This data article presents the supplementary material for the review paper "Role of acceptability barriers in delayed diagnosis of Tuberculosis: Literature review from high burden countries" (Barnabishvili et al., in press) [1]. General overview of 12 qualitative papers, including the details about authors, years of publication, data source locations, study objectives, overview of methods, study population characteristics, as well as the details of intervention and the outcome parameters of the papers are summarized in the first two tables included to the article. Quality assessment process of the methodological strength of 12 papers and the results of the critical appraisal are further described and summarized in the second part of the article.

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1. **Value of the data**

- The data mostly serves to help reader to understand the review article [1] about the Acceptability barriers and their link to the TB diagnostic delay;
- The data provided here, in combination with [1], sets an example of how quality assessment of the included papers can be conducted for a scoping review article and how it can enhance the quality and value of a review. Here we hope for setting a benchmark of higher quality scoping review articles in our field and beyond;
- Two distinct methods of quality assessment of individual papers’ methodological strength were employed to produce the data presented here. Acknowledging that there is a range of alternative methodological approaches that may be employed for the same purposes, we only hope to serve as a springboard and encourage scholars to go beyond the methods used here, while also offering the thorough overview of two methods and the relevant results achieved using these methods as a reference.

2. **Data**

The data in this article consists of tables and figures providing the general overview of 12 qualitative research papers [2–13] reviewed in frames of a scoping review article [1], as well as the results of methodological evaluation of the same papers.

The overview of the papers is based on the data charting/extraction process where particular aspects of each paper were extracted and analyzed systematically. Quality assessment is conducted using two different methodologies that are thoroughly described below.

3. **Experimental design, materials and methods**

To prepare a broad comparative overview of 12 included studies that is documented in Tables 1 and 2, we firstly extracted the relevant information from the individual papers through the charting process. Process of charting the data in scoping reviews is a counterpart of ‘data extraction’, which is known to be an essential part of systematic review conducting process [14].

Standard aspects of charting, described by different authors, were adopted as a framework for this process [14,15]. The list of extracted aspects included:
## Table 1
Overview of the included studies:

