Risk factors for poor engagement in drug-resistant TB care in South Africa: a systematic review

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BACKGROUND: Metrics of poor patient engagement, including missed appointments, treatment interruption, sub-optimal medication adherence, and loss to follow-up, have been linked to poor clinical multidrug-resistant TB (MDR-TB) outcomes. Understanding the risk factors for poor patient engagement is necessary to improve outcomes and control TB. This review synthesizes the risk factors for poor patient engagement in MDR-TB treatment across South Africa.

DESIGN: A systematic review of five databases (PubMed, Embase, CINAHL, Cochrane, and Web of Science) was conducted, covering articles published between 2010 and 2020. Articles were included if they provided information about risk factors associated with poor engagement among adults (≥ 15 years) in treatment for MDR-TB in South Africa. Reviews, editorials, abstracts, and case studies were excluded.

RESULTS: Six studies met the inclusion criteria. Male sex and younger age were the most consistently identified risk factors for poor engagement; however, there was a lack of consistency in the choice of covariates, measurement of the variables, analytic methods, and significant factors associated with poor engagement between studies. Alcohol use, substance use, living with HIV, pulmonary TB site, and ethnicity were all identified as risk factors in at least one included study, while formal housing and steady employment were found to be protective.

CONCLUSION: The available literature offers little cohesive data to address poor patient engagement in this population. Further research needs to focus on identifying and addressing risk factors for poor patient engagement. This is particularly salient within the context of newer all-oral and short-course MDR-TB treatment regimens.

TB is one of the leading infectious causes of death¹ and a particular concern in South Africa due to its high HIV burden.^{2,3} Although TB is curable, drug-resistant TB (DR-TB) makes successful treatment more challenging and presents a significant public health concern.⁴ The WHO estimated that there were 465,000 new cases of DR-TB (multidrug- [MDR-] or rifampin-resistant TB) in 2019.¹ MDR-TB, or TB with resistance to the two most powerful anti-TB medications—isoniazid and rifampin, accounted for 78% of these DR-TB cases.^{4,5} Due to complex and toxic treatment regimens, MDR-TB presents a major barrier to TB control, with recent estimates indicating that only 56% of MDR-TB cases are treated successfully.^{1,6}

For patients who have unsuccessful clinical outcomes of MDR-TB treatments (i.e., treatment failure or death), poor patient engagement may be a prognostic factor. Poor patient engagement may include loss to follow-up (LTFU), treatment interruption, missed appointments, and sub-optimal medication adherence. According to the WHO's definition, patients who disengage from treatment for >2 consecutive months are considered LTFU.⁷ Experiencing LTFU may place patients at increased risk for developing additional resistance to current anti-TB medications, and for transmitting DR-TB to non-infected individuals;⁴ furthermore, these patients are more likely to fail future treatment and/or die.⁸ Treatment interruption and poor medication adherence increase the risk for LTFU, but have also been individually linked to other poor clinical outcomes.^{9–11} Previous studies have shown that missing three or more appointments in the first year of MDR-TB treatment triples this risk for an unsuccessful outcome.¹⁰ Missing just 10% of MDR-TB treatment days within the first 6 months of treatment increases still the risk for an unsuccessful outcome by 55%.⁹

South Africa has a high burden of DR-TB with 23 persons per 100,000 in the population diagnosed with rifampin-resistant or MDR-TB in 2019.¹ Despite this burden, little is known about the risk factors for LTFU from MDR-TB treatment, especially in South Africa. Even less is known about the risk factors for other metrics of poor patient engagement – missed appointments, treatment interruption, and medication adherence. Although many global studies have attempted to identify risk factors for the possible results of poor patient engagement (i.e., death, treatment failure, and LTFU), their findings often conflict and may not be generalizable to the specific cultures and treatment settings in South Africa. Also, the most frequently researched risk factors are derived from demographic and disease-specific characteristics, and do not take into account the social and economic factors that may influence patient engagement.

