

UCLA

UCLA Previously Published Works

Title

'I have a child i need to live for': a qualitative study of parenthood and the TB experience in South Africa

Permalink

<https://escholarship.org/uc/item/36j1h847>

Journal

Global Public Health, 21(1)

ISSN

1744-1692

Authors

Rutt, Kelly

Daniels, Joseph

DeVos, Lindsey

et al.

Publication Date

2026-12-31

DOI

10.1080/17441692.2026.2648959

Copyright Information

This work is made available under the terms of a Creative Commons Attribution License, available at <https://creativecommons.org/licenses/by/4.0/>

Peer reviewed

RESEARCH ARTICLE



'I have a child i need to live for': a qualitative study of parenthood and the TB experience in South Africa

Kelly Rutt^a, Joseph Daniels^b, Lindsey DeVos^c, Kuhle Fiphaza^c, Seluleko Ngcobo^c and Andrew Medina-Marino^d

^aDavid Geffen School of Medicine, University of California, Los Angeles, California, USA; ^bEdson College of Nursing and Health Innovation, Arizona State University, Arizona, USA; ^cDesmond Tutu HIV Centre, University of Cape Town, Cape Town, South Africa; ^dDepartment of Psychiatry, Perelman School of Medicine, University of Pennsylvania, Philadelphia, USA

ABSTRACT

Existing research highlights TB's economic and social stigma burdens and impacts behavior in households, but virtually unexplored is the dynamics of TB and parenthood. This qualitative study examines the interplay between TB diagnosis and treatment, and parenting experiences, focusing on the intersections of individual agency, societal expectations, and access to resources. From March 2021 to January 2022, we conducted in-depth interviews with 98 TB patients in Buffalo City, South Africa, including 44 mothers and 54 fathers. Guided by the Network-Individual-Resource (NIR) model, we applied layered coding, memoing, and causal mapping to analyze experiences through the lens of agency and societal expectations. Mothers reported primary caregiving responsibilities, drawing motivation from their children, and relying on multigenerational family support for childcare and treatment-adherence. Children frequently provided emotional and practical care, such as cooking and medication reminders. Fathers more often distanced themselves to protect families from infection, faced isolation, and struggled to fulfill provider roles due to job loss. Extended family support for fathers was limited, with financial pressures exacerbating treatment challenges. These results illustrate how gender norms and resources structure the TB experience. Strengthening maternal caregiving networks and reimagining fatherhood beyond economic provision can foster better adherence and more equitable health outcomes.

ARTICLE HISTORY

Received 14 October 2025
Accepted 17 March 2026

KEYWORDS

Tuberculosis (TB);
parenthood; gender roles;
treatment; vital conjunctures
framework

Introduction

According to the WHO, the global incidence of tuberculosis (TB) in 2023 was approximately 11 million cases, with adult males comprising 55% of the total. (Global tuberculosis report 2024, 2024) A meta-analysis encompassing 56 national TB prevalence studies in low- and middle-income countries demonstrated a male-to-female ratio of 2.21 for bacteriologically confirmed TB (Horton et al., 2016). With an estimated 54,000 TB-related deaths in 2022 in South Africa (Daniels et al., 2021a; Global Tuberculosis Report, 2022), men's and women's barriers to treatment completion dynamics are unique in their roles as parents. (Medina-Marino et al., 2024) In South Africa, parental roles exhibit a pronounced gender disparity deeply influenced by socioeconomic factors (Hall & Mokomane, n.d.; Van Den Berg et al., 2024). Despite emerging shifts in traditional gender roles, with some women experiencing economic advancement, mothers predominantly remain primary caregivers. Fathers' caregiving involvement is remarkably low, often due to migratory labour, cultural norms, and post-apartheid relationship patterns (Le Roux & Lesch, 2023; Richter & Morrell, 2006; Van Den Berg et al., 2024). Although children more frequently live exclusively with their mothers, there is a historical income gap of nearly 38% in favour of men (Posel et al., 2016).

Parental roles in households are often gendered, with mothers managing tasks like cooking, clothing, and homemaking while ensuring children's emotional well-being, education, and healthcare (Erzse et al., 2021). Fathers, traditionally viewed as primary providers, often link their health to fulfilling this familial

CONTACT Kelly Rutt  kellyruttg@gmail.com  David Geffen School of Medicine, University of California, Los Angeles, California, USA

© 2026 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group.
This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. The terms on which this article has been published allow the posting of the Accepted Manuscript in a repository by the author(s) or with their consent.

responsibility (Dawson, 2023). TB disrupts these roles, burdening mothers with health issues that affect caregiving capacity while impairing fathers' ability to work. This disruption shifts family economic and domestic responsibilities (Berg et al., 2018; Erzse et al., 2021; Le Roux & Lesch, 2023). TB exacerbates poverty by reducing parents' physical strength and earning ability, with healthcare costs further straining family finances (Erzse et al., 2021). Although children may motivate parents' care-seeking, the specific influence of motherhood and fatherhood on TB treatment completion remains underexplored (Foster et al., 2015). Motherhood often fosters a sense of responsibility, influencing health behaviour and treatment commitment, while fatherhood can serve as a measure of manhood through financial provision (Majombozi, 2019; Mfecane, 2012; Wilson, 2007). Recent research suggests a growing desire among young men and new fathers to move beyond traditional roles toward more nurturing paternal identities (Berg et al., 2018; Daniels et al., 2021a; Hosegood et al., 2016; Langa, 2020). Mothers' caregiving may be a strategic response to limited employment and social support (G'sell, 2020). These dynamics reflect deeply entrenched gender norms and broader societal and economic challenges shaping family structures in South Africa.

While some South African fathers regret not being able to interact with their kids during TB illness, little is known about the impact of TB on parenting and parenthood (Daniels et al., 2021a). Chronic and infectious disease transforms maternal and paternal roles and impacts parent-child relationships (de-Graft Aikins et al., 2010; Evans, 2010; Grigoratos, 2007; Lachman et al., 2014). In South Africa, HIV and diabetes have profoundly influenced parenting, with mothers and fathers experiencing depression, hopelessness, and reduced strength-based parenting (Grigoratos, 2007; Lachman et al., 2014). Although traditional gender roles are shifting with women increasingly entering male-dominated spaces and some fathers sharing child-rearing, mothers, especially in rural areas, remain primary caregivers (Helman & Ratele, 2016; Spjeldnæs, 2021). Fathers are still perceived as breadwinners, often travelling for work and leaving most parenting duties to mothers and grandmothers (Dawson, 2023; Helman & Ratele, 2016). Illness reduces positive parenting behaviours, increases child-caregivers' depression, and contributes to child behaviour problems. (Lachman et al., 2014) HIV-positive mothers report anxiety about feeding their children, fear of infection, and stigma, while diabetic fathers describe frustration with physical limitations and dependency (Grigoratos, 2007; Stinson & Myer, 2012). Long-term illness puts tremendous economic pressure on parents as providers (Daniels et al., 2021b; Majombozi, 2019). This pressure impacts both genders, as women increasingly become single parents and move into nontraditional gender spaces in South African communities.

