

TRUST AND MOTIVATION IN THE HEALTH SECTOR: A SYSTEMATIC REVIEW

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Section 0: Preamble

To the memory of my mum and dad.

Abstract

Supporting improved performance of health workers is vital in health system strengthening. There are several factors that have been identified as playing key roles in influencing health worker performance. Motivation of HWs is one of the areas for improving delivery of health care services, yet it is under investigated. Moreover, the mechanisms underlying the interactions between motivation and other variables such as workplace trust relations are largely unknown.

This dissertation is organised into three parts.

Part A is the review protocol which outlines the background and the review methodology. A qualitative systematic review approach is adopted and literature search of the five chosen databases is conducted using keywords and phrases derived from the review question. Defined inclusion and exclusion criteria are used to identify and select suitable articles. An appropriate tool is then used to appraise selected articles which are then subjected to thematic analysis.

Part B is a literature review of existing empirical and theoretical work on health worker motivation. It provides the background to the systematic review in Part C. It defines the word motivation as used in the health sector, and then explores empirical work on health worker motivation using an appropriate conceptual framework. The literature review further summarises and concludes on the possible link between trust and motivation in the health sector.

Part C is the full systematic review. It begins with the background and the review methods. Utilizing articles published on health worker motivation between 2003 and 2013, the results of the systematic review are finally presented, followed by their discussion and conclusion.

The results indicate that there are different types of workplace trust relations that have influence over health worker motivation. The findings further reveal that trust relations in the health sector are linked to most of the organisational practices that are also considered as motivational determinants. The review, therefore, underscores the significance of workplace trust and good relationships in motivating HWs. However, these findings are inconclusive on how trust and motivation relate and operate to improve performance and quality of care. Empirical research is necessary to

determine the actual interplay between workplace trust and motivation in the health sector.

This dissertation is likely to increase the knowledge base on trust and motivation in the health sector, and also identify gaps for future research. Additionally, the dissertation also provides better understanding of the role adequate and effective human resource management (HRM) practices play in building trust relations, and thereby motivating HWs for health systems strengthening.

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I further take this opportunity to thank Miss. Tamzyn Sulaiman of University of Cape Town's Health Sciences Library for the tutorials on formulation of literature search strategies and navigation of different academic databases.

Finally, my heartfelt acknowledgement and admiration goes to Moipone for her patience and unwavering support.

Plagiarism Declaration

I, **Dr. Dickson Rodney Otieno Okello (OKLDIC001)**, hereby declare that the work on which this dissertation/thesis is based is my original work (except where acknowledgements indicate otherwise) and that neither the whole work nor any part of it has been, is being, or is to be submitted for another degree in this or any other university.

I empower the university to reproduce for the purpose of research either the whole or any portion of the contents in any manner whatsoever.

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University of Cape Town, February 2014

Dissertation Contents

Section 0: Preamble

Part A: Review Protocol

Part B: Literature Review

Part C: Journal Manuscript

Part D: Instructions for Authors

Acronyms and Abbreviations

HWs health workers.

LMICs low and middle income countries.

HICs high income countries.

HRM human resource management

Part A: Review Protocol

Contents

Introduction	1
Background	2
Review Question	2
Objectives of Review	2
Justification of Review	2
Methodology	6
Approach to the Review	6
Literature Search Strategy	8
Article Inclusion Criteria.....	10
Article Selection	11
Assessment Criteria/Quality Appraisal	122
Data Extraction.....	12
Data Analysis and Synthesis	144
Ethical Consideration	15
Study Limitations	15
Timeline	15
Dissemination.....	166
References	16
Appendices.....	222
Appendix 1: Search Strategy	222
Appendix 2: Assessment Criteria/Quality Appraisal Tool.....	277
Appendix 3: Article Summary Template	31
Appendix 4: Data Extraction Template.....	31

Introduction

Human resources for health are a central building block of every health system (World Health Organization, 2007). The value of dedicated and motivated health care providers cannot be underestimated in achieving effective health care services (Chen et al., 2004).

Motivated health workers (HWs) are likely to offer better health services to patients and thus improve on their experience when seeking health care (World Health Organization, 2007). HW motivation is, in turn, influenced by various factors and circumstances (Franco et al., 2004). Existing evidence from low and middle income countries (LMICs) shows that these factors include financial incentives, career development opportunities, infrastructure availability, resource availability – as well as a number of factors linked to relationships in the workplace, with employer and patients, for example (Willis-Shattuck et al., 2008). Moreover, Gilson and colleagues (2005) specifically propose and investigate workplace trust relations in colleagues, supervisors and the employer, and also acknowledge the influence of trust in provider-patient relationships. Broader public sector literature also provides evidence that trust and its related consequences can influence employees' positively or negatively and thus contribute to employee behaviour (Albrecht & Travaglione, 2003). Developing the confidence to rely on colleagues, patients and the organization is important in building trusting relations, which are ultimately useful in motivating HWs in their willingness to perform their duties (Albrecht & Travaglione, 2003).

Yet, despite a growing body of empirical work on HW motivation in LMICs, little emphasis has so far been given to workplace trust in relation to HW motivation or related policy implications. In contrast, considerable emphasis has been given to pay for performance strategies as a mechanism for improving HW motivation and behaviour (Basinga et al., 2010; Eichler, 2006; Rowe et al., 2005). A systematic review of available empirical work to identify what these studies suggest about the influence of trust and relationships on HW motivation is therefore an appropriate step in considering the needs for future work in the field. The term HWs is henceforth used to generically describe all cadres or categories of employed individuals involved in the provision of health services, but excluding those still under training.

Background

Health Policy and Systems Research is a growing field that looks into aspects of the health system in order to identify and support system-level interventions to strengthen health system performance (De Savigny & Adam, 2009). The health workforce is one of the building blocks of a health system and HWs play a major role in service delivery. The World Health Organization describes a well performing health workforce as one which is available, competent, responsive and productive, and interventions to improve the performance of existing health workforce through motivation are identified as critical for service delivery (Franco, Bennett & Kanfer, 2002; World Health Organization, 2007). Clarification of the factors that influence motivation is a first step towards identifying such actions in any setting (Franco, Bennett & Kanfer, 2002).

Motivation varies in levels and in the underlying attitudes and goals that give rise to it among individuals (Ryan & Deci, 2000). Motivation has also been defined as an individual's willingness to exert and maintain an effort towards organizational goals; a result of interactions between individuals and their work environment; and between these interactions and the societal context (Franco, Bennett & Kanfer, 2002). These interactions may be necessary in building relationships and enhancing trust between HWs and the hospital as an organization, or between HWs and the patients.

Review Question

Do workplace trust relations influence the motivation of HWs, and if so, how?

Objectives of Review

1. To identify, synthesize and evaluate existing literature on the links between trust relations and HW motivation in the health system.
2. To consider the research and policy implications of this systematic review.

Justification of Review

Health worker motivation is a complex and a continuously changing process that is context specific (Franco et al., 2004). Public sector motivation has also been described as dynamic and may differ based on language, culture, religion, Review Protocol

management practices and values (Hunt, 2007). Motivation influences the attitude and behaviour of HWs, which subsequently affects their performance. Growing interest in HW motivation has led to a number of related studies being conducted in LMICs (Agyepong et al., 2004; Chandler et al., 2009; Dieleman et al., 2003; Dieleman et al., 2006; Franco et al., 2004; Mathauer & Imhoff, 2006; Mbindyo et al., 2009). Researchers have reviewed these studies by looking at both the theories they use and the empirical evidence they generate.

Dolea and Adams (2005) identified two major underlying theories for these studies: needs theory and process theories. The needs theory describes people's inner efforts to meet their hierarchy of needs and motivation in life, using Maslow's framework (Maslow 1943) and Herzberg's two factor theory (Herzberg, Mausner & Snyderman 1959). The process theories highlights the presence of a linkage or relationship between the effort people are putting into their work and the results they expect to get for their effort (Dolea & Adams, 2005).

In describing the process theories, the Dolea & Adams (2005) review reiterates the idea that workers will repeat behaviours with positive outcomes in the past or repeat other behaviours that meet their needs and hence determine if their choices are successful. These theories are categorized as equity theory, goal setting theory and expectancy theory (Dolea & Adams, 2005). Equity theory states that a balance should exist between HWs effort and the rewards produced by those efforts. Goal theory is defined as the process by which workers make decisions about the goals they want to pursue, with the goals directing workers' behaviour and the effort they exert to achieve these goals. Expectancy theory, finally, is the view that workers are motivated by their expectation that their effort will lead to achievement of particular valued outcomes (Dolea & Adams, 2005).

Process theories are, therefore, important in the association between behaviour outcomes and the performance of HWs - that is fundamental in establishing trust relations between them, the organisations they work for and their patients- as reflected in the three types of linkages that are present within the expectancy theory (Dolea & Adams, 2005). The three linkages are: expectancy or effort-performance linkage where individuals believe that their effort or behaviour will result in achievement of performance goals; instrumentality or performance-reward linkage in which individuals receive rewards for attaining the performance outcome; and,

Review Protocol

valence or rewards-personal goals linkage which are the values and motivations that individuals attach to the rewards for meeting their performance goals (Vroom 1964; Dolea & Adams 2005). These theories offer insights for managerial actions to motivate HWs, through desired outcomes that the workers deem suitable for reward, and improve on their relationships with the managers.

Two systematic reviews of empirical motivational studies conclude by acknowledging the significance of doing more investigation of the determinants and levels of HW motivation in the developing country context (Dieleman, Gerretsen & Van Der Wilt, 2009; Willis-Shattuck et al., 2008). In their review on human resource management (HRM) practices and motivation of HWs, Dieleman and colleagues (2009) noted that workers are motivated by several factors, including; HW awareness of local problems and worker empowerment as agents of change, assuring acceptance of new information on performance (that is, improved patient satisfaction and improved quality of care), and creating a sense of belonging and respect.

Meanwhile, the review by Willis-Shattuck (2008) considers motivation and its consequences on retention of HWs in LMICs. It identifies personal recognition and appreciation by employer and the community as the most important motivating factors in retention of HWs in any particular setting. Other motivational themes identified in this review include: financial incentives; career development; continuing education; hospital infrastructure; resource availability; and hospital management.

Both review papers thus point to factors that may suggest that trust in the workplace – in relationships with colleagues, patients, managers and organizational resources or processes – is a motivating force (Gilson, Palmer & Schneider, 2005). Belonging and respect, appreciation and personal recognition are all feelings or experiences that are integrally linked to trust in another person or an organization (Gilson, Palmer & Schneider, 2005). These are factors that have been described, in public sector management, as precursors to trust relations which may lead to consequences such as, organizational commitment, intention to leave and scepticism towards change within the organization (Albrecht & Travaglione, 2003). Trust relations between HWs, patients and organizational structures and processes within the workplace, moreover, also have been specifically identified as influencing HWs' attitudes and behaviours (Gilson, Palmer & Schneider, 2005), and thus impacting on the quality of health services.

In describing trust as being a result of direct experience by patients when seeking medical care, Mechanic (1998) argues that HWs' control over medical resources meant for patients' care and making decisions in the best interest of patients is likely to lead to trusting behaviour between them and the patients. Such trusting behaviour establishes the willingness of the HWs to carry out their duties, and indebtedness to the organisation, leading to voluntary workplace interactions and effort to meet the organisational goals (Franco, Bennett & Kanfer, 2002). Trust is context specific and varies with psychological, social, personal, organisational and political backgrounds (Mechanic, 1996; Kramer, 1999; Gilson, Palmer & Schneider, 2005), and influences expectations between individuals during workplace interactions.

Empirical research in public sector management suggests communication standards, job security and organisational support and procedures, including decision-making practices, as some of the determinants of trust (Albrecht & Travaglione, 2003). These determinants of trust have an impact on the levels of organisational trust and therefore influence the attitudes and behaviours of workers. Such determinants may permit the development of values that influence workers' behaviour, and thus have an influence on their motivations and intentions to perform their duties (Gilson, 2006). Respect, recognition, job security and working conditions have been linked to trust relations within the workplace and provider behaviour (Gilson, Palmer & Schneider, 2005), with the same factors being responsible for HW motivation (Franco et al., 2004). HWs have cited these factors to be more influential with respect to their trust in colleagues, their supervisors, managers and the employing organisation (Gilson, Palmer & Schneider, 2005). The factors that allow for the development of trust also allow patients to believe that most doctors are competent enough and adequately motivated to fulfil their health care needs (Mechanic & Meyer, 2000).

Yet despite the potential influence of workplace trust relations over worker motivation in LMICs (Gilson, Palmer & Schneider, 2005), no previous systematic review has specifically examined the available empirical work to explore the issue. This systematic review will address that gap by exploring the extent to which trust relations are directly or indirectly identified as influences over motivation, and the possible pathways of influence. The review is important in: contributing to the literature on motivation in the health sector, identifying opportunities for further

empirical research, and informing policy discussions about how to influence motivation in the health sector in developing countries.

Systematic reviews have been traditionally focused on clinical interventions and practice guidelines for clinicians to use in their work to achieve better treatment outcomes (Higgins, Green & Collaboration, 2008). Research on the influence of workplace trust on motivation is also limited in the LMICs. Therefore, synthesis of evidence on motivation and how workplace trust influences it is one way of exploring the available literature on motivation in attempts to unearth the relationship between them. Moreover, analysing existing literature on motivation to unpack this relationship is likely to provide research evidence to inform decision makers on better ways for human resource management (HRM) in the health sector, and/or identify relevant research needs for health system strengthening (Harden & Thomas, 2005; Lomas, 2005). Systematic reviews utilize time efficiently hence allow policy-makers to use synthesized research to inform their decisions without necessarily skimming through mountains of literature whenever there is need for reforms in management practices (Lavis, 2009).

Methodology

Approach to the Review

A systematic review is defined as a retrospective methodologically sound research approach that summarises individual studies separately done on particular specific queries of interest, using clear-cut scientific strategies to search, critically appraise and synthesise available literature systematically (Cook, Mulrow & Haynes, 1997; Higgins, Green & Collaboration, 2008; Straus & McAlister, 2000).

The Cochrane Collaboration outlines stepwise methodological stages of conducting a systematic review (Higgins, Green & Collaboration, 2008). The main three stages are: planning the review; conducting a review; and reporting and dissemination. In planning the review stage, the need for the review should be identified, a proposal for the review prepared and a protocol that discusses the review problem and its objectives developed. The second stage of conducting the review requires a comprehensive and efficient process of identification and evaluation of extensive literatures (Mulrow, 1994; Tranfield, Denyer & Smart, 2003). The process involves:

identification of research by use of appropriate keywords in the search strategy; selection of relevant studies; assessing the quality of selected studies; extracting and monitoring data; and data synthesis. During the third stage of reporting and dissemination, the systematic review should be presented in an easily understandable manner.

Systematic reviews can be done using quantitative, qualitative or mixed methods approaches (Harden & Thomas, 2005). Quantitative systematic reviews are useful in establishing consistency across different settings and studies, and improving on reliability and accuracy of conclusions on different studies (Akobeng, 2005; Mulrow, 1994). The use of qualitative approach to systematic reviews is, therefore, suitable to facilitate the summary of existing qualitative evidence on HW motivation and how this motivation is influenced by trust relations. Several qualitative systematic reviews have been carried out to synthesise findings from different settings, for example (Blackman, Wistow & Byrne, 2013; Harden & Thomas, 2005; Kane, Wood & Barlow, 2007; Noyes & Popay, 2007). The systematic approach to this review will help in minimizing researcher or findings bias through explicitly and transparently following a methodological process to analyse and synthesise reported findings from different empirical studies.

The methods for reviewing and synthesising qualitative research are less well developed as compared to those of reviewing quantitative randomised control trials, and there is still on-going debate on the best strategies for synthesising qualitative research (Dixon-Woods et al., 2006; Dixon-Woods, Fitzpatrick & Roberts, 2001; Thomas & Harden, 2008). Empirical literature of relevance to this review on HW motivation is largely qualitative. Narrative reviews or synthesis and thematic synthesis are some of the approaches that can be utilised in qualitative systematic reviews (Bearman & Dawson, 2013; Dixon-Woods et al., 2005; Mays, Pope & Popay, 2005).