| Study Characteristics | Study population characteristics |
|-----------------------|---------------------------------|
| **Author (Year)/country** | **Description/Number** | **Demographics** | **SES** |
| Edginton et al. 2002 | Published in IJTLD | 303 interviewees; 186 FGD participated | Younger than 15’ (12%), ‘15–59’ (76%), ‘> 60’ (12%) | < 4 yr of education (44%); some primary/secondary educ. (56%) |
| | South Africa | TB patients, & community members | Male (72%), female (28%) | 0 yr of employment (30%); employed (70%) |
| Johansson and Winkvist, 2002 | Published in QUAL HEALTH RES | 24 TB patients (ongoing/ recent history of TB); 15 health care providers; | age group: 17-74 | adolescents to pensioners |
| | Vietnam | Qualitative approach (in-depth interviews) | 15 male/9 female patient | 8 males/7 female provider |
| Bennstam et al. 2004 | Published in QUAL HEALTH RES | 49 participants with and without TB; | age group: 21-44 | 26 males /23 females |
| | DR Congo | Qualitative approach (FGDs /grounded theory) | | |
| Møller and Erstad, 2007 | Published in Int J Equity Health English Qualitative approach (FGDs) | 59 participants: Community H-workers. (8), TB patients (8), High school pupils (7), Out-of-school youth (8), adult women (8), Adults (Mixed) (7), Older adults (8), Traditional healers (5) | age group: 15–79 | 0 yr of schooling (10%); Primary or high education (66%); Students (25%), unemployed (25%), community health workers (25%) social pensioners, (25%) |
| | South Africa | | 22 males /37 females | |
| Gosoniu et al. 2008 | Published in IJTLD | 329 participants | Age group: --- | Nil (11.6%), Student (1.6%), Housewife (20.7%), Unskilled labor (10.5%), Skilled labor (16.7%), Trade/ business (17.5%), Farmer (7.5%), Other (13.9%) |
| | Bangladesh, India, Malawi; | 102 (Bangladesh), 127 (India), 100 (Malawi) | 158 males/50 females | |
| Long et al., 2008 | Published in: BMC Health Services Research English | 1005 participants (776 resid. /229 migr.) | Age group: > 15 | Elementary school or less = 44% of migrants/37% of residents |
| Author (Year)/country | Journal/language /design | Description/Number | Demographics | SES |
|-----------------------|--------------------------|-------------------|--------------|-----|
| China | Mixed Approach: quantitative plus qualitative (in-depth/FGD) | 60 individual interviews (20 TB suspects, 17 TB patients, 23 health workers) 12 FGD groups | Both males and females (no further specification) | Lowest income group: 63% migrants/47% residents |
| 7 Sagbakken et al., 2008 | Ethiopia Published in: QUAL HEALTH RES | 10 TB patients on treatment, 11 with interrupted treatment 5 health professionals; | Age group: 18-67 | 0 yr of education – 6 participants |
| | | | 11 males / 10 females | 1–6 yr of education – 6 participants |
| | | | 7–13 yr of education – 12 participants |
| 8 Skordis-Worrall and Hanson, 2010 | Published in: IJTL | n ≈ 56 | Age group: 20–39 | – |
| | South Africa English Qualitative approach (FGDs) | 8 focus groups, each with 6 to 8 part., stratified by gender, ethnicity, TB status | 4 FG of males/4 of females | – |
| 9 Кузнецов et al., 2011 | Published in: Экология человека Russian | n = 1 | Age: 38 | – |
| | Russian Federation Qualitative approach (In-depth Interview) | (patient with active TB, with history of imprisonment) | male | Physical worker |
| 10 | Published in: BMC Public Health | 23 participants in 5 FGD with 5–6 informants in each; New cases with a drug-susceptible form of Tuberculosis. | Age group: 27–53 years | 0 yr of schooling – 2 participants |
| | Russian Federation | | 9 females/14 males | 9 yr of schooling - 12 participants |
| | | | College graduation - 9 participants | |
| No. | Author(s)                  | Publication Details                                                                 | Data Details                                                                 |
|-----|---------------------------|--------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| 11  | Murray et al., 2013a South Africa | Published in: Health policy & plan. English Retrospective use of qualitative data (Fieldwork Data) | (Communities of eight South African township sites of Cape Town, with high burden of undiagnosed TB/HIV - - |
| 12  | Reyes and Amores, 2014 Philippines | Discussion Paper from Philippine Institute for Developm. Studies English Qualitative approach (FGDs) | 21 participants in three FGD Age group: 17–64 11 males/10 females - - |
Table 2
Overview of the included studies (Intervention/Outcome elements of PICO).

Studies are classified according to whether they include the Intervention and Outcome of interest as primary or secondary targets, whereas these data is presented according to the countries of origin, as well as the years of publication of the studies.

| SUM | Acceptability barriers discussed as: | Delays in TB diagnosis discussed as: |
|-----|--------------------------------------|-------------------------------------|
|     | intervention | Co-intervention | Primary Outcome | Secondary Outcome |
| Countries: | 12 | 9 | 3 | 7 | 5 |
| Bangladesh | 1 | 1 | – | 1 | – |
| China | 1 | 1 | – | 1 | – |
| DR Congo | 1 | – | 1 | – | 1 |
| Ethiopia | 1 | 1 | – | – | 1 |
| India | 1 | 1 | – | 1 | – |
| Philippines | 1 | 1 | – | 1 | – |
| Russian Fed. | 2 | 2 | – | 2 | – |
| South Africa | 4 | 2 | 2 | 2 | 2 |
| Vietnam | 1 | 1 | – | – | 1 |
| Years of Publication: | 12 | 9 | 3 | 7 | 5 |
| 2002 | 2 | 2 | – | 1 | 1 |
| 2004 | 1 | – | 1 | – | 1 |
| 2007 | 1 | – | 1 | – | 1 |
| 2008 | 3 | 3 | – | 2 | 1 |
| 2010 | 1 | 1 | – | 1 | – |
| 2011 | 1 | 1 | – | 1 | – |
| 2013 | 2 | 1 | 1 | 1 | 1 |
| 2014 | 1 | 1 | – | 1 | – |

* One Multi-country study, reporting data from both India and Bangladesh, is presented here separately, for both countries.

1. general information about the paper: [author, year of publication, type of publication, study language, study location];
2. study characteristics: [aims/objectives of the study, study design and overview of methods];
3. study population characteristics: [number of participants, disease characteristics, demographics, socioeconomic status, education, occupation];
4. intervention/Exposure: [details of the described intervention and co-intervention(s)];
5. outcomes/measures: [details and the measures employed to assess primary and secondary outcomes];
6. results: [Results of study analysis].

