be understood and negotiated by couples with mixed HIV status in other settings, particularly settings that lack the same clinical and laboratory resources.

In PNG, where our research took place, HIV treatment is widely available, but viral load testing coverage is poor, and the U=U message is not commonly known or circulated (Kelly-Hanku, 2016). At the end of 2018, only 6% of Papua New Guineans on HIV treatment knew their viral load status (Porau, 2019). With the recent introduction of decentralised HIV viral load testing services, this has increased but is still well below what is needed to assess the country's success against UNAIDS targets (UNAIDS 2020a). Despite the relative scarcity of viral load testing at the time of our data collection, narratives of normality were abundant among research participants, all of whom were in serodiscordant relationships. So, what did normality mean to them in the absence of the discourses and technologies that are seen to underpin HIV normalisation in other settings? Here, we draw on qualitative interviews to query the tacit assumption that the HIV normalisation discourse translates in the same way everywhere.

# **Background**

The contemporary emphasis on HIV undetectability is invested with the possibility of curbing the pandemic by reducing the overall community viral load. These medical advances also mean that people can live long, healthy lives with HIV, form intimate relationships with HIV-negative partners and have children without transmitting the virus. In short, live "normal" lives. The HIV normalisation discourse has been widely endorsed and promoted globally by advocates, educators, healthcare practitioners, and policymakers to encourage treatment uptake. It is hoped that these normalisation efforts will reinscribe the virus as a "disease like any other" and facilitate the integration of HIV care into mainstream public health budgets and strategies (Moyer & Hardon, 2014:263; Mattes 2014; Squire, 2010). Specifically, it is envisaged that undetectability will normalise HIV by preventing the virus from manifesting physically—thus making it socially invisible—and by rescinding its most stigmatising aspect—infectiousness—which has long fuelled perceptions of people with HIV as sexually dangerous and different. In effect, the concept of HIV normality is fundamentally associated with and seemingly contingent on undetectability.

## What is "normality"?

According to dictionary definitions, normal is the opposite of abnormal; it is average, typical, even natural. As with any human concept, what is considered normal is an artefact of historical and cultural circumstances, "a value judgment based on the morality of the society in which any of us live" (Marsland & Prince, 2012:463). Two scholars who have had a major influence on studies of normality are sociologist Erv-



ing Goffman and philosopher Michel Foucault. Both agreed that being a "normal" person means absorbing and displaying the accepted standards of a society. Foucault (1977) focused on the "disciplinary power" of normalisation, arguing that normality is produced through conformity to normative codes of conduct and sustained by institutional and everyday micro-mechanisms of social control. Goffman (1963) noted the same processes, but was more concerned with their strategic and creative aspects; the relational, interactional practices of social self-presentation that people perform to "pass" as normal citizens for various reasons, such as wanting to be accepted, to seek advantage or maintain control, or to avoid conflict or stigma. While an analysis of the intricacies of their theories is beyond the scope of this paper, both Foucault and Goffman construed the notion of normality as a paramount and defining force in human lives and cultures.

## **Chronicity and normalisation**

Normality is a prominent theme in research on chronic illness experiences, highlighting that regaining a sense of normality is seen by both patients and health workers as a critical coping mechanism in response to the disruption of a diagnosis for a range of illnesses (e.g., Joachim & Acorn 2000; Sanderson et al., 2011; Olano-Lizarraga et al., 2019; Plage 2021; Maynard, 2006). As a result of major advances in biotechnological interventions, diseases that were once debilitating or fatal are now "enfolded into biosocial paradigms of 'living with' chronic illness" (Schoenfeld, 2022). Scholars argue that, normalisation has become "the standard measure and value that signals positive adjustment" to a chronic illness (Deatrick et al., 1999:209) and the core impetus of the contemporary *biomedicalisation* or *pharmaceuticalisation* of human life (Clarke et al., 2010; Williams et al., 2011).

In the chronic illness literature, we find many different experiences and meanings of normality across a range of conditions, which in turn has engendered a multitude of intricate analyses and "typologies" of normality. A broadly shared theme is that normality is diverse, dynamic and highly situational: what counts as normal is informed by cultural templates, social expectations, individual biographies, and the fluctuating conditions of illness. Thus, people can move between different conceptions and experiences of normality as their life circumstances change (Deatrick et al., 1999; Sanderson et al., 2011; Joachim & Acorn, 2000). Whether a sense of normality is aspirational, impossible, regained, or redefined in the context of illness, this body of research clearly reveals "the pull of the normal" (Maynard, 2006:217).

#### **HIV normalisation research**

Normalisation has received considerable scholarly attention also in relation to HIV, specifically in response to the HIV treatment revolution and its attendant ambition to turn HIV into an ordinary chronic illness, and people with HIV "into regular, unremarkable citizens" (Squire, 2010:407). The thrust of this work consists primarily of critiques of normalisation as an everyday or achievable reality, especially but not only in resource-poor settings. Anthropologists and other social scientists argue that, given the complex history of the virus, ART does not magically usher in the normal-



ity promised by global health bodies and local service providers. For many people with HIV around the world, realising this promise is challenged by severe poverty, lack of access to adequate health care, the stubborn persistence of HIV stigma, and HIV-related criminalisation. Any anticipated restitution of normal life might also be dented by co-infections, iatrogenic complications, adherence challenges, HIV drug resistance, or an inability to attain the imperative undetectable viral load (Nguyen et al., 2011; Mattes, 2014; Guta et al., 2016; Walker, 2019). As Moyer & Hardon (2014:67) note, anthropological studies "provide ample evidence that there is no easy causal link between biomedicalizing HIV and normalizing the social and economic realities of the disease".