Illness disrupts the social dynamics and reciprocity of collective caregiving, a practice deeply ingrained in South African communities, particularly affecting mothers (Majombozi, 2019). Although family members may assume the roles of financial providers and child caregivers for these mothers, the inability to reciprocate such support often leads to feelings of guilt and confusion. Multigenerational support is more commonly reported for mothers than fathers, where it is more acceptable for a single mother to allow her child to be cared for by family than by an estranged partner (Majombozi, 2019). Fathers' participation in parenting is often diminished, with a gap between what is reported as limited domestic participation by men and the deeper involvement observed in these communities (Montgomery et al., 2006). TB presents unique challenges for mothers and fathers in South Africa and can significantly disrupt gendered parental roles. Mothers, who are typically primary caregivers, may struggle to maintain household routines and childcare due to illness, while fathers, often seen as primary providers, may face isolation and an inability to fulfil economic responsibilities because of job loss and stigma. These disruptions are compounded by entrenched societal expectations and limited access to resources, shaping how mothers and fathers navigate caregiving, treatment adherence, and family support during TB illness.

To address the gap in our understanding of the impact of TB illness on parenting, we examined how a TB diagnosis and treatment shape the lived realities of mothers and fathers in South Africa, specifically investigating the intersections of individual agency, societal expectations, and access to resources within parenting experiences. In this study, parenthood was operationalized through participants' self-reported status of having children and their current living arrangements with those children, with the research examining how tuberculosis impacts parental roles, support networks, and emotional journeys. Understanding these dynamics is critical for developing interventions that address the gendered realities of parenting while experiencing TB.

Methods

Study overview and setting

Grounded in an interpretive paradigm and guided by the Network-Individual-Resource (NIR) model and the concept of vital conjunctures, this cross-sectional study sought to identify gendered preferences, social resources, and factors influencing progression along the TB care cascade. Qualitative in-depth interviews (IDIs) were conducted once-off with TB patients engaged in or recently completing treatment. Participants in this study were on standard of care TB treatment regimens as per South African national guidelines, which include first-line anti-TB medications administered through directly observed treatment short-course (DOTS) programs at primary health clinics (National Tuberculosis Management Guidelines, 2014). This qualitative sub-study explores how support from children and familial protection plays a role in mothers' versus fathers' TB experiences and treatment behaviours. Participants were asked if they had children and, if so, if they currently lived in the same household as their children (see Table 1). The findings in this study will inform patient-centred care interventions to improve gender health disparities. Previous pilot findings have been published (Daniels et al., 2021a; Medina-Marino et al., 2022).

This study was conducted in the Buffalo City Metropolitan Health District (BCM-HD) between March 2021 and January 2022. BCM-HD is located in a historically under-resourced province that has persistently ranked last on South Africa's Human Development Index, with high TB and HIV burden, high unemployment, and constrained health and social service resources (Lutge et al., 2013; Smits & Permanyer, 2019; Vanleeuw et al., 2022). The 15 clinics within BCM-HD were selected based on their low resources, high TB headcounts, relevant TB programmatic indicators, and the research team's established working relationships with these clinics, which were developed through previous collaborations and ongoing partnerships with the district health authorities. These clinics are located in urban, peri-urban, and rural areas, with catchment areas that include formal and informal settlement housing. This facility mix was intended to capture variability in patient sociodemographic profiles, household structures, and resource environments while retaining operational feasibility for sustained recruitment and follow-up. The estimated population of BCM-HD is ~755,000, with a TB incidence of 876 per 100,000 (TB online surveillance dashboard [Internet], 2020). The population density is 298 persons per km² and the average household size is 3.2. BCM-HD has an estimated unemployment rate of 35%, and only 13.6% complete secondary-level schooling. TB incidence is twice as high among men as compared to women (1072 versus 540 cases per 100,000 population) (TB online surveillance dashboard [Internet], 2020).

Study sample and recruitment

Eligible TB patients (Age ≥ 18 years, initiating, engaging, or completing TB treatment) presenting at one of the 15 collaborating healthcare facilities were identified with the assistance of government-based healthcare staff and approached by trained field staff using a written informed consent form. Staff collected demographic data from participants to include their household makeup, number of children, employment, and age, amongst consenting participants who were able to speak either IsiXhosa or English, with provision for prospective IDI follow-up. To obtain a representative sample stratified by gender and treatment experience, the study aimed to recruit up to 30 participants of both sexes at the in-treatment, treatment-completed, or at-risk for lost-to-follow-up stages in the care cascade, focusing on understanding gender-centred TB experiences. At the parent cohort level (from a larger mixed-methods study), 142 men and women affected by TB completed IDIs; for this parenting-focused sub-analysis, we included the 98 participants who reported having children (44 mothers and 54 fathers). Participants who had consented to follow-up were invited and reconsented using written consent forms for in-depth interviews. Eligible patients who declined to participate cited time constraints linked to work

Table 1. Participants reporting parenthood and living arrangements.

	Have children	Do not have children	Unclear	Total	Live with their children
Female-Identifying Participants	44	11	1	56	42
Male-Identifying Participants	54	24	8	86	18
Total	98	35	9	142	60

or caregiving responsibilities, feeling too unwell or fatigued to engage in a 60–90-minute interview, concerns about discussing illness or family matters in detail, and a desire to avoid emotional distress.

Data collection

isiXhosa-speaking Field staff native to South Africa, with prior experience in health programs or social work, were trained in qualitative interviewing skills, research ethics, good clinical practice, and the study protocol. Interview guides were developed and translated into isiXhosa, focusing on the following IDI domains: TB symptom experiences; healthcare-seeking behaviours, including clinical care access; patient-provider communication, individual motivations for treatment; disclosure decision-making; individual and social resources accessed during illness, as well as substance use. The guide was piloted, revised, and piloted again.

Eligible patients were contacted telephonically or via home visits, and IDIs were scheduled by field staff of the corresponding gender. IDIs were conducted in a private location of the participant's choosing, often at the participant's home, alone unless the participant allowed household members to be present. Interviews were conducted in their preferred language. Field staff probed according to participants' treatment experiences and outcomes, and interviews lasted approximately 1.5 hours. Interviewers were supported by the qualitative research team during data collection, and refresher training and team meetings were scheduled where needed. IDIs were audio-recorded and translated directly into English. A second reviewer assessed all transcriptions for data accuracy and completeness.

Theoretical framework

The Network-Individual-Resource (NIR) model guided the development of the interview protocol. The concept of vital conjunctures provided an interpretative lens on the role of motherhood and fatherhood during TB treatment experiences (Figure 1). The NIR model examines how social networks, individual factors, and mental and tangible resources interact, allowing a holistic understanding of factors influencing behaviours within social contexts (Johnson et al., 2010).

To understand how NIR factors and resources function in this context, the theory of a vital conjuncture was used to understand how individual agency during TB illness intersects with larger social structures and norms, creating constraints and opportunities (Johnson-Hanks, 2002). Applied to the domains of parenting, illness, and gender norms, the NIR framework offers a nuanced lens on the interplay of personal choices and sociocultural structures (Dawson, 2023). The 'vital conjuncture' framework offers a comprehensive perspective on complex phenomena like parenting amidst illness, emphasising individual agency within broader sociocultural and economic contexts. An adapted version focused agency and societal expectations to the

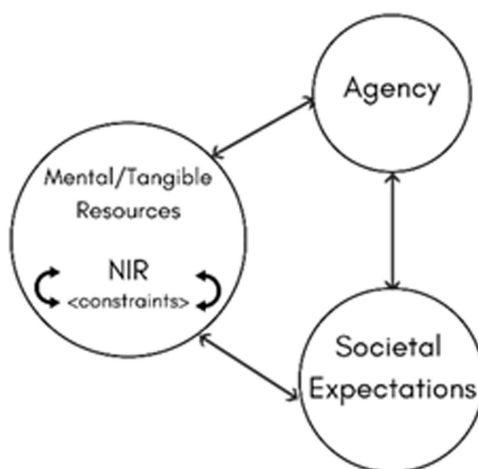


Figure 1. NIR and vital conjunctures frameworks.

experience of TB treatment, overlayed with the access to and utilisation of psychological (attitudes, social networks, trust, and resilience) and material (financial assets, physical well-being, and belongings) resources, illuminates the intersection of personal, societal, and structural factors. In Johnson-Hanks' vital conjunctures, the domain of individual agency refers to individuals' capacity to make choices and exert influence within the constraints of social structures and cultural norms (Johnson-Hanks, 2002). The domain of societal expectations encompasses the cultural norms, values, and institutional frameworks that shape individuals' roles and behaviours within a society. It emphasises how social structures and expectations influence individuals' actions, opportunities, and constraints, shaping their experiences and life trajectories within a given social context.