Narrative synthesis allows generation and testing of theories that explain all findings from published studies of relevance through selection, recording and ordering of selected studies by comparison of their characteristics, context and quality of their findings (Dixon-Woods et al., 2005; Mays, Pope & Popay, 2005). This approach to systematic reviews is an important technique for use in policy and management-relevant reviews (Dixon-Woods et al., 2005; Mays, Pope & Popay, 2005). The Review Protocol

drawback to this type of review or synthesis is that it lacks full description of how the review should be conducted, because it has not been extensively used, hence lacks transparency. Other limitations to narrative reviews include unmanageability of number of studies and amount of information that can be extracted and generalised (Mays, Pope & Popay, 2005).

Thematic synthesis will be used to combine the findings from different empirical studies on HW motivation to identify the influence of trust relations on it. The difference between thematic synthesis and narrative synthesis is that the former allows for hypothesis generation by organising data according to themes, while the latter primarily relies on the use of words and texts to summarise the context, characteristics and findings of each study (Bearman & Dawson, 2013; Thomas & Harden, 2008). Thematic synthesis thus involves the identification of the main issues or themes that arise on a particular topic in the literature by synthesising the issues presented by the researchers (Dixon-Woods et al., 2005; Mays, Pope & Popay, 2005). It is essential in identifying, grouping and summarising main findings that are prominent from selected studies, and categorising them under different themes, thereby permitting organisation of the literature of selected studies from both qualitative and quantitative approaches (Dixon-Woods et al., 2005). The synthesis can either be guided by the themes identified in the literature (data driven) or through assessment of themes by inquiry of the existing literature (theory driven).

Literature Search Strategy

A comprehensive search that includes only published work in different electronic databases will be carried out to ensure identification of as many relevant articles as possible. Articles on empirical research on HW motivation will be purposefully selected using a pre-determined inclusion and exclusion criteria. The search will be according to the characteristics that are specific for each database, for example, search filters and thesaurus.

Performing multiple searches by utilising multiple search terms, combinations of search terms and search terms synonyms will be essential in improving the effectiveness of the literature search (Bown & Sutton, 2010). An effective search strategy should aim to utilise and facilitate retrieval of articles within the shortest time possible (Akobeng, 2005).

Keywords or phrases derived from review question will be used to conduct the search in the selected databases, by combining the keywords using Boolean operators “AND” and “OR”. The operator “AND” will allow articles with the selected terms to be retrieved, while “OR” will allow articles containing one of the terms to be retrieved (Akobeng, 2005).

The databases that will be searched for this review include Medline via PubMed, the Cumulative Index of Nursing and Allied Health (CINHAL), PsycINFO, Africa–Wide Information, and EMBASE via Scopus. CINHAL, PsycINFO and Africa-Wide information will be searched independently via EBSCOhost. These electronic databases will be selected due to their suitability in providing relevant articles based on the variation of the inclusion criteria. The search will be done in two stages. First, using keywords and search terms, relevant articles will be retrieved from the different databases. The search will identify all work that already exists addressing the topics of motivation and trust, years of publication and the authors of such work on motivation. The keywords for the search will include ‘Motivation’ or ‘Job Satisfaction’ or ‘Attitude of Health Personnel’ or ‘Retention’ or ‘Trust’ or ‘Workplace trust’ or ‘Relationships’ or ‘Interpersonal relations’ and ‘Health Personnel’ or ‘Health Worker’ or ‘Health Sector’ or ‘Healthcare organisation’ or ‘Healthcare industry’. These words will be used in addition to others that will be formulated from each database’s thesaurus or MeSH terms. The words will then be used in different combinations until reliable and satisfactory search result is obtained. Using multiple search terms, different combinations of search terms and search term synonyms will improve the effectiveness of the literature search (Bown & Sutton, 2010). The final search strategy is attached in Appendix 1.

The second stage in the literature search will involve screening of titles and abstracts against the inclusion and exclusion criteria described below. Upon screening of the titles and abstracts, full papers to be included in the review will be selected. The full-texts of the selected articles will then be read, and a final hand search of cited references performed to identify relevant articles that may have been missed in the primary search.

Recording the dates of database searches will be ensured for accurate reporting of the search strategy, to enable future researchers to update the systematic review by

repeating a search and data extraction from that point in time (Bown & Sutton, 2010).

To manage the references upon completion of the search, the results or screening outcome will be transferred to a database where all the references will be put together and the duplicates identified and removed. Using the reference manager will facilitate organisation, removal of irrelevant articles and saving of the selected articles for use in the review. Reference manager, Reworks (Copyright© 2009), will be used and the supervisor will receive a copy of this final database search strategy and process (attached in Appendix 1).

Article Inclusion Criteria

Defining the study selection and inclusion criteria will be critical in allowing useful combination of results and obtaining reasonable amount of dataset. The inclusion and exclusion criterion may affect the literature base, and strict definition of the criteria may not generate adequate data for meaningful combination of results (Bown & Sutton, 2010). Non-specific inclusion criteria may also result in a non-homogenous large dataset that is unmanageable.

This systematic review will consider:

- i. Empirical studies on HW motivation which include qualitative, quantitative or a mix of both qualitative and quantitative methods of data collection and analysis. This will also include case studies. Combining findings from different research approaches allows rigorous synthesis of evidence of diverse types generated by different methodologies (Dixon-Woods et al., 2005).
- ii. Studies done on HWs (all or different cadres of employed workers) in different settings within the health sector.
- iii. Studies done in both HICs and LMICs will also be included, to broaden the pool of relevant articles given the still small body of work on HW motivation in LMICs.
- iv. Original and review articles of relevance from academic journals, with titles and abstracts mentioning one or more of the keywords or parts of the review question.
- v. Full free text availability under University of Cape Town library subscription

vi. Studies published from 2003 onwards. This strategy will allow focus on research in the last 10 year period, as a period of growing interest in HW motivation, since there is limited research on motivation and trust in the health sector.

vii. Studies published in English (even though this may lead to a language bias).

Studies will be excluded based on the following criteria;

- i. Studies that are not published in English due to difficulty in translation and time constraints.
- ii. Studies published prior to 2003.
- iii. Articles or citations without abstracts.
- iv. Studies that are not related to motivation and/or motivation in the health sector.
- v. Studies which are not original research.
- vi. Studies that do not imply or discuss relevant findings on motivation in the full text.

Article Selection

The selection for suitable studies will involve screening of the identified articles of relevance against the inclusion criteria. The excluded irrelevant articles will be noted and the selected articles will be the study or review subjects.

Duplicates of identified articles, after combining the search outputs from different databases, will be screened and removed from each folder in the reference manager database. Then, titles and abstracts will be screened to remove articles which are not relevant to the topic of review. This will involve identifying articles based on the inclusion and exclusion criteria described above. In the subsequent stage, full text reading of the references obtained from the screened titles and abstracts will be done. The articles selected after the full text screening will be read and then details of all will be forwarded to the supervisor, Professor Lucy Gilson, to independently assess, in order to reach a final consensus on the suitability of the selected studies in relation to motivation and workplace trust in the health sector. The references of the studies agreed upon after the supervisor's comments will then be stored in a bibliographic database.

Assessment Criteria/Quality Appraisal

The appraisal of the quality of selected studies will be done simultaneously with data extraction. At the moment, difficulty and disagreements in appraisal of qualitative studies have been acknowledged (Chinchilli, 2007; Dixon-Woods, Fitzpatrick & Roberts, 2001; Dixon-Woods et al., 2004; Dixon-Woods et al., 2006), leading to calls for criteria for appraisal, with guidelines for judging and deciding suitability of an article for a systematic review.

An appropriate tool has been identified to assist with the appraisal of the selected studies. The Critical Appraisal Skills Programme (CASP), attached as Appendix 2, has been selected and will be employed in this review (Public Health Resource Unit, 2006). This programme contains ten appraisal items that will allow efficient assessment and has been used by other reviewers (Banning, 2011; Harden & Thomas, 2005; Kane, Wood & Barlow, 2007; Noyes & Popay, 2007; Tranfield, Denyer & Smart, 2003). Even though such tools have been used by others, there have been suggestions of the need for development of more detailed guidance for explicit judgement of qualitative studies (Dixon-Woods et al., 2006)

During the appraisal, the articles will be assessed for their appropriateness according to the study design, the sampling strategy used, data collection approaches, ethical consideration, data analysis, presented findings, and, author's discussion, conclusions on the findings and reflexivity. Once the articles have been assessed for quality, a summary will be provided in a tabular manner using the template attached as Appendix 3. The ability of the selected studies to answer the research question has been proposed as useful in systematic reviews that employ qualitative approach, rather than prioritising research designs of studies as it is done in systematic reviews of randomised controlled trials (Thomas & Harden, 2008). Independent reviewer, the supervisor, will be consulted to assist in assessment of the quality of the studies that are selected for review.

Data Extraction

The reviewer will read the articles, extract data from study findings and record the extracted data in a summarised manner. All relevant texts, verbatim quotes and author's interpretations in the selected articles' findings and results sections will be

considered. The discussion section of the articles will also be scrutinized and adjudged, noting the author's judgements and interpretations. Using multiple individuals to independently extract data and compare results to bring a uniform agreement, has been advocated as a stronger strategy as compared to a single reviewer extracting data on one single occasion (Bown & Sutton, 2010). This strategy employed during extraction will be essential in resolving any discrepancies that may arise. In this review, the supervisor will monitor each stage of the review and offer useful insights on the manner in which the review is to be conducted.

A data extraction form will be essential in reducing errors and bias in this systematic review (Tranfield, Denyer & Smart, 2003). The form will serve three functions as outlined by the Cochrane Collaboration (Higgins, Green & Collaboration, 2008). These functions are; providing visual representation of the planned assessment, acting as historical record, and a form of data registry that will provide a platform for data analysis.

The data extraction form will be necessary in providing a quick overview of the motivational factors and how trust relations influence them in a tabular format during analysis. A data extraction template for use in this review is attached as Appendix 4. Bearing in mind the objective of the study of; identifying influences over motivation and synthesizing the links between workplace trust relations and motivation, thematic analysis will therefore provide an organised summary of the findings or extracted data from the studies under review. After analysing for determinants of HW motivation, the reviewer will scrutinise texts and data of these determinants to identify where trust relations are mentioned or implied, where relevant by making inferences from what is reported and how they are related to the motivational determinants. The reviewer will also identify types of trust relations, or indicators that abstractly describe the different trust relations within the workplace. The level of workplace trust influence over motivation from the themes that emerge will also be considered, for example confidence in: HWs competence, organisational resources, supervisors or managers. The influence or link of trust relations to motivation will also be examined. These will form the basis for conclusions of the systematic review, and further guide recommendations for future research on motivation and trust.

Data Analysis and Synthesis

Thematic analysis will guide the analysis and synthesis of the extracted data. Thematic analysis will reflect the main ideas and conclusions by looking at prominent themes and new explanations, then summarising the findings of relevant studies according to different themes to provide in-depth meaning of the data (Dixon-Woods et al., 2004; Mays, Pope & Popay, 2005; Thomas & Harden, 2008). Thematic analysis will involve three stages: first, the text will be coded ‘line-by-line’; second, descriptive themes will be developed; and third, analytic themes will be generated (Higgins, Green & Collaboration, 2008; Thomas & Harden, 2008).

Stage one: Line-by-line coding will involve detailed reading of the findings and discussion sections, to make sense of them and create basic interpretations. Factors that determine motivation and recurrent issues on how trust relationships influence motivation will be coded and noted down.

Stage two: Descriptive themes will be generated after the coding of each line of text. These are themes that will assist in clear understanding and provide a description of the significant themes that will arise, by grouping and organising the coded texts from stage one (Thomas & Harden, 2008). During generation of the descriptive codes, similarities and differences between the generated codes will be identified and grouped into categories that encapsulate the most salient issues or themes.

Stage three: The descriptive themes that emerge from the second stage of analysis will then, finally, be used in generation of analytic themes to identify the influence of trust relations on motivation of HWs within their workplaces. Analytic themes will be generated through scrutiny and revision of descriptive themes to integrate identical themes, to summarise and provide an understanding of the influence of workplace trust on HW motivation. Despite allowing for greater understanding of data as compared to empirical studies, some authors posit that generation of analytical themes depends on the reviewer’s judgements and personal insights hence may prompt debates (Thomas & Harden, 2008). Thematic analysis has been used by other researchers to analyse and synthesise studies in the health sector (Harden & Thomas, 2005; Noyes & Popay, 2007).

The three stages of analysis will be done iteratively to reveal the most recurrent themes that determine motivation and the underlying influences of trust on the Review Protocol

motivation of HWs. The conceptual framework on motivation (Franco, Bennett & Kanfer, 2002) and workplace trust (Gilson, Palmer & Schneider, 2005) will guide the analysis and thinking about the relationship or link between the two phenomena in the health sector.

Ethical Consideration

There are no formal ethical considerations or confidentiality procedures needed for this systematic review because only publicly available and published data will be utilised.

Study Limitations

Assessment and judgement of suitability of selected studies for the review may lead to study selection bias due to the reviewer's own perceptions and understanding. This limitation will be countered by use of the critical appraisal tool with a checklist, to ensure quality of the review. The exclusion of studies published in other languages presents a limitation because they may provide relevant empirical studies on motivation. This limitation is due to resource and time constraints for interpretation of such studies.

Timeline

Table 1: Review timeline

Component	Activity	Date
<i>Part A: Protocol</i>	Subject formulation	September 2013
	Draft	September 2013
	Edits	1st-15th October 2013
<i>Part B: Literature Review</i>	Research	October 2012 - August 2013
	Draft	September 2013
	Edits	5th - 30th October 2013
	Final Edits	November 2013
<i>Part C: Journal Article</i>	Drafts	November 2013
	Edits	December 2013
	Final Edits	January 2014
<i>Dissemination/Submission</i>	Intention to submit	10th January 2014
	Submission	10th February 2014

Dissemination

During dissemination, the systematic review will be presented in a summarised format for managers and policymakers to easily understand the synthesis of the primary research studies of relevance to trust and motivation of health care providers. This will be done by the use of tables for descriptive analysis, reporting the findings of the thematic analysis and providing a detailed audit trail to ensure reliable reporting. The review also intends to cement the understanding of motivation and trust relations in the health sector. The aim of the dissemination will be the use of the gathered evidence to inform managerial decisions in practice and to further guide research on trust and motivation in the health sector.