But biomedicalisation can have diverse effects across cultures and contexts, including producing the envisaged normality. Qualitative studies in metropolitan settings in the US and Australia, where discourses of undetectability and normalisation are prominent, found that both gay and heterosexual serodiscordant couples articulated a regained sense of social and sexual belonging and normalcy (Koester et al., 2016; Persson, 2016; Philpot et al., 2020). Claims to normality pivoted on the capacity of ART to reduce feelings of infectiousness and fears of transmission. To the couples, this enabled an active and freer sexual life, and other ordinary aspects of life and citizenship, such as dating, relationships, and parenthood, which some had previously seen as out of bounds. However, these optimistic stories were often inflected with ambivalence. The sense of normality afforded by undetectability was tempered by the tenacious legacy of stigma and did not necessarily extend to all domains of life. For example, Philpot and colleagues (2020) found that experiences of normality played out differently in different contexts: the perceived insignificance of HIV in the couples' private lives conflicted with the anticipation of stigma in the more unpredictable public realm, which destabilised their sense of normality.

The assumption that undetectability equals normality, which has gained such discursive traction in high-resource settings, is further challenged by studies in other contexts. There, normal life was associated not with ART's capacity to produce undetectability, but its capacity to promote health and longevity and, thus, the possibility of reconstructing a liveable identity in Singapore (Ho & Goh, 2017), of staying active and being productive in the Dominican Republic (Barrington et al., 2018), and fulfilling desires for conjugality and parenthood among Puerto Ricans in the US (Sastre et al., 2015). Whatever its local meanings, the normalisation discourse was ambivalent in these studies too; both reproduced and contradicted in participants' narratives. Reflecting on this pattern, Mazanderani & Paparini (2015) highlighted the "performativity" of HIV normalisation by showing how their UK research subjects situated themselves within this ubiquitous discourse, enacting the normative and prescriptive expectations of life with HIV in today's biomedical era, even if it did not coincide with their own reality. Studies in Australia (Persson et al., 2016) and Brazil (Hughes, 2016) have interpreted this performativity through a different lens, arguing that enacting normality can also be seen as a means whereby serodiscordant couples claim recognition as legitimate, ordinary citizens by deploying a narrative and subjectivity that pushes back against the social typecasting of their intimacy as abject and abnormal.



This brief review indicates that normality in the context of HIV is entangled with local values, priorities and enduring stigma and is not always or seamlessly compatible with lived reality. It can be contingent, contradictory, or deployed as an act of resistance. It can be a normative force, or a relational and performative process, and it "takes on rather different meanings, depending on who is utilizing the concept to what purpose" (Mattes, 2014:271). This perspective on normality as situated and diverse raises some interesting questions. Seeing as HIV normalisation is strongly associated with non-infectiousness and undetectability in the discourses of global health bodies, advocates and researchers, what does normality mean to serodiscordant couples in settings where these concepts are not widely known or part of local understandings of HIV? This scenario merits more scholarly attention to advance knowledge of how global HIV discourses might play out in local contexts.

Papua New Guinea is an example of such a scenario. The discourse of normality is widely circulated and routinely promoted by HIV health workers in this setting. Consistent with global messages, this normality is contingent on treatment. However, as observed six years ago in PNG: "Excluding the few HIV activists who attend regional meetings, nowhere have I heard people with HIV or their HIV-negative spouses talk about 'non-infectiousness', undetectable viral loads or TasP [treatment-as-prevention], as found in other studies of serodiscordant couples" (Kelly-Hanku, 2016:76). At the time of our research, little had changed. The concept of undetectability remains largely peripheral to the local HIV lexicon and to everyday experiences and understandings of serodiscordance. As we explore, both normative and performative aspects of HIV normality were evident among mixed-status couples in our study, but perceptions of normality were far more likely to pivot on culturally specific values and expectations than on the achievement of an untransmittable viral load.

#### Methods

PNG has the highest burden of HIV in the Pacific region, with an estimated prevalence of 0.9% among the adult population aged 15–49 years (UNAIDS 2020b:200). HIV treatment was introduced in 2006 and is now nominally available across the country, though stock-outs are a recurring problem (NACS, 2018). The contemporary global agenda of HIV treatment-as-prevention (TasP) has been formally implemented with the introduction of "test and treat". As PNG transitions to this model, people with HIV in serodiscordant relationships have been identified as one of several key populations for whom treatment should be prioritised. However, even though HIV is primarily transmitted through sex between men and women in PNG, data on HIV infections occurring within married or co-habiting couples or polygynous unions are not available, nor are statistics on serodiscordant relationships (Kelly-Hanku, 2016; Persson et al., 2019).

Our article draws on interviews conducted in two high-burden HIV areas in PNG – Port Moresby and Mount Hagen – as part of a qualitative study of couples and polygynous partners with mixed HIV status. Ninety-six men and women in sero-discordant relationships participated in one or more interviews between 2017 and 2019, including 58 women (including seven transwomen) and 38 men. Of these, 59



Table 1 Participant characteristics	Participant characteristics	No. participants
	Gender	38
	- Male	52
	- Female	6
	- Transgender	
	Age	45
	- 18–30	34
	- 31–40	13
	- 41–50	4
	- 51+	
	Location of residence	49
	- Mount Hagen	47
	- Port Moresby	
	Relationship type	23
	- Polygynous	60
	- Married 1 wife	12
	- Partnered	1
	- Widowed	
	HIV status	59
	- Positive	37
	- Negative	

were HIV-positive and 37 were HIV-negative. The length of relationships ranged from a few months to 15 years and longer (see Table 1). The majority participated in the study together with their partner/s (but were interviewed separately), while 21 individuals participated without their partner/s. All HIV-positive participants were on HIV treatment. The study received ethics approval from all relevant institutions (see Statements and Declarations). Informed written consent was gained from all participants. The interviews were conducted in Tok Pisin or English by experienced Papua New Guinean social researchers, using semi-structured interview schedules to explore various relational aspects of HIV, some of which we have discussed in recent publications (Mitchell et al., 2021; Persson et al., 2020; Persson et al., 2021).