This review aims 1) to identify and summarize the risk factors associated with poor patient engagement in South Africa found in prior studies, 2) to compare and contrast the analytical methods used to identify risk factors for poor patient engagement, and 3) to identify gaps in the literature in order to recommend potential topics for future research.

METHODS

This review was conducted using the Preferred Reporting Items for Systematic Reviews and meta-Analyses

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KEY WORDS

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(PRISMA) checklist.¹² A search strategy was developed in consultation with a medical informationist. The original intent of this review was to analyze risk factors for poor patient engagement across sub-Saharan Africa; therefore, searches were conducted in PubMed, Embase, Cumulative Index to Nursing and Allied Health Literature (CINAHL), Cochrane, and Web of Science for original research articles evaluating independent risk factors associated with poor patient engagement in MDR-TB treatment in sub-Saharan Africa. The key words used to identify poor patient engagement included 'LTFU', 'compliance', 'adherence', 'engagement', 'dropout', and 'default' (the full search strategy is included in Supplementary Data 2). During the screening process, the scope of this review was narrowed to include only studies conducted in South Africa, but the search was not rerun. References from studies that met the inclusion criteria were reviewed in order to identify potentially relevant studies that were not found in the above search.

Articles were ultimately included in this review if they were peer-reviewed, original research articles that identified independent risk factors for poor patient engagement among adults (≥ 15 years) undergoing treatment for MDR-TB in South Africa using a multiple variable regression-based model. Only articles available online and published in English between January 1, 2010 and June 4, 2020 were included. Studies in which patients were lost to follow-up prior to treatment initiation and studies that only reported patient default, LTFU, or loss from treatment as part of a collective variable encompassing all poor treatment outcomes were excluded. Reviews, editorials, abstracts, case studies, and studies that were focused on extensively DR-TB were also excluded from this review.

Two reviewers (AB and KCM) independently reviewed all titles and abstracts for inclusion in the review. Differences over the inclusion of articles were resolved through consensus between AB and KCM. The quality and rigor of each study was evaluated by two reviewers using the Joanna Briggs Institute's (JBI) Critical Appraisal Tool that corresponded to its study design.¹³ JBI works in partnership with Cochrane, and this specific appraisal tool for evaluating cohort studies was developed by the JBI Scientific Committee after a comprehensive peer review.¹³ The tool is intended to help authors systematically evaluate the methodological rigor of a study, as well as the extent to which the possibility of bias has been addressed throughout a study's design, implementation, and analysis phases.¹³ This quality appraisal was used to inform the interpretation and synthesis of the included studies' findings. No studies were excluded based on the quality appraisal.

A total of 1,512 articles resulted from the above search strategy, 574 of which were duplicates. Nine hundred and thirty-eight (938) titles and abstracts were screened for relevance. No additional articles were deemed relevant from references of included articles. Finally, 49 full texts were reviewed for inclusion, with eight articles meeting the original inclusion criteria that included all of sub-Saharan Africa. After reviewing these eight articles, the decision was made to limit this review to the six studies conducted in South Africa. This narrowed scope resulted in the exclusion of two studies conducted in Ethiopia¹⁴ and Tanzania.¹⁵ These studies had much lower LTFU rates, raising concerns about country-specific cultural and health systems factors affecting LTFU and the ability to accurately synthesize the study results across the three countries. The final sample consisted of six studies.^{16–21} The Figure shows the PRISMA consort diagram.