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Appendices

Appendix 1: Search Strategy

Databases	Date of Final Search	Results						
		Total Search	Relevant Articles Retrieved	Combined Databases	After Removal of Duplicates	After Title Screening	After Abstract Screening	Eligible Articles for Review
Africa-Wide Information	17/11/2013	1257	117	1420	1140	204	42	30
Cumulative Index of Nursing & Allied Health (CINHAL)	17/11/2013	3840	172					
PsycINFO	17/11/2013	3893	360					
PubMed	18/11/2013	5338	383					
Scopus	18/11/2013	3389	388					
TOTAL		17717	1420	1420	1140	204	42	30

PubMed (383)

((((((((((("Motivation"[Mesh]) OR motivation) OR "Job Satisfaction"[Mesh]) OR job satisfaction) OR "Attitude of Health Personnel"[Mesh]) OR Attitude of Health Personnel) OR staff attitude) OR team work in nursing) OR team work) OR staff retention))

AND

((((((((((((((((((("Trust"[Mesh]) OR trust) OR "Physician-Nurse Relations"[Mesh]) OR Physician-Nurse Relations) OR "Nurse-Patient Relations"[Mesh]) OR Nurse-Patient Relations) OR "Professional-Patient Relations"[Mesh]) OR Professional-Patient Relations) OR "Physician-Patient Relations"[Mesh]) OR Physician-Patient Relations) OR "Dentist-Patient Relations"[Mesh]) OR Dentist-Patient Relations) OR "Patient Care Team"[Mesh]) OR Patient Care Team) OR "Health Services Research"[Mesh]) OR Health Services Research) OR "Organizational Culture"[Mesh]) OR Organizational Culture))

Filters: Journal Article; Free full text available; Full text available; Publication date from 2003/01/01 to 2013/12/31; Humans; English; MEDLINE; Nursing journals; Dental journals

Cumulative Index of Nursing and allied Health (CINHAL) via EBSCOhost (172)

(MM "Motivation+") OR motivation OR trust OR (MM "Trust") OR "job satisfaction" OR (MM "Job Satisfaction+") OR relationship* OR (MM "Interpersonal Relations+") OR (MM "Physician-Patient Relations") OR (MM "Interinstitutional Relations") OR (MM "Dentist-Patient Relations") OR (MM "Patient-Family Relations") OR (MM "Professional-Patient Relations+") OR (MM "Interpersonal Relationships (Omaha)") OR (MM "Employer-Employee Relations+") OR (MM "Teamwork") OR (MM "Management Styles") OR (MH "Attitude of Health Personnel") OR (MH "Employee Attitudes") OR "staff attitude"

AND

OR (MH "Health Personnel, Unlicensed") OR (MH "Personnel, Health Facility") OR (MH "Health Personnel as Patients") OR (MH "Rural Health Personnel") OR (MH "Health Personnel, Infected") OR (MH "Alternative Health Personnel") OR (MH "Health Personnel, Minority") OR (MH "Allied Health Personnel") OR (MH "Health Personnel") OR "health personnel" OR "healthcare provider*" OR "health care provider*" OR "health worker*" OR "healthcare worker*" OR (MH "Hospitals, Public") OR (MH "Hospitals, Pediatric") OR (MH "Hospitals, Psychiatric") OR (MH "Organizations, For Profit") OR (MH "Hospitals, Urban") OR (MH "Hospitals, Special") OR (MH "Hospitals, Rural") OR (MH "Hospitals, Community") OR (MH "Hospitals") OR hospital* OR "health organi?ation*" OR (MH "Health Maintenance Organizations") OR (MH "State Allied Health Organizations") OR (MH "Allied Health Organizations") OR (MH "Organizations, For Profit") OR (MH "Mental Health Organizations") OR (MH "Health Facility Administration") OR "healthcare organi?ation*" OR "health institution*" OR "healthcare institution*" OR (MM "Primary Health Care") OR (MM "Health Care Reform+") OR (MM "Health Care Delivery+") OR "primary health care" OR "healthcare sector" OR "health care sector" OR "health sector" OR (MM "Health Care Industry")

Limiters - Linked Full Text; Abstract Available; Published Date: 2003/01/01 - 2013/12/31

Expanders - Apply related words; also search within the full text of the articles

Search modes - Boolean/Phrase

PsycINFO via EBSCOhost (360)

DE "Motivation" OR MM "Educational Incentives" OR MM "Employee Motivation" OR MM "Extrinsic Motivation" OR MM "Intrinsic Motivation" OR MM "Monetary Incentives" OR Motivation OR DE "Trust (Social Behaviour)" OR Trust OR DE "Employee Attitudes" OR DE "Satisfaction" OR DE "Career Change" OR DE "Employee Engagement" OR DE "Employee Retention" OR DE "Job Enrichment" OR DE "Job Involvement" OR DE "Organizational Commitment" OR DE "Quality of Work Life" OR DE "Role Satisfaction" OR "Job Satisfaction" OR DE "Relationship Satisfaction" OR DE "Interpersonal Relationships" OR Relationship OR Teamwork OR Retention

AND

DE "Professional Personnel" OR DE "Allied Health Personnel" OR DE "Medical Personnel" OR "Health Personnel" OR "Healthcare Provider*" OR "Health Care Provider*" OR "Healthcare Worker*" OR "Health Worker*" OR DE "Hospitals" OR Hospitals OR "Health Organi?ation*" OR "Healthcare Organi?ation*" OR "Health Care Organi?ation*" OR "Health Institution*" OR "Healthcare Institution*" OR "Health Care Institution*" OR DE "Primary Health Care" OR DE "Health Care Utilization" OR DE "Health Care Reform" OR DE "Health Care Policy" OR DE "Health Care Delivery" OR DE "Health Care Services" OR DE "Health Care Administration" OR "Primary Health Care" OR "Health Sector" OR "Healthcare Sector" OR "Health Care Sector" OR "Healthcare Industry" OR "Health Care Industry"

Africa-Wide Information via EBSCOhost (117)

KW motivation OR SM motivation OR KW trust OR TX "job satisfaction" OR TX relationship* OR TX teamwork OR TX "staff attitude*" OR TX retention

AND

KW "health personnel" OR TX "healthcare provider*" OR TX "health care provider*" OR KW "health worker*" OR TX "healthcare worker" OR TX "health care worker*" OR SM hospital* OR KW "health organi?ation*" OR TX "health care organi?ation*" OR TX "healthcare organi?ation*" OR TX "healthcare institution*" OR TX "health care institution*" OR TX "health institution*" OR TX "primary health care" OR TX "health care sector" OR TX "healthcare sector" OR KW "health sector" OR TX "healthcare industry"

Limiters - Year Published: 2003-2013; Language: English

Search modes - Boolean/Phrase

Scopus (388)

((TITLE-ABS-KEY(motivation)) OR (TITLE-ABS-KEY(trust)) OR (ALL("job satisfaction")) OR (ALL(teamwork)) OR (ALL("staff attitude")) OR (ALL("provider-patient relationship")) OR (ALL("patient-provider relationship")) (ALL(retention)) OR (TITLE-ABS-KEY(retention)))

AND

((ALL("health personnel")) OR (TITLE-ABS-KEY("health personnel")) OR (ALL("healthcare providers")) OR (ALL("health care providers")) OR (ALL("healthcare workers")) OR (ALL("health care workers")) OR (ALL("health workers"))) OR ((TITLE-ABS-KEY(hospital)) OR (ALL("health organi?ation")) OR (ALL("health care organi?ation")) OR (ALL("healthcare organi?ation")) OR (ALL("healthcare institution")) OR (ALL("health care institution")) OR (ALL("health institution"))) OR ((ALL("primary health care")) OR (ALL("health care sector")) OR (ALL("healthcare sector")) OR (ALL("health sector")) OR (ALL("healthcare industry"))))

AND

(LIMIT-TO(PUBYEAR, 2013) OR LIMIT-TO(PUBYEAR, 2012) OR LIMIT-TO(PUBYEAR, 2011) OR LIMIT-TO(PUBYEAR, 2010) OR LIMIT-TO(PUBYEAR, 2009) OR LIMIT-TO(PUBYEAR, 2008) OR LIMIT-

TO(PUBYEAR, 2007) OR LIMIT-TO(PUBYEAR, 2006) OR LIMIT-
TO(PUBYEAR, 2005) OR LIMIT-TO(PUBYEAR, 2004) OR LIMIT-
TO(PUBYEAR, 2003)) AND (LIMIT-TO(DOCTYPE, "ar") OR LIMIT-
TO(DOCTYPE, "re") OR LIMIT-TO(DOCTYPE, "ip") OR LIMIT-TO(DOCTYPE,
"ar") OR LIMIT-TO(DOCTYPE, "re") OR LIMIT-TO(DOCTYPE, "ip")) AND
(LIMIT-TO(LANGUAGE, "English")) AND (LIMIT-TO(SRCTYPE, "j"))

Appendix 2: Assessment Criteria/Quality Appraisal Tool

Critical Appraisal Skills Programme (CASP)

making sense of evidence

10 questions to help you make sense of qualitative research

This assessment tool has been developed for those unfamiliar with qualitative research and its theoretical perspectives. This tool presents a number of questions that deal very broadly with some of the principles or assumptions that characterise qualitative research. It is *not a definitive guide* and extensive further reading is recommended.

How to use this appraisal tool

Three broad issues need to be considered when appraising the report of qualitative research:

- **Rigour:** has a thorough and appropriate approach been applied to key research methods in the study?
- **Credibility:** are the findings well presented and meaningful?
- **Relevance:** how useful are the findings to you and your organisation?

The 10 questions on the following pages are designed to help you think about these issues systematically.

The first two questions are screening questions and can be answered quickly. If the answer to both is “yes”, it is worth proceeding with the remaining questions.

A number of italicised prompts are given after each question. These are designed to remind you why the question is important. Record your reasons for your answers in the spaces provided.

The 10 questions have been developed by the national CASP collaboration for qualitative methodologies.

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Screening Questions

1. Was there a clear statement of the aims of the research?

Yes

No

Consider:

- what the goal of the research was
- why it is important
- its relevance

2. Is a qualitative methodology appropriate?

Yes

No

Consider:

- if the research seeks to interpret or illuminate the actions and/or subjective experiences of research participants

Is it worth continuing?

Detailed questions

Appropriate research design

3. Was the research design appropriate to address the aims of the research?

Write comments here

Consider:

- if the researcher has justified the research design (e.g. have they discussed how they decided which methods to use?)

Sampling

4. Was the recruitment strategy appropriate to the aims of the research?

Write comments here

Consider:

- if the researcher has explained how the participants were selected
- if they explained why the participants they selected were the most appropriate to provide access to the type of knowledge sought by the study
- if there are any discussions around recruitment (e.g. why some people chose not to take part)

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.....
Data collection

5. Were the data collected in a way that addressed the research issue?

Write comments here

Consider:

- if the setting for data collection was justified
- if it is clear how data were collected (e.g. focus group, semi-structured interview etc)
- if the researcher has justified the methods chosen
- if the researcher has made the methods explicit (e.g. for interview method, is there an indication of how interviews were conducted, did they use a topic guide?)
- if methods were modified during the study. If so, has the researcher explained how and why?
- if the form of data is clear (e.g. tape recordings, video material, notes etc)
- if the researcher has discussed saturation of data

.....
Reflexivity (research partnership relations/recognition of researcher bias)

6. Has the relationship between researcher and participants been adequately considered?

Write comments here

Consider whether it is clear:

- if the researcher critically examined their own role, potential bias and influence during:
 - formulation of research questions
 - data collection, including sample recruitment and choice of location
- how the researcher responded to events during the study and whether they considered the implications of any changes in the research design

.....
Ethical Issues

7. Have ethical issues been taken into consideration?

Write comments here

Consider:

- if there are sufficient details of how the research was explained to participants for the reader to assess whether ethical standards were maintained
- if the researcher has discussed issues raised by the study (e. g. issues around informed consent or confidentiality or how they have handled the effects of the study on the participants during and after the study)
- if approval has been sought from the ethics committee

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.....
Data Analysis

8. Was the data analysis sufficiently rigorous?

Write comments here

Consider:

- if there is an in-depth description of the analysis process
- if thematic analysis is used. If so, is it clear how the categories/themes were derived from the data?
- whether the researcher explains how the data presented were selected from the original sample to demonstrate the analysis process
- if sufficient data are presented to support the findings
- to what extent contradictory data are taken into account
- whether the researcher critically examined their own role, potential bias and influence during analysis and selection of data for presentation

.....
Findings

9. Is there a clear statement of findings?

Write comments here

Consider:

- if the findings are explicit
- if there is adequate discussion of the evidence both for and against the researcher's arguments
- if the researcher has discussed the credibility of their findings (e.g. triangulation, respondent validation, more than one analyst.)
- if the findings are discussed in relation to the original research questions

.....
Value of the research

10. How valuable is the research?

Write comments here

Consider:

- if the researcher discusses the contribution the study makes to existing knowledge or understanding (e.g. do they consider the findings in relation to current practice or policy, or relevant research-based literature?)
- if they identify new areas where research is necessary
- if the researchers have discussed whether or how the findings can be transferred to other populations or considered other ways the research may be used

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Appendix 3: Article Summary Template

Author(s) & Year of Publication	Country of Study	Study Objective(s)	Study Population	Methodology	Data Analysis	Study Findings

Appendix 4: Data Extraction Template

Author(s)/Year of Publication	Internal/Individual Determinants		Organisational Determinants		Socio-Cultural Determinants		Relations Identified	Trust Issues Identified
	Motivators	Demotivators	Motivators	Demotivators	Motivators	Demotivators		

Part B: Literature Review

Contents

Introduction	1
Motivation in the Health Sector	1
Definition of Motivation	1
Conceptual Framework for Determinants of Motivation in the Health Sector	2
Empirical Literature on Determinants of Motivation in the Health Sector	4
Internal/Individual Determinants of Motivation.....	5
Organizational or Institutional Determinants of Motivation	6
Socio-Cultural Determinants of Motivation	8
The Link Between Motivation and Trust in the Health Sector	9
Conclusion	12
References	13

Introduction

Demotivation of workers is identified as one of the leading causes of poor performance and inefficiency in the health sector (Chen et al., 2004). The multiple factors that influence the motivation of health workers (HWs) can be categorised as either intrinsic or extrinsic (Ryan & Deci, 2000). Interests and feelings that are inherent in an individual, on the one hand, drive the intrinsic motivation. On the other hand, the extrinsic motivation depends on actions geared towards attaining external rewards and is externally generated (Ryan & Deci, 2000). More recently, empirical research to identify and understand the factors that determine motivation in the health sector has gained momentum. There is, therefore, the need to understand different aspects of the empirical evidence that already exists on HW motivation.

This is a scoping review of small but growing body of existing motivational literature, undertaken to identify a more specific question for a systematic review. The review is organized into three main sections. First, motivation in the health sector is discussed by presenting its definition, a conceptual framework that has been used in empirical studies of motivation and an initial review of the evidence of different factors that influence motivation. Second, the link between motivation and trust relationships in the health sector is identified and discussed. Finally, conclusions are drawn from this scoping literature review about the potential focus and approaches to a systematic review of workplace trust relationships and HW motivation.

Motivation in the Health Sector

Definition of Motivation

The Oxford English Dictionary defines the word ‘motivation’ as the reasons for ones actions (noun). ‘Motive’ is defined as something that makes someone act in a particular way, whereas the verb ‘motivate’ means to provide someone with a motive for doing something or making someone want to do something.

Motivation has been described as a process governing choices made by persons among work roles, including the extent and level of their effectiveness in the chosen work roles (Vroom, 1964). Authors, in some instances, have used job satisfaction and job attitudes to describe motivation to work (Herzberg, Mausner & Snyderman

1959). The two constitute workers' feelings and contentment with their job. Herzberg, Mausner and Snyderman (1959) are of the opinion that motivation or workers' attitudes towards a job may influence how workers perform their duties or their willingness to stick to their duties, and that job satisfaction is predictive of other work related outcomes and behaviour. They suggest that job attitudes and job satisfaction are correlated with motivation.

Motivation has also been defined as an individual's willingness to exert and maintain an effort towards organizational goals, and; a result of interactions between individuals and their work environment; and between these interactions and the societal context (Franco, Bennett & Kanfer, 2002). This definition provides the notion that worker desired goals drawn from internal needs or from their external work environment may be responsible for their reasons for performing their duties. Such motivation, however, varies in levels and in different underlying attitudes and goals that may give rise to it among individuals (Ryan & Deci, 2000).

Conceptual Frameworks for Determinants of Motivation in the Health Sector

Several theories and frameworks have been suggested for use to study and discuss the determinants of worker motivation. In their research on motivation to work, Herzberg and colleagues (Herzberg, Mausner & Snyderman 1959) classified motivation or job attitude determinants into two groups, hygiene and job factors. The hygiene factors comprises of factors whose presence or absence leads to dissatisfaction and poor motivation or negative job attitudes; while the job factors or motivators intrinsically give satisfaction with the job itself and enable individuals to achieve their dreams or development in terms of personal growth.

Maslow's model of motivation and personality (Maslow 1943) has also been applied in investigating the determinants of motivation in the health sector (Benson & Dundis, 2003). The model uses a hierarchy of needs to classify the motivational determinants identified by Herzberg and his colleagues (1959). These are: basic level (wages and remuneration); safety of the job (mental and physical safety, benefits, training and union contracts); seeking social belonging at workplace; self-esteem (performance appraisals, incentives, rewards, and recognition); and self-actualization (training for personal development and taking risks). Both approaches highlight the importance of how workers needs are met as a source of motivation.

To measure the determinants and consequences of motivation in the health sector, Kanfer (1999) classified the determinants of motivation into two: “CAN DO” and ‘WILL DO’. She described the “CAN DO” determinants as factors that influence the accomplishment of workers’ personal goals and achieving better performance in line with the organizational goals. These determinants include; self-concept, work orientation, self-confidence or efficacy and self-regulatory skills. The “WILL DO” determinants are the worker’s willingness to adopt organizational goals and include; societal or cultural values, personal values, personality tendencies, organizational structures, management practices and organizational resources (Kanfer 1999).