All interviews were audio recorded and transcribed. Tok Pisin transcripts were translated into English and quality checked for grammatical errors and context relevance. Transcripts were de-identified, including replacing personal names with pseudonyms, before being imported into the qualitative data software program NVivo 11 to enable the data to be managed effectively during the coding process. The coding framework was co-developed by the research team through multiple individual readings of transcripts followed by team discussions and agreement on optimal codes to capture key themes covered in the interviews. Analysis for this article was conducted by the first author and followed the principles of inductive thematic analysis (Braun & Clarke, 2006), identifying recurrent patterns in the data and testing these through comparison with variations both within potential themes and across the data set. The analysis and draft manuscripts were then workshopped by the writing team, drawing on each author's area of expertise. In this article, we focus on heterosexual relationships. We focus on the transwomen and same-sex couples in a future paper, as the complex intersections of gender and normality for these participants warrant specific, in-depth exploration.



## Results

# **Localising HIV normality**

Although specific questions about normality were not part of the interview schedule, narratives of normality were prominent and arose in response to questions about everyday experiences of living with serodiscordance and to what extent participants saw their relationship as different or similar to HIV-negative couples. Many explicitly described their relationship as normal. When relationships or life were described as not normal, it did not necessarily have anything to do with HIV, but with an inability to live up to social norms and expectations because of poverty, excessive alcohol, lack of education, a dysfunctional household, or a non-normative gender. But there were also clearly HIV-related stories of husbands who abused their HIV-positive wives, of families who disapproved of serodiscordant unions, or families who were content to forgo the customary brideprice when their HIV-positive daughter married because she was considered damaged. And there was no shortage of stories of unhappy marriages, of spousal abandonment, domestic violence, and infidelity. Such experiences challenged a sense of what a normal life and marriage ought to be. But not always. As we show, normality in the context of serodiscordance took on different and seemingly contradictory guises in the interviews and spanned a gamut of circumstances.

Whether participants described their lives as normal or not, many recounted how the shock of their diagnosis had been softened by assurances that a normal life with HIV was possible. Health workers and HIV educators promoting the discourse of "treatment equals normality" was an oft-repeated theme in the interviews, here exemplified by 35-year-old Jackie in Port Moresby:

By the time [clinical staff member] came in, she greeted me and told me that she is also [HIV-]positive. She assured me that I could live a normal life just like her if I take my medication ... I couldn't believe it, but after hearing her life story, it encouraged me ... It empowered me not to lose hope. She said that I will live [a] long [life] if I adhere to my treatment.

Only a few participants felt that their reliance on treatment, and the daily reminders and restrictions this entailed, made their life different from that of HIV-negative people. A far more prominent theme was that treatment provided the key to normality. This statement by 34-year-old Doloris (Port Moresby) was typical: "[If] we are faithful to treatment and our [clinical] appointments ... then there is no problem with [HIV], because nowadays when being on treatment, life is normal". Spouses who were HIV-negative, such as 27-year-old Hagahai (Mount Hagen), often reiterated the same theme: "I see that there is medication", she said. "If in the future I become positive, it won't be a new thing in my life because I have seen my husband: he is living a normal life, so it would also be a normal thing to me". In Port Moresby, Erick, aged 48, elaborated on how the perceived normality of his serodiscordant relationship was greatly enabled by ART:



I can say ART has played a very big part in [my wife] living a normal life and it has sustained her life ... And as you can see; she is perfectly healthy and normal, and you wouldn't recognise that she is an HIV-positive woman...[I]t has played a big role in us keeping a perfectly healthy, normal life ... I say thank you that she is on ART. It is making her life easier and is very much helping our relationship.

While treatment was integral to the normality that Erick and others described, it was not necessarily perceived as sufficient in and of itself. Religious faith was also critical to many couples in relation to ART-facilitated normality. Trusting in God was seen as significant in preventing the transmission of HIV, and in actually ensuring the efficacy of the treatment, a theme detailed elsewhere (Kelly-Hanku et al., 2014, 2018). To quote Hagahai again: "I always thank God for helping me, and looking after me and preventing me from contracting [HIV]". Or as 24-year-old Stella in Mount Hagen put it: "God remains the real doctor". David, aged 55, in Mount Hagen, explained that the combination of ART and God meant his marriage was "normal" and the same as "other [HIV-]negative couples out there". Treatment protected his wife's health: "[It] will help her to live long on this earth"; God protected him: "I haven't contracted the virus from her as yet. This is because I am a faithful Christian and I have trust and faith in the Lord that I won't contract the virus from her".

A significant minority had a good or partial understanding that treatment can prevent transmission of the virus to a sexual partner, with or without God's help (Persson et al., 2021). But importantly, and in conspicuous contrast to western discourses of HIV normalisation, normality was rarely discussed in relation to infectiousness, and references to undetectability were virtually non-existent. So, what meanings did normality hold for the participants?

# **Public normality**

The word "normal" was commonly used in the interviews to indicate both an HIV-negative status and the *resemblance* of HIV-negativity. But this normal did not simply signify the absence of what has become a familiar trope in HIV research; Goffman's (1963) notion of a "spoiled identity". Nor did it signify the absence of detectable HIV in the blood. Normality had less to do with personal value and interior markers, than with *social* values and relational priorities. That is, participants framed normality in terms of their ability to enact culturally normative gender roles and realise life course expectations, such as getting married, having children and providing for the family; in short, the ability to live life the same way as HIV-negative couples and fulfill their community and cultural obligations. As 36-year-old Mavis in Port Moresby asserted, "Even though I am living with the virus ... I got married and have a child". A life shaped by the quotidian rhythm of everyday routines and responsibilities contributed to this sense of normality, 38-year-old Delailah in Mount Hagen explained:

I think we're normal ... I don't normally bother about his HIV. I normally forget. We move around like HIV-negative people ... I think like ordinary people who don't have HIV; get up in the morning, go and work in the garden, come



back to the house, feed the children, do laundry and children go to school. I just live like that.