Parents living with TB encounter challenges balancing caregiving and treatment adherence that are linked to limitations, healthcare access, employment, resources, and networks. The vital conjunctures recognise diverse responses within socioeconomic and gender dynamics, where agency and structural factors significantly shape trajectories (Johnson-Hanks, 2002; Ramsay, 2017). Integrating vital conjunctures with the NIR framework provides an analytical pathway to understanding how people examine available resources and support systems while considering how individual factors, social influences, and broader societal structures converge to shape the decision-making process.

Data analysis

Our team of experienced investigators specialising in public health and men's health in South Africa, with strong relationships within the local health district, conducted the analysis. The qualitative research manager contributed expertise in HIV-related stigma and health psychology, enriching the study's interpretive depth. This collective expertise informed the design, data collection, and analysis, and necessitated a practice of reflexivity when interpreting participants' experiences. Three members of the qualitative team read and open-coded a subset of transcripts. After emerging codes were individually listed, all codes and definitions were discussed to reach a consensus. Codebook domains were organised using a deductive approach using the NIR model (Johnson et al., 2010). They included: family and community environments, TB (symptom) experiences, individual and social mental and tangible (health) resources, key support evaluations, TB clinic experience, anticipated stigma and discriminatory actions, and social impacts due to illness. The consolidated codebook was uploaded onto Dedoose (Version 9.0.17, Los Angeles, CA: SocioCultural Research Consultants, LLC) (SocioCultural Research Consultants, LLC, 2021) and applied to all transcripts.

A secondary sub-codebook explored the impact of parent roles on treatment behaviour, layered on top of the main codebook domains. Transcripts were searched for child-related terms and categorised. The secondary sub-codebook examined the parents' roles significance, co-parent relationships, gendered experiences, and family support. The two codebooks were stacked to identify connections between codes and variables. One layer reflected TB + participants' experiences, support received, and sense of community or isolation. The second layer focused on experiences related to parental roles. Double coding of transcripts revealed relationships between domains and their correspondence to treatment behaviour. Frequency tables visualised the simultaneity of variables from the layered codebooks. Creating causal diagrams helped refine themes and focus the thematic analysis of the abundant data on three specific areas applying to the literature and the research question (Miles et al., 2020).

Gender differences in TB care experiences were analysed using constant comparison approach, guided by the NIR framework, so that we could elucidate the progression of the impact of children on men's and women's progression along care. Code reports related to family interactions, disclosure, support, and social impacts were assessed. Framework operationalization tables categorised variables into Vital Conjunctures concepts and to interpret the TB treatment experiences. Findings were presented at weekly team meetings and refined based on emerging themes and literature reviews.

Ethics

The Faculty of Health Sciences Research Ethics Committee, University of Cape Town (Ref no.: 673/2019) and the Institutional Review Board of the Arizona State University (Ref no.: STUDY00015133) provided ethics

approval, and the study was implemented with the permission of the provincial and district department of health and health research committees. All eligible and interested participants were consented using an informed consent form that explained the study, and a separate consent form was used for in-depth interviews. Interviewed participants were provided with a snack and R150 (approximately 7.5 USD).

Participant representation

Participants and corresponding in-text quotes are presented in the results by participant age and gender identity, F for a female-identifying participant and M for a male-identifying participant.

Results

There were 142 participants who were interviewed (women, $n = 58$, and men, $n = 86$). We focused our analysis on those participants who reported having children (women, $n = 44$; men, $n = 54$) during their interviews (see Table 1).

Participant characteristics reflect a significant difference in the number of mothers who live with their children versus fathers (see Table 2). Most of the participants were not married to or living with their co-parents. Generally, mothers were the primary child-caregivers, and fathers were the primary breadwinners. Participant interviews described diverse experiences and perceptions related to parenting during the TB experience. Participants reported a range of thoughts, emotions, and behaviours associated with balancing their parental responsibilities and gender roles and managing their TB treatment regimen (see Table 3).

Mothering amidst TB

Many mothers reported significant disruptions in their household routines due to their TB illness. Initially, they experienced severe weakness, exhaustion, pain, and an inability to perform the physical tasks required for caring for their children and managing their homes. One mother described her situation: *'I was unable to do my house chores. I have two kids, and I was unable to wash their laundry, cook, and clean the house. I was always sleeping.'* She explained that her mother, who was present, took over the responsibilities of caring for her children during this period (F, Age 39).

Another mother shared a similar experience, highlighting the debilitating effects of the illness: *'I couldn't eat or do anything. Even when I was sitting on the bed, they would get irritated at home. I was told to take a bath, but all I wanted to do was just sit on the bed all day. I felt cold and hot at the same time, and they (sister and mother) no longer allowed me to be with the kids'* (F Age 30). This account underscores the

Table 2. Participant characteristics.

Characteristic (n/%)	Men ($n = 54$)	Women ($n = 44$)	Total ($N = 98$)
Participants with children			
Children Living Arrangements			
Lives with their children	18 (33.3)	42 (95.5)	60 (61.2)
Does not live with their children	29 (53.7)	1 (2.2)	30 (30.6)
Status unclear	7 (13)	1 (2.2)	8 (8.2)
Relationship Status			
Single	30 (55.6)	28 (63.6)	58 (59.2)
Married or Living together	22 (40.7)	9 (20.4)	31 (31.6)
Divorced, separated, or widowed	2 (3.7)	7 (16)	9 (9.2)
Age, years (median, IQR)	41 (34–50.75)	37 (30–44)	39 (31–47)
Employment status			
Unemployed	38 (70.4)	27 (61.4)	65 (66.3)
Working for pay	5 (9.2)	4 (9.1)	9 (9.2)
Self-employed	4 (7.4)	2 (4.5)	6 (6.1)
Retired, long term sick, disability	4 (7.4)	5 (11.4)	9 (9.2)
Student		2 (4.5)	2 (2)
Homemaker		2 (4.5)	2 (2)
Other	3 (5.6)	2 (4.5)	5 (5.1)
Primary breadwinner in family	33 (61.1)	14 (32)	47 (48)

Table 3. Gendered themes in TB parenting experiences.