Due to the small number of studies, and differences in both the predictors explored and analytical methods used between

FIGURE PRISMA flow diagram. PRISMA = preferred reporting items for systematic reviews and meta-analyses.

studies, a meta-analysis was not possible. Accordingly, findings were synthesized using a narrative approach and organized using Andersen's Behavioral Model of Health Service Utilization.^{22,23} This model emphasizes that health service use is a complex and multidimensional phenomenon that is affected by both individual and contextual factors. These factors are further explicated into predisposing, enabling, and need factors which influence and are influenced by health behaviors, healthcare utilization, and ultimately health outcomes.²² Typically, predisposing factors are demographic, genetic, and social characteristics, such as age and sex. Enabling factors are usually health care accessibility and financial factors. Finally, need factors are healthcare needs that are perceived by an individual and evaluated by healthcare providers.^{22,23}

RESULTS

Study characteristics

All of the included studies used a retrospective cohort study design, with the exception of one study by Farley et al.,¹⁷ which collected data prospectively. The proportion of patients LTFU in the included studies ranged from 20% to 30%, and between 32 and 86% if patients were HIV co-infected. Two studies investigated the timing of LTFU and found the median time to LTFU was approximately 7 months after treatment initiation,^{20,21} with patients in the early outpatient phase of treatment being at the highest risk for LTFU.²⁰ The majority of the participants in each study either had culture-confirmed MDR-TB or were being treated presumptively for MDR-TB based on their medical history or Xpert® MTB/RIF (Cepheid, Sunnyvale, CA, USA) results. The use of an injection-based regimen was explicitly stated in most studies,^{16–21} and the other studies did not specify the participants' treatment regimens. Due to age of the published works, no studies included the use of bedaquiline or a short-course regimen. Patient support to improve engagement was mentioned in only one study, which of-

TABLE 1 Characteristics of included studies

Author, year of publication	Years of data collection	Study type	Sample size <i>n</i>	Measure of association	Outcome	LTFU (%)	Male (%)	Age, years Median [IQR]	HIV-positive (%)
Brust, 2010	2000–2003	Retrospective cohort	1209	OR	LTFU	21	61	33 [26–41]	51.8
Farley, 2011	2000–2004	Prospective cohort	1023	HR	LTFU	21	59	36.5 (18–75)*	38.0
Farley, 2017	2012–2015	Prospective cohort	197	HR	LTFU	20	48.7	33 [26–40]	74.0
Gajee, 2016	2013–2014	Retrospective cohort	172	HR	Missed appointments	22	49.4	36 [29–42]	86.0
Moyo, 2015	2009–2011	Retrospective cohort	452	HR	LTFU	30	49	32 [24.4–38.4]	68.0
Kendall, 2013	2007–2010	Retrospective cohort	225	HR	LTFU	27	46	37.5 ± 11.9†	32.0

*Range.

†Mean ± SD.

OR = odds ratio; LTFU = lost to follow-up; IQR = interquartile range; HR = hazard ratio; SD = standard deviation.

ferred individualized DR-TB counseling for all newly diagnosed patients and assisted patients to access social assistance; however, its LTFU rate was the highest among the included studies.²¹ The data analyzed in the included studies were collected between 2000 and 2015. The characteristics of the included studies are detailed in Table 1.

Outcomes and analytical methods

Among the six included studies, five used LTFU as the outcome variable^{16–18,20,21} and defined LTFU according to the WHO guidelines as having missed >2 consecutive months of treatment.⁷ Although LTFU was defined similarly in these studies, a number of methods was used to analyze it: outcomes were analyzed as dichotomous in three, with two effectively comparing LTFU with treatment success (i.e., cure and treatment complete),^{16,21} while one compared those LTFU to patients with any other treatment outcome.²⁰ The two remaining studies both used competing risks analyses to investigate the association of the predictor variables on several possible MDR-TB outcomes, including LTFU. One additional study investigated risk factors for missed appointments, comparing patients who missed one appointment with patients who missed none.¹⁹ Five of the included studies employed a survival or time-to-event analysis,^{17–19,21} while one used binary logistic regression.¹⁶ No two models used the same set of predictors.

Predisposing factors

The predisposing predictive factors explored within the included multivariable models are sex, age, weight, race, housing status, formal education, substance use, alcohol use, tobacco use, year of treatment initiations, and prior TB treatment episodes or outcome. The measurement and analysis of each risk factor varied from study to study. Those risk factors found to be independently significant are shown in Table 2 and discussed individually below.