Participants' sense of normality was closely contingent not only on the ability to enact a culturally normative existence, but also on the ability to socially *appear* to live an ordinary life, that is, to be perceived and accepted as normal by *others*. "According to how people see me, I am just normal", as 45-year-old Maryanne in Mount Hagen put it. Pivotal to this was looking healthy, having no outward signs of illness, and being seen to engage in the same practices as everyone else. Hence, normality was not simply a privately held feeling, but a state actualised and substantiated through *public* display and interactions. It is relevant here that life in PNG is a collective one and, in that sense, also public; people spend significant time outside the home, particularly in local marketplaces where they "go to socialise, tell stories, catch up on news, proselytise, resolve problems and gamble ... [Markets] are places where exchanges (of various types) intersect with ideas about social and moral personhood" (Busse & Sharpe, 2019:132). With "proper" conduct and presentation in social situations, couples could ward off potential gossip and questions. This performative aspect of normality is evident in this quote by 28-year-old Kennedy in Mount Hagen:

I have to dress up properly, put on polished shoes, clean shorts, have my beard shaved and I can walk around. And the *people will think that I am just like any other normal person*. By doing that I will make myself freely move around ... I will be happy when people start to think that I am a normal person ... and not someone who is HIV-positive.

Many couples invested efforts in this display of normality. In Mount Hagen, 31-yearold Becky described how she tried to manage her husband Sylvester's HIV status and public image:

I usually cook a proper meal for him, and he has to sleep, rest, and wash properly. He must not be dirty and hang around. I usually tell him, "If you are dirty, people will say that both of us have [HIV], so don't do this. You dress up and go walk around like a normal man".

Often summoned in HIV social research, Goffman's (1963) concept of "passing" as normal by concealing a stigmatised identity does not fully capture this process of social self-presentation, for it did not always hinge on secrecy. Certainly, many kept their HIV status private, but a considerable minority lived their serodiscordant relationship in full view of the community, if not always by choice. For some of them, staying healthy and realising family aspirations were an important way to challenge judgmental attitudes about HIV and serodiscordance, including disapproving relatives and uninformed people in the community. In Mount Hagen, 36-year-old Grace who was in a polygamous marriage in which she and her husband had HIV, but not her co-wife Daisy, explained it this way:



We are having a normal, happy and enjoyable life together. But many people are making negative comments about our lives, but we are proving them wrong. We are having children and are breastfeeding them, which makes [people] confused because we are having a normal life. And by living a normal life, this changes the way they are thinking towards us.

Successful enactment of normative roles and aspirations meant that many couples saw little or no discrepancy between their relationship and that of non-serodiscordant couples. "There's no difference", said 30-year-old Lavinia (Mount Hagen) whose husband and co-wife had HIV. "We live the way they do, like mingle around, sharing and eating just like a normal family". In Port Moresby, Cherry, aged 34, argued that HIV did not prevent her or her husband from doing anything that HIV-negative couples could do: "I'm just the same as you", she told the interviewer. "We don't see it as I'm positive and he is negative ... I live my life normal with my husband as a married couple. No difference, no nothing [...] We are both like [HIV-]negative." Again and again, couples pointed out that they had the same life ambitions and concerns as anyone else, such as money, a house, the children's future, love. Others, like 48-year-old Erick in Port Moresby, acknowledged serodiscordance as an aspect of their relationship, but did not consider it significant enough to set them apart in any substantive way from other couples or preclude a normal life:

The only thing different about our relationship now is that she is HIV-positive and I am HIV-negative. But apart from that, I see that our relationship is just like any other normal relationship. We share the same bed, we have a loving relationship, care for each other, our children respect us, my family respects my choice and my decision and they respect her as well. We have a perfectly normal life, normal relationship and a normal marriage.

## **Conditional and complicated normality**

This stated "public" normality of serodiscordance was not always free from limits and conditions. In many cases, the viability of relationships was dependent on the HIV-positive spouse's ability to meet normative marital expectations, such as having children; procreation and parenthood being crucial constituents of gendered adult-hood and marriage in PNG. Another seeming condition was the continued public invisibility of the HIV-positive partner's HIV status. HIV-negative men in particular emphasised the importance of their wife remaining healthy-looking; that she did not show any physical signs of her diagnosis; that "[she] goes around looking as [though] she hasn't contracted the HIV virus", as David put it. Twenty-three-year-old Greg in Mount Hagen admitted that he probably would not continue his marriage to Rhonda if she started to display symptoms of HIV, because that would reflect negatively on him:

My wife, she never changed ... If I knew that her body would change, I wouldn't move around with her. I'd be by myself because I might get bad reputation ...



but since she never changed, people see her as a normal person. That's why I agree [to the relationship].

Indeed, a deeper dig into the interviews revealed that narratives of normality tended to become more complicated as they unfolded, refracting into quite contradictory themes, akin to the contingent and situational tenor of normality highlighted in the chronic illness literature.

In one such theme, claims to normality were seemingly undermined by conflicting realities. Spousal abuse, family rejection, community gossip, social concealment of the relationship, uncertainty around a partner's HIV status, and, not least, the absence of sex for fear of transmission, all deviated from Western discourses of HIV normalisation. Twenty-year-old Carter's interview is an example. He described his marriage to Joan as happy and normal, yet his story depicted a relationship that did not match cultural norms of a "proper" marriage. Their marriage was clandestine and unsanctioned because Joan was a sex worker and Carter feared his family's disapproval. After two years together, people in their Mount Hagen community caught them and subsequently told Carter that Joan had HIV, something he had been unaware of. Upset and shamed, Carter officially broke up with her, but they continued their relationship in secret, hiding it from family and friends by publicly pretending to "live as normal brothers and sisters".