Meanwhile, the determinants of motivation have also been considered as being either intrinsic or extrinsic (Ryan & Deci, 2000). Intrinsic determinants motivate a worker to do something because it is inwardly interesting and enjoyable. Such determinants include interests, autonomy, self-competence or self-efficacy through rewards, communication and feedback. Extrinsic determinants motivate individuals to perform their duties because they lead to different outwardly distinguishable outcomes like external regulation, self-esteem, value, self-importance and integration. These are traits that workers may present to the organization or the environment in which they work to receive external rewards or satisfy image and external demands such as ego-enhancement (Ryan & Deci, 2000). The Ryan and Deci framework, therefore, links to the Maslow’s theory of needs by attempting to categorize the different hierarchy of needs as inwardly or outwardly driven determinants of motivation. For example: seeking belonging at workplace, self-actualization and self-esteem can be termed intrinsic determinants of motivation, whereas, safety of the job, security and social environment can be grouped as external motivators.

The conceptual framework (Figure 1) developed by Franco and her colleagues (2002) for research on motivation in the health sector provides a clear starting point for exploring the topic, and has been selected for this review of existing evidence on HW motivation. It builds on the three categories presented earlier by looking at the determinants from individual, organisational and societal perspectives. The categorisation in this framework recognises the factors that cause motivation or dissatisfaction (Herzberg, Mausner & Snyderman 1959), whether they are internally or externally generated (Ryan & Deci, 2000), and their role in accomplishment of worker goals or workers willingness to adopt organisational goals (Kanfer 1999). This useful overarching framework has already been used in studies on motivation

among HWs in Uganda (Kyaddondo & Whyte, 2003), non-physician clinicians in Tanzania (Mathauer & Imhoff, 2006), and among workers in district hospitals in Kenya (Mbindyo et al., 2009). Its use enables careful inquiry of a complex phenomenon, motivation, and support comparison with these other studies that have already been undertaken (Gilson, 2012).

The framework, as illustrated in the diagram, classifies motivational determinants into three categories as internal determinants, organizational factors and community/social-cultural factors. Internal determinants described by the researchers include: individual goals, motives and values; self-concept; and cognitive expectations. The organizational determinants of motivation discussed are: the management structures and processes, communication and feedback procedures, support structures and availability of resources to perform the work. As a final group of determinants, the framework looks at how the interrelationship between socio-cultural factors and organizational factors influences worker motivation.

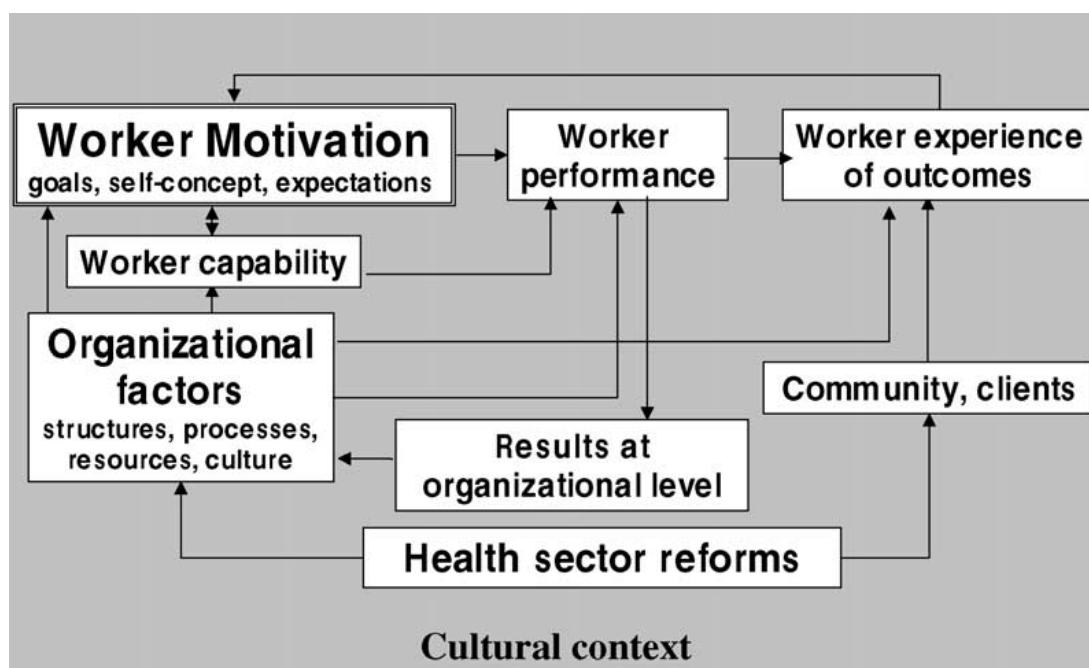


Figure 1: Motivation Conceptual Framework (Franco, Bennett & Kanfer, 2002)

Empirical Literature on Determinants of Motivation in the Health Sector

Although there is growing interest in motivation in the health sector, only a limited number of related studies have been conducted in LMICs. Systematic reviews of these studies have acknowledged the significance of doing more investigation on the

determinants and levels of health worker motivation in the developing country context (Dieleman, Gerretsen & Van Der Wilt, 2009; Willis-Shattuck et al., 2008). One of the reviews highlights motivational factors as being country specific and suggests that financial incentives, management practices and career development are the main factors responsible for the low levels of motivation and lack of retention of HWs in the developing countries (Willis-Shattuck et al., 2008). The review further recognizes the influence of personal recognition and appreciation by colleagues, managers and the community as important influencers of HW motivation. Interestingly, the review by Dieleman and colleagues (2009) also acknowledges the role of non-financial incentives in motivating HWs and identifies awareness of local problems, gaining acceptance of new information, and creating a sense of belonging and respect as human resource management (HRM) interventions that are critical in improving HW performance in LMICs.

The following section is a scoping review that outlines empirical evidence from the available or published literature on motivation in the health sector in LMICs. Relevant articles on studies conducted on HW motivation were searched using keywords and search terms in different databases, including; Medline via PubMed, the Cumulative Index of Nursing and Allied Health (CINHAL), PsycINFO, Africa–Wide Information, and Scopus. The search identified work that already exists on the topic of motivation, years of publishing and the authors of such work on motivation. The keywords for the search included ‘Motivation’ or ‘Job Satisfaction’ or ‘Retention’ and ‘Health Personnel’ or ‘Health Sector’ or ‘Health Worker’. These words were used in addition to others formulated from each database’s thesaurus or MeSH terms.

The discussion below is structured using Franco’s framework (2002), and will also apply the Herzberg approach by classifying the determinants as motivators and hygiene factors (de-motivators), as well as the Ryan & Deci (2000) distinction between intrinsic and extrinsic factors that influence motivation. Using the three frameworks will allow a comprehensive review of the range of factors that influence HW motivation.

Internal/Individual Determinants of Motivation

Health workers have personal internal aspects and goals that they want to achieve as they go about their duties in the health sector. These aspects may vary from

individual to individual, facility to facility and in a nutshell, from environment to environment. The individual variation is likely to be influenced by family obligations and need for personal growth; while the facility and environmental variations are likely to arise from the differences in physical location, resource availability and management practices.

Studies have found that: personal and social expectation; work values; social respect; pride; and desire for achievement may act as internal motivators to HWs (Chandler et al., 2009; Franco et al., 2004; Kontodimopoulos, Paleologou & Niakas, 2009; Malik et al., 2010). These factors are intrinsic and can be considered to enhance the personal motives of individuals and thus increase the willingness to perform work obligations to satisfaction (Franco, Bennett & Kanfer, 2002).

The factors that can be considered as extrinsic motivators are derived from how an organization meets the workers' personal goals or demands. Higher income and remuneration, job stability and security have also been regarded as extrinsic motivators of HWs in the public sector (Chandler et al., 2009; Dieleman et al., 2003; Dieleman et al., 2006; Lambrou, Kontodimopoulos & Niakas, 2010; Mbindyo et al., 2009).

The de-motivators that have been identified include some of the same factors - such as living conditions and distance from partners, lack of appreciation and recognition, lack of knowledge, lack of career development and unmet expectations that causes internal demotivation (Dieleman et al., 2003; Dieleman et al., 2006; Manafa et al., 2009; Mathauer & Imhoff, 2006; Mbindyo et al., 2009). In addition, burnout and emotional drain can also be considered as internal de-motivators or a result of demotivation (Chandler et al., 2009), whereas perceived risk of contracting human immunodeficiency virus and/or tuberculosis has been shown to act as external de-motivators in some hospital environments because of the interactions between HWs and sick patients (Mbilinyi, Daniel & Lie, 2011). Demotivation can therefore arise from the inability of an individual to fulfil their needs or ambitions and from perceived influences from the environment of work.

Organizational or Institutional Determinants of Motivation

The manner in which an organization is run may influence the level of motivation of its workers. The organizational or institutional determinants describe the nature of work and the organizational specifications or requirements to assist HWs in carrying

out their duties. Organizational structures (management and support), processes (information, communication and feedback), culture and feedback influence workers in the performance of their duties and thus have an impact on their motivation. These factors may be summarized as the job characteristics that have an influence over health worker motivation.

The nature of the work itself, such as clear job attributes and description, involvement in decision making, bureaucratic efficiency and management support to HWs, as well as other important factors like good employment benefits, act as motivators (Chandler et al., 2009; Franco et al., 2004; Kontodimopoulos, Paleologou & Niakas, 2009; Mbindyo et al., 2009; Peters et al., 2010). HWs consider these types of managerial actions and processes as important motivational factors and associate them with, for example, respect, recognition, promotion and appropriate communication and feedback channels (Chandler et al., 2009; Mbindyo et al., 2009). Organizational culture can also positively influence worker motivation by allowing for commitment to the organization through good behaviour between co-workers and between managers and workers for effective performance of the organisation (Dieleman et al., 2003; Franco et al., 2004).

On the other hand, organizational factors that have been found to demotivate HWs include: inadequate or lack of resources; equipment and tools for work; and support from the management (Agyepong et al., 2004; Dieleman et al., 2003; Dieleman et al., 2006; Mutizwa-Mangiza, 1998).

Problems in human resource management processes, like infrequent or lack of job descriptions, lack of performance appraisals, lack of or delayed promotion, lack of recognition, and lack of transparency and fairness, have a negative influence on the level of HWs' morale (Agyepong et al., 2004; Chandler et al., 2009; Dieleman et al., 2006; Kyaddondo & Whyte, 2003; Leshabari et al., 2008; Mbindyo et al., 2009; Mutizwa-Mangiza, 1998; Prytherch et al., 2012; Sararaks & Jamaluddin, 1999; Ssenooba et al., 2007). These lead to dissatisfaction and frustrations due to the inability of workers to progress in their careers. General management practices that can also demotivate workers in the health sector, as identified from studies in different contexts, include poor communication and lack of adequate feedback (Dieleman et al., 2003; Leshabari et al., 2008; Manafa et al., 2009; Mbindyo et al., 2009). Inadequate supervision or lack thereof, as a routine practice in hospitals, has

also been implicated as a de-motivator (Manafa et al., 2009; Manongi, Marchant & Bygbjerg, 2006; Prytherch et al., 2012; Ssengooba et al., 2007).

Finally, some studies done in some LMICs have identified low salaries, poor benefits or lack of incentives as causes of demotivation (Agyepong et al., 2004; Dieleman et al., 2003; Kyaddondo & Whyte, 2003; Mbindyo et al., 2009; Mutizwa-Mangiza, 1998; Sararaks & Jamaluddin, 1999; Ssengooba et al., 2007). Misalignment of pay packages of individuals in the same job category or job group is highlighted as a major concern among healthcare providers in developing countries. The organisational factors are, therefore, important in motivating HWs by creating suitable conditions for work and professional skills development.

Socio-Cultural Determinants of Motivation

The culture and shared values of the patients and members of the community surrounding a health facility who interacts with HWs influences how a hospital or clinic as an organization functions and also determines the provider-patient relationships (Franco, Bennett & Kanfer, 2002). The societal cultures - including societal expectations of HWs or health institution - influences work relationships, worker autonomy, worker behaviour, professional progress and timeliness in delivery of services (Franco et al., 2004). Other factors that are also important in this group of determinants include social rewards, trust, respect, appreciation, feedback and recognition from the society (Dieleman et al., 2003; Franco et al., 2004; Leshabari et al., 2008; Malik et al., 2010; Mbindyo et al., 2009; Prytherch et al., 2012).

Organizational weaknesses, for example lack of drugs and essential supplies, lead to complaints and loss of confidence from patients, and thus strains the relationship between healthcare providers and the community, demotivating workers in the health sector (Mbilinyi, Daniel & Lie, 2011). A study in Uganda also identified disagreements within Health Unit Management Committees as having negative impact on HW motivation (Kyaddondo & Whyte, 2003). Family and social time are valued socio-culturally and lack of such time due to excessive workload also demotivates workers (Malik et al., 2010). The understanding of contextual socio-cultural differences is therefore important in worker behaviour that influences their motivation.

The Link between Motivation and Trust in the Health Sector

Some of the empirical literature in this initial scoping review explicitly points to trust as a factor in motivation of HWs (Franco et al., 2004; Malik et al., 2010; Prytherch et al., 2012). In their study on motivation, Peters and colleagues (Peters et al., 2010) found that patient trust has an influence on the level of health worker motivation, whereas Mbilinyi and others (Mbilinyi, Daniel & Lie, 2011) present their findings that - complaints and expectation of trust and recognition impacts on the provider-patient relationship, and hence on worker motivation. Comparably, Gilson and colleagues identified specific components of workplace trust – including respect, competence, management fairness, communication, in-service training, and job security and working conditions as critical in health worker performance (Gilson, Palmer & Schneider, 2005).

Although there is limited inquiry into intrinsic motivators in the broader literature, the scoping review suggests the important role of trust relations in intrinsic motivation. Nevertheless, it is important to note that there is inter-connectedness between intrinsic and extrinsic motivational factors. Trust relations are, therefore, likely to mediate between the different levels of motivation identified, and contribute significantly to health worker engagements and job satisfaction. Gilson and colleagues argues that trust is a potential intrinsic motivator and is a relevant factor that matters in different ways on HW motivation, concluding that more work to investigate its role in motivation is necessary (Gilson, Palmer & Schneider, 2005). Currently, there is no overarching review to consolidate existing evidence base on the link between trust relations and motivation. It is therefore worth exploring, and necessary to understand, the role of workplace trust relations and its link to motivation through further systematic synthesis and analysis of the existing motivational literature.

Understanding the definition of trust is critical in discussing its influences over motivation:

“Trust may be defined as confidence in reliability of a person or system, regarding a given set of outcomes or events, where that confidence expresses a faith in the probity or love of another, or in the correctness of abstract principle (technical knowledge)” (Giddens, 1990 p34).

Trust is also described as a concept that defines a psychological state present between individuals, individuals and organisations, individuals and events, about intentions, motives and anticipated actions of others (Gilson, 2003; Gilson, 2006; Kramer, 1999). This psychological state may be a voluntary action that depends on people's uncertainties and goodwill for future events or a belief in individuals and groups in social systems (Gilson, 2003). In the health sector, analysts attribute trust to the interactions and relationships that exist between HWs and their colleagues, organisations that they work for and their patients (Gilson, 2006).

The attitudes and actions of HWs towards patient care is also influenced by the types of trust relations that they have with the organization, that is, the managers, the supervisors and the organisation's management practices (Gilson, 2003). HWs are likely to trust or distrust an organisation based on the availability of organisational resources for performing their work. In public sector management, trust between employee and management or organisation has been described as employees' willingness to act on the basis of the words, actions and decisions of senior management under conditions of uncertainty or risk (Albrecht & Travaglione, 2003). Therefore, to influence the direction of the relationship between HWs and the organisation, the management must act to provide favourable conditions or organisational processes and resources to motivate workers, make them willing to work, hence consequently improve their trust relations with the organisation.