Main theme	Subthemes	Examples from data	Quote
Motherhood and TB	Disruptions in caregiving roles	Inability to perform household tasks (cooking, laundry) due to TB-related weakness	F, Age 39/30
	Children as motivation for treatment adherence	Mothers citing children as primary reason to complete treatment ('I must live for my child')	F, Age 28/32/42
	Children as caregivers	Children cooking, preparing bathwater, providing medication reminders	F, Age 33/47
	Protective measures against transmission	Sleeping separately, masking, self-isolation to protect children	F, Age 42
	Extended family support networks	Grandmothers/aunts stepping in for childcare; sisters providing meals	F, Age 39/40
Fatherhood and TB	Physical distancing from family	Moving out of homes to avoid infecting children/partners	M, Age 32/43
	Emotional isolation and stigma	Reluctance to disclose TB status to children; fear of losing dignity	M, Age 31/38
	Economic pressures and job loss	Borrowing from loan sharks; dependency on spouses during illness	M, Age 48
Two-Parent Households	Limited extended family support	Absence of multigenerational care compared to mothers; financial focus over emotional	M, Age 35/38
	Shared caregiving responsibilities	Division of childcare during treatment; mutual emotional support	M, Age 60
	Partner support for treatment adherence	Spouses reminding fathers to take pills; joint household management	M, Age 71/45

profound impact of TB on the mothers' ability to engage in daily activities and care for their children, leading to a reliance on other family members for support.

Mothers overwhelmingly cited their children as a primary motivator for seeking treatment for their symptoms and continuing their TB treatment. Children were identified as a critical incentive for beginning, maintaining, and finalising their treatment process. Mothers described that their children are integral to their lives, more often living with them and being part of their daily routines, and that they must live for their children. Consequently, mothers frequently expressed a compelling sense of duty to preserve their health for the benefit of their children. These mothers described:

P: No, I always think of my child. When I die, what would my child be left with? If I am going to be defeated by a pill, something that does not breathe but will heal me at the end of the day... also my family needs me and their children. (F, Age 42)

P: I was thinking what would my results come out saying? I thought if they came back saying I had COVID-19, I would die, and my child is only 8 years old, so I would leave my child. I was worried about the results...I was scared...I have a child I need to live for; these are the reasons that make me want to continue with it. (F, Age 32)

This bond with their children and motivation to be healthy enough to care for their children can be so strong for mothers that even the loss of a child can take away their will to seek treatment. One participant (F, Age 44) described her despondency at previously losing a child. She described her diminished will to continue with her HIV treatment when her first child died, 'That affected me a lot because I used to go to the clinic for my HIV treatment. But at some stage, I defaulted.' However, she expressed a resolute determination to now adhere to her TB treatment plan for the well-being of her family.

While children might have a distinct emotional relationship with both parents, mothers reported many instances of children taking on the role of caregiver, cooking, providing physical comfort, and household assistance.

P: Because she motivated me. She would wake up to cook and ask me what I wanted...Even she would even prepare water for me to bathe. I was so relieved and happy that she was here with me. (F, Age 47)

P: The child that mostly supports me is my middle child, the boy. So, when I told him [that I had TB], it was painful as he was contemplating me having to take pills. But I assured him that I will be ok, and he said he was going to remind me to take my pills. He is the one that used to rub my feet, and when I took my treatment, he never had a problem. (F, Age 33)

Children also took on emotional support roles for their mothers during illness. This form of caregiving was predominantly reported by mothers cohabitating with their children.

P: I trust her because she is my child...I told her, she saw how I was and also said 'Mom you will be alright now that you went to the clinic, so that you will know what is going on with your health'...I was not okay, I was worried about her because of the way she saw me (sleeping all the time) and having to do for me everything... But she was just worried to see me sleeping in bed...she motivated me. (F, Age, 47)

Despite her immature years and lack of formal advice, the young child offered meaningful support to her mother, illustrating the dynamics of emotional support. The child boosted her mother's motivation and morale through practical acts of care, such as cooking and preparing bathwater. The participant's description underscores the profound impact of even simple caregiving gestures in alleviating the emotional burden of illness.

Mothers reported taking subtle actions to protect their children from TB risk. They reported a reduction in close physical interactions, such as sleeping alongside or embracing their children, as opposed to engaging in more pronounced forms of physical distancing, like relocating themselves away from the home.

I didn't sleep with them...I distanced myself because it was Covid time. Like, for example, this place we stay in, nobody cares about COVID because when I noticed that I was coughing, I locked myself up, and this child was not there. He was with his father at Dice, and I remember they said I was lying flat and I said no I was not lying. And the reason why I locked myself up is because I didn't know what I had because I went to test at the clinic. I didn't want people to say I have Covid and spread it around. I wasn't lying flat at all. It's just that you don't respect a place where there is a sick person, so locking myself up was the way I was distancing myself. It's not that I was lying flat and I couldn't do anything, I was working, and doing my washing with the washing machine, then went to hang my clothes. Even sitting down someone would sit next to me and I would say no can I please have distance. (F, Age 42)

Unpacking support pathways for mothers

Family networks in South Africa often operate within a multigenerational framework. Mothers often reported drawing from this intricate web of support when navigating their TB treatment journey. Grandparents, aunts, uncles, and older siblings provided emotional support, childcare, financial aid and resources for mothers were reported as support for mothers with substantial multigenerational impacts on the changing parenting needs within a household. There frequently appeared to be financial support for mothers to meet their illness-related income challenges, childcare, and caregiving assistance.

P: For example, I have two kids and i was unable to wash their laundry, cook and clean the house. I was always sleeping.

I: So, you were unable to take care of your kids?

P: Yes, but my mother since she is around, she was taking care of them....Nothing went wrong because they were so supportive. (F, Age 39)

Other participants described family helping them to manage their illness, cooking for them, and providing them with other resource support.

P: My sister she is a type of a person; she is harsh and short-tempered for her. When she wants something, she wants it done now. She made some funny sounds, but Aunt G., she said when [sister] don't cook I'm going to cook for you. And then she would say, bring me the Tupperware because I have cooked a lot of samp. You see, supporting me. I don't have to worry about cooking. Then she cooks for me, and she brings it. (F, Age 40)

P: It affected me in a very bad way because I used to do laundry. But now I cannot work with water because I'm sick. So I ask my sister to do my laundry and for my kids...When I came back, my mom and brother were at home so I told them (about his diagnosis)...My mother advised me to stop smoking and drinking alcohol, and I listened to her. I was very happy to know that she supports me...They support me with food and money...It is very helpful. I am happy, joyful. (F, Age 39)

While many mothers also contribute financially to households, they face specific challenges when diagnosed with TB. Mothers more often reported benefiting from a more interwoven support network. Female relatives, neighbours, or community groups often provide direct assistance, such as helping with

child-rearing, household chores, or even financial aid. The multigenerational nature of many South African families means that grandmothers or aunts might play a significant role in this support system. One mother, aged 36, described how her niece and her mother stepped in to help her with children, cooking, and washing, and they 'supported me and took me to the clinic...bought me med-lemon. I was very happy.' Another mother describes an aunt caring for her during her treatment:

My Aunt...She gave me money for transport when I go to the clinic. At home she did everything for me she cooked for me telling me it's not the end of life I will be fine... It helped me a lot. I was able to take my treatment properly and not give up (F, Age 20)

Extended family members provided multifaceted support to these mothers, including financial assistance, transportation, cooking, emotional encouragement, advice, and reassurance to help them persevere with their treatment regimen. As one mother explained, the combination of financial, practical, and emotional backing from her aunt enabled her to properly adhere to her TB medications without giving up. The interviews reflect different descriptions of fathers in their TB journey.