Sex

A total of five studies included sex in their multivariable model and two found male sex to be an independent risk factor for LTFU.^{16,21} Two other studies did not find an association between sex and LTFU in their multiple variable models.^{17,18} The studies that found male sex to be a risk factor were also the studies that excluded death from their analysis.

Age

Age was the most frequently included predictor variable, and younger age was shown to be an independent risk factor for

LTFU^{20,21} and missed appointments.¹⁹ Of the three studies that found age to be significant, two analyzed it as a categorical variable and found that adults under the age of 35 were at higher risk of LTFU and missed appointments.^{19,21} The third study, by Kendall et al., found that risk of LTFU was reduced by 3% with each additional year of age.²⁰ Three additional studies found that age was not associated with LTFU.^{16–18} Two of these studies measured age as a continuous variable and found confidence intervals very similar to Kendall et al., although these were not significant.^{17,18} The final study measured age categorically,¹⁶ but used categories different from those in the studies that showed age to be associated with patient engagement.

Ethnicity and culture

One study included ethnicity in its multivariable model and found colored ethnicity to be an independent risk factor for LTFU, but did not discuss any potential explanations for this association.²⁰

Housing

Only one study included housing stability as a predictor in their final model and found formal housing to be a protective factor against LTFU.²⁰

Alcohol and substance use

Only one study included alcohol or substance use as a predictor variable and found that both recent alcohol use and recent drug use double the risk for LTFU over the duration of MDR-TB treatment. Additionally, patients who reported recent alcohol use were at especially high risk of being LTFU in the period immediately after discharge from inpatient treatment.²⁰

Enabling risk factors

Employment

One study found that steady, non-seasonal employment was protective against LTFU.²⁰ That same study and one additional study investigated the relationship between any employment and LTFU or missed appointments^{19,20} finding it to be non-significant. The strength and significance of these associations is provided in Table 3. With the exception of employment, the studies in this review did not include enabling risk factors as predictors in their final models.

Need-related factors

The final models we reviewed included a number of need-related risk factors; however, only HIV status and the site of TB disease

TABLE 2 Adjusted hazard and odds ratios for predisposing factors

	Brust, 2010*	Farley, 2011*	Farley, 2017*	Kendall, 2013*	Moyo, 2015*	Gajee, 2016†
Sex						
Male	1.9‡ (1.2–3.1)‡	0.88 (0.51–1.54)			1.93‡ (1.35–2.75)‡	0.82 (0.48–1.40)
Female			0.91 (0.46–1.79)			
Age, years						
Continuous		1 (0.98–1.01)	0.97 (0.94–1.01)	0.97‡ (0.94–0.99)‡		
21–30	1.3 (0.6–2.8)					
31–40	1.5 (0.7–3.2)					
41–50	0.8 (0.4–1.8)					
≥51	0.9 (0.3–2.7)					
0–15					1.02 (0.49–2.11)	
>15–25					2.43‡ (1.52–3.88)‡	
>25–35					1.57‡ (1.02–2.42)‡	
>35					Ref	
18–24						3.26‡ (1.20–8.84)‡
25–34						1.94‡ (1.10–3.44)‡
35–44						Ref
45–54						1.36 (0.63–2.39)
≥55						1.22 (0.33–5.41)
Race						
Colored				2.24‡ (1.03–4.87)‡		
Housing						
Formal dwelling				0.38‡ (0.19–0.78)‡		
Substance use						
Recent alcohol use				2.11‡ (1.11–4.02)‡		
Recent illicit substance use				2.02‡ (1.04–3.95)‡		

*Outcome variable: LTFU.

†Outcome variable: missed appointments.

‡Statistically significant.