Jackie's situation in Port Moresby was similarly complicated. Aged 35, she had been married to her husband for over 20 years. Although her husband primarily lived with his other wife, he often visited Jackie, and she described him as kind and supportive and their marriage as happy. This kind of polygynous marital arrangement is culturally customary in parts of PNG and thus was normal to Jackie (Persson et al., 2020). But she was perplexed about her HIV-positive diagnosis 12 years ago and her husband's claim that he remained HIV-negative, given that she had, as she insisted, been faithful to him throughout their marriage:

Maybe he is hiding it from me? I am confused ... I am thinking that maybe he is secretly taking his treatment ... That is my assumption, as no-one ever told me about it, but he personally told me that he got tested and the result is negative. I am not sure whether he lied or not, but as for me, I am convinced that he is positive, though I haven't seen it with my own eyes.

Since she only had her husband's word that his tests results were negative, there was no way of confirming her suspicion, and hence their supposed serodiscordance remained unverified. In the absence of certainty, Jackie lived with her husband as if serodiscordant, including insisting on condoms when having sex. By all accounts, Jackie led a normal life within the context of PNG culture. And yet, hers was a complex situation not easily subsumed into the HIV normalisation discourse.

# **Gendered normality**

In another example, 22-year-old April in Port Moresby also described her marriage as ordinary and happy: "Yes, we live as if we don't have this sickness in our marriage".



However, as her interview unfurled, it revealed a darker theme of abuse, of being bashed and knifed by her husband who would coerce her to have condomless sex and prevent her from attending her clinic appointments to collect her HIV treatment by locking her in the house, thus compromising April's adherence and health (and his own safety). Despite her repeated proclamations of normality, and despite violence against women being endemic and wellnigh normalised in PNG (Jolly et al., 2012; Eves, 2010; Wardlow, 2006), April's account nonetheless exposed misgivings that the volatility of her relationship did not match what a normal marriage ought to be: "We've married and upon agreement ... why is he doing this to me again?"

Clearly, normality in the context of HIV and serodiscordance is about much more than treatment, and even HIV. April's story above points to a highly gendered dynamic that surfaced in interviews with both HIV-positive and HIV-negative women. While there were many stories of caring and supportive marriages (Mitchell et al., 2021), some women seemed invested in the notion of normality because they, like many women in PNG, were highly dependent on their husbands for their own and their children's livelihood. They worried how they would survive if they left their husbands, and this likely acted as a significant motivator to accept and extol a serodiscordant marriage in spite of social stigma and, in some cases, violence and abuse. Echoing several women, 24-year-old Stella (Mount Hagen) initially described her marriage as normal and said her husband treated her well. But as her story unravelled, she lamented that they struggled financially because of her husband's inability to work. "The kind of life I am living is not good". Since his diagnosis, she had refused to have sex with him and kept a watchful eye on his HIV medication. Her family had encouraged her to leave her husband, but that was not an option for Stella:

How will I work, sleep and eat? To build a house or doing drainage is important. Also, he is the head of the family, you see. Women depend on their husband for survival, so if I don't provide [support] for his medicine and eventually he dies, how will I manage the children and the family? [This] is something I [have] to consider ... I would have difficulties as I would be left alone. That's why I help with money or medicine and talk nicely with him in the hope that he stays [alive] longer.

As we explore more fully in a future publication, gender also shaped normality for the transwomen in the study, all of whom were HIV-positive. For them, the theme of normality was a far more relevant concern in relation to gender performance and the public perception and legitimacy of their coupledom with a cis-male. For them, the yearning to be seen and treated as normal was not related to HIV, but to being denied social and legal recognition as a member of an ordinary heterosexual couple. "Unlike normal married couples living together ... our relationship is more like a secret marriage type", 26-year-old Lilian (Mount Hagen) stated. "The only challenge I face in our relationship is ... we would love to be and live like a couple in public ... Why doesn't my government legalise it so that I can get married?"



#### **Better than normal**

As shown, narratives of normality manifested a broader, more complex repertoire of concerns beyond HIV or serodiscordance. In addition to the themes of conditional, complicated and gendered normality, the interviews splintered off further, diverging in another direction, one that is not commonly covered in the literature on HIV normalisation. A significant proportion of couples compared their marriage favourably to non-serodiscordant unions, which they portrayed as often argumentative, disrespectful and violent. They described their own relationship as "more than" or "better than" simply normal, explaining that the HIV diagnosis was God's way of giving them a second chance and encouraging them to change their lives. They had turned away from drinking, sexual infidelity, fighting and street-life, towards God and Church fellowship, or an inward focus on the family. This, they argued, made for a happier, healthier and more peaceful life and marriage. In Mount Hagen, 35-year-old Xavier said he used to be selfish and "big-headed", but explained that after his diagnosis he stopped womanising, stealing, "beating up other people" and neglecting his wife and children:

Many things in my life changed ... in the past, I did not pay much attention to my own family. I thought they are just fine, and I used to roam around at my own will. And when I contracted this disease, I changed my behaviours and now I respect my family. Before I did not care about them, but now I came back and stayed with them and spend all my time with them.

Other couples described how the shock of the diagnosis had been transformative, bringing them closer together as a couple, with mutual support and kindness perceived as the key to health and survival (see Mitchell et al., 2021). Investing in a harmonious relationship and home-life was articulated as the antidote to HIV-related illness and death, thus safeguarding the family's livelihood and future. This better-than-normal life was as a result of God's grace, 34-year-old Cherry in Port Moresby explained: "We just regard our situation as something that was created by God in order for us to be close to each other, as well as for us to be careful about how we live our lives". Her husband Hosea, aged 40, agreed: "I have this strong faith that God has a huge plan in our lives". Cherry elaborated:

[Faith] makes us trust each other and to live happily and having a good fellow-ship with God and forgive when we need to forgive each other in little things that we say to each other. That's very important in our life ... so that our kids can grow up very well ... [M]y husband is supportive [of] my [HIV] status, thinking that I have to be happy, we have to be happy. We make a promise to each other to love each other no matter what, so he stands by his word and he takes care of me and the kids very well.