Fatherhood and the TB experience

Most fathers described choosing to distance themselves from family. They reported reluctance to share their illness experiences with their children and conveyed alienation from partners and family because of their illness. Fathers expressed a desire to avoid stress for their partners and children, with one participant (M, Age 38) stating directly, '*I did not want to stress them.*'

Fathers residing with their families reported adopting stringent measures to safeguard their children and partners from potential infection. Multiple fathers reported removing themselves from the family to protect their families from the risk of TB and the effects of the illness and to alleviate their partner's and children's fears of transmission. There are also examples of men who were aware of the emotional and mental toll of their illness and chose to isolate themselves to prevent their relationships from becoming physically abusive.

I: For example, when you said that you constantly fight at home. So, how does it affect how you think about your own health?

P: It affected me in such a way that I decided to distance myself from her [wife] to move out of the house to avoid being abusive towards her and the children and to be able to drink my TB treatment pills in the right way. (M, Age 39)

I: Did you tell your family and children about your TB?

P: Yes they wanted to come for holidays and I refused. They were sad. I was not chasing them away. I did not want them to be at risk of having TB and while I am eating treatment. I was protecting them. (M, 43)

I told one child (about TB diagnosis) because he lives with my mother on a chicken farm. I told him that I had TB, and he must not misunderstand. I am not the first person in the family who had TB. I advise him about the dos and don'ts because you will end up on this stage. So, he said to me he is scared of me because I had TB. I said no TB is not COVID. It can be cured, but it is not a difficult thing...I was weak because he's scared of me. So, he would not feel safe around me. I told him to just stay with my mother so you can come to me after I finish my treatment of 6 months. So, I was running away for losing my dignity from him when he wanted to know about TB. (M, Age 31)

I moved in with a friend. I wanted to protect my family. (M, Age 32)

Even if fathers did not consistently mention children as a primary motivator, it does not negate their desire to be present, protective, and provide for their offspring. The fear of being unable to fulfil familial responsibilities due to illness can be a strong driving force for fathers to seek and complete treatment. One male participant, age 38, said, '*I would include one thing: I would say that if you stop your treatment, you are hurting yourself and depriving your children of growing up with a father. Because a child needs a father's love. There is not much I can say, but that is how I see it.*' Another father (age 57) travels to work

from Eswatini and spoke of his need to provide, 'When you are a man, you cannot just sit back and depend on the women. You have to gather the strength to get up and work so that you can put something on the table.'

Unpacking support pathways for fathers

Some fathers reported that their families doubted their ability to care for their children, with instances of their children being taken away despite them being the primary caregivers. One father, age 38, recounted, 'They took the kids and made it look like I have never taken care of them nor had anything to do with them'.

Another father, age 35 mentioned the strain within his family due to gossip and conflicts: 'Other relatives sometimes say things that make you angry. In my big family, there are events that cause us not to get along'. He recalled a particularly hurtful incident where, after the mother left, his child was cared for by his own mother. The child's mother would stand at the gate and insult the family, creating further tension.

When asked if he could support his child during his TB illness, another father, age 38, admitted, 'When I got TB, I was not able to support them because I didn't have anything'. These experiences highlight the challenges and social pressures faced by fathers with TB in fulfilling their parental roles.

Yoh, I had a lot of financial challenges because I was not able to make money. So now, when I needed money, I had to go to loan sharks to borrow money. I would have to take my documents to let them hold on to them till I can pay them back. (M, Age 48)

I can say I have financial problems because I was unable to work as usual. Now I depend on my wife for these, and require money...like you say, if I was able to work, at least I was going to be able to do A and B, now its not the same...yes there were some problems like that, more especially in children that go to school. (M, Age 39)

Support for two-parent households

In households where both parents live with their children, TB can result in increased levels of stress, decreased physical and mental well-being, and difficulties in fulfilling their parental responsibilities. These challenges can also contribute to social isolation for the family and limited access to mental health resources, further exacerbating the impact on parents' well-being. In these instances, however, participants did report partners providing significant support and motivation. One female participant described the people she relies on as her mother, father, and husband. Her parents' presence and support coincide with a two-parent family setting with her husband and children. As previously described, fathers reported taking more physical action to protect their children and partners from the risk of infection or even from themselves. Fathers also described support from their partners and children living in the nuclear home:

It was my wife and my children, and the neighbours in the next door. They motivated me to go to the clinic. (M, Age 60)

I: So, how did you feel talking to your wife about this?

P: I felt a lot better because she consoled me. And even now she continues to console me. She gave me a whole lot of support. For example, every morning I would wake up and she would say, 'Pills.' So she was always on top of me in that regard. (M, Age 71)

It was my children's mother, and the children lived here. And everyone here at the house...They monitored everything, they would make sure that I ate and took my medication

I: They provided you with food?

P: Yes, they monitored everything. It made me not lose hope. And those telling me that if I stay on the treatment, I will be cured that gave me hope. (M, Age 32)

We also see examples of children in the home lending caregiving assistance to their fathers in a nuclear family household more often than when they live separately. A father, age 45, shared, 'As I said, I was weak.

The children would go and fetch the treatment for me. The physical proximity and family structure facilitated children's involvement in assisting their paternal parent, exemplifying how household composition can shape caregiving dynamics within families.

Discussion

The results illustrate the different experiences described by mothers and fathers because of their TB diagnosis and treatment. The NIR-guided interviews combined with the Vital Conjecture framework allow us to examine treatment behaviour through decision-making at the intersection of internal and external influences (Figure 2). The decisions made by participants at these vital conjunctures, junctures where individual actions and influences intersect, have broader implications for demographic patterns (Dawson, 2023; Johnson-Hanks, 2002). This approach acknowledges that behaviours are not just individual choices but are deeply embedded in a complex matrix of social, cultural, and systemic factors. Understanding these dynamics can lead to more effective and gender-sensitive strategies for improving TB treatment adherence and outcomes. Figure 2 illustrates how the NIR model serves as a framework to extract and categorise insights into the experiences of mothers and fathers undergoing TB treatment. The Vital conjunctures framework acts as a lens through which to analyse how these experiences (internal and external factors) interplay to dictate their decisions that lead to the respective outcomes.

Specifically, Mothers often play the primary parent role, are typically responsible for their children's health, and often manage family healthcare decisions (Erzse et al., 2021; Helman & Ratele, 2016; Spjeldnæs, 2021). Our findings show that this role can influence their motivation to participate in and complete TB treatment for themselves, their children, and their families. Fathers in South Africa, particularly in specific cultural or socioeconomic contexts, might be more mobile due to work, which can influence their health-seeking behaviour (Dawson, 2023). Moreover, societal norms and masculinity constructs might deter some men from seeking healthcare, as admitting illness can be perceived as a sign of weakness (Chikovre et al., 2014).