Trust supports the co-operation that is necessary for health care provision within the health systems (Gilson, 2003). Gilson (2006) outlines the different roles of trust in building relationships in health systems. These roles include provider-patient interactions whereby patients trusts providers' expertise that is important in effective delivery of health care; institutional support within health systems to provider behaviour in the interest of patients; and organisational resource allocations within health systems which also influences the trust between the providers and the patients. Summarily, the ability to arouse trust in the public health sector relies on HWs' interpersonal ingenuity and the systems within an organisation or institution that allows trusting behaviour to cultivate, leading to highly motivated workers willing to perform their duties efficiently.

The determinants of trust identified in organisational literature, therefore, are important in influencing the attitudes and behaviours of HWs. Furthermore, such factors may forecast values that advance behaviour, and thus playing a role on

individuals' motivations and intentions (Gilson, 2006), or in some instances, patients believing that most doctors are competent and adequately motivated to fulfil their health care needs (Mechanic & Meyer, 2000). The norms and regulations within the organisation also influence HW behaviour that contribute to trust relations (Gilson, 2006). The communication processes and feedback mechanisms through informational and emotional support are important aspects of such norms that give rise to perceived trust between colleagues in an organisation and between HWs and patients (Gilson, Palmer & Schneider, 2005; McDonald, Jayasuriya & Harris, 2012; Ommen et al., 2008). Empirical literature identifies similar factors as critical in motivation of HWs (Chandler et al., 2009; Dieleman et al., 2003; Franco et al., 2004; Mbindyo et al., 2009; Ssenogooba et al., 2007).

A detailed conceptual framework is important in aiding studies and scrutiny of trust in the health sector (Hall et al., 2002). One conceptual framework that assists in exploring the causes and effects of trust in senior management has been discussed in public sector management (Albrecht & Travaglione, 2003). This framework considers; fairness and transparency in decision making, organisational support, job security and communication openness as determinants of trust in organisations. Meanwhile, the outcomes of trusting behaviour are outlined as workers' emotional attachment, feeling of obligation to the organisation and fear of losing their job. These are factors that have also been identified in this review as important influencers of HW motivation.

Of more relevance, the Gilson and colleagues workplace trust conceptual framework (Figure 2) identifies two types of trust important in the health sector. These are workplace trust and provider-patient trust. Provider-patient trust is further described as being based on inter-personal trust, linked to provider characteristics and behaviour, and, institutional trust which comprises the practices and procedures that allow providers to act in the best interest of patients (Gilson, Palmer & Schneider, 2005). Broadly, the framework describes workplace trust as respectful and fair treatment in workplace and involves worker's trust in the employing organisation, trust in supervisor and trust in colleagues.

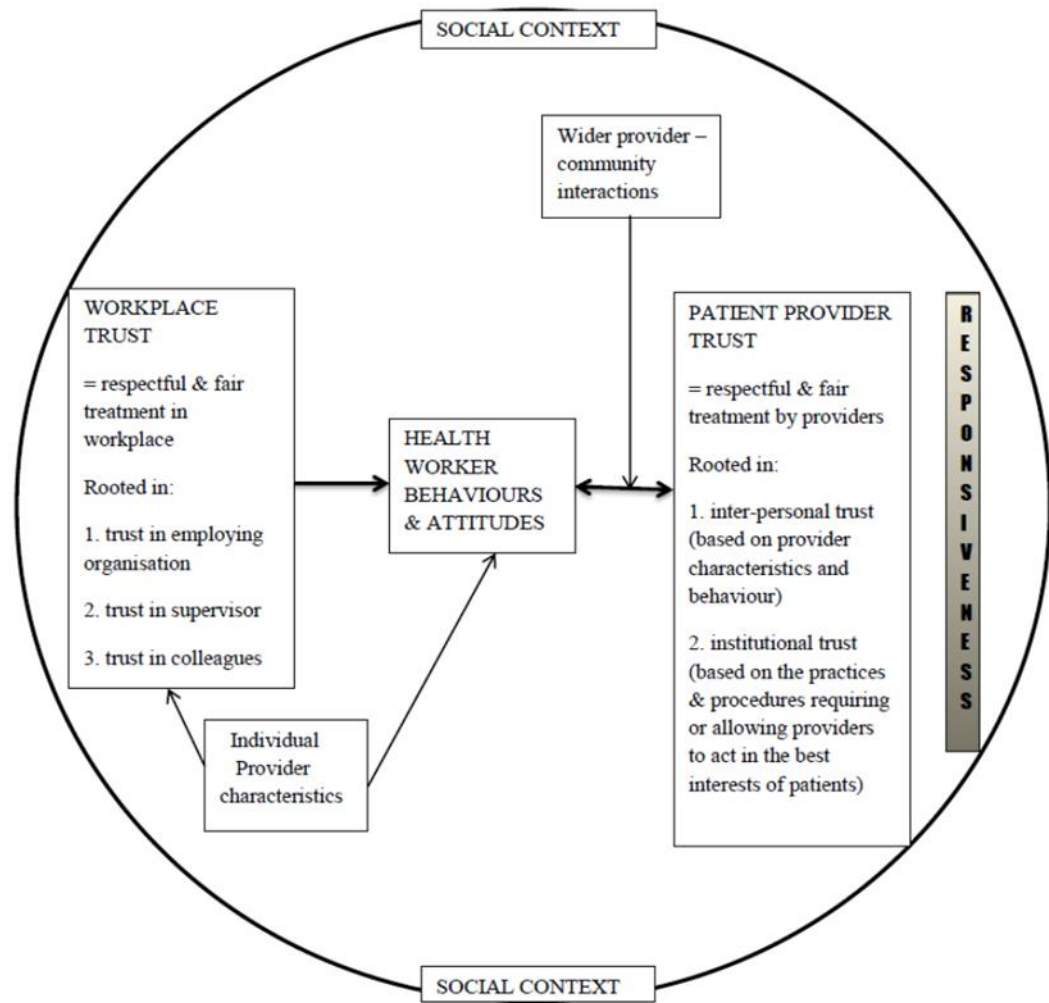


Figure 2: Conceptual Framework (Gilson, Palmer & Schneider, 2005)

Conclusion

The literature identifies major influences over motivation as being internal or individual, organizational or institutional and socio-cultural. The internal factors that motivate workers include workers' goals, motives, self-esteem and desire for achievement. Organisational factors that determine health worker motivation are related to the organisational management structures, processes and resources; while the socio-cultural factors include cultures, social rewards, social respect, and other factors that play a role in the relationship between the HWs and the community that surrounds them.

Specific questions that warrant more investigation on HW motivation needs answers. For example, as posited by Franco and colleagues (Franco et al., 2004) – which

motivational constructs are relevant in particular developing and transition country healthcare settings and how do demographic factors (profession, gender, age and type of hospital) affect them? Although there is a paucity of empirical research on HW motivation in developing countries, it does suggest both the importance of intrinsic motivation in general and of trust as an intrinsic motivator more specifically. Further review of the existing motivation literature is, therefore, useful to tease out current evidence on the role of trust, as a basis for considering future empirical work focussed more explicitly on trust as a motivating factor.

A systematic review to gather evidence on the influence of trust relations on HW motivation is likely to guide critical reflections, and offer opportunities for primary research to reduce the knowledge gap in this largely unexplored area of human resources for health. In addition, the available literature suggests that in considering trust, it is important to look at factors that are directly or indirectly linked to trust and relationships. Examples of such direct and indirect words, phenomena and experiences include; trust, respect, appreciation, job security, job stability, communication and feedback mechanisms, supervision, transparency and involvement in decision making, promotion, confidence and fairness, management support and other organizational processes and resources.

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Part C: Journal Manuscript

Selected Journal: Human Resources for Health

Contents

Abstract	1
Keywords:	2
Introduction	2
Methods	5
Search strategy	5
Article selection	5
Quality review and data extraction and analysis	6
Results	7
Characteristics of selected articles	7
Major themes related to trust and motivation	21
Trust relations with colleagues	22
Trust relations with supervisors and managers	23
Trust relations with employing organisation	25
Trust relations with patients	26
Discussion	27
Conclusion	31
List of abbreviations	31
Competing Interests	31
Author's contribution	31
Author's details	32
Acknowledgements	32
References	32

Trust and motivation in the health sector: a systematic review

Dr. Dickson R. O. Okello[†]

Abstract

Background: Dedicated and motivated health workers (HWs) play a major role in delivering efficient and effective health care services, and are likely to improve patients' experience in their health seeking behaviour. Workplace trust relations involves fair treatment and respectful interactions between individuals. Trust relations enable cooperation among HWs and their colleagues, supervisors, managers and patients. Despite the possible role of trust as a source of intrinsic motivation, the influence of trust relations over HW motivation has not been investigated. This paper presents findings from a qualitative systematic review of empirical studies providing evidence on the determinants of motivation, to specifically consider the influences and determinants of workplace trust relations over motivation.

Methods: Five electronic databases were searched for articles reporting research findings on motivation of all or different cadres of HWs and relevant policy makers, published for the ten year period 2003 to 2013 and with available full free text in English language. Data extraction involved consideration of the links between trust relations and motivation, by identifying how studies directly or indirectly mention and discuss relevant factors.

Results: Twenty-three articles from low and middle income countries and seven from high income countries that met a predetermined quality and inclusion criteria were appraised and subjected to thematic synthesis and analysis. Motivational factors linked to trust include: respect; recognition, appreciation and rewards; supervision; teamwork; management support; autonomy; communication, feedback and openness; and staff shortages and resource inadequacy. Workplace trust relations with: colleagues; supervisors and managers; employing organisation; and patients, directly and indirectly influence HW motivation.

Conclusion: To the author's knowledge, this is the first systematic review on trust and motivation in the health sector. Evidence indicates that workplace trust relations

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do have impact on the intrinsic motivation of HWs, and have consequences for retention, performance and quality of care. Human resource management and organisational practices are critical in workplace trust and HW motivation. There is need for research on how trust relations and motivation interact and operate for retention, performance and quality of care. Assessment of the levels of motivation, values and factors that encourage workplace trust relations should be undertaken.

Keywords: Motivation, Workplace trust, Trust relations, Health workers, Employing organisation.

Introduction

Health workers (HWs) form the backbone of any health system. Their morale and behaviour therefore have an important influence over health system performance – including the achievement of universal health coverage [1]. Reports suggest, however, that levels of morale within the health sector in LMICs are worryingly low [2, 3]. Indeed, low motivational levels have been associated with poor performance [4] and lack of retention [5]. Partly as a result, the migration of HWs is alarmingly high, especially in LMICs [6-8].

Motivation is understood as a behavioural, affective and cognitive process that influences the willingness of workers to perform their duties in order to achieve personal and organizational goals, and so the extent and level of their effectiveness at work [9, 10]. Theories have been developed and used for research and understanding of this complex phenomenon [10-15]. Yet despite on-going research, there is still a dearth of empirical literature on motivational determinants and/or its links with other important phenomena like trusting relations in the health sector [10, 16].

The influences over motivation generally are varied and context specific [5, 10]. Research indicates that HWs tend to be demotivated by a range of factors that include an absence of opportunities for promotion and a lack of confidence in their superiors – who often lack skills in managing interpersonal relationships, time management and resource allocation [4]. Moreover, HW availability, competency, responsiveness and productivity are widely considered as key indicators of HW performance [17]. These key indicators are likely to be influenced by HW shortages due to migration from rural to urban or LMICs to HICs, inadequate compensation and inadequate human resource management (HRM) practices due to poor

motivational levels [18]. To make matters worse, most HWs are poorly remunerated [2], which further undermines their morale.

Possible interventions to improve HW morale must, therefore, address both extrinsic and intrinsic motivation [14]. Analysts recommend different ways to improve extrinsic motivation of HWs, including: financial and non-financial incentives, conducive work environments, professional development and supportive health system [19-23]. Interventions focused on extrinsic motivation alone can, moreover, undermine the intrinsic motivation of individuals [14, 22]. Interestingly, some contend that non-financial incentives such as managerial supervision, self-efficacy, autonomy, competence and workers' sets of values also play critical roles in their behaviour [1]. Surprisingly, intrinsic motivation and its determinants - including relationships and trust as an intuitive factor [24-25] - that affect HWs have not been adequately monitored and examined in the broader literature.

Trusting workplace relations have been identified, but are not yet fully investigated, as potentially important sources of intrinsic motivation [16]. The Gilson and colleagues trust conceptual framework [16], shown in Figure 1, describes workplace trust as a phenomenon that involves the fair treatment and respectful interactions between individuals in the health sector. The different dimensions of this form of trust, as outlined in the framework, include: trust in employing organisation that is influenced by leadership and HRM practices; trust in supervisor that is related to personal behaviours and which may have an impact on trust in the organisation; and, trust in colleagues that is linked to teamwork and shared experiences. The factors that allow for the development of workplace trust also allow patients to believe that HWs are both competent enough and demonstrate the positive attitudes towards them that enable their health care needs and expectations to be met [24-27]. Similarly, positive engagements with patients themselves also motivate HWs leading to the interaction between workplace trust and provider-patient trust [16]. This framework is useful in analysis and identification of personal and institutional elements of trust relations within its three dimensions.

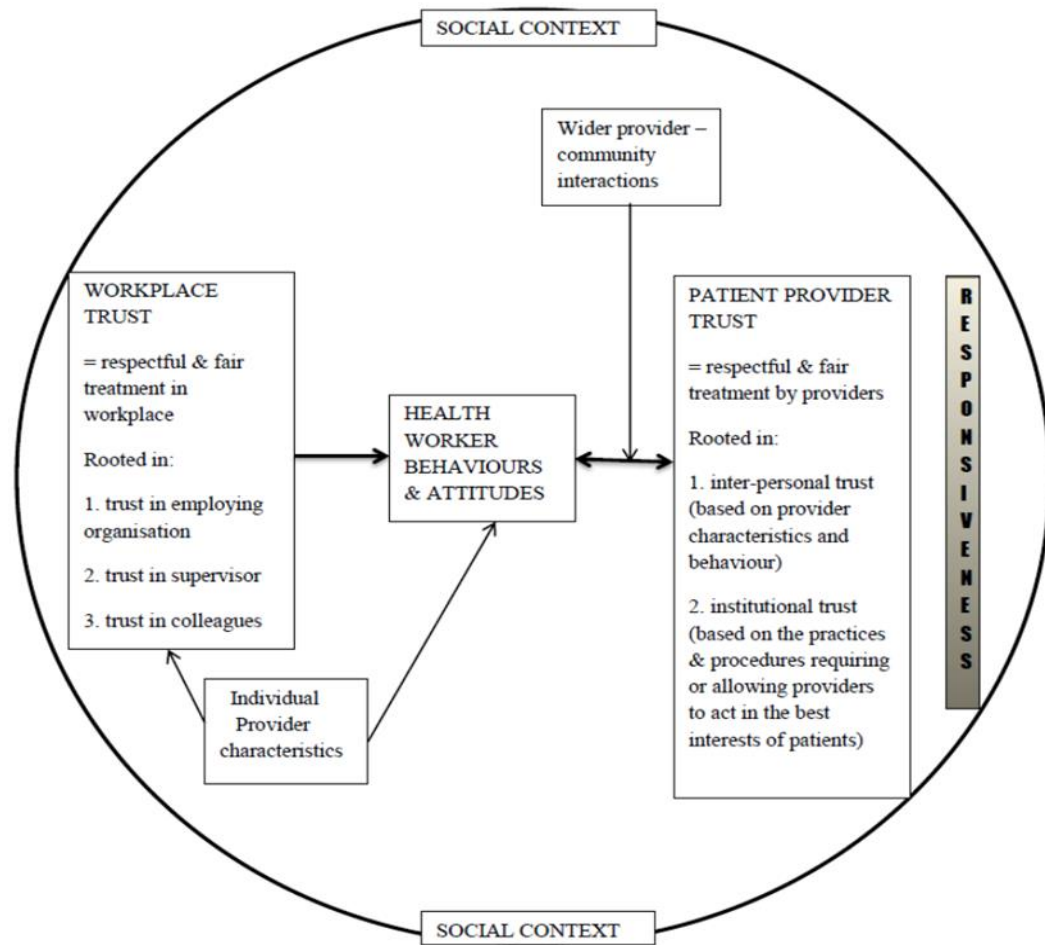


Figure 1: Trust Conceptual framework [16].