Treatment was often ancillary rather than central in these stories. Although this theme diverges from those above, it too is an example of how cultural and relational dynam-



ics beyond treatment flow into and shape local perceptions of normality and life with HIV.

### Conclusion

In the biomedical era, a return to normality has become the touchstone of successful therapeutic responses and adjustment to a range of potentially life-limiting diagnoses. HIV is no exception to this paradigm. Research in different settings has noted that, since the emergence of effective treatment for HIV, the prospect of a normal life is often at the centre of clinical encounters to encourage treatment uptake by newly diagnosed people. While no doubt intended to be encouraging in the face of a frightening diagnosis, scholars caution that the concomitant elision of the complexities of normality in the context of HIV can create tensions and barriers in those clinical encounters if striving for normality is presented as a moral imperative and normative framework for living with HIV, especially if this normality is unachievable or unsustainable (Barrington et al., 2018; Moyer & Hardon, 2014; Mattes, 2014).

This critique of normalisation is certainly valid, but it has tended to dominate social research on HIV, largely at the expense of efforts to understand the potentially different meanings of HIV normality among those who feel that treatment delivers this possibility. We began our explorations here by noting that HIV normalisation is a prominent and pervasive narrative in PNG and, consistent with global discourses, it is seen as enabled by ART. However, for many people, the efficacy of the therapy is ultimately contingent not on the chemical compound itself, but on God's power. While treatment provides a means to a normal life, faith provides the framework for experiences and sense-making of both HIV and treatment (Kelly-Hanku et al., 2014, 2018; Wardlow 2016; Eves & Kelly-Hanku, 2020). As we also found, the emphasis on HIV undetectability, non-infectiousness and negligible transmission risk was far less pronounced than it is in normalisation discourses in high-resourced countries. In the absence of readily available viral load tests as a standard part of HIV clinical management, undetectability was a rare theme and only a minority were aware or convinced of the preventative capacity of treatment.

Narratives of normality were far more likely to revolve around the ability to fulfil culturally normative gender roles and family aspirations, as well as the ability to present in public in a way that enabled them to be perceived by other people as normal, evoking both Foucault's focus on the production of normality through social conformity and Goffman's interactional notion of normality as performative self-presentation. In addition, while normality was clearly a desired and valued state among the couples we interviewed, it was not necessarily a coherent or invariable phenomenon; claims to normality were sometimes at odds with lived reality, or contingent on specific conditions, and often inflected by gendered and economic circumstances.

A conclusion we can extract from these findings is that undetectability, non-infectiousness and treatment in and of themselves do not normalise HIV. The spectre of stigma further adds to this conclusion and complicates the notion of normality. Although some couples were open about their HIV status and serodiscordant relationship, this was not the norm, a clear cue that HIV normality does not hinge on



undetectability alone, but often on secrecy. And, as others have noted, the two tend to be entwined. HIV treatment is, in Mattes' words, "a technology of invisibilization" (2014:278). As much as treatment affords undetectability, it also affords privacy by preventing noticeable signs of illness, making it easier to conceal the diagnosis and enact normality in a world that still considers HIV an abjection. The pervasive desire for secrecy in this and other studies suggests that HIV and serodiscordance have some way to travel before they qualify as "normal" without being "sanitised" and disappeared from view by biomedicine. Given this, Joachim & Acorn (2000) remind us that in chronic illness research, a "monocular" focus on normalisation obscures its often-complex "interface" with stigmatisation.

Our findings also encompassed a theme that has received little attention in the literature on HIV normalisation. Some couples spoke of living a better life post-diagnosis. Serodiscordance, they argued, had forged a stronger bond between them and brought what they described as positive aspects to their marriage; trust, kindness, mutual respect and "righteous" living. This theme speaks to the possibility of serodiscordance being not only folded into normal life, as envisaged by global HIV discourses, but to actually surpass ordinary life from the perspective of mixed-status couples by acting as a catalyst for greater intimacy and a richer, more conscious relationship. While it remains underexplored, it is a compelling narrative that merits critical consideration in future research for the way it productively destabilises the normative agenda of normality, prodding us to reconsider its often-assumed value and meaning. Or as other scholars have stated, it "highlights another limitation of the normalisation discourse" (Barrington et al., 2018:50).

In our previous work, we have repeatedly made the case that the inflated preoccupation with risk that typifies much public health research on serodiscordant couples tends to erase and homogenise different experiences across time and place. To understand serodiscordance, like any human condition, it needs to be extricated from its scientific abstractions and situated within its historically, biomedically and culturally specific contexts (Kelly-Hanku, 2016; Persson, 2013; Persson & Hughes, 2016; Persson et al., 2019). We propose that the same argument can be made regarding the global HIV normalisation discourse. Its tendency to hitch HIV normality to undetectability similarly flattens serodiscordance and HIV as lived phenomena. By doing so, it not only elides and forecloses other possible understandings and meanings, but might also, ironically, work to perpetuate rather than reduce stigma by continuing to tightly glue serodiscordance to risk, infectiousness and transmission as the principal criteria by which HIV normality is measured and conferred.

To conclude, our findings chime with literature on other chronic illnesses that conceptualise normality as diverse, relational, fluctuating and contingent Deatrick et al., 1999; Sanderson et al., 2011; Joachim & Acorn, 2000). Peoples and cultures clearly have their own situated ways of perceiving what a normal life with HIV and serodiscordance looks like. Our research shows that what counts as normal does not always or necessarily hinge on undetectability, or even wholly on ART, and in some cases narratives of normality may not be related to HIV at all. Hence, we argue that narrow assumptions of what constitutes "HIV normalisation" limit our capacity to understand how it can translate and manifest in different contexts and with what consequences for personal lives, for relationships, and for local epidemics.