Fathers in this study reflect this pattern, reporting that these factors impact their participation in TB treatment programs, even as TB impacts their role as providers and, in some cases, parents. As mentioned, mobility due to work, especially in sectors like mining, which have historically been linked to higher TB rates, can affect TB treatment participation (Dawson, 2023). Economic and social pressure to provide for the family might also make it difficult for fathers to prioritise health and adhere to treatment regimes. For fathers, TB may also lead to a disconnection from family networks that can be attributed to various factors, including the social stigma associated with TB and the economic burden it places on families (Bond & Nyblade, 2006). Individuals with TB may experience isolation as family members and friends may distance

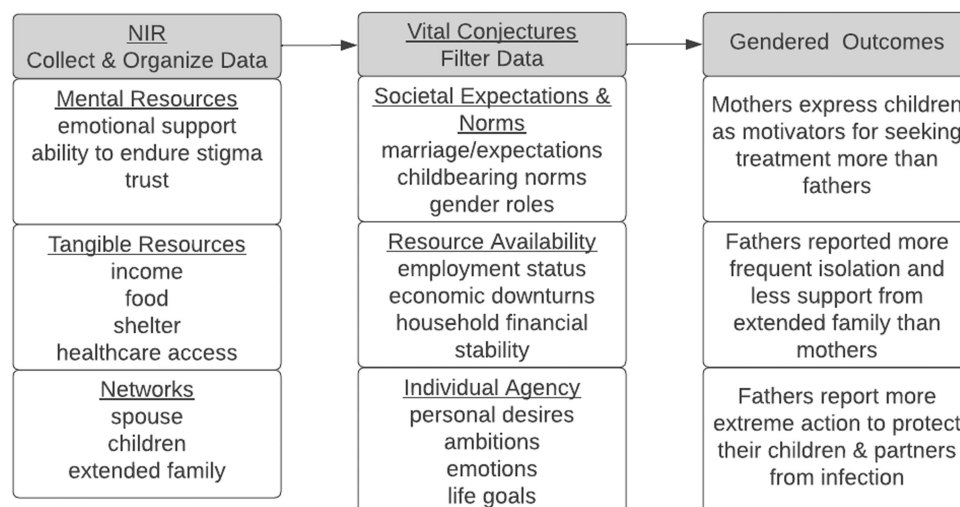


Figure 2. Gendered parenting role and social expectations.

themselves (Medina-Marino et al., 2024). Men may face a fear of job loss and financial instability, which in turn can lead to strained relationships within the family. This stigma, fear of infection, and loss of income can disrupt family dynamics and create additional stress and strain on relationships (Chikovore et al., 2014).

Beyond potential income loss, mothers might incur additional expenses related to alternative caregiving for their children or face discrimination at workplaces that might be less accommodating to maternal illness (Majombozi, 2019). Resource availability for fathers generally depends upon their employment (Madhavan et al., 2008; Silberschmidt, 2001). However, men in informal sector work settings or those in unstable employment might find these resources inconsistent. The societal pressure on fathers to be providers often translates to a more solitary treatment journey (Chikovore et al., 2014). While fathers might receive emotional support, tangible support (i.e. direct family caregiving or financial assistance) might be limited. Extended family may step in sporadically to support the household and dependents; their focus is primarily on ensuring the father swiftly returns to his economic role. Ultimately, there were more reports of reciprocal emotional and physical support from their children to their mothers than from children to their fathers.

Children may have distinct emotional relationships with each parent, influenced by societal norms and family structures. Data show a dramatic recurrence of mothers living in the same household as their children versus fathers. The maternal bond, marked by nurturing and direct caregiving, may heighten children's sensitivity to their mother's illnesses. This heightened emotional connection can lead children to assume caregiving responsibilities more readily for mothers than for fathers. While both motherhood and fatherhood roles have unique challenges and opportunities concerning TB treatment in South Africa, their impact is mediated through a complex interplay of sociocultural, economic, health system, and epidemiological factors. Understanding these nuances can guide more effective TB control strategies tailored to the needs of both mothers and fathers.

Parenthood roles and motivation

Mothers often have a closer day-to-day bond with their children, which can translate into more substantial emotional and physical support structures, especially when living with their children. Our data reflect the overall trend that fewer than half of children in South Africa live with their fathers in the household, while almost all mothers in our sample reported living with their children (Dawson, 2023; Madhavan et al., 2008). Fewer than one-fifth of households represent a nuclear family model, reinforcing the role of fathers, even absent fathers, as financial providers and disciplinarians, while mothers are considered caregivers and emotional support (Hall & Mokomane, n.d.). Both parents acknowledged their children as treatment motivators, but this was markedly more prevalent among mothers. While fathers are important for the emotional well-being of their children, societal norms often limit the depth of emotional and physical interaction. Cultural norms around masculinity and manhood social expectations can sometimes impede open communication about illness (Mfecane, 2012). Fathers did not discuss their TB status as openly, either to protect their children from worry or due to stigma and the relationship between illness and weakness. These dynamics may explain why children more frequently provide caregiving to mothers than to fathers. The findings show the need to reframe societal views of fatherhood beyond just financial provision. It is necessary to recognise the caregiving labour and domestic responsibilities undertaken by fathers as parents, dismantling narrow gender norms around fatherhood roles (Hosegood et al., 2016).

Extended family network and support during illness

As in previous studies, our participants strongly emphasised maternal kinship (Schatz & Ogunmefun, 2007). Grandmothers, aunts, and other female relatives often play vital roles in family care (Erzse et al., 2021; Knight & Yamin, 2015). Therefore, when a mother is diagnosed with TB, she may receive more substantial support from her extended family. This trend manifested itself in the form of childcare, emotional support, or help with medical appointments. While fathers are vital to the family structure, the support system around a sick father did not appear to be as pronounced or visible as that around a mother. Fathers reported that these traditional roles meant that the onus falls more on the immediate family or his self-sufficiency when ill. Fathers who do have a caregiving role then see it stripped away by extended family when they become ill. This phenomenon is in stark contrast to observations in other settings where fathers

are cared for while mothers experience ostracism, especially from their in-laws, as a result of long-term illness (Hatherall et al., 2019). In Pakistan, Bangladesh, and Nepal, hard work is considered more than a virtue but a basic requirement for a wife and a mother. In-laws scorn a wife and mother who cannot perform her expected role, often due to the increase in expectations placed on the other female members of the household. In fact, the inability of a wife to work due to TB in these settings is grounds for a husband to leave his wife for not fulfilling her domestic and childcare responsibilities (Hatherall et al., 2019).

Further, our findings show that since mothers are more often primary child caregivers, communities or extended families might rally to provide financial support when a mother is ill. This support ensures that she and her children can continue to meet their daily needs. In contrast, the traditional role of men as providers can sometimes be a double-edged sword. While they are often responsible for financially supporting the family, the expectation to continue in this role can limit the financial support and connection they receive from the broader community when they fall ill (Knight & Yamin, 2015; Montgomery et al., 2006). In addition, Montgomery suggests that in households impacted by HIV, what fieldworkers and study participants report about the lack of men's caregiving role is different from what their study observed. The data analysis uncovered observations of fathers interacting with their children as caregivers; however, these interactions were not coded as caregiving by primarily female field assistants. This might suggest that gender expectations impact the extended family and community's perception of men's contributions to the family (Barker & Ricardo, n.d.). Men are expected to be financial providers, not child caregivers. Therefore, appreciation of their contribution and the desire to support them in times of weakness may diminish.