General information, study characteristics, and the details of study populations extracted from the 12 analyzed papers are summarized in Table 1. Papers are sorted according to their publication years. In characteristics of study participants we emphasize whether they were TB patients (former or current), people at risk, or health service providers (i.e. physicians, nurses, community health workers, or traditional healers), also whether they were interviewed individually or participated in Focus Groups Discussions (FDG).

Demographics and SES details are reported using the same scales and terminology as in the original papers.

Details of intervention and outcome elements of each of 12 papers are summarized in Table 2. Two parts of the table classify the analyzed papers according to the data source locations and publication years, accordingly. Papers are then distributed according to (a) whether they address the health services acceptability barriers (intervention of interest in the review article [1]) as a primary- or co-intervention, and (b) whether they report Delays in TB diagnosis (outcome of interest in the review article [1]) as primary or secondary outcome.
Next part of this data article deals with the methodological quality assessment of 12 papers, that employs careful and systematic examination of research to judge “its trustworthiness, and its value and relevance in a particular context” [16].

Tools for assessing the quality differ according to the study designs [17]. Since all of the 12 papers to be evaluated were qualitative research papers, Critical Appraisal Skills Programme (CASP) for qualitative studies [18] was selected as a primary approach. This was considered to be the most appropriate checklist as this tool:

(1) is widely used and accepted for quality assessment [19];
(2) consists of ten questions and covers the most important aspects of critical appraisal (reliability, validity, objectivity);

Table 3

critical appraisal of methodological quality of included studies according to the CASP checklist.

| Checklist question                                                                 | Studies*                                                                 |
|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| **1** Was there a clear statement of the aims of the research?                    | 1 1 1 1 1 1 1 1 1 1 1 1                                                  |
| ‘Consider: goals of the research, why it is important and its relevance (this should be explicitly stated in the abstract or introduction)’ |                                                                         |
| **2** Is a qualitative methodology appropriate?                                   | 1 1 1 1 1 1 1 1 1 1 1 1                                                  |
| ‘Consider if the research seeks to interpret or illuminate the actions and/or subjective experiences of research participants’ |                                                                         |
| **3** Was the research design appropriate to address the aims of the research?     | 0 0 1 0 1 0 0 – 0 1 1 0 0                                                |
| ‘Consider: if the researcher has justified the research design (e.g. have they discussed how they decided which methods to use?). We will answer “YES” only in the case we can find in the text the justification of the research design.’ |                                                                         |
| **4** Was the recruitment strategy appropriate to the aims of the research?       | – 1 1 – – 1 0 1 1 1 0 1                                                |
| “YES” only in the case the researchers provide information enough to conclude that there is no selection bias. In case you identify a selection bias OR authors don’t provide information about the recruitment strategy - answer “NO”. |                                                                         |
| **5** Were the data collected in a way that addressed the research issue?         | 0 0 1 0 0 1 1 1 1 1 0 0                                                |
| “YES” in: (1) the researcher discussed saturation of data AND (2) the researcher made the methods explicit (e.g. how interviews were conducted) AND (3) the form of data is clear (e.g. tape recordings, video material, notes etc); |                                                                         |
| **6** Has the relationship between researcher and participants been adequately considered? | 1 1 1 0 – 0 1 0 1 1 0                                                |
| ‘Consider: whether researcher critically examined own role, potential bias and influence. If information is reported either in the methodology section (how they avoided this bias) or in the limitations (acknowledging the bias) - answer “YES”. Otherwise - "NO". |                                                                         |
| **7** Have ethical issues been taken into consideration?                           | 1 1 1 1 0 1 1 1 0 1 1 0                                              |
| ‘Consider: if approval has been sought from the ethics committee’                |                                                                         |
| **8** Was the data analysis sufficiently rigorous?                                | 1 1 1 1 1 1 1 1 1 1 1 1                                              |
| (1) Sufficient data are presented to support the findings (i.e., quotes included) AND (2) type of analysis used is reported (e.g. thematic analysis, grounded theory…) AND (3) There is an agreement between primary data and secondary data (the results of the authors has to correspond with the information they extracted). (4) Report of triangulation (more than one analyst)’ |                                                                         |
| **9** Is there a clear statement of findings?                                      | 1 1 1 1 1 1 1 1 1 1 1 1                                              |
| “YES” if: (1) Summary of the results is presented in the discussion. (2) evidence is discussed adequately |                                                                         |
| **10** How valuable is the research?                                             | 1 1 0 0 1 1 1 0 0 1 1 1                                              |
| ‘Answer “YES” only if implications of the paper for research OR for practice OR for policy are reported’ |                                                                         |
| **$\Sigma$**                                                                     | 7 8 9 6 5 8 7 8 7 10 7 6                                             |