**Author contributions** Lead investigators Angela Kelly-Hanku and Asha Persson contributed to the study conception and design. All authors contributed to development of research tools, materials preparation and data analysis. Data collection was performed by Agnes Mek and Richard Nake Trumb. The first draft of the manuscript was written by Asha Persson and was then workshopped and revised by the whole author team, drawing on each author's area of expertise. All authors read and approved the final manuscript.

**Funding** This project was funded by an Australian Research Council Discovery Project Grant; *Understanding global biomedical technologies in local realities: The case of couples with mixed HIV status in Papua New Guinea* [grant number DP160103659].

Open Access funding enabled and organized by CAUL and its Member Institutions.

**Competing Interests** The authors have no relevant financial or non-financial interests to disclose.

**Ethics approval** The study received ethics approval from the Research Advisory Committee of the National AIDS Council Secretariat in Papua New Guinea and the Human Research Ethics Committee at UNSW Sydney in Australia.

**Consent to participate** Informed consent was obtained in writing from all individual participants included in the study.

**Open Access** This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <a href="http://creativecommons.org/licenses/by/4.0/">http://creativecommons.org/licenses/by/4.0/</a>.

#### References

- Barrington, C., Kerrigan, D., Cáceres Ureña, F. I., & Brudney, K. (2018). *La vida normal*: Living with HIV in Santo Domingo, Dominican Republic. *Culture Health & Sexuality*, 20(1), 40–54
- Braun, V., & Clarke, V. (2006). Using thematic analysis in qualitative psychology. *Qualitative Research in Psychology*, 3(2), 77–101
- Busse, M., & Sharpe, T. L. M. (2019). Marketplaces and morality in Papua New Guinea: Place, personhood and exchange. *Oceania*, 89(2), 126–153
- Clarke, A., Mamo, L., Fosket, J., Fishman, J., & Shim, J. (Eds.). (2010). *Biomedicalization: Technoscience, Health, and Illness in the U.S.* Durham: Duke University Press
- Cohen, M., Chen, Y., McCauley, M., Gamble, T., Hosseinipour, M., & HPTN052 Protocol Team. (2011). and the Prevention of HIV-1 infection with early antiretroviral therapy. New England Journal of Medicine, 365, 493–505
- Deatrick, J., Knafl, K., & Murphy-Moore, C. (1999). Clarifying the concept of normalization. *The Journal of Nursing Scholarship*, 31(3), 209–214
- Eves, R. (2010). Masculinity matters: Men, gender-based violence and the AIDS epidemic in Papua New Guinea. In V. Luker, & S. Dinnen (Eds.), *Civic insecurity: Law, order and HIV in Papua New Guinea* (pp. 47–80). Canberra: ANU E-Press
- Eves, R., & Kelly-Hanku, A. (2020). Medical pluralism, Pentecostal healing and contests over healing power in Papua New Guinea. *Social Science & Medicine*, 266, https://doi.org/10.1016/j.socscimed.2020.113381. published online 19 September 2020
- Foucault, M. (1977). Discipline and punish: The birth of the prison. Pantheon Books Goffman, E. (1963). Stigma: Notes on the management of spoiled identity. London: Penguin



Guta, A., Murray, S., & Gagnon, M. (2016). HIV, viral suppression and new technologies of surveillance and control. *Body & Society*, 22(2), 87–107

- Ho, L. P., & Goh, E. C. L. (2017). How HIV patients construct liveable identities in a shame-based culture: the case of Singapore. *International Journal of Qualitative Studies on Health and Well-being*, 12(1), 1333899
- Hughes, S. (2016). HIV serodiscordant couples and the discourse of normality: Reconciling biomedical and social meanings in Porto Alegre, Brazil. In A. Persson, & S. Hughes (Eds.), *Cross-cultural perspectives on couples with mixed HIV status: Beyond positive/negative* (pp. 55–70). Cham, Switzerland: Springer
- Joachim, G., & Acorn, S. (2000). Living with chronic illness: The interface of stigma and normalization. Canadian Journal of Nursing Research, 32, 37–48
- Jolly, M., Stewart, C., & Brewer, C. (Eds.). (2012). Engendering violence in Papua New Guinea. Canberra: ANU E-Press
- Koester, K. A., Erguera, X. A., & Myers, J. J. (2016). "PrEP makes my relationship even more normal". In A. Persson, & S. Hughes (Eds.), *Cross-cultural perspectives on couples with mixed HIV status: Beyond positive/negative* (pp. 23–36). Cham, Switzerland: Springer
- Kelly-Hanku, A., Aggleton, P., & Shih, P. (2014). "We call it a virus but I want to say it's the devil inside': Redemption, moral reform and relationships with God among people living with HIV in Papua New Guinea. Social Science & Medicine, 119, 106–113.
- Kelly-Hanku, A. (2016). Situating serodiscordance: Living in relationships with mixed HIV status in different local, historical and biomedical realities. In A. Persson, & S. Hughes (Eds.), *Cross-cultural perspectives on couples with mixed HIV status: Beyond positive/negative* (pp. 71–84). Cham, Switzerland: Springer.
- Kelly-Hanku, A., Aggleton, P., & Shih, P. (2018). "I shouldn't talk of medicine only": Biomedical and religious frameworks for understanding antiretroviral therapies, their invention and their effects. Global Public Health, 13(10), 1454–1467.
- Lock, M., & Nguyen, V. K. (2010). An anthropology of biomedicine. Oxford: Wiley-Blackwell
- Marsland, R., & Prince, R. (2012). What is life worth? Exploring biomedical interventions, survival, and the politics of life. *Medical Anthropology Quarterly*, 26(4), 453–469
- Mattes, D. (2014). Caught in transition: The struggle to live a "normal" life with HIV in Tanzania. *Medical Anthropology*, 33(4), 270–287
- Maynard, R. (2006). Controlling death compromising life: Chronic disease, prognostication, and the new biotechnologies. Medical Anthropology Quarterly, 20(2), 212–234
- Mazanderani, F., & Paparini, S. (2015). The stories we tell: Qualitative research interviews, talking technologies and the "normalisation" of life with HIV. *Social Science and Medicine*, 131, 66–73
- Moyer, E., & Hardon, A. (2014). A disease unlike any other? Why HIV remains exceptional in the age of treatment. *Medical Anthropology*, 33(4), 263–269
- Mitchell, E., Kelly-Hanku, A., Mek, A., Nake Trumb, R., Persson, A., Worth, H., & Bell, S. (2021). Caring masculinities in the context of HIV serodiscordant relationships in Papua New Guinea. Men & Masculinities, 24(2), 326–344.
- NACS. (2018). Papua New Guinea National STI and HIV Strategy 2018–2022. Port Moresby. National AIDS Council of Papua New Guinea
- Nguyen, V. K., Bajos, N., Dubois-Arber, F., O'Malley, J., & Pirkle, C. (2011). Remedicalizing an epidemic: from HIV treatment as prevention to HIV treatment is prevention. *Aids (London, England)*, 25(3), 291–293
- Olano-Lizaragga, M., Zaragoza, A., & Martin-Martin, J. (2019). Redefining a "new normality": A hermeneutic phenomenological study of the experiences of patients with chronic heart failure. *Journal of Advanced Nursing*, 76(1), 275–286
- Persson, A., Ellard, J., & Newman, C. (2016). Bridging the HIV divide: Stigma, stories and serodiscordant sexuality in the biomedical age. Sexuality and Culture, 20(2), 197–213
- Persson, A. (2013). Notes on the concepts of "serodiscordance" and "risk" in couples with mixed HIV status. *Global Public Health*, 8(2), 209–220.
- Persson, A. (2016). "The world has changed": Pharmaceutical citizenship and the reimagining of serodiscordant sexuality among couples with mixed HIV status in Australia. Sociology of Health & Illness, 38(3), 380–395.
- Persson, A., & Hughes, S.D. (Eds.) (2016). Cross-cultural perspectives on couples with mixed HIV status: Beyond positive/negative. Cham, Switzerland: Springer.