Implications

Despite the differences in how motivation is manifested or expressed, it is crucial to acknowledge the shared emotional ground between mothers and fathers. Recognising these gendered motivations and support differences could be crucial for healthcare professionals. Customised interventions could be designed to address these nuances. For instance, men might benefit from strategies that emphasise the impact of their health on family well-being. Strategies that tap into their existing sense of responsibility as providers and protectors could serve as a powerful motivational force for engaging in positive health behaviours and adhering to treatment regimens. Healthcare professionals could leverage this insight by crafting messaging and interventions that explicitly link fathers' health outcomes to their ability to fulfil their perceived roles within the family unit. Programs could experiment with approaches that reframe TB care as part of responsible fatherhood, such as peer- or couple-based spaces where men can discuss provider pressures, fears of infecting family members, and strategies to stay engaged with children during illness, rather than focusing solely on their role as economic providers. In contrast, women might benefit from programs that strengthen and leverage their existing support networks. Given the tendency for mothers to prioritise their caregiving roles and seek emotional support from their extended family circles, interventions that facilitate the formation or expansion of these support networks could be highly beneficial. Healthcare professionals could facilitate support group sessions, provide resources for building and maintaining strong social connections, and encourage open communication within these networks to foster a supportive environment for mothers navigating health challenges. TB services that explicitly acknowledge caregiving workloads, for example, may offer child-caregiver-friendly appointment structures, opportunities to involve trusted family members in treatment planning, and communication that validates their dual responsibilities to children and their own health. Furthermore, acknowledging the impact of societal expectations and gender dynamics in caregiving roles is essential in developing comprehensive approaches to improve treatment participation and completion. Although grounded in one district in South Africa, the gendered patterns described, mothers' intensive caregiving roles, fathers' provider pressures and isolation, and the centrality of extended relational networks, are common across many high TB-burden, resource-constrained settings, suggesting that similar parent-focused, gender-responsive interventions could be adapted and tested in other global contexts.

Conclusion

This study has highlighted the complex interplay of gendered parenting roles, societal expectations, and cultural dynamics in the context of TB treatment adherence in South Africa. Through a gender-sensitive

analysis, we have uncovered distinct differences in how mothers and fathers experience and respond to their TB diagnoses and treatment journeys. In TB research, while individuals and households receive significant attention, there is a lack of focus on how illness influences parenting and subsequent surrogate parent roles, and how these roles are in turn affected by testing, treatment, and outcomes. The findings underscore the critical need for healthcare strategies that are attuned to these gendered nuances to develop more effective interventions for TB treatment and also contribute to the broader goal of gender equity in healthcare.

Acknowledgements

This study was conducted with the support and permission of the Eastern Cape Province and Buffalo City District Department of Health. The authors would like to especially thank the project manager, Ralph Mawarire, and FPD senior field workers for their contributions to the interviews and the participants who agreed to be interviewed about their experiences relating to TB and treatment. We thank the Foundation for Professional Development and Desmond Tutu Health Foundation's qualitative research team for their contributions to the analysis.

Disclosure statement

The authors declare that they have no competing interests that are relevant to this paper.

Funding

The study was funded by the U.S. National Institutes of Health (NIH) under award R21AI148852 to AMM and JD. KR was supported by the Fogarty International Centre of the National Institutes of Health under Award Number D43TW009343 and the University of California Global Health Institute, and subsequently by the National Institutes of Health under Award Number T32MH080634 through the University of California, Los Angeles.

Funders had no role in the data collection, analysis, report writing or submission of this manuscript.

Data availability statement

Due to the sensitive and confidential nature of the qualitative interview data these will not be publicly available. Data used for this analysis may be available upon reasonable request and based on a data-sharing agreement with the corresponding author.

References

- Barker, G., & Ricardo, C. (n.d.). Young Men and the Construction of Masculinity in Sub-Saharan Africa.
- Berg, W., Makusha, T., Richter, L., Rabe, M., Ratele, K., Nduna, M., Khunou, G., Human, L., & Zohab, M. M. (2018). In C. Smith (Ed.), *South Africa's*. Sonke Gender Justice.
- Bond, V., & Nyblade, L. (2006). The importance of addressing the unfolding TB HIV stigma in high HIV prevalence settings. *Journal of Community & Applied Social Psychology*, 16(6), 452–461. <https://doi.org/10.1002/casp.893>
- Chikovore, J., Hart, G., Kumwenda, M., Chipungu, G. A., Desmond, N., & Corbett, L. (2014). Control, struggle, and emergent masculinities: A qualitative study of men's care-seeking determinants for chronic cough and tuberculosis symptoms in blantyre, Malawi. *BMC Public Health*, 14(1), 1053. <https://doi.org/10.1186/1471-2458-14-1053>
- Daniels, J., Medina-Marino, A., Glockner, K., Grew, E., Ngcelwane, N., & Kipp, A. (2021a). Masculinity, resources, and retention in care: South African men's behaviors and experiences while engaged in TB care and treatment. *Social Science & Medicine*, 270. 113639. <https://doi.org/10.1016/j.socscimed.2020.113639>
- Daniels, J., Medina-Marino, A., Glockner, K., Grew, E., Ngcelwane, N., & Kipp, A. (2021b). Masculinity, resources, and retention in care: South African men's behaviors and experiences while engaged in TB care and treatment. *Social Science & Medicine*, 270. 113639. <https://doi.org/10.1016/j.socscimed.2020.113639>
- Dawson, H. J. (2023). Father-child (Dis)connections: Expectations and practices of young Un(der)employed fathers in Johannesburg. *Men and Masculinities*, 26(2), 270–287. <https://doi.org/10.1177/1097184X231153170>
- de-Graft Aikins, A., Unwin, N., Agyemang, C., Allotey, P., Campbell, C., & Arhinful, D. (2010). Tackling Africa's chronic disease burden: From the local to the global. *Globalization and Health*, 6(1), 5. <https://doi.org/10.1186/1744-8603-6-5>
- Erzse, A., Goldstein, S., Tugendhaft, A., Norris, S. A., Barker, M., & Hofman, K. J. (2021). The roles of men and women in maternal and child nutrition in urban South Africa: A qualitative secondary analysis. *Maternal & Child Nutrition*, 17(3), e13161. <https://doi.org/10.1111/mcn.13161>
- Evans, R. (2010). Children's caring roles and responsibilities within the family in Africa. *Geography Compass*, 4(10), 1477–1496. <https://doi.org/10.1111/j.1749-8198.2010.00386.x>