From broader organisational literature, possible influences over workplace trust could be; communication standards, feedback mechanisms, competence, performance appraisal and reward systems, job security and organisational support and procedures - including decision-making practices [28]. These determinants affect the levels of organisational relations and may present values that promote workers' attitudes and behaviours, thus having an influence on their motivations and intentions to perform their duties [25, 26, 28, 29].

This review, therefore, seeks to answer the question: Do workplace trust relations influence the motivation of HWs, and if so, how? The objective is to identify, synthesize and evaluate existing literature on the links between workplace trust relations and HW motivation in the health system. It is important in: contributing to the literature on motivation in the health sector, identifying opportunities for further

empirical research, and informing policy discussions about how to influence HW motivation in LMICs.

Methods

To undertake this review, a comprehensive systematic process was used to identify and consolidate existing literature on motivation. Qualitative systematic review was chosen to help minimize researcher or findings bias in analysing and synthesising reported findings from different empirical studies [30-33]. Formal ethical considerations or confidentiality procedures were not needed for this review because only publicly available and published data were accessed and utilised.

Search strategy

Five electronic databases considered as sources of relevant literature on the topic of review were searched. These are: Pubmed/Medline, Cumulative Index of Nursing and Allied Health (CINHAL), PsycINFO, Africa–Wide Information, and Scopus. CINHAL, PsycINFO and Africa-Wide information were searched independently via EBSCOhost. The keywords and MeSH Terms for the review included ‘Motivation’, ‘Job Satisfaction’, ‘Attitude of Health Personnel’, ‘Retention’, ‘Trust’, ‘Workplace trust’, ‘Relationships’, ‘Interpersonal relations’, ‘Health Personnel’, ‘Health Sector’ and ‘Health Worker’. These terms, in addition to other words, were applied appropriately to each database. The identified studies were then transferred to a reference manager, Refworks (Copyright© 2009), to save and facilitate scanning of the titles and abstracts for the inclusion and exclusion criteria.

Article selection

For inclusion, the article had to report findings of empirical studies on motivation of all or different cadres of employed HWs. Given that the preliminary electronic search revealed limited literature on HW motivation in LMICs, the search was widened to include evidence from high HICs. However, only few articles were identified from HICs. This could have been limited by the predetermined inclusion and exclusion criteria. All relevant empirical studies that utilised qualitative, quantitative and mixed method approaches were considered for this review. Original and review journal articles with available free abstract and full text were identified from the databases.

The inclusion criteria also limited studies to the period from 2003 to 2013, a period deemed appropriate to encompass the most recent relevant literature, and to papers published in English. The exclusion criteria were 1) studies not related to motivation and/or motivation in the health sector; 2) studies published prior to the year 2003; 3) studies published in languages other than English; 4) articles or citations without abstract; 5) studies that do not imply or discuss relevant findings on motivation in the full text. To identify relevant studies for review, the titles and abstracts were screened against the inclusion and exclusion criteria after removing duplicates from the combined search output. Full text reading of identified studies was subsequently done and final review articles selected.

Quality review and data extraction and analysis

Appraisal of selected articles was through assessment of their appropriateness according to the study design, the sampling strategy used, data collection approaches, ethical consideration, data analysis, presented findings, and, author's discussion, conclusions on the findings and reflexivity. Reviewers acknowledge difficulty and disagreements in appraisal of qualitative studies and have suggested criteria with specified guidelines for judging suitability of studies in qualitative systematic review [31, 34-36]. The Critical Appraisal Skills Programme (CASP) criteria were chosen to assist with the appraisal of selected articles [37]. CASP criteria were used to judge the quality of the selected papers by assessing their rigour, research methods, credibility and relevance to the review. Papers that were deemed to be of poor quality against the CASP criteria were excluded from further review.

The data extraction form was used as a data registry and to guide the extraction, analysis and synthesis of the selected articles. The Franco and colleagues motivation framework [10] was used to extract data after which the Gilson and colleagues trust framework [16] was employed in categorising the data into review findings. The extraction involved line-by-line coding during detailed reading of the findings and discussion sections, to identify factors that determine motivation and recurrent issues on how trust relations influence motivation. Consideration was given to how studies directly or indirectly mention and discuss factors or experiences that are relevant to trust relations - for example; management support, job security, job stability, supervision, involvement in decision making, promotion, and other organizational processes and resources [28]. These words and experiences enabled the identification

and description of important workplace trust relations themes. Examples of other words that directly or indirectly imply trust and relationships that were considered as indicative of trusting relations include: trust, rewards, respect, recognition and appreciation, transparency, communication and feedback mechanisms, confidence and fairness among others.

Thematic synthesis [32, 35, 38, 39], was then used to analyse and synthesize the selected articles. First, the author utilised detailed line-by-line reading of the findings and discussion sections to identify and highlight recurrent words that are directly or indirectly important in motivation. All relevant texts, verbatim quotes and author's interpretations were given considerations. These words (outlined above) formed the basic codes that guided the subsequent steps of analysis. Second, the expected research themes from theoretical and conceptual frameworks that directly relate to trust relations influence over motivation, were identified by grouping and organising the generated codes. The main themes identified in this descriptive stage were trust relations between HWs and: colleagues; supervisors; managers, employing organisation; and, patients. Third, indirect codes or words that relate to workplace trust relations identified in descriptive stage and as interpreted by the author formed the analytic themes. The analysis was done iteratively to reveal the most recurrent themes that determine motivation and the underlying influences of trust over it.

Results

Characteristics of selected articles

More than 17000 citations were retrieved from the initial search. A total of 42 articles were selected for full text reading and analysis upon screening of the titles and abstracts. After full text reading, finally, thirty articles that met the full inclusion and quality criteria were considered for this review as indicated in Figure 2. Summary of the included articles is outlined in Table 1. Twelve articles that clearly met one or more of the exclusion criteria and whose quality was judged as poor based on the appraisal tool were eliminated from this review (Table 2).

The selected articles were studies carried out in Africa-19, Asia-4, Europe-4, Australia-2 and Oceania-1. From Africa, Tanzania had 9 articles, representing a third of the studies reviewed. Three articles were multi-country studies. The reason as to why Tanzania had high output of articles on HW motivation could not be deduced.

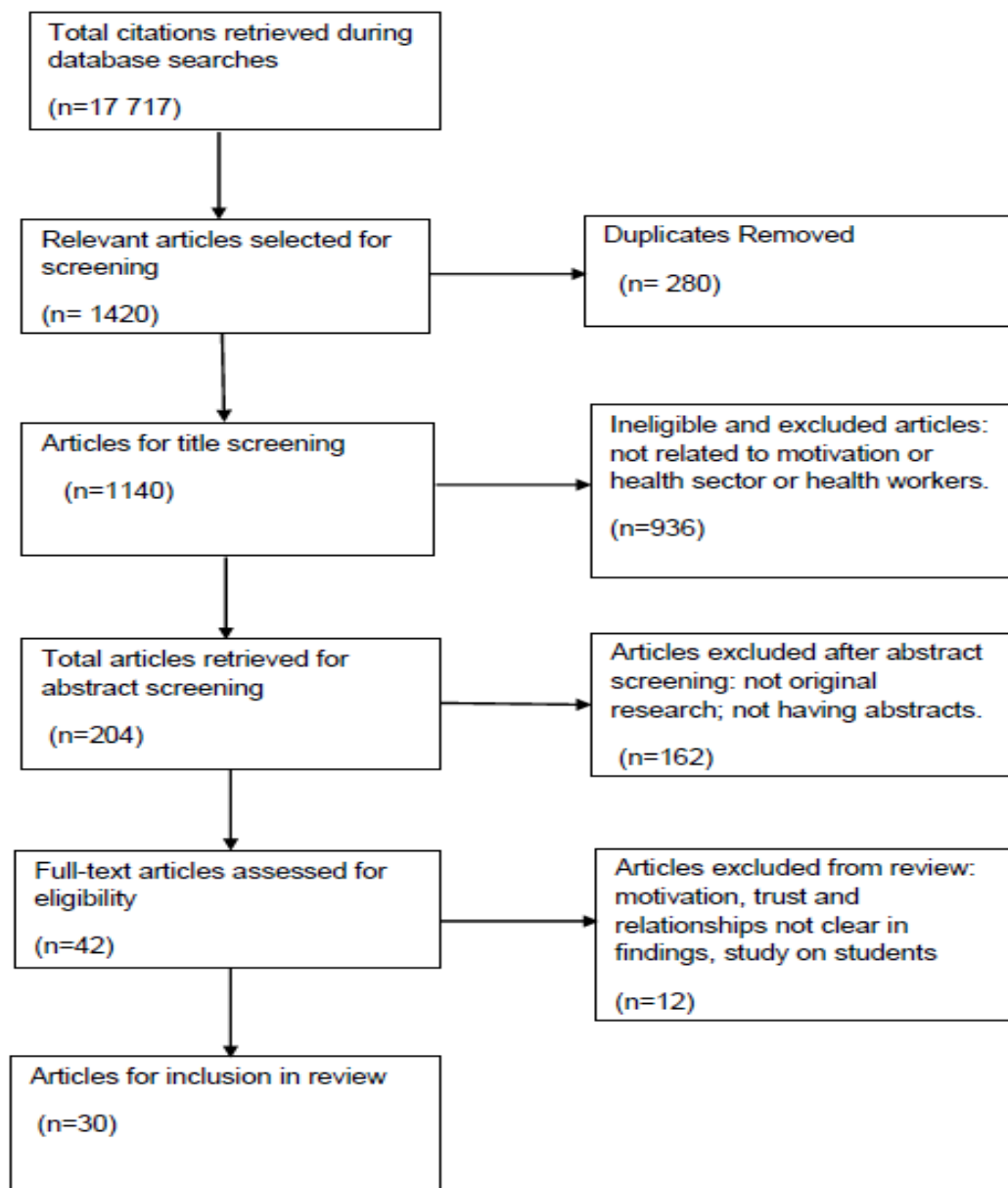


Figure 2: Search flow chart

With regard to research methods, 14 of the selected articles used qualitative approaches, 10 used quantitative approaches while 6 utilised a mix of both qualitative and quantitative approaches. With respect to study participants, half of the articles under review focused on all cadres of HWs in the respective countries of study, with some involving policy level informants from the respective ministries of health. Four articles specifically dealt with motivation amongst nurses, five included all cadres of HWs and patients or community members, four community HWs only, one practising surgeons and one non-physician clinicians.

Table 1: Summary of articles under review

Author(s) & year of publication	Country of study	Study objective(s)	Study population	Methodology	Data analysis	Study findings
Agyepong et al. 2004 [40]	Ghana	Description of factors that influence HW job satisfaction and motivation	HWs across public health facilities in Greater Accra region	Continuous quality improvement Structured questionnaires	Statistical/pareto analysis	Workplace obstacles such as salaries, lack of equipment, tools and supplies influence HW motivation
Alhassan et al. 2013 [41]	Ghana	-To explore the quality of care and patient safety situation in health facilities accredited by Ghanaian National Health Insurance Authority and identify associations with HW motivation	Clinical and non-clinical HWs	Structure questionnaires based on in-depth interviews	Statistical analysis with STATA version 12	Low motivational levels. HWs dissatisfied mainly with non-financial incentives including transport to work, career development prospects and poor relations due to resource inadequacy at workplace. Membership in professional associations had positive influence in their professional practice.
Campbell et al. 2011 [42]	Zimbabwe	-To examine nurse's motivation and frustration in the context of the roll-out of antiretroviral treatment in Zimbabwe	Nurses, HIV counselors, nurse-pharmacist, nurse assistant and administration clerks.	In-depth interviews, FGDs and ethnographic observation	Thematic analysis	HWs' motivation to provide high-quality antiretroviral treatment influenced by; patients' emotional improvement and recoveries, patient commitment to treatment, and personal experiences for compassion. HWs demotivated by staff shortages, inadequate medicines and equipment, low salaries and losing patients' confidence.

Author (s) & year of publication	Country of study	Study objective (s)	Study population	Methodology	Data analysis	Study findings
Chandler et al. 2009 [43]	Tanzania	-To evaluate factors that affect motivation and levels of motivation amongst non-physician clinicians	Non-physician clinicians	Interviews and FGDs; Quantitative survey instrument	Thematic analysis and statistical analysis	Salary ranked as the most important source of motivation. Non-financial factors that influence motivation include: social status expectations, working environment and relationships with different cadres.
Dickin, Dollahite & Habicht 2011 [44]	USA	-To identify important sources of motivation to facilitate the development of strategies to enhance community HW motivation and enhance performance and program effectiveness.	Community nutrition educators	Qualitative in-depth interviews Quantitative surveys and supervisor questionnaire	Coding using constant comparative approach and thematic analysis using ATLAS/ti software.	Community nutrition educators mentioned several factors as motivators, including: interest in educating people on food and nutrition, caring relationships developed among participants and the educators, freedom to make job related decisions, relationships with supervisors and the team, and good health benefits
Dieleman et al. 2003 [45]	North Viet Nam	Perceptions on what motivates and demotivates HWs; Perceptions of HWs & managers on HRM tools; Perceptions of community members.	Policy makers & managers; HWs (ass. Doctor, nurses, midwives); community members	Semi-structured Exit interviews Focus Group Discussions (FGDs)	Qualitative data analysis	Financial and non-financial incentives influence motivation, especially; appreciation by managers, colleagues & community, stable job, income & training.

Author (s) & year of publication	Country of study	Study objective (s)	Study population	Methodology	Data analysis	Study findings
Dieleman et al. 2006 [46]	Mali	-To describe HWs motivation & demotivation factors and match motivators with implementation of performance management	Managers; HWs; Village committee members	In-depth interviews & FGDs; Cross-sectional descriptive survey (questionnaire)	Statistical analysis (SPSS) Triangulation of qualitative data and survey	Salary, responsibility, training, recognition and rewards. Performance management like; job descriptions, supervisions, continuous education and performance appraisal influences motivation.
Franco et al. 2004 [47]	Jordan & Georgia	Identify motivational determinants in LMICs public health sector. Identify interventions & strategies for health care reforms to facilitate HW motivation.	Two public Hospitals in each country. Key informants at hospital & ministry Health managers, supervisors, HWs and patients	Contextual analysis (qualitative interviews & document reviews). 360-degree assessment (qualitative & quantitative, structured interviews). In-depth analysis.	Statistical analysis using psychometric scales	Financial and non-financial determinants at individual, socio-cultural and organizational levels.
Greenspan et al. 2013 [48]	Tanzania	-To explore sources of community HWs motivation to inform programs in Tanzania and similar contexts	Community HWs	Semi-structured in-depth interviews	Thematic analysis	Levels of motivation identified as individual, family, community and organizational. Families and communities providing moral and financial support, recognition and encouragement. At organizational level, monetary support, job security, tools and supplies for work, training and supervision considered as motivational factors.

Author (s) & year of publication	Country of study	Study objective(s)	Study population	Methodology	Data analysis	Study findings
Hegney, Plank & Parker 2006 [49]	Australia	-To identify intrinsic and extrinsic work values that influence job satisfaction	Public, private and aged care Nurses	Survey questionnaire	Statistical (SPSS) analysis Thematic analysis of qualitative data from questionnaire	Remuneration, rewards, working conditions, work stress, autonomy and social relations at work affect job satisfaction and intention to leave employment
Kahler et al. 2012 [50]	Denmark	-To explore motives for choosing employment at either public or private hospitals in a group of Danish surgeons. -To examine effects of organizational characteristics on motivation	Surgeons	Qualitative interviews	Phenomenological/thematic analysis	Motivational factors that were identified include; possibility to provide optimal patient care, having influence on the job, challenging work tasks, relationships with colleagues and ideological reasons
Kok & Muula 2013 [51]	Malawi	-To identify factors that influence motivation and job satisfaction of health surveillance assistants in Malawi, in order to inform development of strategies to influence staff motivation for better performance	Health surveillance assistants	Key informant interviews, FGDs and a group discussion with supervisors. Questionnaire for household survey of surrounding community	Coding framework for qualitative data analysis. Statistical analysis using SPSS version 17 for quantitative data analysis	Study found that salaries were low with no opportunity for promotion, and that there were heavy workload with no job descriptions and lack of opportunities for training. The workers were further demotivated by lack of transport, lack of recognition from supervisors and management, limited supervision and lack of communication.