- Persson, A., Kelly-Hanku, A., Bell, S. Mek, A., Worth, H., & Naketrumb, R. (2019). "Vibrant entanglements": HIV biomedicine and serodiscordant couples in Papua New Guinea. *Medical Anthropology*, 38(3), 267–281.
- Persson, A., Kelly-Hanku, A., Mek, A., Mitchell, E., Naketrumb, R., Worth, H., & Bell, S. (2020). Polygyny, serodiscordance and HIV risk in Papua New Guinea: A qualitative exploration of multiple configurations. *Asia Pacific Journal of Anthropology*, 21(3), 248–263.
- Persson, A., Kelly-Hanku, A., Mek, A., Mitchell, E., Naketrumb, R., Worth, H., & Bell, S. (2021). Making sense of serodiscordance: Pathways and aftermaths of HIV testing among couples with mixed HIV status in Papua New Guinea. *The Asia Pacific Journal of Anthropology*, 22(4), 298–314.
- Philpot, S., Persson, A., Prestage, G., Bavinton, B., & Ellard, J. (2020). The "normality" of living as a gay serodiscordant couple in Sydney, Australia. *Sociology of Health & Illness*, 42(8), 1837–1857
- Plage, S. (2021). Deploying normality: Cancer survivor identity and authenticity in ritual-like practice. Medical Anthropology, 40(5), 473–489
- Prevention Access Campaign (2016). Undetectable = Untransmittable. Undetectable = Untransmittable | United States | Prevention Access, UU OneSheet LMv5.indd (filesusr.com)
- Porau, W. (2019). Viral Load Testing Update. Presented at the HIV/TB Technical Working Group. Papua New Guinea: Port Moresby. 12 April
- Rodger, A., Cambiano, V., Bruun, T., Vernazza, P., Collins, S., for the PARTNER Study Group., et al. (2016). Sexual activity without condoms and risk of HIV transmission in serodifferent couples when the HIV-positive partner is using suppressive antiretroviral therapy. *Journal Of The American Medi*cal Association, 316(2), 171–181
- Sanderson, T., Calnan, M., Morris, M., Richards, P., & Hewlett, S. (2011). Shifting normalities: Interactions of changing conceptions of a normal life and the normalisation of symptoms in rheumatoid arthritis. *Sociology of Health & Illness*, 33(4), 618–633
- Sastre, F., Sheehan, D. M., & Gonzalez, A. (2015). Dating, marriage, and parenthood for HIV-positive heterosexual Puerto Rican men: Normalizing perspectives on everyday life with HIV. American Journal of Men's Health, 9(2), 139–149
- Schoenfeld, N. C. (2022). Vivir En Cronicidad: Terminal living through Cuban cancer vaccines. Medical Anthropology, 41(2), 141–155
- Squire, C. (2010). Being naturalised, being left behind: The HIV citizen in the era of treatment possibility. Critical Public Health. 20(4), 401–427
- UNAIDS (2020a). 2025 AIDS TARGETS UNAIDS
- UNAIDS (2020b). UNAIDS data 2020 (aidsdatahub.org)
- Walker, L. (2019). "There's no pill to help you deal with the guilt and shame": Contemporary experiences of HIV in the United Kingdom. *Health*, 23(1), 97–113
- Wardlow, H. (2016). The (extra)ordinary ethics of being HIV-positive in rural Papua New Guinea. *Journal of the Royal Anthropological Institute*, 23, 1–17
- Wardlow, H. (2006). Wayward women: Sexuality and agency in a New Guinea society. Berkeley: University of California Press
- Williams, S., Martin, P., & Gabe, J. (2011). The pharmaceuticalisation of society? A framework for analysis. Sociology of Health & Illness, 33(5), 710–725

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