TABLE 3 Adjusted hazard and odds ratios of enabling factors of LTFU

	Brust, 2010*	Farley, 2011*	Farley, 2017*	Kendall, 2013*	Moyo, 2015*	Gajee, 2016†
Steady employment				0.41 (0.19–0.90)‡		
Not employed						0.75 (0.45–1.27)

*Outcome variable: LTFU.

†Outcome variable: missed appointments.

‡Statistically significant.

LTFU = loss of follow-up.

TABLE 4 Adjusted hazard and odds ratios for need factors

	Brust, 2010*	Farley, 2011*	Farley, 2017*	Kendall, 2013*	Moyo, 2015*	Gajee, 2016†
HIV (ref: HIV–)						
HIV+	2.00 (1.3–3.1)‡	1.07 (0.74–1.56)	1.14 (0.53–2.44)			
HIV+, CD4 >101 cells/μL						2.94 (1.07–8.10)‡
HIV+, CD4 <100 cells/μL						4.25 (1.49–12.18)‡
Site of TB, pulmonary (ref: extrapulmonary TB)						2.77 (1.04–7.34)‡

*Outcome variable: LTFU.

†Outcome variable: missed appointments.

‡Statistically significant.

– = negative; + = positive; LTFU = loss of follow-up.

were found to be independently significant. The details of these associations can be found in Table 4. The final models also included the following factors that were not associated with our measures of poor patient engagement: presence of other comorbidities, TB resistance pattern, and baseline smear status.

HIV status

Four studies evaluated the association between HIV status and LTFU in their final models, and three found that there was not a significant association. Brust et al. found that patients living with HIV were twice as likely to be LTFU;¹⁶ however, the study was conducted between 2000 and 2003, earlier than most of the other studies and before antiretroviral therapy (ART) was available in the public sector in South Africa. Additionally, Gajee et al. found HIV to be a risk factor for missing at least one appointment, and that having a CD4 count less than 101 cells/ μ L increased that risk.¹⁹

Site of disease

Gajee et al. was the only study to include the site of TB disease as a predictor in its final model and found that pulmonary TB increased the likelihood of missing an appointment, compared to extrapulmonary TB.¹⁹

DISCUSSION

This review confirms that poor patient engagement in MDR-TB care, specifically LTFU, occurs at high rates across South Africa. The LTFU rates found in this review are slightly higher than the 2020 WHO Global Report, which found an overall LTFU rate for DR-TB of 16%.¹ These higher LTFU rates may be due to the fact that these studies were conducted earlier and only include patients who were on the long-course, injection-based MDR-TB treatment regimens. Among the included studies, there was an overall lack of consistency in choice of covariates, measurement of the variables, analytic methods, and significant factors associated with poor engagement between studies. Despite this lack of consistency, this review still provides valuable information to guide policy development and advance future research.

When looking at the predisposing risk factors, younger male patients appear to be at the highest risk for LTFU. Knowing the characteristics of patients who are at high-risk for poor patient engagement is valuable for targeting resources and interventions. While knowing who is at risk for poor engagement is important, it is equally important that we continue to investigate why patients are poorly engaged. Fortunately, other significant predisposing factors, including unstable housing, alcohol use, and substance use, may help us understand why we lose patients from treatment and what can be done to promote patient engagement. These factors point to the need for MDR-TB care to be coordinated with larger social and financial support services, and potentially alcohol and substance use treatment services. However, these additional predisposing risk factors were only considered in one study, indicating the need for additional research in this area.