Author (s) & year of publication	Country of study	Study objective (s)	Study population	Methodology	Data analysis	Study findings
Kontodimopoulos, Paleologou & Niakas 2009 [52]	Greece	-To identify motivational factors of health professionals, and to determine if the factors differ in the public and private sectors.	Doctors, nurses and office workers in 13 hospitals	Quantitative: 28 item questionnaire survey	Statistical analysis (SPSS)	Both monetary and non-monetary factors determine HW motivation. Achievement, remuneration, working relationships with co-workers and job attributes influences HW motivation. Health professionals in private hospitals were motivated more than those in public hospitals.
Kudo et al. 2010 [53]	Japan	-To examine associations between work motivation and job satisfaction among Japanese nurses to improve their motivation	Nurses	Self-administered questionnaires	Statistical analysis	Nurses do not only feel motivated by money, but also by: their work as specialists, workplace safety, relationships with superiors, work-life balance, relationships among themselves and communications with physicians
Kyaddondo & Whyte 2003 [54]	Uganda	To study the effect of decentralization and policy reforms on HW motivation	4 health units Health managers, health unit management committee and health unit workers	Interviews, document reviews, FGDs & observation	Qualitative data analysis	Decentralization is critical to professional autonomy, recognition, coping strategies and demotivation

Author (s) & year of publication	Country of study	Study objective (s)	Study population	Methodology	Data analysis	Study findings
Lambrou, Kontodimopoulos & Niaka 2010 [55]	Cyprus	-To investigate how medical and nursing staff of Nicosia General hospital is affected by specific motivation factors, and the association between motivation and job satisfaction. -To determine the motivational drive of socio-demographic and job related factors in terms of improving work performance	Doctors, dentists and nurses	Cross sectional survey (questionnaire)	Statistical analysis	Achievements were ranked as the top main motivator followed by remuneration, co-workers and job attributes. Female HWs were more motivated by remuneration compared to male HWs. Professional relationships with colleagues and supervisors was identified as a source of satisfaction and motivation
Leshabari et al. 2008 [56]	Tanzania	-To measure the extent to which HWs at Muhimbili National Hospital were satisfied with their work. -To identify factors associated with low motivation in the workplace	Doctors, nurses, auxiliary clinical workers and, administrative and support staff.	Structured interviews (Cross sectional study)	Statistical analysis (SPSS)	HW dissatisfaction and low motivational levels due to: low salaries, lack of equipment and drugs, inadequate performance evaluation and feedback, poor communication channels in different units (and between workers and management), lack of participation in decision making, lack of concern for HWs' welfare by management.

Author (s) & year of publication	Country of study	Study objective (s)	Study population	Methodology	Data analysis	Study findings
Malik et al. 2010 [57]	Pakistan	-To identify the determinants of job motivation among physicians	Physicians from public primary, public secondary and public and private tertiary health facilities.	Open-ended questions, semi-structured self-administered questionnaires and in-depth one-on-one interviews	Thematic analysis and statistical analysis.	Motivating factors mainly intrinsic and socio-cultural, including serving people, respect, and career growth and personal safety. Demotivators included few opportunities for higher qualifications, resource unavailability, poor supervision and poor interpersonal relations.
Manafa et al. 2009 [58]	Malawi	-To explore how clinical health officers are managed and motivated and the impact this has on their performance.	District managers, Ministry of Health officials and different cadres of HWs.	FGDs, Key-informant interviews,	Thematic analysis	Continuous education, career progression, supervision and feedback on performance considered inadequate by HWs, while performance appraisals and clear job descriptions were non-existent. District managers did not perceive these factors as having an impact on motivation
Manongi, Marchant & Bygbjerg 2006 [59]	Tanzania	-To explore the experiences of HWs working in the in primary health care (PHC) facilities in Kilimanjaro Region -Identify areas for sustainable improvement to services provided by HWs	Multiple cadres of HWs in PHC facilities three districts District Medical Officers	2 FGDs in each of the 3 districts Semi-structured interviews	Thematic analysis	Staff shortages, poor supervision from managers, lack of transparency in career development opportunities

Author (s) & year of publication	Country of study	Study objective (s)	Study population	Methodology	Data analysis	Study findings
Mathauer & Imhoff 2006 [60]	Benin & Kenya	To assess the role of non-financial incentives for motivation	Doctors and nurses in rural areas. Ministry of Health officials	Semi-structured qualitative interviews FGDs	Statistical (SPSS) analysis of quantitative and coded qualitative data	Appreciation of professionalism, recognition, career development, supervision, participation in decision making, performance appraisals and team-based performance management influences motivation.
Mbilinyi, Daniel & Lie, 2011 [61]	Tanzania	-To explore the challenges generated by HIV care and treatment and their impact on HW motivation in Mbeya Region.	Different cadres of HWs	Qualitative in-depth interviews	Qualitative framework analysis and thematic analysis	Demotivation due to: risk of contracting HIV and tuberculosis; lack of acknowledgment and appreciation from managers and community; staff, drugs and essential supplies shortages; poor infrastructure; favouritism; and, relationships between HWs and colleagues and with the community.
Mbindyo et al. 2009 [62]	Kenya	-To explore contextual influences on HW motivation	HWs and key informants in 8 rural district hospitals	Individual In-depth interviews, small group interviews, FGDs and observation	Thematic analysis using NVIVO7 software	Management practices at hospital level influences HW motivation. Supportive leadership fosters good working relationships, improves motivation through incentives, promotions, performance appraisals and good communication processes. Poor schemes of service demotivates.

Author (s) & year of publication	Country of study	Study objective (s)	Study population	Methodology	Data analysis	Study findings
Mubyazi & Njunwa 2012 [63]	Tanzania	-To describe the supply related drivers of motivation and performance of HWs in administering preventive treatment of malaria at ante-natal clinic services in public and private facilities.	Clinical officers, nursing officers, midwives, laboratory personnel, nurse auxiliaries, public health nurses, maternal and child health aides, and health assistants.	Field observations, Document reviews, in-depth interviews and questionnaire with a mix of closed and open-ended questions.	Content analysis of qualitative data and statistical analysis of quantitative data (STATA 8.2)	Dissatisfaction and performance constraint due to poor working environment, understaffing, poor supervision, limited career development opportunities and poor health facility infrastructure and staff houses. HWs in private facilities more motivated compared to those in the public facilities.
Newton et al. 2009 [64]	Australia	-To identify what motivates individuals to engage in nursing career.	Registered nurses and nurse managers	Semi-structured interviews, surveys and fieldwork observation	Thematic analysis	Desire to help, a caring motive, sense of achievement and self-validation were identified as factors that influences nurses' motivation
Peters et al. 2010 [65]	India	-To identify important aspects of HW satisfaction and motivation in two Indian states in both public and private sectors.	Doctors, nurses and other HWs.	Cross sectional questionnaire survey using a 17-item instrument	Statistical analysis	Non-financial motivators identified include good working relationships with co-workers, workplace environment, and opportunities for personal development, recognition and autonomy. Good financial remuneration also considered as an important motivator.

Author (s) & year of publication	Country of study	Study objective (s)	Study population	Methodology	Data analysis	Study findings
Prytherch et al. 2012 [66]	Tanzania	-To explore HWs understanding of motivation -To explore factors that encourage or discourage providers of maternal and newborn healthcare in rural areas -To explore factors that influence rural HWs performance and job satisfaction	Maternal and newborn HWs in rural settings	In-depth interviews	Thematic analysis using NVivo v9 software	HWs had understandings of motivation. Identified motivators or source of satisfaction included community appreciation, perceived government and development partner support, on-the-job learning. Discouragements were related to poor security, health and safety, lack of job descriptions, problematic supervision and performance appraisal
Prytherch et al. 2013 [67]	Burkina Faso, Ghana & Tanzania		Maternal and neonatal health care providers, policy level informants district and facility level managers	In-depth interviews	Thematic analysis	Most community HWs mentioned that they were drawn to the profession for altruistic reasons. Other than salaries and incentives; good relationships with managers, supervisors, patients and community also influenced motivation. Problems in rural areas like availability and cost of water and electricity, difficult working conditions, distance to one's family and lack of information demoralized the HWs.

Author (s) & year of publication	Country of study	Study objective (s)	Study population	Methodology	Data analysis	Study findings
Razee et al. 2012 [68]	Papua New Guinea	-To investigate social factors that leads to motivation of staff working in and affect performance of lower level health facilities in rural PNG.	Health extension officers, community HWs and nursing officers.	Face-to-face Semi-structured in-depth interviews	Thematic analysis (NVivo 8.0 software)	Good relationships with staff, community and friends, and cooperation and responsibility from the patients were mentioned as motivators. HWs were unhappy with poor communication and interpersonal relations, lack of trust and respect, societal expectations around women, workplace safety and security.
Siril et al. 2011 [69]	Tanzania	-Assessing individual and site-related factors associated with HW reported stress, motivation and perceived ability to meet the needs of patients enrolled in PEPFAR supported public sector HIV clinics. -To identify areas for improvement to promote staff retention of HWs in resource limited settings.	HWs at HIV and treatment centers	Self-administered questionnaire	Statistical analysis in SAS 9.1.	Half of the respondents felt motivated to perform their jobs. Motivation was influenced by: Specialized training, adequate supervision, ability to meet patient needs, teamwork with good understanding, respect and good communication among staff members, good working environment and availability of equipment and supplies Lack of feedback on performance demotivated HWs.

Author (s) & year of publication	Country of study	Study objective (s)	Study population	Methodology	Data analysis	Study findings
Zinnen et al. 2012 [70]	Tanzania	-To contribute to empirical evidences on human resources for health motivation by assessing the role of financial and non-financial incentives, and measuring the reasons to stay working in rural areas	Different cadres of HWs and district/council health management team.	In-depth interviews with key informants, structured questionnaires with closed and open-ended questions, and document and reports review	Coding and analysis using MAXQDA software version 2007. EpiInfo software version 3.5.3 for quantitative data analysis.	High staff stability in public health facilities. HWs motivated by better job security, salary and retirement benefits, supportive supervision and support for career development. Dissatisfaction was due to inadequate work equipment, staff shortages, heavy workload, favouritism in allocations for allowances and further training,

Table 2: Excluded articles

Studies excluded from the review	
Study	Reason for exclusion
Agyei-Baffour et al 2011 [71]	The paper assessed the influence of intrinsic and extrinsic motivation on willingness to accept postings to rural areas among medical students. The study group did not represent HWs and thus did not meet full inclusion criteria.
de Guzman 2009 [72]	This article was a phenomenological study of motivation and attitudes of six nurses toward geriatric care. The findings and discussion lacked relevance to the review hence exclusion because they failed to meet the quality criteria based on the CASP tool.
Gambino 2010 [73]	The paper reported findings from a study of the relationships between registered nurses' motivation for entering the profession, occupational commitment and intent to remain. It utilised a mix of students and nurses at a university medical centre hence was excluded because it did not meet the full inclusion criteria. It also failed to meet the quality criteria based on the assessment/quality appraisal tool, CASP, the findings dwelt on transformative change and were adjudged irrelevant to this review.
Helminck et al 2011 [74]	The article reported findings from a study that examined factors explaining motivation among HWs to implement a single programme to support prevention and treatment of type 2 diabetes mellitus. Despite having strong theoretical and methodological background, the findings lacked credibility and relevance to the review question and objectives.
Imai et al 2010 [75]	The article was based on a study on factors associated with motivation and hesitation of health professionals during a public crisis in Japan. It was excluded because it only considered motivation during a crisis and the findings on motivation were not credible and relevant to this review when subjected to the CASP tool.
Kamanzi & Nkosi 2011 [76]	The paper explored factors that influence the motivation levels of nurses working in a university teaching hospital. The data collection and analysis were not clearly outlined hence lacked rigour. The results were listed without any clear explanation and discussion.
Leonard & Masatu 2010 [77]	The study explored intrinsic motivation among HWs for evidence on professionalism. The findings were related to the knowledge of clinicians in relation to how they perform their duties and not motivational factors as per theoretical framework. The quality of the findings lacked credibility and were to this review.
Lopes et al 2013 [78]	The study on understanding the motivations of the multigenerational physician assistant workforce used convenient sampling of conference attendees. The study lacked rigour in research methods.
Minai & Almansour 2013 [79]	The study investigated factors influencing job satisfaction and motivation of nurses in the male nurses dominated environment did not clearly explain. The findings were not well presented and discussed, hence lacked credibility and relevance.
Mubyazi & Njunwa 2013 [80]	Despite having a rigorous methodology, the study on perceived impact of health sector reforms on motivation of HWs and quality of care did not investigate the motivational determinants and hence failed to meet the full inclusion criteria.
Negussie 2012 [81]	The study investigated the relationship between rewards and incentives and nurses' work motivation, but was not well presented and meaningful to the study objectives. It also lacked relevance to the review question.
Serneels et al 2010 [82]	The study aimed to understand the role of intrinsic motivation in influencing HWs' choice to work in faith-based institutions in rural areas. The study participants were nursing and medical students. Excluded because of not meeting full inclusion criteria (study participants were not HWs)

Major themes related to trust and motivation

Motivational themes that directly or indirectly relate to trust and relationships were identified. Overall, it was explicitly noted in 21 of the 30 articles that HW trust relations with either colleagues, supervisors, managers or patients had influence over motivation and performance. Ten of the articles reported workplace trust relations as one of their major findings. Other important motivational themes that were directly and indirectly linked to the presence and influences of trust relations include: respect (n=11); recognition, appreciation and rewards (n=9); supervision (n=7); teamwork

(n=6); management and welfare support (n=5); professional autonomy and professional association (n=5); communication, feedback and openness (n=3); and, staff shortages, heavy workload and resource unavailability (n=2). The figures in parentheses represent the number of articles where these factors were explicitly discussed or inferred in relation to trust and motivation across the identified trust relations. Although not the main focus of this review, some authors recognised the consequences of workplace trust, for example retention, performance and quality of care, and these findings are discussed later.

In the succeeding parts of the review, key issues extracted from the papers are reported against each of the four main workplace trust relations that were identified.

Trust relations with colleagues

Good working relationships and trust between HWs and their colleagues were explicitly considered as strong motivational factors in seven articles [50, 52, 53, 55, 65, 67, 68]. In addition, other articles indirectly intimated that HWs believed support from colleagues, professionalism, teamwork with respect, and understandings between colleagues were extremely evident at workplace and thus motivating [44, 45, 47, 49, 53, 69]. To illustrate the influence of teamwork and respect, [69] found that 84% of HWs never felt isolated in their work, 94% acknowledged presence of mutual respect, with 81% agreeing that workers understood each other's roles and 84% strongly disagreeing that there were conflicts among team members. Moreover, a survey among medical and nursing staff in Cyprus found that relationship with co-workers - through appreciation and respect between doctors and nurses - enhanced workplace trust and was ranked as the second strongest motivator after remuneration [55].