* Study numbering should be interpreted as follows: 1. [12], 2. [10], 3. [13], 4. [7], 5. [11], 6. [8], 7. [4], 8. [3], 9. [2], 10. [9], 11. [6], 12. [5].
(3) is described to be suitable for different types of qualitative designs [19];
(4) clearly defines what is meant by each individual criterion listed and is, thus, recommended as particularly useful for scholars with little experience in qualitative research [19].

Ten questions of CASP checklist (See: Table 3) are designed in order to provide clear picture of the methodological limitations of the appraised studies. Questions were answered with YES (1), when the text of the evaluated article covered the questions explicitly and provided direct answer without the need for interpretation. Answer was NO (0), when there was no information in the text that supported a positive answer, and we answered CANT TELL (-) when the information about an issue was provided, but it seemed to be insufficient or not specific enough for a definite answer. Detailed results of quality assessment process using CASP checklist is reported in Table 3.

The next step in the evaluation of the methodological clarity and/or limitations of 12 papers was to map the studies on to the hierarchical model of Daly et al. [20]. This model is suggesting the “hierarchy of evidence-for-practice in qualitative research” where four different levels of evidence are outlined. The results are reported in Fig. 1 followed by the thorough description of the process.

At the lowest level of the Fig. 1 above are the single case studies that provide information about experiences and attitudes of interviewee in a comprehensive way; besides, efforts are made to assess the applicability of findings to the region, where the interviewee come from, however applicability of the findings to other contexts as well as the saturation of data is questionable. One out of 12 papers were categorized as Level IV evidence.

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4 Full version of the check list can be accessed online: http://media.wix.com/ugd/dedd87_29c5b002d99342f788c6ac670e49f274.pdf
Descriptive studies constitute the Level III. These are described as studies that report findings based on sample from a specific setting(s) and describe experiences, views, attitudes and actions of the interviewees in their findings without any attempts to draw any explanatory theories or creating such frameworks based on the research findings. Risk of these types of studies is that samples may often be self-selected [20]. Four studies were evaluated as Level III among 12 reviewed papers all of them being in risk for selection bias (see: Table 3). However, the studies do not have ambitious aims, about generalizing the findings and the authors did carefully indicate that their findings were based on specific settings and/or groups of people.

Higher than the level III descriptive studies, conceptual studies are positioned on the Level II in the hierarchy. This category is described as guided by a conceptual framework in their sample selection process, whereas sample often includes “a range of conceptual categories identified as significant in earlier research” [20]. We assigned 5 out of 12 reviewed papers to this level of the evidence. Gender was the main issue, guiding the sample selection in 2 out of 5 studies [11,13]. Social and cultural status (religion, marital status, occupation) [11], as well as migration background [8], and income/poverty [5] were the other factors, playing a role in selection process. One study was based on the conceptual framework of interactions between patient and provider, whereas ethnicity and gender was considered as important aspects for selection of study participants [3]. All of the studies, assigned to this level, included comprehensive analyses of the literature around the concepts they were based on, and attempted to recognize the diversity in views of the selected groups of participants.

Finally, the generalizable studies are positioned at the top of the hierarchy. These are papers with relatively high methodological quality, which is the main prerequisite for the generalizability of the findings. They frequently provide schematic models, explaining the relation between interventions and outcomes of their research questions and are not limited to the study population only, but are applicable to a wider context. The evidence, provided by these studies may serve as indications, offering support for current practice or policy, or critique, suggesting directions for change. Two studies were identified as Generalizable studies in our work [9,10].

Transparency document. Supporting information

Transparency data associated with this article can be found in the online version at http://dx.doi.org/10.1016/j.dib.2016.07.009.

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