This need for social programs and financial support is further supported by the one enabling factor found to be protective against LTFU: steady employment. This relationship demonstrates another potential link between financial security and patient engagement. In contrast to other countries where the cost of TB treatment itself is often catastrophic, MDR-TB treatment is available free of cost in throughout South Africa's public health care system. In South Africa, the barrier to engagement is not the direct cost of treatment—it is likely the opportunity cost of MDR-TB

treatment that largely results from transportation costs and lost wages. Social welfare programs and disability grants to financially support MDR-TB patients already exist, but it is unclear the extent to which patients are aware of and able to access these resources. The task of informing patients of these programs generally falls to healthcare workers who are already in short supply in South Africa.²⁴ The one study in this review that reported assisting patients in accessing social assistance still reported consistent LTFU rates, indicating that access to existing programs may not be sufficient to improve patient engagement. The need for additional assistance programs is not something that can be addressed within individual clinics and must be tackled on the broader policy level. There is some global research supporting the provision of material support for MDR-TB patients,²⁵ but further studies are necessary before evidence-based policies can be put into place within South Africa.

Short-course and all-oral regimens have changed the landscape of MDR-TB treatment and are enabling factors which are anticipated to improve patient engagement. Initial studies in other countries showed shortened MDR-TB treatment regimens had a positive impact on LTFU, but did not eliminate it.^{26,27} Any additional impact of all-oral regimens on patient engagement is still largely unknown. As shortened and all-oral treatment regimens are now available in South Africa, understanding the impact of these regimens on patient engagement, as well as how these regimens impact the other risk factors associated with poor patient engagement is an important area for future research.

As regards the need-based factors that affect patient engagement, HIV status is of specific interest in South Africa. While HIV was a risk factor for missed appointments, it was not a risk factor for LTFU in most of the studies included. Clearly, the relationship between HIV and patient engagement is complex. In a recent meta-analysis of unfavorable outcomes to second-line TB therapy among HIV-infected patients, nine of the included studies were conducted in South Africa, and showed that HIV was protective against LTFU.²⁸ More research is necessary to fully elucidate this relationship; however, future research must include a greater focus on the association of ART adherence, viral suppression, and CD4 count with poor patient engagement, as these are the factors that will help refine and target patient engagement interventions in settings of high HIV burden, like South Africa.

One need-related risk factor that was notably missing from all of the included studies is adverse treatment effects, which have been shown to be associated with LTFU in several studies in other geographic regions.^{29–31} The adverse effects of MDR-TB treatment regimens are well documented,³² and their impact on patient engagement in South Africa is an important area for future research. Prior research has shown poor clinical documentation of adverse treatment effects,³³ and it is possible that under reporting of these events discounts their contribution to LTFU in this setting.

This review has highlighted numerous areas for additional research; however, the design and analytical methods used in future patient engagement research within South Africa is another important issue. The majority of the included studies investigated LTFU as an MDR-TB treatment outcome, as opposed to other measures of patient engagement in care. The advantage of using LTFU as an outcome variable is that it has a standard definition and is consistent across studies; however, it does not capture the nuances of poor patient engagement. For example, LTFU does not reflect patients who come to appointments but do not take their medications consistently or patients who show up to appointments intermittently without >2 months of treatment. Expand-

ing research within South Africa to identify risk factors associated with other metrics of poor patient engagement may provide additional information necessary to increase patient retention and improve clinical outcomes of MDR-TB treatment.

Even among the studies that used LTFU as the outcome variable, there were a number of differences as to how the outcome variable and comparison group were defined. The main difference between the studies is how they dealt with death. Although death and LTFU are mutually exclusive outcomes within individual studies, they are interrelated. Metrics of poor engagement, such as poor medication adherence and treatment interruption, are risk factors for LTFU, treatment failure, and death, and patients are ultimately classified by the outcome that occurs first.^{9–11} Additionally, in settings where resources limit the ability to actively track patients who have missed appointments, misclassification between LTFU and death is also a concern. There is not one right way to analyze risk factors for LTFU, but researchers need to consider that the risk factors associated with LTFU may vary greatly depending on how death and treatment failure are captured for analysis. Programmatic definitions adopted by the national TB program and in alignment with the WHO may be less precise than required to fully understand the true impact of LTFU in South Africa.