- Foster, N., Vassall, A., Cleary, S., Cunnam, L., Churchyard, G., & Sinanovic, E. (2015). The economic burden of TB diagnosis and treatment in South Africa. *Social Science & Medicine*, 130, 42–50. <https://doi.org/10.1016/j.socscimed.2015.01.046>
- Global Tuberculosis Report. (2022). World Health Organization.
- Global tuberculosis report 2024. (2024). World Health Organization.
- Grigoratos, A. (2007). A Narrative exploration into the world of ill fathers who have lost a limb due to diabetes.
- G'sell, B. (2020). Multiple maternities: Performative motherhood and support seeking in South Africa. *Signs: Journal of Women in Culture and Society*, 46(1), 3–29. <https://doi.org/10.1086/709217>
- Hall, K., & Mokomane, Z. (n.d.). The shape of children's families and households: A demographic overview.
- Hatherall, B., Newell, J. N., Emmel, N., Baral, S. C., & Khan, M. A. (2019). "Who will marry a diseased Girl?" marriage, gender, and tuberculosis stigma in Asia. *Qualitative Health Research*, 29(8), 1109–1119. <https://doi.org/10.1177/1049732318812427>
- Helman, R., & Ratele, K. (2016). Everyday (in)equality at home: Complex constructions of gender in South African families. *Global Health Action*, 9(1), 31122. <https://doi.org/10.3402/gha.v9.31122>
- Horton, K. C., MacPherson, P., Houben, R. M. G. J., White, R. G., & Corbett, E. L. (2016). Sex differences in tuberculosis burden and notifications in Low- and middle-income countries: A systematic review and meta-analysis. *PLOS Medicine*, 13(9), e1002119. <https://doi.org/10.1371/journal.pmed.1002119>
- Hosegood, V., Richter, L., & Clarke, L. (2016). I Should Maintain a Healthy Life Now and Not Just Live as I Please. Men's health and fatherhood in rural South Africa. *American Journal of Men's Health*, 10(6), NP39–NP50. <https://doi.org/10.1177/1557988315586440>
- Johnson, B. T., Redding, C. A., DiClemente, R. J., Mustanski, B. S., Dodge, B., Sheeran, P., Warren, M. R., Zimmerman, R. S., Fisher, W. A., Conner, M. T., Carey, M. P., Fisher, J. D., Stall, R. D., & Fishbein, M. (2010). A network-individual-resource model for HIV prevention. *AIDS and Behavior*, 14(S2), 204–221. <https://doi.org/10.1007/s10461-010-9803-z>
- Johnson-Hanks, J. (2002). On the limits of life stages in ethnography: Toward a theory of vital conjunctures. *American Anthropologist*, 104(3), 865–880. <https://doi.org/10.1525/aa.2002.104.3.865>
- Knight, L., & Yamin, A. E. (2015). "Without a mother": Caregivers and community members' views about the impacts of maternal mortality on families in KwaZulu-Natal, South Africa. *Reproductive Health*, 12(S1), S5. <https://doi.org/10.1186/1742-4755-12-S1-S5>
- Lachman, J. M., Cluver, L. D., Boyes, M. E., Kuo, C., & Casale, M. (2014). Positive parenting for positive parents: HIV/AIDS, poverty, caregiver depression, child behavior, and parenting in South Africa. *AIDS Care (Abingdon)*, 26(3), 304–313. <https://doi.org/10.1080/09540121.2013.825368>
- Langa, M. (2020). *Becoming Men: Black masculinities in a South African township*. Wits University Press. <https://doi.org/10.18772/12020045676>
- Le Roux, M., & Lesch, E. (2023). Exploring the caring of fathers in low-income, rural communities in South Africa. *Journal of Family Studies*, 29(3), 1198–1221. <https://doi.org/10.1080/13229400.2022.2035246>
- Lutge, E., Lewin, S., Volmink, J., Friedman, I., & Lombard, C. (2013). Economic support to improve tuberculosis treatment outcomes in South Africa: A pragmatic cluster-randomized controlled trial. *Trials*, 14, 154. <https://doi.org/10.1186/1745-6215-14-154>
- Madhavan, S., Townsend, N. W., & Garey, A. I. (2008). Absent breadwinners': Father–Child connections and paternal support in rural South Africa. *Journal of Southern African Studies*, 34(3), 647–663. <https://doi.org/10.1080/03057070802259902>.
- Majombozi, Z. (2019). Care, contagion and the good mother: Narratives of motherhood, tuberculosis and healing. *Anthropology Southern Africa*, 42(4), 290–301. <https://doi.org/10.1080/23323256.2019.1608276>
- Miles, M. B., Huberman, A. M., & Saldana, J. (2020). *Qualitative Data Analysis: A Methods Sourcebook*. Sage Publications.
- Medina-Marino, A., Bezuidenhout, D., Ngcelwane, N., Cornell, M., Wainberg, M., Beyrer, C., Bekker, L.-G., & Daniels, J. (2022). Qualitative identification of intervention preferences to support men's engagement and retention in TB care in South Africa. *American Journal of Men's Health*, 16(5), 155798832211293. <https://doi.org/10.1177/15579883221129349>
- Medina-Marino, A., Vos, L., & Daniels, J. (2024). Social isolation, social exclusion and access to resources: Mapping the gendered impact of TB-related stigma among TB patients in eastern cape province, South Africa. *Research Square*, <https://doi.org/10.21203/rs.3.rs-5409926/v1>
- Mfecane, S. (2012). Narratives of HIV disclosure and masculinity in a South African village. *Culture, Health & Sexuality*, 14(sup1), S109–S121. <https://doi.org/10.1080/13691058.2011.647081>
- Montgomery, C. M., Hosegood, V., Busza, J., & Timæus, I. M. (2006). Men's involvement in the South African family: Engendering change in the AIDS era. *Social Science & Medicine*, 62(10), 2411–2419. <https://doi.org/10.1016/j.socscimed.2005.10.026>
- National Tuberculosis Management Guidelines. (2014). South Africa Department of Health. <https://knowledgehub.health.gov.za/library/national-tuberculosis-management-guidelines>
- Posel, D., Casale, D., & Grapsa, E. (2016). Re-estimating gender differences in income in South Africa: The implications of equivalence scales. *Development Southern Africa*, 33(4), 425–441. <https://doi.org/10.1080/0376835X.2016.1179105>
- Ramsay, G. (2017). Forced childlessness and ruptured personhood: The politics of motherhood for central African refugee women resettled in Australia. *Anthropological Quarterly*, 90(3), 743–770. <https://doi.org/10.1353/anq.2017.0042>
- L. M. Richter, R. Morrell, & Human Sciences Research Council (Eds.). (2006). *Baba: Men and fatherhood in South Africa*. HSRC Press.

- Schatz, E., & Ogunmefun, C. (2007). Caring and contributing: The role of older women in rural South African multi-generational households in the HIV/AIDS era. *World Development*, 35(8), 1390–1403. <https://doi.org/10.1016/j.worlddev.2007.04.004>
- Silberschmidt, M. (2001). Disempowerment of men in rural and urban east Africa: Implications for Male identity and sexual behavior. *World Development*, 29(4), 657–671. [https://doi.org/10.1016/S0305-750X\(00\)00122-4](https://doi.org/10.1016/S0305-750X(00)00122-4)
- Smits, J., & Permanyer, I. (2019). The subnational human development database. *Scientific Data*, 6, 190038. <https://doi.org/10.1038/sdata.2019.38>
- SocioCultural Research Consultants, LLC. (2021). Dedoose Version 9.0.17, web application for managing, analyzing, and presenting qualitative and mixed method research data (2021) (Version 9.0.17) [Computer software] www.dedoose.com
- Spjeldnæs, I. O. (2021). Mothering in socioeconomically marginalised communities in South Africa: A conceptual development. *Journal of Psychology in Africa*, 31(4), 406–415. <https://doi.org/10.1080/14330237.2021.1952730>
- Stinson, K., & Myer, L. (2012). HIV-infected women's experiences of pregnancy and motherhood in Cape Town, South Africa. *Vulnerable Children and Youth Studies*, 7(1), 36–46. <https://doi.org/10.1080/17450128.2011.652811>
- TB online surveillance dashboard [Internet]. (2020). South African National Institute of Communicable Diseases. <http://www.nicd.ac.za/tb-surveillance-dashboard/>
- Van Den Berg, W., Ratele, K., Malinga, M. V., & Makusha, T. (2024). *STATE OF SOUTH AFRICA'S FATHERS*. Stellenbosch University. <https://genderjustice.org.za/publication/state-of-south-africasfathers-2024/>
- Vanleeuw, L., Zembe-Mkabile, W., & Atkins, S. (2022). "I'm suffering for food": Food insecurity and access to social protection for TB patients and their households in Cape Town, South Africa. *PLoS One*, 17(4), e0266356. <https://doi.org/10.1371/journal.pone.0266356>
- Wilson, S. (2007). 'When you have children, you're obliged to live'¹: Motherhood, chronic illness and biographical disruption. *Sociology of Health & Illness*, 29(4), 610–626. <https://doi.org/10.1111/j.1467-9566.2007.01008.x>