A qualitative study reporting on the influence of social factors on motivation of HWs in Papua New Guinea reported that relations between colleagues was particularly important for motivation: *"If I am happy with the staff, my staff relationship and the community, and also the friends I work with, they are helping, it motivates me to continue to work here"* [68] p830. This quote highlights the consequence of workplace trust relations for retention, as HWs believed that co-worker in rural areas provided emotional help and support in times of stress. Studies reported that trusting relations developed through professionalism and ability to consult with colleagues when not sure of procedures or treatment guidelines on some

specific knowledge was motivating [41, 50, 50, 65-67]. This is seen as good for HW performance and quality of care because of the possibility of sharing professional knowledge for the improvement of health services. For example, a multi-country study quoted a female Burkina Faso auxiliary midwife from an in-depth interview, commenting on good relations between staff: *“I feel comfortable working here..... In most instances I can rely on my experience. But if I am not sure then I do not worry but ask my colleagues for their help [67] p7.*

Inversely, five papers reported poor trust relations between colleagues as sources of demotivation. HWs did not trust their colleagues and pointed out reasons for poor relations as - lack of collegial support, disrespect, poor teamwork and being ridiculed when they sought assistance leading to them not offering quality services and taking out their frustrations on patients [43, 57, 60, 62, 67]. It was reported that, [60] p13, envy among colleagues, an indication of lack of trust and poor relations, was demotivating: *“If one colleague tries to work hard, others gang up against him”* (male clinical officer in Kenya); *“making efforts on your own creates envy and you will face obstacles”* (female nurse in Benin). Suspicions between colleagues were reported to have an undermining effect on workplace trust [67]. Further, workplace trust was undermined due to interplay in poor interpersonal relationships between different cadres, where clinical officers in Kenya thought that nurses and doctors were against them [62]

Trust relations with supervisors and managers

Supervisors and managers are individuals responsible for guiding, assisting and motivating HWs in health care settings. The manner in which the supervisors carry out their roles also determines the relations that may exist between them and the HWs. A number of studies discovered that strained relations between HWs and their supervisors within the workplace was caused by poor supervision and that it was demotivating [54, 58, 60, 62, 63, 66]. The relationships were poor where supervisors did not appreciate workers and their actions were geared towards fault-finding [62], while also blaming workers without considering the poor working conditions [66]. Studies also identified unfriendly supervisory actions like inadequate appraisal processes, controlling workers, reprimanding workers in front of patients and neglect of HWs by the management as highly demotivating [59, 60, 66]. Such poor supervisory practices affected quality of care [40].

The influence of distrust of supervisors and managers due to lack of promotion was explicitly reported [59]. Three other articles categorically identified relationships with managers as sometimes demotivating [63, 67, 70]. HWs raised concerns over managers' lack of fairness, disrespect for staff and use of harsh language within the workplace [70]. The managers had limited time and interest in HWs' motivation, leading to efforts in pleasing the managers which was considered good for rewards and promotion that acted as motivators [67]. Lack of trust between workers and managers was also identified to be demotivating where managers practiced favouritism, bias and discrimination in allocation of seminar and training opportunities [63].

Communication and feedback mechanisms underscore workplace trust relations [24-29]. HWs were demotivated by poor relationships between them and the managers where they perceived managers to be less open in communication within the organisation [47, 51, 56, 60, 68]. The disconnect between workers and the supervisors was reported as demotivating and caused poor performance because HWs felt unimportant and undervalued at their workplace [51]. Workers also considered lack of feedback on their performance to be demoralising because they could not know areas that needed improvement [58, 59].

Good relationships with supervisors, however, were associated with motivation of HWs [44, 48, 50, 53, 55, 65, 68, 69]. One study from Japan [53] and one from Tanzania [48] specifically found that - trusting the supervisor to provide information and instructions, identify areas for improvement, help with problem solving and give additional training, was responsible for good relations and motivated workers to effectively perform their duties. Community HWs in HICs believed that the ability to work independently was highly motivating because they were likely to earn the supervisor's trust, as articulated in one of the papers: *"And I think we've all developed a trust with her [supervisor] so she knows that we're going to do a quality kind of thing. She comes and checks what we're doing from time to time and so she has a general sense that we have the ability to do that sort of thing on our own"* [44] p265. This provided evidence that workers' degree of control and ability to make informed decisions influenced relationships with their supervisors and played important role in boosting HWs' morale and performance. Indicators of trust relations such as being given greater responsibility, recognition, appreciation, and respect by managers and colleagues were linked to good workplace trust relations,

between HWs and their managers and supervisors, that influenced motivations [43, 45, 46, 52, 57, 60, 67].

Trust relations with employing organisation

The term 'employing organisation' is used here to refer to the health systems, the government and the body responsible for organisational leadership and HRM practices. Inasmuch as nine articles reported distrust in employing organisation as demotivating [40, 45, 56, 57, 58, 61, 62, 63, 66], only five reported the positive influence of this type of workplace trust relations on motivation [44, 47, 50, 60, 68].

Lack of support and empowerment opportunities caused strained relationships with employers and demotivated HWs [57]. Reported findings also indicated that younger workers were demotivated by their distrust of the health system and management due to bureaucratic procedures in promotion, and lack of care for their long-term needs [62]. The role of age in workplace trust was identified as important in this relationship because older HWs understood the bureaucracy better than their younger counterparts due to their experience in the health system. In-depth interviews with clinical officers in Kenya explicitly revealed that the breakdown of trust between them and the central bureaucracy was caused by cases of bribery for promotion and an administration that functioned along ethnic lines during selection for in-service training [62]. Similarly, performance of HWs was affected by lack of trust about government policies and favouritism in selection for in-service training in Malawi [58] and Tanzania [63]. In Ghana, HWs were concerned about unresolved frustrations with the health system that undermined the trust relations and led to poor quality of care [40]. Poor work conditions, drug shortages and lack of work equipment undermined trust relations with the health systems and affected patient care and performance [56, 61, 63, 66]. Poor communication and lack of feedback on policies and guidelines diminished workplace trust relations with employers and had impact on performance [45, 56].

In contrast, trust in the health systems was evident where transparency and prospects for in-service training motivated HWs to choose working in the public sector over the private sector [50, 60]. This had implications for retention. The value of workplace safety for trust and motivation were a major finding in Papua New Guinea [68] where HWs believed that provision of security within health facilities boosted their confidence and enhanced their trust in government. Being given autonomy and

involvement in decision making in the health system also engendered trust relations between HWs and the employing organisation [44, 47, 50].

Trust relations with patients

HWs directly presented their views on the positive influence of trusting relations with the patients at the health facilities on their motivation in six papers [42, 44, 54, 61, 65, 67]. Caring relationships with patients enhanced trust and motivation [44]. In addition, gaining trust from patients at health facilities was highly ranked as a source of motivation for HWs in an article reporting findings from cross-sectional surveys of public and private sector doctors and nurses in two Indian states [65]. This was the same case in a multi-country study (Burkina Faso, Ghana and Tanzania) that reported workplace trust as developing over time and was important in collaboration between HWs and the patients [67].

Trust, appreciation and recognition from patients were explicitly mentioned as a major source of motivation and performance in some studies [45, 59, 60, 64]. A study in North Viet Nam identified recognition as the most highly ranked motivator [45]. It exemplified appreciation, recognition and respect by patients as words that can be linked to trusting relations: *“I like my job and I am happy people believe in me. The village HWs trust me, and ask me to help them when needed. I am very proud of that. They are willing to work so it makes me happy. I have retraining and awards every year and the community believes in me. They respect me a lot, so I think I need to work hard for them”* (p6).

In a Ghanaian survey, however, it was reported that HWs displayed their frustration through rudeness, anger, unfriendly behaviour and resentment to patients at health facilities [40]. Poor communication and language barrier forestalled trusting relations within health facilities [67, 68]. It was reported that lack of trust and respect led to poor communication and was associated with demotivation due to poor interpersonal relations between HWs and patients within rural health facilities [68]. This was linked to lack of cooperation from patients who made guideline and policy implementation difficult for HWs. Elsewhere, lack of trust in patients due to perceived risk of contracting HIV and tuberculosis led to poor relations with patients and was considered as a demotivating factor [60, 61]. Additionally, [61] dissatisfaction with colleagues was reported as a cause of demotivation due to loss of trust from patients resulting from betrayal by colleagues, given by an illustration

from a Tanzanian female health worker ... *“As a health worker I felt very bad, because we are now ruining our good reputation and losing trust and respect from our patients. Many people who come for HIV test are not comfortable because of not being certain with the issue of confidentiality, and some of them would rather travel to test in another district”* (p5). This exemplified the importance of the interaction between workplace trust in colleagues and workplace provider-patient relationship.

The availability of organisational resources was found to be critical in provider-patient trust relations and motivation. Staff shortages, heavy workload and resource unavailability was reported to have influence over the trust relations due to complaints from patients within the health facilities and this was reported to affect the quality of care provided [58, 61]. They indicated that patients used abusive language whenever there were shortages thinking that workers were unwilling to help them, an indication of distrust. Resource constraints and shortages also led to patients' loss of confidence in HW capacity to provide quality care, further denigrating the existing provider-patient relationship [42]. It is important to note that most of the factors that influence provider-patient relationships and patient-provider relationship are bidirectional and therefore it is difficult to delink these two types of trust relations.

Discussion

To the author's knowledge, this is probably the first systematic review to gather and synthesise evidence on trust and motivation in the health sector. The analysed evidence demonstrates a fairly firm base of influences of workplace trust trust as an intrinsic factor over motivation. The motivational framework by Franco and colleagues [10] was suitable in data extraction and identification of broader determinants of motivation. Moreover, the evidence indicates the appropriateness of the Gilson and colleagues trust conceptual framework [16] in categorising findings and exploring how workplace trust relations between HWs and colleagues, supervisors, management and patients influences motivation. Judgements about the suitability of the selected studies may be subject to selection bias, however these judgements were cross-checked with a second reviewer. In addition, the utilisation of the CASP appraisal tool for quality and relevance sought to limit such bias and ensured rigour in selection of review articles.

The review revealed that workplace trust relations in the health sector are linked to the broader motivational determinants like: recognition, appreciation and rewards; supervision; teamwork; management and welfare support; communication, feedback and openness; and, staff shortages, heavy workload and resource unavailability. This confirms that motivation is not just a function of a single determinant, but an output of a composite interaction of different factors that operate within a cultural context [47].

Multiple studies on motivation of HWs have found that, factors that undermine workplace trust relations incorporate interactions at interpersonal, organisational and patient levels. Nonetheless, the review cannot identify whether there is any sort of hierarchy among the different trust relations in terms of influence over motivation. It is difficult to rank supervisor trust as more important than trust in colleagues, or, trust in employing organisation as more important than trust in patients. But the evidence rather shows that trust relations interact and that some of the same factors have influences over motivation across the relationships. For example, drug and staff shortages cause tension between HWs and patients leading to distrust of the employing organisation [48, 61]. Furthermore, workers trust of supervisors, employing organisation and patients is undermined by: poor communication, disrespect and unequal treatment in promotion and in-service training [41, 51, 56, 57, 62, 63]. In general terms, emphasis should be given to addressing overlapping factors that are important in the identified workplace trust relations. Organisations should encourage inter-cadre cooperation and communication for thriving collegial workplace trust relations that motivate.

Further, some of the articles reviewed provide evidence to suggest that the consequences of workplace trust on motivation relate to intention to leave, performance and quality of care. Good supervision and, reciprocal trust between HWs and their leaders was highlighted as critical in building performance and improving quality of care [40, 67]. The published studies reported that workplace trust that is supportive and respectful was responsible for cooperation and enhancing the capacity to provide quality care and efficient performance [44, 45, 60, 68]. However, poor interpersonal relations and distrust have the opposite effect on performance and quality of care [43, 61]. For example, lack of respect between cadres was singled out as a cause of distrust, demotivation and provision of poorer care [43]. Moreover, workers also considered shortages of drugs and work resources

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as leading to low morale, distrust in the health systems and poor performance [61]. The intrinsic values and the trust relations between colleagues were reiterated as important predictors of intention to leave [49, 50, 60, 68]. There were no clarifications on how trust relates to intention to leave, but it is plausible based on other evidence on migration of HWs [7, 8].

Although the reviewed studies were not specifically focused on investigating workplace trust relations and its consequences, some indicated that in motivating workers to improve their performance and quality of care, workplace trust between colleagues can be strengthened through; good relations between cadres, collegial recognition, supportive teamwork, respect and good communication in the working environment [43, 47, 49, 50]. Supervisors and managers also have a major role to play in building workplace trust relations for motivation. HWs particularly commended supervisory practices that promote trust as; supervisor support, recognition and appreciation, fairness in performance, communication and feedback [44-47, 55, 59, 60, 62, 64]. These points to the value sound HRM practices have in establishing and enhancing workplace trust relations to motivate workers, as explicitly discussed elsewhere [4].

The employing organisation's role in workplace trust relations influence over HW motivation cannot be underestimated [24, 27]. Its support by provision of work resources – such as drugs, equipment, job safety and security, good working environment and structures, clear job description, and in-service training – allows for the development of trusting behaviour that is critical for performance [45, 62]. Research has demonstrated the relevance of workplace trust to patient experiences [16]. This review supports this relevance by identifying some of the factors of trust that motivate workers to willingly perform their duties and strengthen the bi-directional provider-patient trust relationship. These factors include greater responsibility, respect and appreciation from patients [45, 55, 68].

Some differences were observed between HICs and LMICs from this review. In the few articles reviewed from HICs, it was reported that trust, teamwork and good relationships with colleagues, supervisors and patients play significant roles in positive motivation [44, 49, 50, 52, 53, 55, 64]. This is in contrast with LMICs where, apart from low remuneration and resource inadequacy, findings from half the total of all reviewed articles showed that - distrust, lack of teamwork, disrespect, lack of support and poor relationships with colleagues, supervisors, managers and patients

demotivated HWs. This is an important observation considering the challenges experienced in the health sectors of these countries with regard to resource constraints, inadequate management practices, and skills inadequacy [2, 4, 5, 83]. Nonetheless, the review also noted that the positive implications of good workplace trust relations on performance and quality of care are observable in both HICs [53] and LMICs [48], and should therefore be engendered.

As noted in the preceding paragraph, the weaknesses in the health systems of LMICs are manifold. Broadly, these include poor management [4], low staff morale, a lack of funding and poor resourcing in public health facilities leading to on-going worker migration [7, 8], poor strategic planning and insufficient stewardship to address the underperformance of the public health sector, and inadequacies in the implementation and monitoring of health sector policies and reforms [83]. Low levels of motivation which manifest in ineffective health care delivery only compound these problems. Trust relations in the health sector may act as intrinsic motivators [49] which, when lacking, lead to disinterest in work and efforts to please supervisors and managers to gain extrinsic rewards [67]. Furthermore, motivation varies with the contextual factors in different settings [4, 47]. It is, therefore, necessary to consider the dynamics and nature of intrinsic motivation when implementing external interventions for motivation to avoid undermining any existing workplace trust relations [22, 55].

The restriction of review articles to publications available only in English is a limitation that cannot be neglected and future reviews should consider studies published in other languages. The review is also inconclusive on how workplace trust and motivation interact and operate for retention, performance and quality care because their role is beyond its mandate. It is, therefore, a worthwhile goal for future empirical studies to specifically look at the consequences of workplace trust relations and motivation, as well as fully identify their determinants, to inform insights on how to enhance them in the health sector and to better understand their role in health systems strengthening. More reviews are recommended to further understand factors that undermine or strengthen intrinsic motivation, in relation to the existing interventions for extrinsic motivation and the broader determinants of motivation.

Conclusion

It is demonstrable that the role of HWs in health care provision is highly significant. Mindful of the existing evidence suggesting that treatment outcomes tend to be significantly higher in facilities or countries with efficient human resources for health and where HWs are highly motivated [4, 19, 83, 84], the review acknowledges the notable value of workplace trust relations in influencing motivation.

This review suggests that the health sectors in different contexts, specifically LMICs, can enrich workplaces with trusting relations by empowering HWs and introducing efficient communication and supervision mechanisms. Organisational and human management practices, processes, resources, structures and culture play critical roles in establishing motivating workplace trust relations. The evidence in this review shows that despite the importance of workplace trust relations as an intrinsic motivator, there is limited empirical research on trust and motivation in the health sector. The inconclusive evidence on the interaction between trust and motivation for performance and quality care, for example, should be further investigated, especially in LMICs. The review also provides insights on the value of systematic analysis and synthesis of motivational literature to identify the role of the specific factors that influence motivation in the health sector.

List of abbreviations

HICs – High Income Countries

LMICs – Low Income Countries

HWs – Health Workers

HRM – Human Resource Management

Competing Interests

The author declares that he has no competing interests.

Author's contribution

DROO is responsible for the conception, design, database searches, data extraction, analysis and interpretation of the articles, and drafting and editing of this review.

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Part D: Appendix – Instructions for Authors

Human Resources for Health

Instructions for authors

Research Articles

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- [Background](#)
- [Methods](#)
- [Results and discussion](#)
- [Conclusions](#)
- [List of abbreviations used](#) (if any)

- [Competing interests](#)
- [Authors' contributions](#)
- [Authors' information](#)
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