The selection of new, relevant predictor variables is another area that must be addressed in future research. The included studies are heavily focused on predisposing risk factors, but understanding the enabling and need factors associated with poor patient engagement is equally important for developing and targeting new interventions. In addition to adverse treatment effects and treatment regimens, which were previously discussed, TB knowledge and rapport with health care workers are other potential predictors, which have shown an association with LTFU in other geographic areas.³² Stigma and level of family support are potential predictors drawn from qualitative studies conducted within South Africa.^{34,35}

Overall, there is little knowledge about engagement and retention in MDR-TB treatment, and even less is known in South Africa and other high HIV burden areas. Although there is a growing body of literature on patient engagement in drug-susceptible TB, vast differences exist in the length and toxicity of drug-susceptible vs. DR-TB treatment regimens.^{6,36} Patients with DR-TB have also reported experiencing increased levels of stigma.³⁷ Accordingly, risk factors for and strategies aimed at addressing poor patient engagement may differ based on TB drug susceptibility. This review provides a number of directions for future research about poor patient engagement specific to MDR-TB care. Although new treatment regimens hold promise for reducing MDR-TB treatment failure and mortality, we will never be able to achieve TB control unless poor patient engagement is understood and addressed.

Limitations

The small number of eligible studies and the differences in the analytical methods made it difficult to synthesize the risk factors that impact LTFU in South Africa; however, this is an important finding in itself, as it demonstrates the gap in knowledge surrounding patient engagement in MDR-TB care. Additionally, this review only considered quantitative research, but qualitative studies may provide insight into other reasons for poor engagement that have yet to be investigated using quantitative methods. Finally, this study excluded case studies, which may provide significant exemplars of care disengagement and previously unconsidered risk factors.

Strengths

This is one of the first reviews to take a more holistic approach to patient engagement in MDR-TB treatment by looking at multiple outcomes reflective of patient engagement. Also, this review's focus on analytical approaches to understanding LTFU provides valuable information to inform future research on patient engagement.

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CONTEXTE : Les indicateurs d'une faible coopération des patients, tels que les rendez-vous manqués, les arrêts de traitement, une observance thérapeutique sous-optimale et une perte de vue du patient, ont été associés à de mauvais résultats cliniques dans le cadre de la TB multirésistante (MDR-TB). Il convient de comprendre les facteurs de risque d'une faible coopération des patients pour améliorer les résultats et contrôler la TB. Cette revue synthétise les facteurs de risque d'une faible coopération des patients dans le cadre du traitement de la MDR-TB en Afrique du Sud.

MÉTHODE : Une revue systématique de cinq bases de données (PubMed, Embase, CINAHL, Cochrane et Web of Science) a été réalisée, englobant les articles publiés entre 2010 et 2020. Les articles ont été inclus s'ils apportaient des informations sur les facteurs de risque associés à la faible coopération des patients adultes (≥ 15 ans) sous traitement pour MDR-TB en Afrique du Sud. Les revues, les éditoriaux, les résumés et les études de cas ont été exclus.

RÉSULTATS : Six études satisfaisaient les critères d'inclusion. Les facteurs de risque d'une faible coopération les plus fréquents étaient le genre masculin et le jeune âge. Cependant, un manque de cohérence a été observé entre les études dans le choix des covariables, la mesure des variables, les méthodes analytiques et les facteurs significatifs associés à une faible coopération. La consommation d'alcool et de drogues, la séropositivité au VIH, une TB pulmonaire et l'origine ethnique ont tous été identifiés comme facteurs de risque dans au moins une étude incluse, alors que des facteurs tels que « logement formel » et « emploi stable » étaient des facteurs protecteurs.

CONCLUSION : La littérature disponible offre peu de données cohérentes permettant d'examiner la faible coopération des patients dans cette population. Les recherches à venir doivent identifier et analyser les facteurs de risque de la faible coopération des patients. Ceci est particulièrement important au vu des nouveaux schémas thérapeutiques courts et entièrement par voie orale de la MDR-TB.